



Supply Chain Traceability

Beef

This document contains all existing information included in the Red Meat Supply Chain Committee; Beef Supply Chain Model available online at rmscc.org. The contents of this document are specific to the information flows as they occur throughout all aspects of the beef supply chain including Critical Tracking Events, Key Data Elements, Physical Inputs and Outputs as well as information relating to regulatory bodies and programs as well as traceability scenarios.

Prepared by: Paige Mazoudier, Ethan Ward, Des Bowler, Fiona Gojan

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1 Document Overview

This document is a printable version of the interactive Beef Supply Chain Model which can be found at <https://www.rmscc.org/supplychain.asp>. Supply Chain Traceability – Beef provides detailed information on the traceability in both the Australian domestic and export sectors of the supply chain including:

- An overview Red Meat Supply Chain Committee (RMSCC)
- An overview of the Australian red meat industry
- An introduction to supply chain traceability, Critical Tracking Events (CTEs) and Key Data Elements (KDEs)
- Descriptions of each stage of the beef supply chain, as well as visual diagrams, details of the physical and information inputs and outputs associated with each stage, key regulatory and industry programs, and detailed examples of supply chain traceability at each stage.

For more information regarding the RMSCC and related traceability projects, please visit <https://www.rmscc.org/>.

1.1 Document Version Control

Version	Date	Summary of Changes	Contributors
0.1	24/08/2021	• Transcription of RMSCC webpages into document (sections 2,3,5.2,6). • Writing of sections 2, 3, 4, 5.1. • Approval of final draft layout.	Paige Mazoudier Des Bowler
0.2	26/08/2021	• Editing sections 2, 3, 5.1. • Updated RMSCC web address.	Ethan Ward
0.3	29/03/2022	• Update for DFD	Fiona Gojan
0.4	19/08/2022	• Update for DFD	Fiona Gojan

2 Introduction to the RMSCC

The Red Meat Supply Chain Committee (RMSCC) is an industry-government steering committee focused on improving the information systems and processes that link or supply chain together.

The committees' activities include the codification of existing systems employed by business across the supply chain that identify and capture data. This area of focus is referred to as '**Supply Chain Information Standards**'.

The goal of these activities is to provide an open, consist of language that each sector of the industry can use to communicate with each other.

The role of the RMSCC is to:

- Provide a path for reporting to the AMILSC on industry program and project activities related to information standards along the red meat supply chain.
- Provide a path for communication back to government and industry bodies on relevant supply chain information standards, projects, programs, and related activities.
- Provide harmonisation, coordination, and governance support to programs and projects on a voluntary basis. Support is provided only to those programs and projects that request them and only where the programs and projects activities relate to information standards along the red meat supply chain.

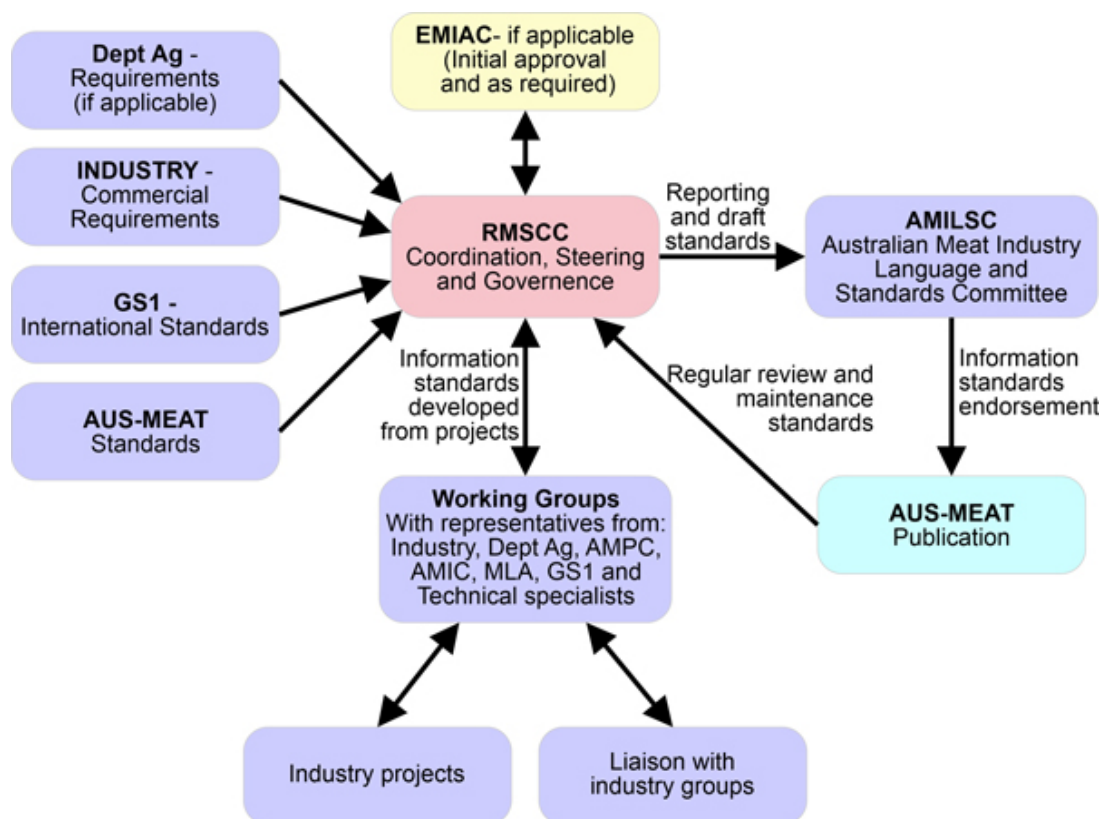


Figure 1. Red meat supply chain structure with respect to the publishing of industry standards.

3 The Red Meat Supply Chain

Supply Chain traceability and integrity have become the leading topics that underpin consumers, trading partners, and governments trust in Australia's 'clean and green' status.

With the release of the National Traceability Framework in 2019, the Australian Government have acknowledged that improvements to Australia's product integrity and traceability cannot solely come from government regulation.

There have been a growing number of supply chain standards specific to the red meat industry which have been imposed on industry by customers, key retailers, and global brands (e.g., BCR, McDonalds, Woolworths, Coles, Burger King, Costco). As a result, Australia's red meat supply chain is complex and understanding the regulatory and commercial requirements at each link in the chain is difficult to producers, processors, and retailers alike.

The term 'supply chain' is generally defined from a research or review perspective, viewing the supply chain collectively as system plus input and output. In the case of meat production and processing, this covers everything from the genetics and breed of livestock through to the product being bought or served to a consumer.

The importance of the supply chain and its 'links' is in ensuring customers and consumers of the product's integrity, security, and traceability. Despite these terms having their own specific meaning, each are commonly used interchangeably. At a basic consumer level, we are considering if the MSA graded, Grass-Fed, Eye Fillet from South-East Queensland advertised on the Norman Hotel menu for \$43.90 is exactly what it is advertised.

The RMSCC has taken this view of the final consumer and worked to map out the information-related requirements at each link in the chain that would deliver it. What has been created is a detailed map of Australia's livestock product supply chains.

The supply chains captured by the RMSCC include:

- Beef Supply Chain Model
- Small Stock (sheep, veal, and goat) Supply Chain Model
- Dairy Supply Chain Model

This document specifically refers to the Beef Supply Chain Model. For information regarding other supply chains please visit rmscc.org to download or view the interactive supply chain models.

4 Traceability in the Red Meat Supply Chain

4.1 What is traceability and its purpose?

As defined by the European Commission, traceability is 'the ability to trace and follow a food, feed, food-producing animal or substance intended to be, or expected to be incorporated into a food or feed, through all stages of production, processing and distribution'. This is important for food and health and safety reasons, and requires that each animal, food, or substance can be traced back through all stages of production and processing. The systematic and logical management of information, and product identification will allow unsafe foods to be effectively and efficiently removed from the marketplace where required (EUR-Lex, 2002). In addition, there is increasing demand from consumers along the food supply chain for greater transparency of food products in relation to production, quality, health, ethics, and welfare as well as authenticity and sustainability of food and its sources. To enable this, each item is required to be adequately labelled and be accompanied by the relevant documentation in accordance with rules and regulations stipulated by exporting and importing countries (The Traceability Working Group., 2019). All food and food movements can be traced one step forwards and one step backwards at any point in the supply chain (Food Standards Australia & New Zealand., 2021).

Traceability can be broken down into two components:

- 1) *Internal traceability* – processes within an organisation link the identities of raw products to those of finished goods, with each new product having a Unique Product Identifier. This linkage is maintained between each product and its original ingredients. Each item produced within a batch is identified by a Lot Number which is maintained on the product until its depletion. This include where products are packaged within larger units.
- 2) *External traceability* – each traceability partner or product handler/recipient along the supply chain can effectively trace each product back to its direct source and recipient. Here, not every member of the supply chain will have access to the entirety of the products traceability information but rather this data exists within the larger traceability system and will be available where required (Zhang & Bhatt, 2014)

4.2 What does traceability in the global beef supply chain look like?

Traceability throughout the red meat supply chain is integral to maintaining food safety and quality assurance. This allows the protection of Australia's reputation for producing clean, safe, and natural product, underpinning its standards for a high level of product integrity and international product demand.

An effective traceability system across a supply chain will include:

- The traceability of any item one step forward and one step backward at any point in the supply chain using a globally unique identifier
- The implementation and strict adherence to traceability processes and systems by all participants within the supply chain
- All necessary linkages between inputs and outputs of internal traceability systems are maintained (Zhang & Bhatt, 2014).

The Beef supply chain utilises the Meat Messaging system for the traceability of meat products across the supply chain from the slaughter of the animal. Prior to this, the National Livestock Identification program ensures the traceability of the live animal from birth to slaughter. The "Meat Messaging" system is based on the GS1 standards for numbering and barcoding of meat products and the GS1 EANCOM electronic message standards. Refer to the GS1 organisation in your country for details on the GS1 standards.

The "Meat Messaging" system is an online tool for the creation, sending, receiving, attestation statements and compliance declaration of meat products (carton, carcasses, carcass portions, pallets, bulk packs, and containers) GS1 EANCOM messages. These messages assist regulatory authorities with the authenticity, verification, and traceability of meat products. The GS1 barcoding standards and GS1 EANCOM electronic message standards do not replace existing regulatory requirements, they assist and supplement these requirements.

In an effort to improve food safety and traceability, the United States Food and Drug Administration (FDA) requires additional record keeping requirements (in addition to those existing within current regulations) for persons who manufacture, process, pack, or hold foods on the Food Traceability List (FTL). While these requirements only apply to those items on the FTL, the standards are designed to be implemented within all FDA-regulated supply chains. These additional records include the capturing of Key Data Elements (KDEs) and associated Critical Tracking Events (CTEs).

4.3 What are Critical Tracking Events?

Critical Tracking Events (CTEs) are activities in the supply chain that should be documented by the capture of key information (Key Data Elements i.e., KDEs) for each event to accurately trace product movement up or down the supply chain. In short, CTEs are those events whereby product is transported between premises, transformed into new products or depleted. Each of these CTE events involve inputs and outputs and thus subcategories can be created. These CTE categories and subcategories are defined in Figure 2 below.

CRITICAL TRACKING EVENT DEFINITIONS		
TRANSFORMATION-TYPE EVENTS <i>events that typically support internal traceability within the four walls of a supply chain company</i>	TRANSFORMATION (T1) INPUT	An event where one or more materials are used to produce a traceable product that enters the supply chain. (NOTE: Materials used to produce products for immediate consumption by consumers are reported as Consumption events)
	TRANSFORMATION (T2) OUTPUT	An event where a created traceable product is packaged and labeled for entry into the supply chain.
TRANSPORTATION-TYPE EVENTS <i>events that typically support external traceability between supply chain companies</i>	SHIPPING (S) EVENT	An event where traceable product is dispatched from a defined location to another defined location
	RECEIVING (R) EVENT	An event where traceable product is received at a defined location from another defined location.
DEPLETION-TYPE EVENTS <i>events that capture how traceable product is removed from the supply chain</i>	CONSUMPTION (C) EVENT	An event where a traceable product becomes available to consumers (Point-of-Sale or Prepared).
	DISPOSAL (D) EVENT	An event where a traceable product is destroyed or discarded or otherwise handled in a manner that the product can no longer be used as a food ingredient or become available to consumers.

Figure 2. Critical Tracking Event (CTE) definitions. Source: GS1US (2014).

Figure 3 below shows the common CTEs summarised by supply chain segment. It is important to note the process may change depending on the structure of the company, and its individual supply chain as well as the specific product output.

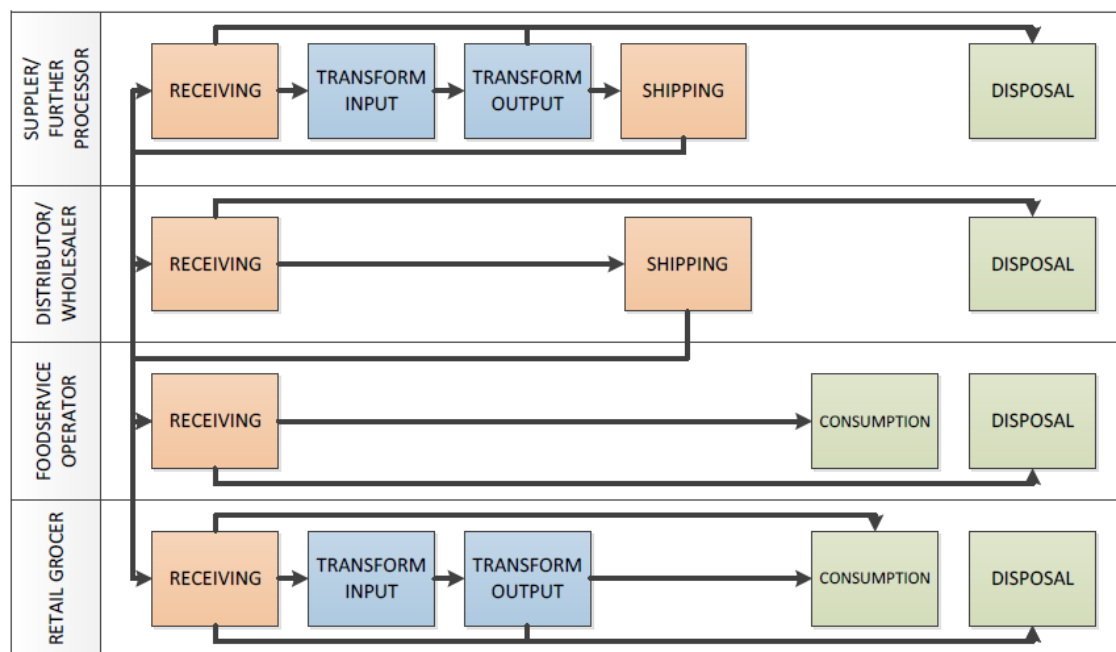


Figure 3. Common Critical Tracking Events (CTEs) in the Meat Supply Chain. Source: GS1US (2014).

Certain documents within the beef supply chain, particularly paper documents, will hold the key information of KDE associated with the traceability of the item at each CTE. These may include documents such as Delivery Dockets, Receipts of Purchase, Product Tickets, and other regulated documents and are transported with products as they move throughout the internal and external traceability systems of the supply chain. Where data is transferred electronically, the electronic system are considered the CTE related documentation.

4.4 What are Key Data Elements?

GS1 defines Key Data Elements (KDEs) as data elements associated with each critical tracking event which provide:

- 1) Essential information about time and place of the event, the party reporting the event, and the identification of the product involved; and
- 2) Related essential information about the transformation, transportation, or depletion from the supply chain of a traceable product.

KDEs associated with each Critical Tracking Event should allow the following five **W**'s to be determined:

- **Who** performed the activity,
- **What** product was involved,
- **When** was it done,
- **Where** was it done,
- **Why** the event is reported.

Some key data elements are more essential than others for understanding the event. Required KDEs are consistently essential when reporting an event, such as event owner, location, and date and time, while other elements are best practice or conditional KDEs, depending on event circumstances or if data values are available for capture. The following KDEs for each CTE included in the meat supply chain are shown in Figure 4 below.

Key Data Element	Transport		Transformation		Depletion	
	Shipping	Receiving	Input	Output	Consumption	Disposal
Event Type	R	R	R	R	R	R
Event Owner	R	R	R	R	R	R
Date	R	R	R	R	R	R
Time	R	R	R	R	R	R
Event Location	R	R	R	R	R	R
Item ID Type	R	R	R	R	R	R
Item ID	R	R	R	R	R	R
Batch/Lot/Serial#	BP*	BP	R	R	BP	BP
Quantity	R	R	R	R	R	R
Unit of Measure	R	R	R	R	R	R
Batch/Lot Relevant Date	C^	C	C	C^	BP	BP
Activity Type	C	C	R	R		
Activity ID	C	C	R	R		
Supplier Identity	C	C	C	C		
Trading Partner Location	R	R				
R = Required Data						
C = Conditional Data; The need for this data would be determined by business circumstances;						
^ Relevant Date should be reported by Suppliers for Shipping Events and for Transformation Output events.						
BP = Best practice is to capture the batch/lot number for transport and depletion events whenever possible; however, if not feasible, Batch/Lot Relevant date or Activity ID must be provided.						
* Batch/lot/serial numbers should be reported by Suppliers for Shipping events.						

Figure 4. Use of Key Data Elements (KDEs) in Critical Tracking Events (CTEs). Source: GS1US (2014).

5 The Beef Supply Chain Model

5.1 Introduction

The beef supply chain is a highly complex value chain involving the transformation and transfer of a number of products throughout the various stages from breeding of the live animal, all the way through to purchase by the consumer. With this, there is an increasing requirement for the improved transparency and traceability of products and their information. Various stages of the supply chain and associated processes can be categorised into three larger sectors: the Exporting Country; International Trade; and the Importing Country. These stages can then be further divided into subcategories within these larger sectors such as Livestock, Processing and National Distribution for the Exporting Country sector of the supply chain. Each stage of the supply chain involves several Critical Tracking Events which may include the receipt, transformation and dispatch of product to the next stage in the supply chain. With these, the transfer of data or Key Data Elements occurs through the transfer of physical documentation or electronic data transfer (Figure 5). Additionally, each stage of the supply chain is governed by a number of regulatory and industry bodies.

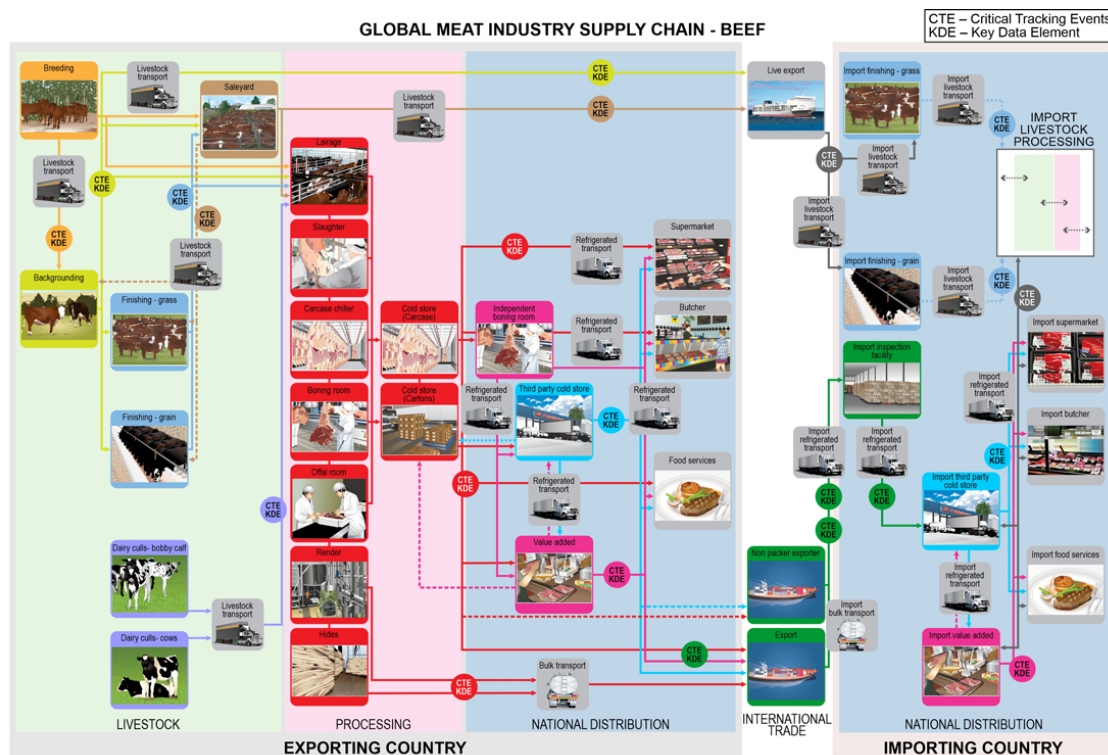


Figure 5. The global Beef Supply Chain Model

5.2 Supply Chain Sectors

5.2.1 Exporting Country - Livestock

5.2.1.1 Breeding

Breeding is the process in which animals are produced with a specific goal. These goals are critical to define in order to meet the needs of a producer for purchase. The market for which the animal is intended must be considered so that traits and characteristics of the animal can be accounted for in the breeding program. These characteristics might be the breed, growth rate or the fat depth of the animal.

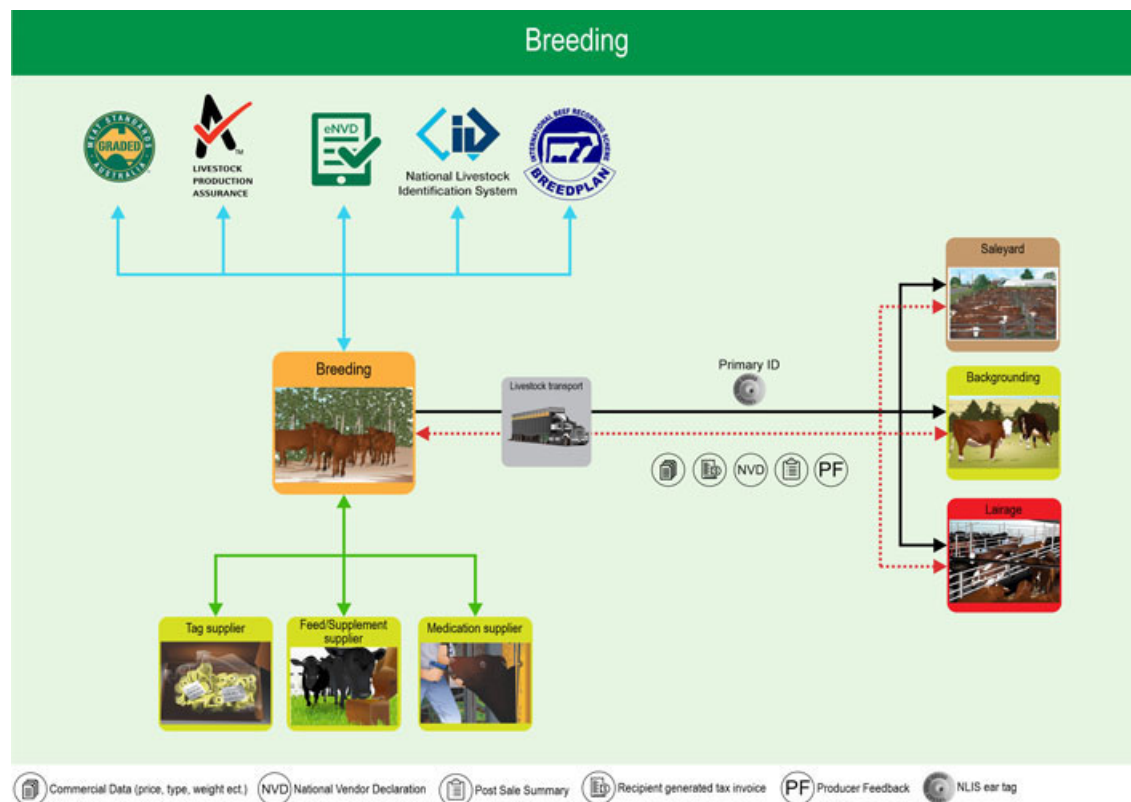


Figure 6. Inputs and outputs of the beef supply chain breeding sector.

5.2.1.1.1 Physical Inputs including Critical Tracking Events (CTEs)

There are a range of physical inputs to a cattle breeding enterprise depending on the breeding and management strategy. These inputs typically include breeding cattle and/or artificial breeding technologies, any feed supplements and veterinary drugs that may be administered and animal traceability tags. Information on all of these inputs must be recorded by the producer.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with inputs to the breeding system include the receipt of:

- * Breeding cattle
- * Artificial breeding technology
- * Experts and veterinarians
- * Veterinary drugs or other health treatments
- * Feed supplies and supplements

- * Crop and pasture treatments
- * NLIS ID tags.

Table 1. Physical inputs and associated Critical Tracking Event related documents for a beef breeding system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Breeding cattle	These are animals (bulls, cows/heifers) which have reached the appropriate age for breeding. Animals may be from a self-replacing herd or sourced from a seedstock breeder.	NVD, Commercial supply contract, Feed and water record, NLIS Movement Update, Receipt of purchase/Tax Invoice, State specific movement forms	
Artificial breeding technology	These are technologies such as artificial insemination or embryo transfer which are used in place of or in addition to traditional livestock breeding methods.	Commercial supply contract, Receipt of purchase/Tax Invoice	
Experts and veterinarians	These are professionals who provide services to the breeding enterprise which ensure the safety, wellbeing, and productivity of the livestock.	Receipt of purchase/Tax Invoice, Veterinary prescription	
Veterinary drugs or other health treatments	These may be prescribed, or non-prescribed treatments or medications given to ensure the health and wellbeing of the livestock.	Receipt of purchase/Tax Invoice, Veterinary prescription	For more information visit the Australian Pesticides and Veterinary Medicine Authority.
Feed supplies and supplements	These are supplementary animal feed products such as hay or silage fodder, or mineral supplements which are provided to ensure the production efficiency and health of livestock are maintained. This may also include clean drinking water e.g., where livestock are in transit or at saleyards.	Commodity Vendor Declaration (CVD), Receipt of purchase/Tax Invoice	

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Crop and pasture treatments	These are agricultural chemicals applied to crops, pastures and/or paddocks (inclusive of spot spraying) which livestock may come into contact with or consume.	Product label, Receipt of purchase/Tax Invoice	For more information visit the Australian Pesticides and Veterinary Medicine Authority.
NLIS ID tags	These are animal identification tags with a unique number which must be attached to animal moved off a PIC for traceability purposes.	NLIS Movement Update	For more information visit the Integrity systems website.

5.2.1.1.2 Information Inputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). There are a range of information inputs that are essential for the traceability of management practices, animal movements and treatments applied to the cattle in a breeding enterprise. It is essential that all of these inputs are recorded by the producer for auditing purposes.

Table 2. Information inputs, Key Data Elements and Critical Tracking Event related documentation for a beef breeding system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Agreement date	This is the date on which an agreement between two parties was made.	Yes	Commercial supply contract	
APVMA approval number	This is a unique number allocated to each label by the APVMA.	Yes	Commodity Vendor Declaration, NVD, Product label	For more information visit the Australian Pesticides and Veterinary Medicine Authority.

Batch number	This is a unique number which identifies products sharing certain production characteristics and is used for traceability purposes.	Yes	Commodity Vendor Declaration, NVD, Product label	
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Feed and water record, Receipt of purchase/Tax Invoice	
Contract number	This is a unique number allocated to the contract by the seller.	Yes	Commercial supply contract, Commodity Vendor Declaration	
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Commercial supply contract, Commodity Vendor Declaration, Feed and water record, NVD, Receipt of purchase/Tax Invoice, State specific movement forms	
From PIC	The Property Identification Code from/to where the livestock or product were consigned.	Yes	Commodity Vendor Declaration, NLIS Movement Update, NVD, State specific movement forms	For more information visit the Integrity systems website.
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Commercial supply contract, Commodity Vendor Declaration, NLIS Movement Update, NVD, State specific movement forms	
National Grower Registration Number	A unique number assigned to individuals registered with the National Grower Register, an online business register for Australian growers.	Yes	Commodity Vendor Declaration	
NLIS Tag Number/RFID	All animals transported between PICs must have a permanent National Livestock Identification System tag attached. This tag has a unique animal identification number.	Yes	NLIS Movement Update	For more information visit the Integrity systems website.
NVD Serial Number	Each NVD form has a unique serial number.	Yes	NLIS Movement Update, NVD	For more information

				visit the Integrity systems website.
Prescription number	A unique certificate number issued for traceability purposes.	Yes	Veterinary prescription	
Product code/description	This is a unique identifier or description assigned by the seller to each product type marketed or for sale.	Yes	Commodity Vendor Declaration, Commodity Vendor Declaration	
Recipient Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Feed and water record, Receipt of purchase/Tax Invoice	For more information visit the ATO website.
Seller/Supplier Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Feed and water record, Receipt of purchase/Tax Invoice	For more information visit the ATO website.
To PIC	The Property Identification Code from/to where the livestock or product were consigned.	Yes	Commodity Vendor Declaration, NLIS Movement Update, NVD, State specific movement forms	For more information visit the Integrity systems website.
Transport registration number	The registration number of the vehicle in which the animals or product were transported. For shipments of product this will be a shipping container number.	Yes	NVD	
Treatment date	The date on which a treatment or product was applied to a unit e.g., paddock, animal, fodder etc.	Yes	Commodity Vendor Declaration, Feed and water record, NVD	
Veterinary Registration Number	A unique number issued to veterinarians who are registered to practice, under the state legislative requirements, within the state in which they reside.	Yes	Veterinary prescription	

5.2.1.1.3 Physical Outputs including Critical Tracking Events (CTEs)

The physical outputs of a cattle breeding enterprise are calves to be sold on for beef production or retained for breeding. Other outputs may include cull cows or unwanted breeding stock.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with the outputs of the breeding system include the movement of:

* Calves

* Cull cattle

off the property, premises, or supply chain sector.

Table 3. Physical outputs and associated Critical Tracking Event related documents for a beef breeding system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Calves	These are young cattle to be raised for beef production and breeding.	NVD, Commercial supply contract, Feed and water record, MSA Declaration, NLIS Movement Update, Receipt of purchase/Tax Invoice, State specific movement forms	
Cull cattle	These are any unwanted livestock to be removed from the herd due to factors such as poor performance or age.	NVD, Commercial supply contract, Feed and water record, MSA Declaration, NLIS Movement Update, Receipt of purchase/Tax Invoice, State specific movement forms	

5.2.1.1.4 Information Outputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). Information outputs of the breeding enterprise include those that are related to enterprise productivity and animal traceability such as the movement date, NLIS ID number, PIC, and any health treatments or chemical exposure.

Table 4. Information outputs, Key Data Elements and Critical Tracking Event related documentation for a beef breeding system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Agreement date	This is the date on which an agreement between two parties was made.	Yes	Commercial supply contract	

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
APVMA approval number	This is a unique number allocated to each label by the APVMA.	Yes	NVD	For more information visit the Australian Pesticides and Veterinary Medicine Authority.
Batch number	This is a unique number which identifies products sharing certain production characteristics and is used for traceability purposes.	Yes	NVD	
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Feed and water record, Receipt of purchase/Tax Invoice	
Contract number	This is a unique number allocated to the contract by the seller.	Yes	Commercial supply contract	
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Commercial supply contract, Feed and water record, MSA Declaration, NVD, Receipt of purchase/Tax Invoice, State specific movement forms	
From PIC	The Property Identification Code from/to where the livestock or product were consigned.	Yes	MSA Declaration, NLIS Movement Update, NVD, State specific movement forms	For more information visit the Integrity systems website.
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Commercial supply contract, MSA Declaration, NLIS Movement Update, NVD, State specific movement forms	
MSA Declaration Serial Number	Each MSA Declaration form has a unique serial number.	Yes	MSA Declaration	For more information on

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
				MSA visit the MLA website.
MSA Licence Number	Any establishment consigning, supplying, or identifying MSA Certified Product must be registered and have a unique MSA Licence Number.	Yes	MSA Declaration, Receipt of purchase/Tax Invoice	For more information on MSA visit the MLA website.
NLIS Tag Number/RFID	All animals transported between PICs must have a permanent National Livestock Identification System tag attached. This tag has a unique animal identification number.	Yes	NLIS Movement Update	For more information visit the Integrity systems website.
NVD Serial Number	Each NVD form has a unique serial number.	Yes	NLIS Movement Update, NVD	For more information visit the Integrity systems website.
Producer/Vendor MSA Registration Number	Producers consigning cattle to MSA markets are required to be registered and have a unique MSA Registration Number.	Yes	MSA Declaration	For more information on MSA visit the MLA website.
Recipient Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Feed and water record, Receipt of purchase/Tax Invoice	For more information visit the ATO website.
Seller/Supplier Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Feed and water record, Receipt of purchase/Tax Invoice	For more information visit the ATO website.
To PIC	The Property Identification Code from/to where the livestock or product were consigned.	Yes	NLIS Movement Update, NVD, State specific movement forms	For more information visit the Integrity systems website.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Transport registration number	The registration number of the vehicle in which the animals or product were transported. For shipments of product this will be a shipping container number.	Yes	NVD	
Treatment date	The date on which a treatment or product was applied to a unit e.g., paddock, animal, fodder etc.	Yes	Feed and water record, NVD	
Movement time	This is the time at which cattle were moved from the property (PIC) of origin. Direct consignments travelling to processors by road must be slaughtered with 48 hours of dispatch.	Yes	MSA Declaration	

5.2.1.1.5 Regulatory and Industry Programs

- * Australian Registered Cattle Breeders Association (ARCBA)
- * BreedPlan
- * Cattle Council of Australia
- * eNVD
- * Livestock Production Assurance (LPA)
- * Meat Standards Australia (MSA)
- * National Livestock Identification System (NLIS)

5.2.1.1.6 Supply Chain Node Traceability

The National Livestock Identification System (NLIS) is Australia's livestock traceability program which is administered by Integrity Systems Company (ISC). Where stipulated by State legislation and certain export markets, the NLIS system requires all animals bought, sold, and moved along the supply chain to be tagged with an accredited NLIS ID tag. Each tag has an NLIS tag number or Radio Frequency Identifier (RFID) for the traceability of the animal throughout its lifetime. Every property which holds livestock must have a Property Identification Code (PIC) to which the livestock are assigned in the NLIS Database. Each time livestock are transferred between PICs within Australia they must be accompanied by a livestock movement declaration, such as the National Vendor Declaration (NVD) form. This document typically outlines the transporter details, consignment details, compliance with intended market specifications, withholding periods, and the details of the new property PIC. All livestock movements between PICs require an NLIS movement update to be made by either or both the consigner and receiver. Where NLIS ID tags are lost livestock must be issued with a new post-breeder tag if not on the PIC of birth and this reconciled in the NLIS Database.

5.2.1.1.7 Data flow diagrams

Table 5. Data flow diagrams for the inputs and outputs of a beef breeding system.

Direction	Description
Input	Breeding stock
Output	Breeding to Saleyard
Output	Breeding to Backgrounding
Output	Breeding to Lairage

5.2.1.1.7.1 Breeding to Saleyard

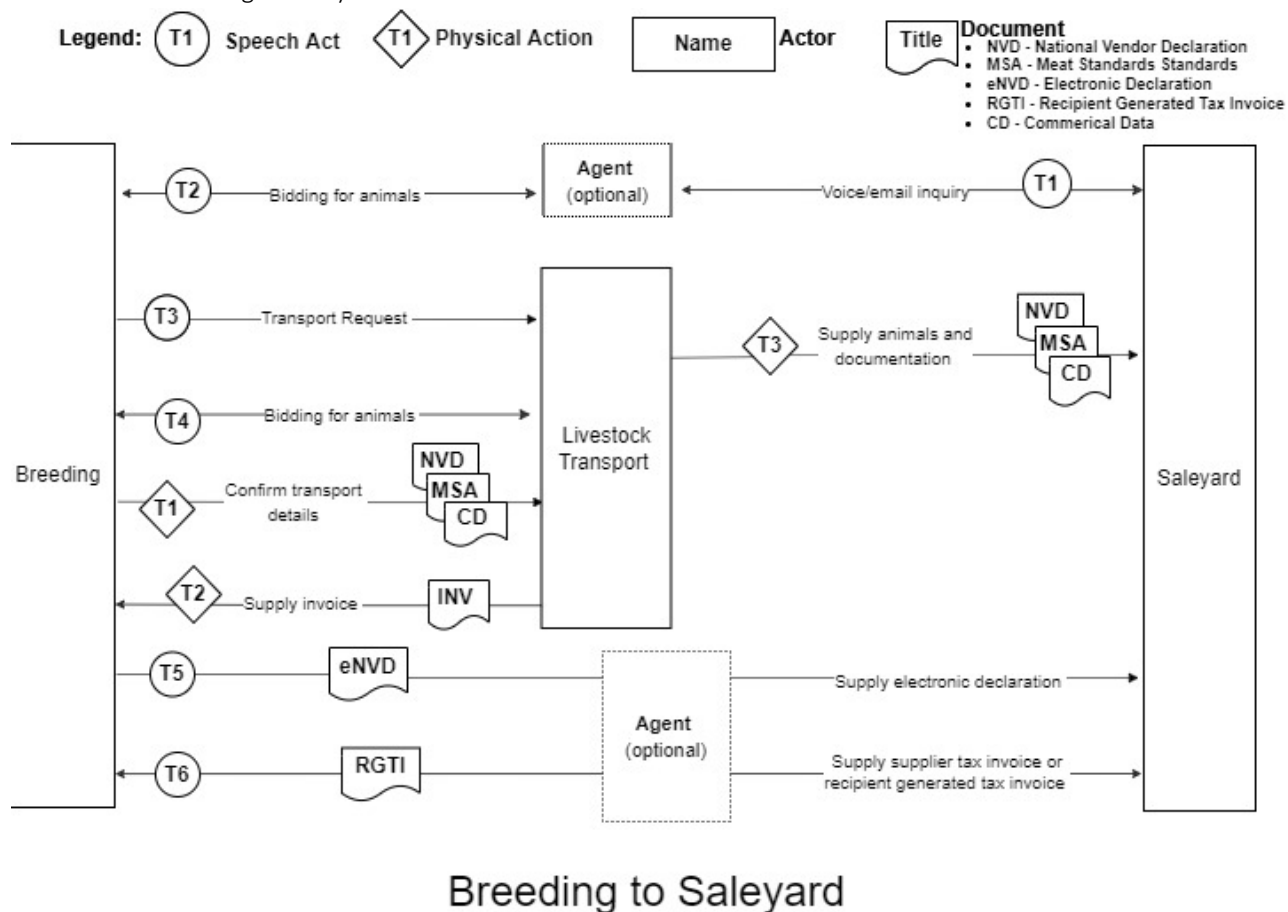


Figure 7. Data or information flows from the breeding to saleyard systems in the beef supply chain.

5.2.1.1.7.2 Breeding to Backgrounding

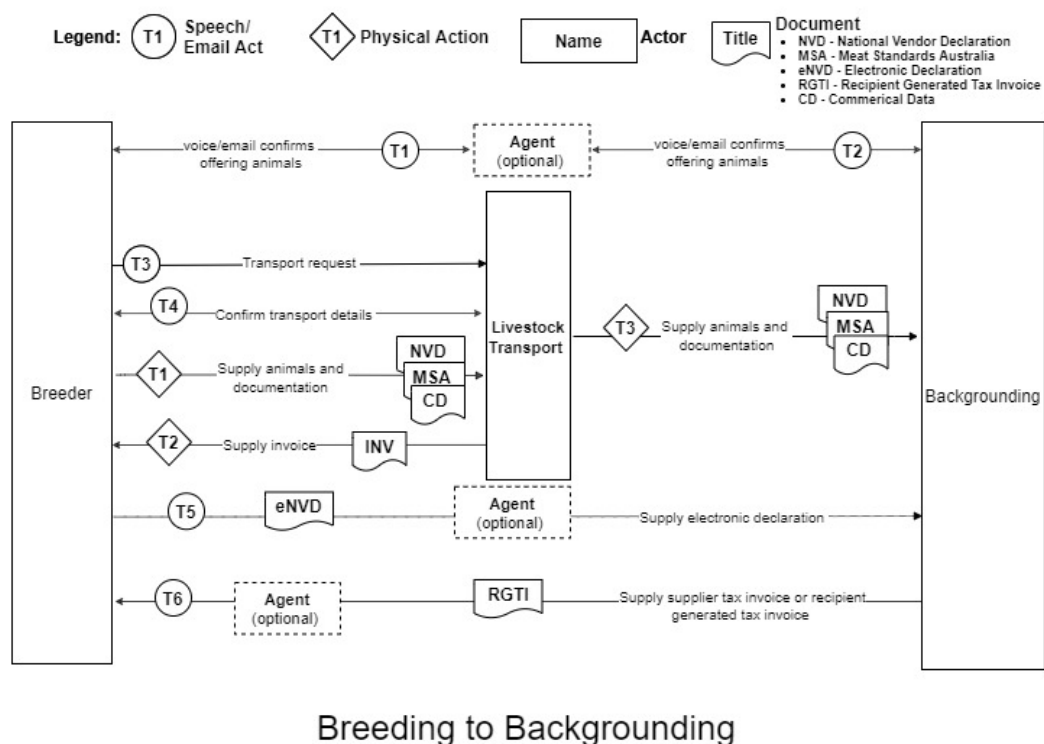


Figure 8. Data or information flows from the breeding to backgrounding systems in the beef supply chain.

5.2.1.1.7.3 Breeding to Lairage

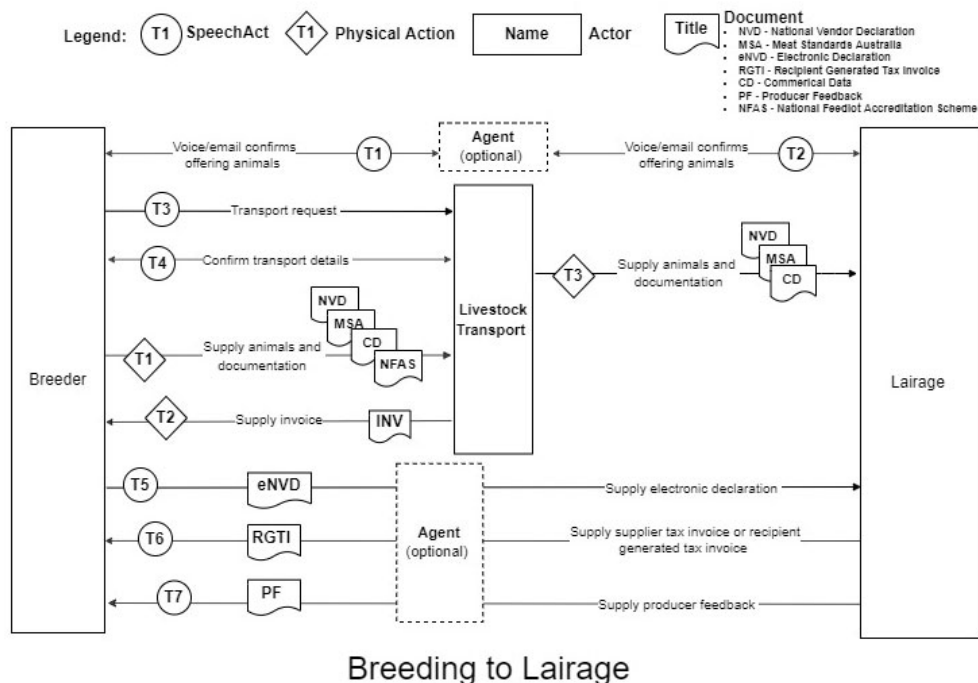


Figure 9. Data or information flows from the breeding to lairage systems in the beef supply chain.

5.2.1.2 Backgrounding

Backgrounding allows livestock to grow to an appropriate weight and become acclimatised before entering feedlots or finishing systems. This process minimises the impact that moving can have on the livestock and can increase feed intake and decrease the risk of health issues. If the livestock do not feel comfortable and are not at ease they will not feed efficiently. This risk is increased when an animal is unfamiliar with feedlot feeding methods such as feed bunks. Additionally, backgrounding can allow the livestock to build a healthy immune response to potential low-level pathogens before being exposed to a larger number of animals and being at greater risk of infection. Furthermore, backgrounding allows for vaccinations to be administered to reduce the risk of spreading contagions.

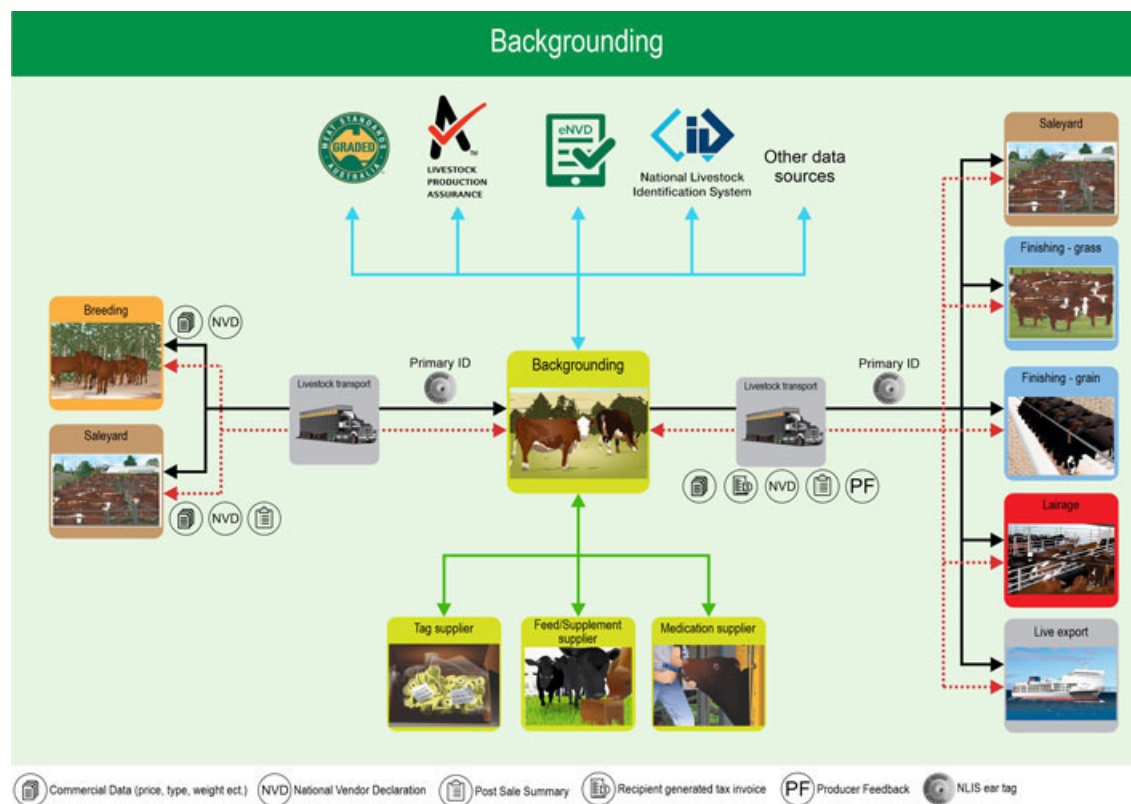


Figure 10. Inputs and outputs of the beef supply chain backgrounding sector.

5.2.1.2.1 Physical Inputs including Critical Tracking Events (CTEs)

There are a limited number of inputs to the backgrounding supply chain section. These generally include the livestock and any feed supplements and veterinary drugs that may be administered. Information on all of these inputs must be recorded by the producer.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with inputs to the backgrounding system include the receipt of:

- * Calves
- * Experts and veterinarians
- * Veterinary drugs or other health treatments

- * Feed supplies and supplements
- * Crop and pasture treatments
- * NLIS ID tags.

Table 6. Physical inputs and associated Critical Tracking Event related documents for a beef backgrounding system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Calves	These are young cattle to be raised for beef production and breeding.	NVD, Commercial supply contract, Feed and water record, MSA Declaration, NFAS Agents Declaration, NFAS Delivery Docket or Form B, NLIS Movement Update, Post Sale Summary, Receipt of purchase/Tax Invoice, State specific movement forms	
Experts and veterinarians	These are professionals who provide services to the breeding enterprise which ensure the safety, wellbeing, and productivity of the livestock.	Receipt of purchase/Tax Invoice, Veterinary prescription	
Veterinary drugs or other health treatments	These may be prescribed or non-prescribed treatments or medications given to ensure the health and wellbeing of the livestock.	Receipt of purchase/Tax Invoice, Veterinary prescription	
Feed supplies and supplements	These are supplementary animal feed products such as hay or silage fodder, or mineral supplements which are provided to ensure the production efficiency and health of livestock are maintained. This may also include clean drinking water e.g., where livestock are in transit or at saleyards.	Commodity Vendor Declaration (CVD), Receipt of purchase/Tax Invoice	
Crop and pasture treatments	These are agricultural chemicals applied to crops, pastures and/or paddocks (inclusive of spot spraying) which livestock may come into contact with or consume.	Product label, Receipt of purchase/Tax Invoice	
NLIS ID tags	These are animal identification tags with a unique number which must be attached to animal moved off a PIC for traceability purposes.	NLIS Movement Update	

5.2.1.2.2 Information Inputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). There are a range of measurements that are related to the inputs of backgrounding. These include the source of the cattle (PIC and ownership), transport details and any vaccinations or other treatments that the cattle have undergone. The general method for identifying individual cattle is through the NLIS device attached to the cattle. There is also likely to be a movement document such as a National Vendor Declaration (NVD) and/or Waybill.

Table 7. Information inputs, Key Data Elements and Critical Tracking Event related documentation for a beef backgrounding system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Agreement date	This is the date on which an agreement between two parties was made.	Yes	Commercial supply contract	
APVMA approval number	This is a unique number allocated to each label by the APVMA.	Yes	Commodity Vendor Declaration, NVD, Product label	For more information visit the Australian Pesticides and Veterinary Medicine Authority.
Batch number	This is a unique number which identifies products sharing certain production characteristics and is used for traceability purposes.	Yes	Commodity Vendor Declaration, NVD, Product label	
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Feed and water record, Receipt of purchase/Tax Invoice	
Contract number	This is a unique number allocated to the contract by the seller.	Yes	Commercial supply contract, Commodity Vendor Declaration	
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Commercial supply contract, Commodity Vendor Declaration, Feed and water record, MSA Declaration, NFAS Agents Declaration, NFAS Delivery Docket or Form B, NVD, Post Sale Summary, Receipt of purchase/Tax Invoice, State specific movement forms	
From PIC	The Property Identification Code from/to where the livestock or product were consigned.	Yes	Commodity Vendor Declaration, MSA Declaration, NFAS Delivery Docket or Form B, NLIS Movement Update, NVD, Post Sale Summary, State specific movement forms	For more information visit the Integrity systems website.
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Commercial supply contract, Commodity Vendor Declaration, MSA Declaration, NFAS Agents Declaration, NFAS Delivery Docket or Form B, NLIS Movement Update, NVD, State specific movement forms	
MSA Declaration Serial Number	Each MSA Declaration form has a unique serial number.	Yes	MSA Declaration	For more information on MSA visit the MLA website.
MSA Licence Number	Any establishment consigning, supplying, or identifying MSA Certified	Yes	MSA Declaration, Receipt of purchase/Tax Invoice	For more information on MSA visit

	Product must be registered and have a unique MSA Licence Number.			the MLA website.
National Grower Registration Number	A unique number assigned to individuals registered with the National Grower Register, an online business register for Australian growers.	Yes	Commodity Vendor Declaration	
NFAS Accreditation Number	This is a unique number given to accredited feedlots certified under the National Feedlot Accreditation Scheme (NFAS).	Yes	NFAS Delivery Docket or Form B	For more information visit the AUS-MEAT website.
NFAS Delivery Docket Number	Each NFAS document has a unique number or identity code.	Yes	NFAS Agents Declaration	For more information visit the AUS-MEAT website.
NLIS Tag Number/RFID	All animals transported between PICs must have a permanent National Livestock Identification System tag attached. This tag has a unique animal identification number.	Yes	NLIS Movement Update	For more information visit the Integrity systems website.
NVD Serial Number	Each NVD form has a unique serial number.	Yes	NFAS Delivery Docket or Form B, NLIS Movement Update, NVD, Post Sale Summary	For more information visit the Integrity systems website.
Prescription number	A unique certificate number issued for traceability purposes.	Yes	Veterinary prescription	
Producer/Vendor MSA Registration Number	Producers consigning cattle to MSA markets are required to be registered and have a unique MSA Registration Number.	Yes	MSA Declaration	For more information on MSA visit the MLA website.
Product code/description	This is a unique identifier or description assigned by the seller to each product type marketed or for sale.	Yes	Commodity Vendor Declaration	
Quality Assurance Officer (QAO) Certificate Number	A unique number issued to personnel issued with a Statement of Authority for demonstrating skills for compliance with meeting NFAS Rules and Standards.	Yes	NFAS Delivery Docket or Form B	For more information visit the AUS-MEAT website.
Recipient Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Feed and water record, Receipt of purchase/Tax Invoice	For more information visit the ATO website.

Seller/Supplier Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Feed and water record, Receipt of purchase/Tax Invoice	For more information visit the ATO website.
To PIC	The Property Identification Code from/to where the livestock or product were consigned.	Yes	Commodity Vendor Declaration, NLIS Movement Update, NVD, Post Sale Summary, State specific movement forms	For more information visit the Integrity systems website.
Transport registration number	The registration number of the vehicle in which the animals or product were transported. For shipments of product this will be a shipping container number.	Yes	NVD	
Treatment date	The date on which a treatment or product was applied to a unit e.g., paddock, animal, fodder etc.	Yes	Commodity Vendor Declaration, Feed and water record, NVD	
Veterinary Registration Number	A unique number issued to veterinarians who are registered to practice, under the state legislative requirements, within the state in which they reside.	Yes	Veterinary prescription	
Movement time	This is the time at which cattle were moved from the property (PIC) of origin. Direct consignments travelling to processors by road must be slaughtered with 48 hours of dispatch.	Yes	MSA Declaration	

5.2.1.2.3 Physical Outputs including Critical Tracking Events (CTEs)

The outputs from backgrounding are cattle that have been prepared for finishing, moved to a saleyard for auction or sold/moved directly to a processor. There is information about each animal that should be made available to these next links in the supply chain. This information is normally passed forward on movement documents such as a National Vendor Declaration (NVD).

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with the outputs of the backgrounding system include the movement of:

* Cattle

off the property, premises, or supply chain sector.

Table 8. Physical outputs and associated Critical Tracking Event related documents for a beef backgrounding system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Cattle	These are bovine livestock and may include any type of cattle e.g., cull cattle, calves etc.	Commercial supply contract, Feed and water record, MSA Declaration, NLIS Movement Update, NVD, Receipt of purchase/Tax Invoice, State specific movement forms etc.	

5.2.1.2.4 Information Outputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). The information outputs from backgrounding may include NLIS ID tag numbers, the Property Identification Code (PIC), Contract numbers and other information found Critical Tracking Event related documentation. Any details of treatments or vaccinations livestock have received (HGP, anthelmintics, etc.) will also be transferred to the next link in the supply chain.

Table 9. Information outputs, Key Data Elements and Critical Tracking Event related documentation for a beef breeding system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Agreement date	This is the date on which an agreement between two parties was made.	Yes	Commercial supply contract	
APVMA approval number	This is a unique number allocated to each label by the APVMA.	Yes	NVD	For more information visit the Australian Pesticides and Veterinary Medicine Authority.
Batch number	This is a unique number which identifies products sharing certain production characteristics and is used for traceability purposes.	Yes	NVD	
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Feed and water record, Receipt of purchase/Tax Invoice	
Contract number	This is a unique number allocated to the contract by the seller.	Yes	Commercial supply contract	
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Commercial supply contract, Feed and water record, MSA Declaration, NVD, Receipt of purchase/Tax Invoice, State specific movement forms	
From PIC	The Property Identification Code from/to where the livestock or product were consigned.	Yes	MSA Declaration, NLIS Movement Update, NVD, State specific movement forms	For more information visit the Integrity systems website.

Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Commercial supply contract, MSA Declaration, NLIS Movement Update, NVD, State specific movement forms	
MSA Declaration Serial Number	Each MSA Declaration form has a unique serial number.	Yes	MSA Declaration	For more information on MSA visit the MLA website.
MSA Licence Number	Any establishment consigning, supplying, or identifying MSA Certified Product must be registered and have a unique MSA Licence Number.	Yes	MSA Declaration, Receipt of purchase/Tax Invoice	For more information on MSA visit the MLA website.
NLIS Tag Number/RFID	All animals transported between PICs must have a permanent National Livestock Identification System tag attached. This tag has a unique animal identification number.	Yes	NLIS Movement Update	For more information visit the Integrity systems website.
NVD Serial Number	Each NVD form has a unique serial number.	Yes	NLIS Movement Update	For more information visit the Integrity systems website.
NVD Serial Number	Each NVD form has a unique serial number.	Yes	NVD	For more information visit the Integrity systems website.
Producer/Vendor MSA Registration Number	Producers consigning cattle to MSA markets are required to be registered and have a unique MSA Registration Number.	Yes	MSA Declaration	For more information on MSA visit the MLA website.
Recipient Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Feed and water record, Receipt of purchase/Tax Invoice	For more information visit the ATO website.
Seller/Supplier Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Feed and water record, Receipt of purchase/Tax Invoice	For more information visit the ATO website.
To PIC	The Property Identification Code from/to where the livestock or product were consigned.	Yes	NLIS Movement Update, NVD, State specific movement forms	For more information visit the Integrity systems website.
Transport registration number	The registration number of the vehicle in which the animals or product were transported. For shipments of product this will be a shipping container number.	Yes	NVD	
Treatment date	The date on which a treatment or product was applied to a unit e.g., paddock, animal, fodder etc.	Yes	Feed and water record, NVD	
Movement time	This is the time at which cattle were moved from the property	Yes	MSA Declaration	

	(PIC) of origin. Direct consignments travelling to processors by road must be slaughtered with 48 hours of dispatch.			

5.2.1.2.5 Regulatory and Industry Programs

The regulatory bodies that apply to cattle backgrounding are dependent on the intended market. Domestically, all livestock animals must have an NLIS ID, and any business holding livestock must have a PIC. To ensure livestock production meets the safety and ethical requirements set by domestic and export markets producers must be Livestock Production Assurance (LPA) accredited. If the cattle are expected to be used for meat products for export to the EU, then they must adhere to the European Union Cattle Accreditation Scheme (EUCAS). US exported meat and meat products must have records that comply with the US Quality System Assessment Program (US QAD).

- * Cattle Council of Australia
- * eNVD
- * Livestock Production Assurance (LPA)
- * Meat Standards Australia (MSA)
- * National Livestock Identification System (NLIS)
- * Other data sources

5.2.1.2.6 Supply Chain Node Traceability

The National Livestock Identification System (NLIS) is the Australian livestock traceability program which is administered by Integrity Systems Company (ISC). Where stipulated by State legislation and certain export markets, the NLIS system requires all animals bought, sold, and moved along the supply chain to be tagged with an accredited NLIS ID tag. Each tag has an NLIS tag number or Radio Frequency Identifier (RFID) for the traceability of the animal throughout its lifetime. Every property which holds livestock must have a Property Identification Code (PIC) to which the livestock are assigned in the NLIS Database. Each time livestock are transferred between PICs within Australia they must be accompanied by a livestock movement declaration, such as the National Vendor Declaration (NVD) form. This document typically outlines the transporter details, consignment details, compliance with intended market specifications, withholding periods, and the details of the new property PIC. All livestock movements between PICs require an NLIS movement update to be made by either or both the consigner and receiver. Where NLIS ID tags are lost livestock must be issued with a new post-breeder tag if not on the PIC of birth and this reconciled in the NLIS Database.

5.2.1.2.7 Data flow diagrams

Table 10. Data flow diagrams for the inputs and outputs of a beef backgrounding system.

Direction	Description
Input	Breeding to Backgrounding
Input	Saleyard to Backgrounding
Output	Backgrounding to Saleyard

Direction	Description
Output	Backgrounding to Finishing (grain or grass)
Output	Backgrounding to Lairage

5.2.1.2.7.1 Breeding to Backgrounding

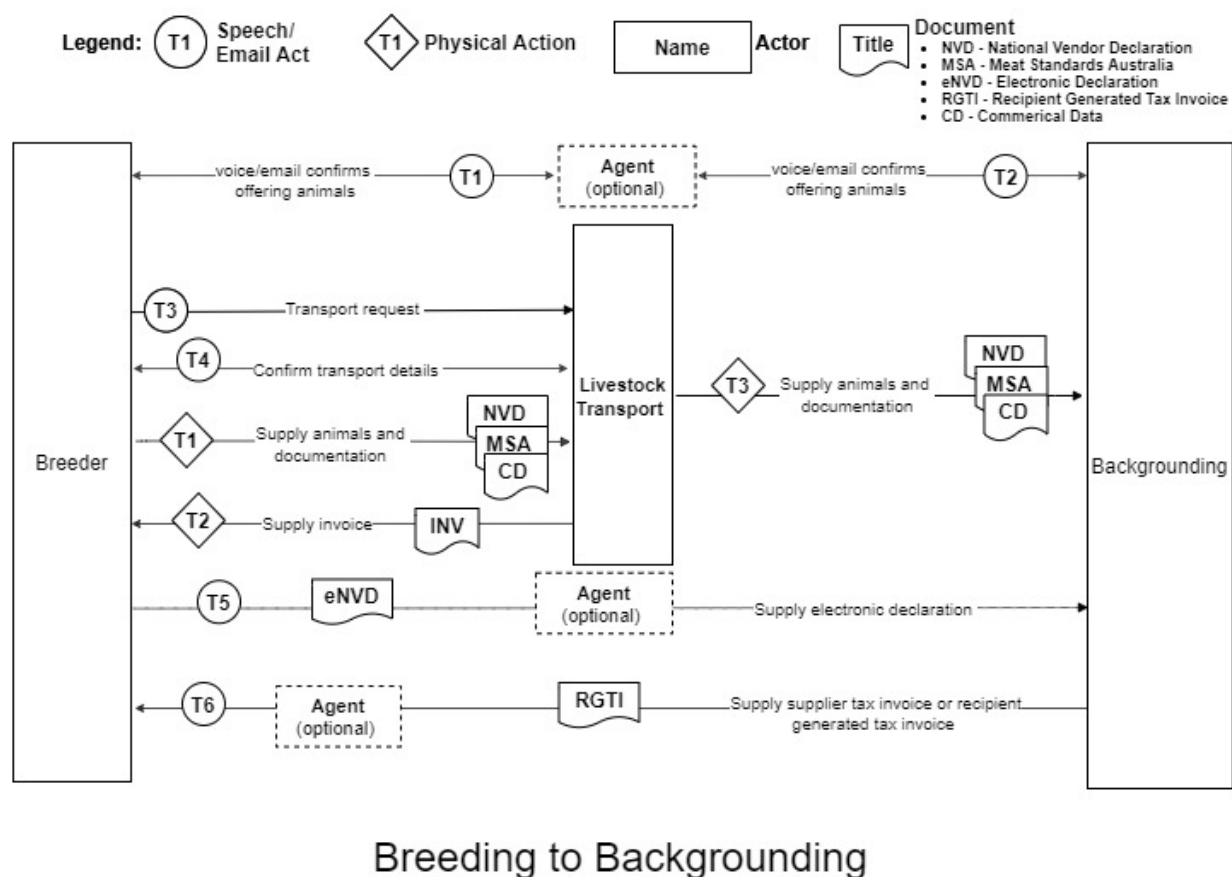


Figure 11. Data or information flows from the breeding to backgrounding systems in the beef supply chain.

5.2.1.2.7.2 Saleyard to Backgrounding

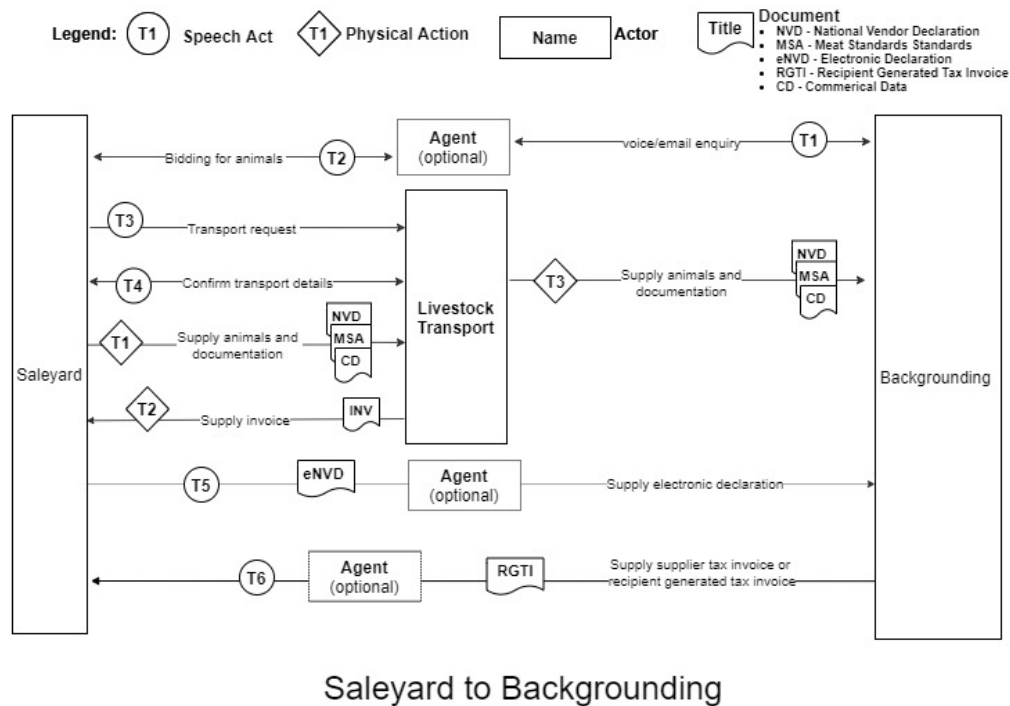
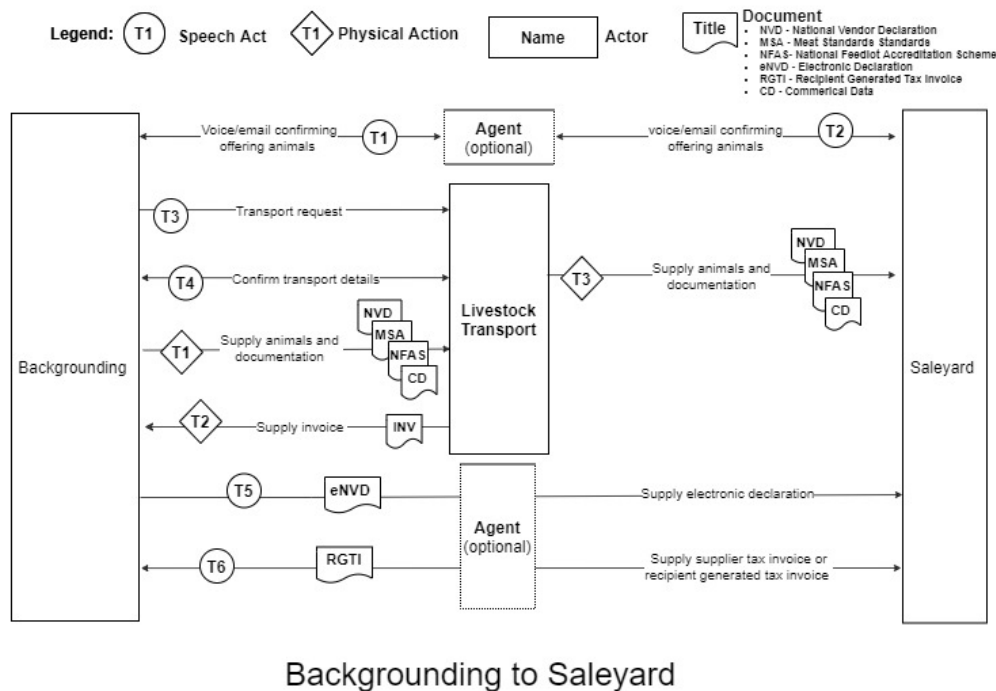


Figure 12. Data or information flows from the saleyard to backgrounding systems in the beef supply chain.

5.2.1.2.7.3 Backgrounding to Saleyard



5.2.1.2.7.4 Backgrounding to Finishing (grain or grass)

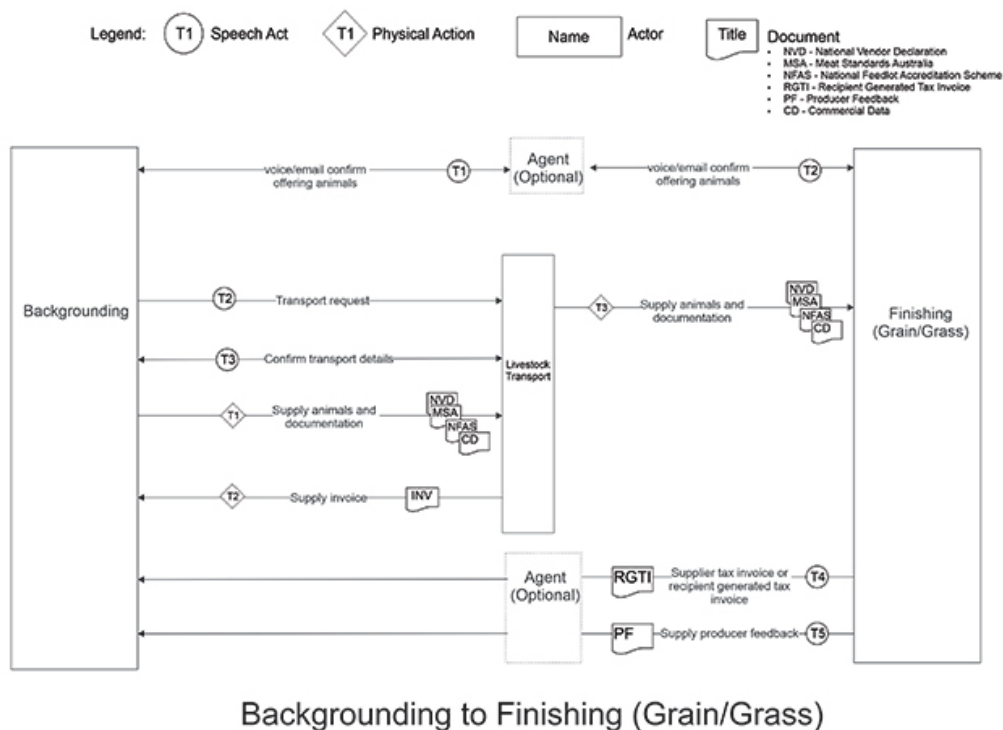


Figure 13. Data or information flows from the backgrounding to finishing (grain/grass) systems in the beef supply chain.

5.2.1.2.7.5 Backgrounding to Lairage

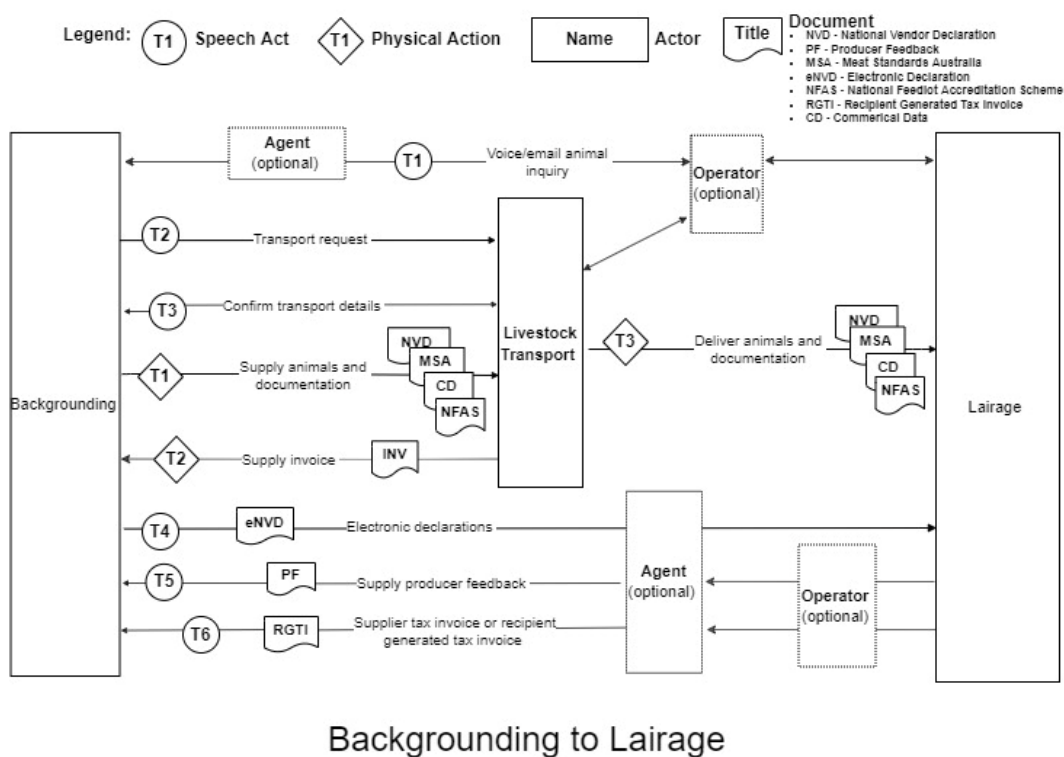


Figure 14. Data or information flows from the backgrounding to lairage systems in the beef supply chain.

5.2.1.3 Finishing – grass

Grass finished animals are those which are typically fed entirely on grass derived forage such as annual or perennial grasses, crops in the vegetative stage, hay, or silage. These animals are not fed a grain-based diet such as that provided in a feedlot system. The requirements of a grass-finishing system are usually determined by the target market. Grass finishing systems may also require feeding supplements for nutritional, efficiency and production purposes to be provided to livestock.

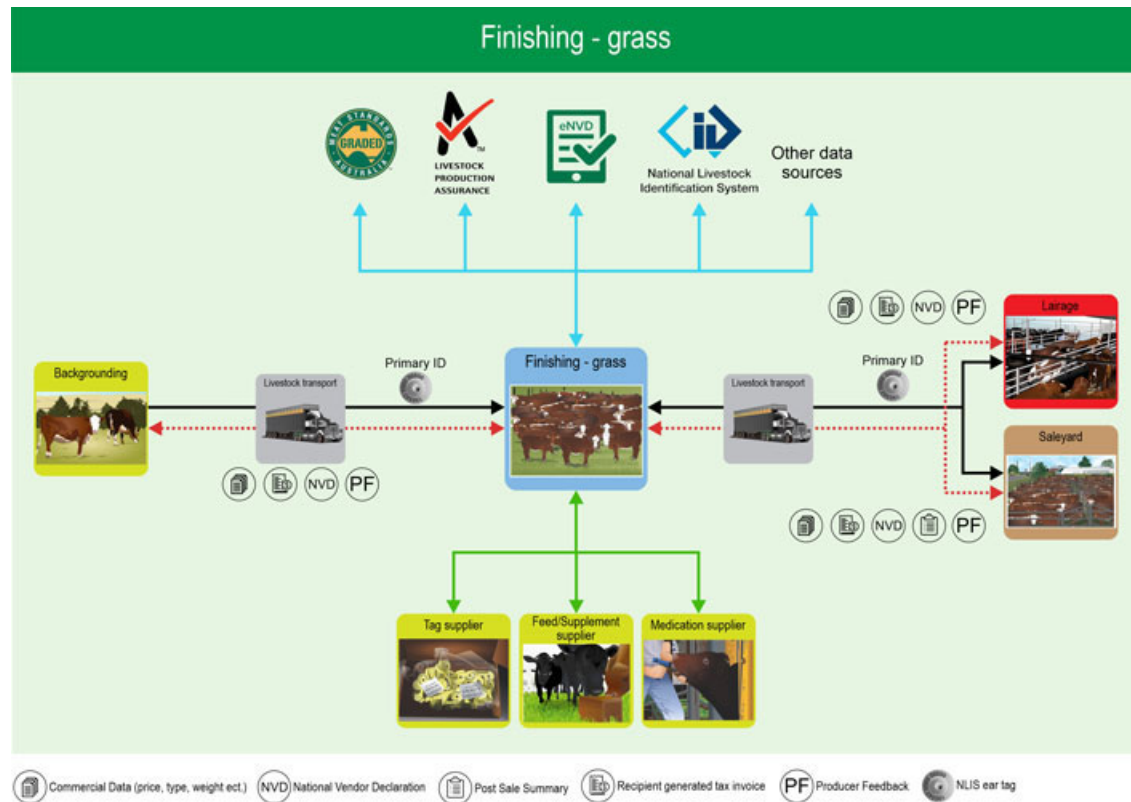


Figure 15. Inputs and outputs of the beef supply chain finishing-grass sector.

5.2.1.3.1 Physical Inputs including Critical Tracking Events (CTEs)

Inputs for the grass finishing component of the beef cattle supply chain are largely the same as for the previous components and include the cattle, any veterinary input or commercial services, veterinary drugs and health treatments, crop and pasture treatments and any feed supplements.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with inputs to the grass finishing system include the receipt of:

- * Cattle
- * Experts and veterinarians
- * Veterinary drugs or other health treatments
- * Feed supplies and supplements
- * Crop and pasture treatments
- * NLIS ID tags.

Table 11. Physical inputs and associated Critical Tracking Event related documents for a beef finishing-grass system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Cattle	These are bovine livestock and may include any type of cattle e.g., cull cattle, calves etc.	Commercial supply contract, Feed and water record, MSA Declaration, NLIS Movement Update, NVD, Receipt of purchase/Tax Invoice, State specific movement forms	
Experts and veterinarians	These are professionals who provide services to the breeding enterprise which ensure the safety, wellbeing, and productivity of the livestock.	Receipt of purchase/Tax Invoice, Veterinary prescription	
Veterinary drugs or other health treatments	These may be prescribed, or non-prescribed treatments or medications given to ensure the health and wellbeing of the livestock.	Receipt of purchase/Tax Invoice, Veterinary prescription	
Feed supplies and supplements	These are supplementary animal feed products such as hay or silage fodder, or mineral supplements which are provided to ensure the production efficiency and health of livestock are maintained. This may also include clean drinking water e.g. where livestock are in transit or at saleyards.	Commodity Vendor Declaration (CVD), Receipt of purchase/Tax Invoice	
Crop and pasture treatments	These are agricultural chemicals applied to crops, pastures and/or paddocks (inclusive of spot spraying) which livestock may come into contact with or consume.	Product label, Receipt of purchase/Tax Invoice	
NLIS ID tags	These are animal identification tags with a unique number which must be attached to animal moved off a PIC for traceability purposes.	NLIS Movement Update	

5.2.1.3.2 Information Inputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). There are a range of measurements that are related to the inputs of a finishing system. These include the source of the cattle (PIC and ownership), transport details, any vaccinations, or other treatments that the cattle have undergone. The general method for identifying individual cattle is through the NLIS device attached to the cattle. There is also likely to be a movement document such as a National Vendor Declaration and/or Waybill.

Table 12. Information inputs, Key Data Elements and Critical Tracking Event related documentation for a beef finishing-grass system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Agreement date	This is the date on which an agreement between two parties was made.	Yes	Commercial supply contract	
APVMA approval number	This is a unique number allocated to each label by the APVMA.	Yes	Commodity Vendor Declaration, NVD, Product label	For more information visit the Australian Pesticides and

				Veterinary Medicine Authority.
Batch number	This is a unique number which identifies products sharing certain production characteristics and is used for traceability purposes.	Yes	Commodity Vendor Declaration, NVD, Product label	
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Feed and water record, Receipt of purchase/Tax Invoice	
Contract number	This is a unique number allocated to the contract by the seller.	Yes	Commercial supply contract, Commodity Vendor Declaration	
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Commercial supply contract, Commodity Vendor Declaration, Feed and water record, MSA Declaration, NVD, Receipt of purchase/Tax Invoice, State specific movement forms	
From PIC	The Property Identification Code from/to where the livestock or product were consigned.	Yes	Commodity Vendor Declaration, MSA Declaration, NLIS Movement Update, NVD, State specific movement forms	For more information visit the Integrity systems website.
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Commercial supply contract, Commodity Vendor Declaration, MSA Declaration, NLIS Movement Update, NVD, State specific movement forms	
MSA Declaration Serial Number	Each MSA Declaration form has a unique serial number.	Yes	MSA Declaration	For more information visit the Integrity systems website.
MSA Licence Number	Any establishment consigning, supplying, or identifying MSA Certified Product must be registered and have a unique MSA Licence Number.	Yes	MSA Declaration, Receipt of purchase/Tax Invoice	For more information on MSA visit the MLA website.
National Grower Registration Number	A unique number assigned to individuals registered with the National Grower Register, an online business register for Australian growers.	Yes	Commodity Vendor Declaration	
NLIS Tag Number/RFID	All animals transported between PICs must have a permanent National Livestock Identification System tag attached. This tag has a unique animal identification number.	Yes	NLIS Movement Update	For more information visit the Integrity systems website.
NVD Serial Number	Each NVD form has a unique serial number.	Yes	NLIS Movement Update, NVD	For more information visit the Integrity

				systems website.
Prescription number	A unique certificate number issued for traceability purposes.	Yes	Veterinary prescription	
Producer/Vendor MSA Registration Number	Producers consigning cattle to MSA markets are required to be registered and have a unique MSA Registration Number.	Yes	MSA Declaration	For more information on MSA visit the MLA website.
Product code/description	This is a unique identifier or description assigned by the seller to each product type marketed or for sale.	Yes	Commodity Vendor Declaration	
Recipient Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Feed and water record, Receipt of purchase/Tax Invoice	For more information visit the ATO website.
Seller/Supplier Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Feed and water record, Receipt of purchase/Tax Invoice	For more information visit the ATO website.
To PIC	The Property Identification Code from/to where the livestock or product were consigned.	Yes	Commodity Vendor Declaration, NLIS Movement Update, NVD, State specific movement forms	For more information visit the Integrity systems website.
Transport registration number	The registration number of the vehicle in which the animals or product were transported. For shipments of product this will be a shipping container number.	Yes	NVD	
Treatment date	The date on which a treatment or product was applied to a unit e.g., paddock, animal, fodder etc.	Yes	Commodity Vendor Declaration, Feed and water record, NVD	
Veterinary Registration Number	A unique number issued to veterinarians who are registered to practice, under the state legislative requirements, within the state in which they reside.	Yes	Veterinary prescription	
Movement time	This is the time at which cattle were moved from the property (PIC) of origin. Direct consignments travelling to processors by road must be slaughtered with 48 hours of dispatch.	Yes	MSA Declaration	

5.2.1.3.3 Physical Outputs including Critical Tracking Events (CTEs)

The outputs from a grass finishing system are cattle that have been prepared for slaughter and are either moved to a saleyard for auction or sold/moved directly to a processor. There is information about each animal that should be made available to these next links in the supply chain. This information is normally passed forward on movement documents such as a National Vendor Declaration.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with the outputs of the grass finishing system include the movement of:

* Cattle

off the property, premises, or supply chain sector.

Table 13. Physical outputs and associated Critical Tracking Event related documents for a beef finishing-grass system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Cattle	These are bovine livestock and may include any type of cattle e.g., cull cattle, calves etc.	Commercial supply contract, Feed and water record, MSA Declaration, NLIS Movement Update, NVD, Receipt of purchase/Tax Invoice, State specific movement forms	

5.2.1.3.4 Information Outputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). Information passed forward to the next links in the supply chain from a grass finishing system largely include that as for the backgrounding system. Such information is derived from regulated documents such as the National Vendor Declaration and MSA Declaration. Other information may include that from Commercial Supply Contracts, State specific movement Forms and Receipts of purchase/Tax invoices.

Table 14. Information outputs, Key Data Elements and Critical Tracking Event related documentation for a beef finishing-grass system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Agreement date	This is the date on which an agreement between two parties was made.	Yes	Commercial supply contract	
APVMA approval number	This is a unique number allocated to each label by the APVMA.	Yes	NVD	
Batch number	This is a unique number which identifies products sharing certain production characteristics and is used for traceability purposes.	Yes	NVD	
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Feed and water record, Receipt of purchase/Tax Invoice	
Contract number	This is a unique number allocated to the contract by the seller.	Yes	Commercial supply contract	
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Commercial supply contract, Feed and water record, MSA Declaration, NVD, Receipt of	

			purchase/Tax Invoice, State specific movement forms	
From PIC	The Property Identification Code from/to where the livestock or product were consigned.	Yes	MSA Declaration, NLIS Movement Update, NVD, State specific movement forms	For more information visit the Integrity systems website.
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Commercial supply contract, MSA Declaration, NLIS Movement Update, NVD, State specific movement forms	
MSA Declaration Serial Number	Each MSA Declaration form has a unique serial number.	Yes	MSA Declaration	For more information on MSA visit the MLA website.
MSA Licence Number	Any establishment consigning, supplying, or identifying MSA Certified Product must be registered and have a unique MSA Licence Number.	Yes	MSA Declaration, Receipt of purchase/Tax Invoice	For more information on MSA visit the MLA website.
NLIS Tag Number/RFID	All animals transported between PICs must have a permanent National Livestock Identification System tag attached. This tag has a unique animal identification number.	Yes	NLIS Movement Update	For more information visit the Integrity systems website.
NVD Serial Number	Each NVD form has a unique serial number.	Yes	NLIS Movement Update, NVD	For more information visit the Integrity systems website.
Producer/Vendor MSA Registration Number	Producers consigning cattle to MSA markets are required to be registered and have a unique MSA Registration Number.	Yes	MSA Declaration	For more information on MSA visit the MLA website.
Recipient Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Feed and water record, Receipt of purchase/Tax Invoice	For more information visit the ATO website.
Seller/Supplier Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Feed and water record, Receipt of purchase/Tax Invoice	For more information visit the ATO website.
To PIC	The Property Identification Code from/to where the livestock or product were consigned.	Yes	NLIS Movement Update, NVD, State specific movement forms	For more information visit the Integrity systems website.
Transport registration number	The registration number of the vehicle in which the animals or product were transported. For shipments of product this will be a shipping container number.	Yes	NVD	

Treatment date	The date on which a treatment or product was applied to a unit e.g., paddock, animal, fodder etc.	Yes	Feed and water record, NVD	
Movement time	This is the time at which cattle were moved from the property (PIC) of origin. Direct consignments travelling to processors by road must be slaughtered with 48 hours of dispatch.	Yes	MSA Declaration	

5.2.1.3.5 Regulatory and Industry Programs

- * Cattle Council of Australia
- * eNVD
- * Livestock Production Assurance (LPA)
- * Meat Standards Australia (MSA)
- * National Livestock Identification System (NLIS)
- * Other data sources

5.2.1.3.6 Supply Chain Node Traceability

The National Livestock Identification System (NLIS) is the Australian livestock traceability program which is administered by Integrity Systems Company (ISC). Where stipulated by State legislation and certain export markets, the NLIS system requires all animals bought, sold, and moved along the supply chain to be tagged with an accredited NLIS ID tag. Each tag has an NLIS tag number or Radio Frequency Identifier (RFID) for the traceability of the animal throughout its lifetime. Every property which holds livestock must have a Property Identification Code (PIC) to which the livestock are assigned in the NLIS Database. Each time livestock are transferred between PICs within Australia they must be accompanied by a livestock movement declaration, such as the National Vendor Declaration (NVD) form. This document typically outlines the transporter details, consignment details, compliance with intended market specifications, withholding periods, and the details of the new property PIC. All livestock movements between PICs require an NLIS movement update to be made by either or both the consigner and receiver. Where NLIS ID tags are lost livestock must be issued with a new post-breeder tag if not on the PIC of birth and this reconciled in the NLIS Database.

5.2.1.3.7 Data flow diagrams

Table 15. Data flow diagrams for the inputs and outputs of a beef finishing-grass system.

Direction	Description
Input	Backgrounding to Finishing (grain or grass)
Input	Saleyard to Finishing (grain or grass)
Output	Finishing - Grass to Saleyard
Output	Finishing - Grass to Lairage

5.2.1.3.7.1 Backgrounding to Finishing (grain or grass)

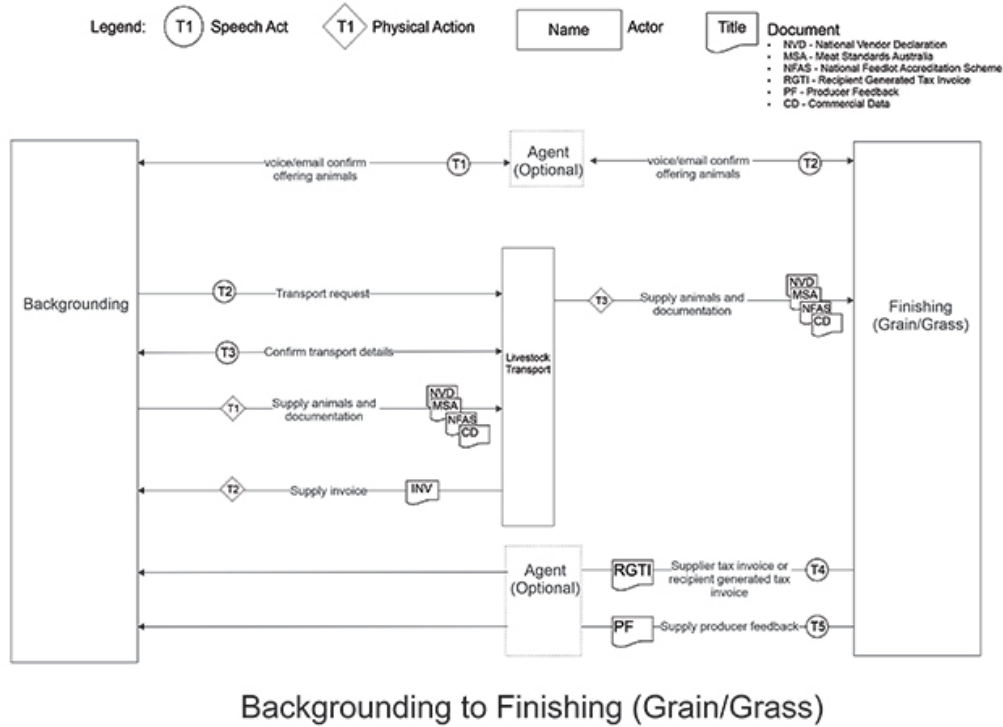


Figure 16. Data or information flows from the backgrounding to finishing (grain or grass) systems in the beef supply chain.

5.2.1.3.7.2 Saleyard to Finishing (grain or grass)

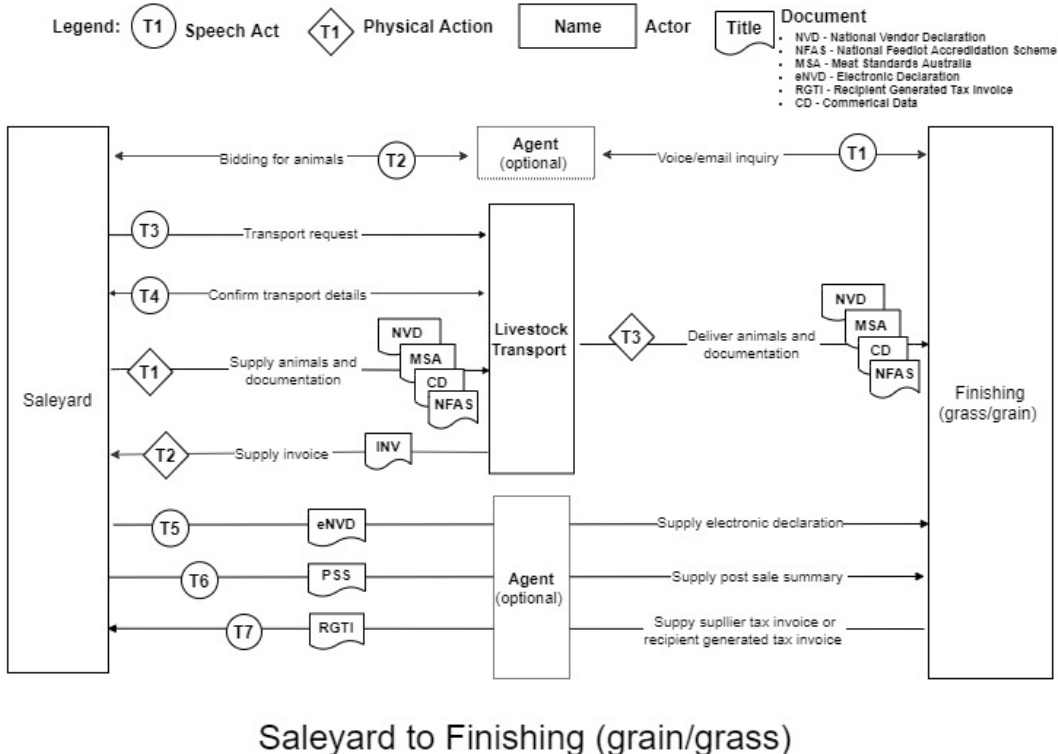
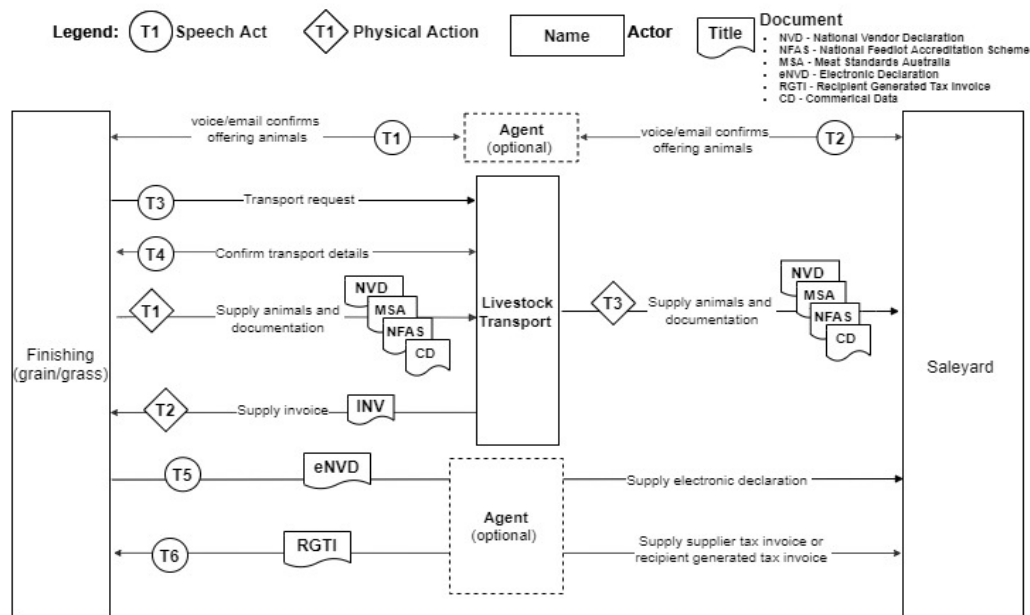


Figure 17. Data or information flows from the saleyard to finishing (grain or grass) systems in the beef supply chain.

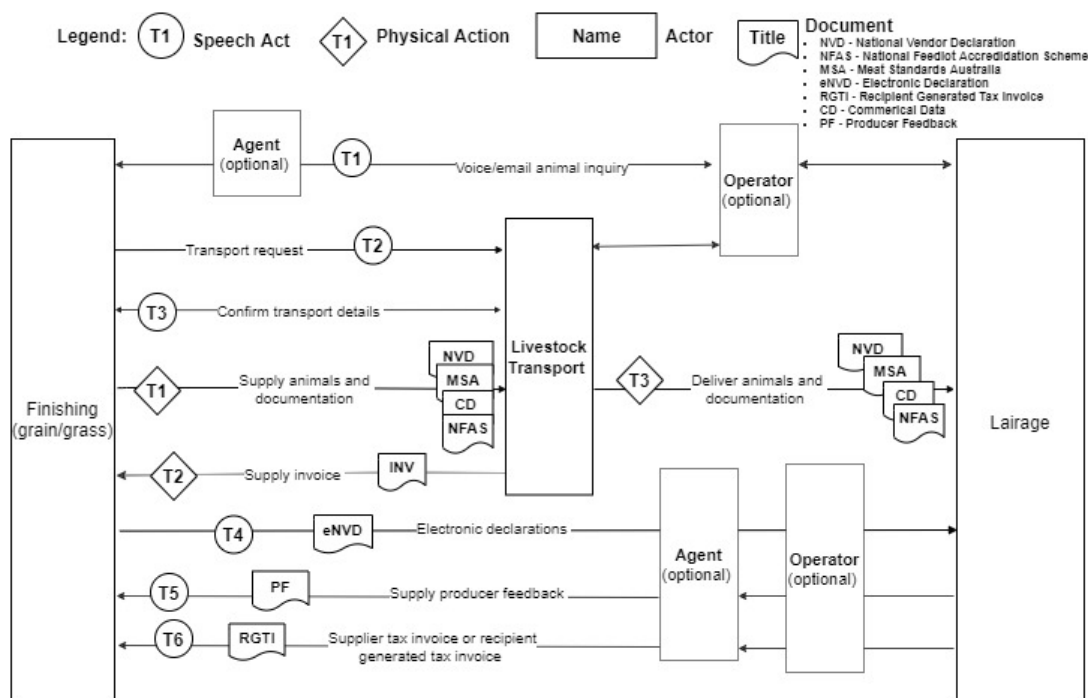
5.2.1.3.7.3 Finishing - Grass to Saleyard



Finishing (grain/grass) to Saleyard

Figure 18. Data or information flows from the finishing (grain or grass) to saleyard systems in the beef supply chain.

5.2.1.3.7.4 Finishing - Grass to Lairage



Finishing (grain/grass) to Lairage

Figure 19. Data or information flows from the finishing (grain or grass) to lairage systems in the beef supply chain.

5.2.1.4 Finishing – grain

Grain finished animals are those which have been fed on a grain-based ration in a feedlot system. This system is typically comprised of several confined yard areas, with watering and feeding facilities, in which livestock are held. Grain rations are typically of higher quality than grass pasture and therefore improve the live weight gain of animals. Grain feeding systems typically produce product with greater eating quality, enable the specific needs of niche markets to be met and allow for a more consistent supply of fodder to meet the energy demands of the growing animal.

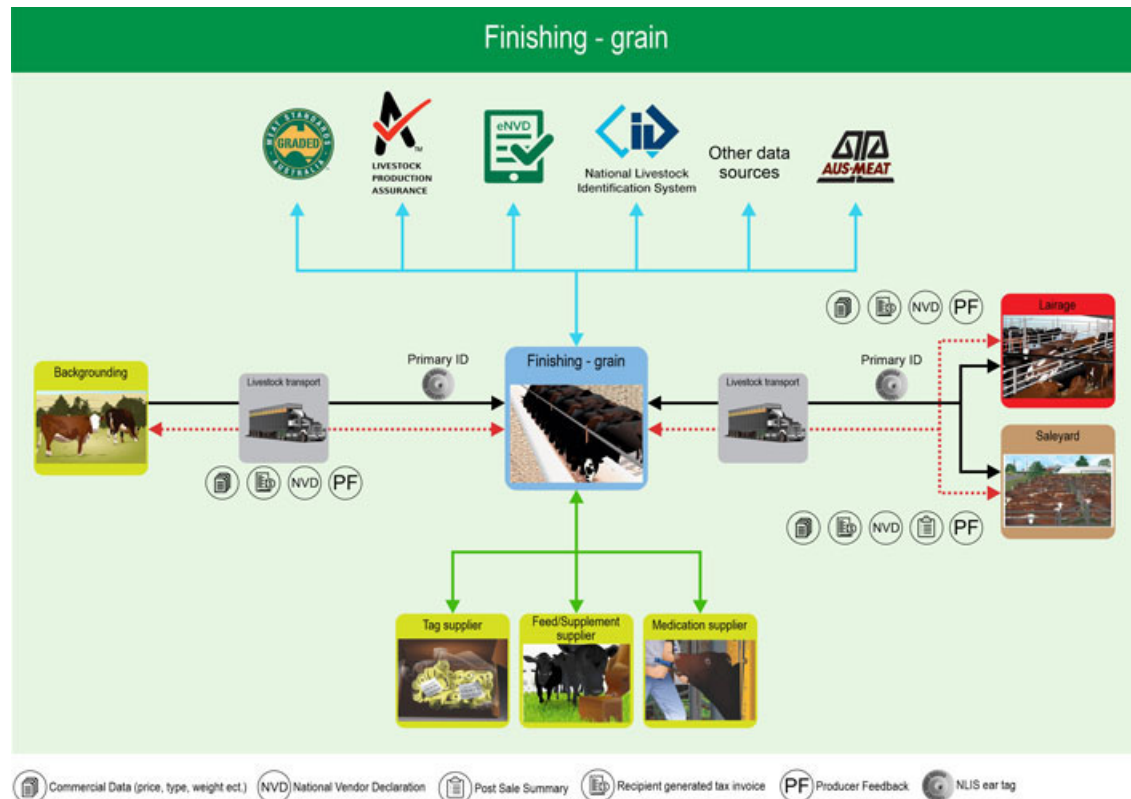


Figure 20. Inputs and outputs of the beef supply chain finishing-grain sector.

5.2.1.4.1 Physical Inputs including Critical Tracking Events (CTEs)

The physical inputs to a grain finishing system are similar as for that of a pasture finishing system. However, those inputs related to crop and pasture treatments are not required.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with inputs to the grain finishing system include the receipt of:

- * Cattle
- * Experts and veterinarians
- * Veterinary drugs or other health treatments
- * Feed supplies and supplements
- * NLIS ID tags.

Table 16. Physical inputs and associated Critical Tracking Event related documents for a beef finishing-grain system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Cattle	These are bovine livestock and may include any type of cattle e.g., cull cattle, calves etc.	Commercial supply contract, Feed and water record, MSA Declaration, NFAS Agents Declaration, NFAS Delivery Docket or Form B, NLIS Movement Update, NVD, Post Sale Summary, Receipt of purchase/Tax Invoice, State specific movement forms	
Experts and veterinarians	These are professionals who provide services to the breeding enterprise which ensure the safety, wellbeing, and productivity of the livestock.	Receipt of purchase/Tax Invoice, Veterinary prescription	
Veterinary drugs or other health treatments	These may be prescribed, or non-prescribed treatments or medications given to ensure the health and wellbeing of the livestock.	Receipt of purchase/Tax Invoice, Veterinary prescription	
Feed supplies and supplements	These are supplementary animal feed products such as hay or silage fodder, or mineral supplements which are provided to ensure the production efficiency and health of livestock are maintained. This may also include clean drinking water e.g., where livestock are in transit or at saleyards.	Commodity Vendor Declaration (CVD), Receipt of purchase/Tax Invoice	
NLIS ID tags	These are animal identification tags with a unique number which must be attached to animal moved off a PIC for traceability purposes.	NLIS Movement Update	

5.2.1.4.2 Information Inputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). There are a range of measurements that are related to the inputs of a finishing system. These may include the source of the cattle (PIC and ownership), transport details and any vaccinations or other treatments that the cattle have undergone. The general method for identifying individual cattle is through the NLIS device attached to the cattle. There is also likely to be a movement document such as a National Vendor Declaration and/or Waybill and documentation relating to feed and supplements.

Table 17. Information inputs, Key Data Elements and Critical Tracking Event related documentation for a beef finishing-grain system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Agreement date	This is the date on which an agreement between two parties was made.	Yes	Commercial supply contract	

APVMA approval number	This is a unique number allocated to each label by the APVMA.	Yes	Commodity Vendor Declaration, NVD	For more information visit the Australian Pesticides and Veterinary Medicine Authority.
Batch number	This is a unique number which identifies products sharing certain production characteristics and is used for traceability purposes.	Yes	Commodity Vendor Declaration, NVD	
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Feed and water record, Receipt of purchase/Tax Invoice	
Contract number	This is a unique number allocated to the contract by the seller.	Yes	Commercial supply contract, Commodity Vendor Declaration	
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Commercial supply contract, Commodity Vendor Declaration, Feed and water record, MSA Declaration, NFAS Agents Declaration, NFAS Delivery Docket or Form B, NVD, Post Sale Summary, Receipt of purchase/Tax Invoice, State specific movement forms	
From PIC	The Property Identification Code from/to where the livestock or product were consigned.	Yes	Commodity Vendor Declaration, MSA Declaration, NFAS Delivery Docket or Form B, NLIS Movement Update, NVD, Post Sale Summary, State specific movement forms	For more information visit the Integrity systems website.
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Commercial supply contract, Commodity Vendor Declaration, MSA Declaration, NFAS Agents Declaration, NFAS Delivery Docket or Form B, NLIS Movement Update, NVD, State specific movement forms	
MSA Declaration Serial Number	Each MSA Declaration form has a unique serial number.	Yes	MSA Declaration	For more information on MSA visit the MLA website.
MSA Licence Number	Any establishment consigning, supplying, or identifying MSA Certified Product must be registered and have a unique MSA Licence Number.	Yes	MSA Declaration, Receipt of purchase/Tax Invoice	For more information on MSA visit the MLA website.
National Grower Registration Number	A unique number assigned to individuals registered with the National Grower Register, an online business	Yes	Commodity Vendor Declaration	

	register for Australian growers.			
NFAS Accreditation Number	This is a unique number given to accredited feedlots certified under the National Feedlot Accreditation Scheme (NFAS).	Yes	NFAS Delivery Docket or Form B	For more information visit the AUS-MEAT website.
NFAS Delivery Docket Number	Each NFAS document has a unique number or identity code.	Yes	NFAS Agents Declaration	For more information visit the AUS-MEAT website.
NLIS Tag Number/RFID	All animals transported between PICs must have a permanent National Livestock Identification System tag attached. This tag has a unique animal identification number.	Yes	NLIS Movement Update	For more information visit the Integrity systems website.
NVD Serial Number	Each NVD form has a unique serial number.	Yes	NFAS Delivery Docket or Form B, NLIS Movement Update, NVD, Post Sale Summary	For more information visit the Integrity systems website.
Prescription number	A unique certificate number issued for traceability purposes.	Yes	Veterinary prescription	
Producer/Vendor MSA Registration Number	Producers consigning cattle to MSA markets are required to be registered and have a unique MSA Registration Number.	Yes	MSA Declaration	For more information on MSA visit the MLA website.
Product code/description	This is a unique identifier or description assigned by the seller to each product type marketed or for sale.	Yes	Commodity Vendor Declaration	
Quality Assurance Officer (QAO) Certificate Number	A unique number issued to personnel issued with a Statement of Authority for demonstrating skills for compliance with meeting NFAS Rules and Standards.	Yes	NFAS Delivery Docket or Form B	
Recipient Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Feed and water record, Receipt of purchase/Tax Invoice	For more information visit the ATO website.
Seller/Supplier Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Feed and water record, Receipt of purchase/Tax Invoice	For more information visit the ATO website.
To PIC	The Property Identification Code from/to where the livestock or product were consigned.	Yes	Commodity Vendor Declaration, NLIS Movement Update, NVD, Post Sale Summary, State specific movement forms	For more information visit the Integrity systems website.

Transport registration number	The registration number of the vehicle in which the animals or product were transported. For shipments of product this will be a shipping container number.	Yes	NVD	
Treatment date	The date on which a treatment or product was applied to a unit e.g., paddock, animal, fodder etc.	Yes	Commodity Vendor Declaration, Feed and water record, NVD	
Veterinary Registration Number	A unique number issued to veterinarians who are registered to practice, under the state legislative requirements, within the state in which they reside.	Yes	Veterinary prescription	
Movement time	This is the time at which cattle were moved from the property (PIC) of origin. Direct consignments travelling to processors by road must be slaughtered with 48 hours of dispatch.	Yes	MSA Declaration	

5.2.1.4.3 Physical Outputs including Critical Tracking Events (CTEs)

The outputs from a grain finishing system or feedlot are cattle that have been prepared for transport to a saleyard for auction or directly to a processor. There is information about each animal that should be made available to these next links in the supply chain. This information is normally passed forward on movement documents such as a National Vendor Declaration. In addition, feedlots accredited under the National Feedlot Accreditation Scheme (NFAS) are required to send a NFAS Delivery Docket or Form B with the sale of cattle.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with the outputs of the grain finishing system include the movement of:

* Cattle

off the property, premises, or supply chain sector.

Table 18. Physical outputs and associated Critical Tracking Event related documents for a beef finishing-grain system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Cattle	These are bovine livestock and may include any type of cattle e.g., cull cattle, calves etc.	Commercial supply contract, Feed and water record, MSA Declaration, NFAS Delivery Docket or Form B, NLIS Movement Update, NVD, Receipt of purchase/Tax Invoice, State specific movement forms	

5.2.1.4.4 Information Outputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). Information outputs relating to cattle that have been finished in a feedlot system largely include those as for a pasture finishing system such as National Vendor Declaration and MSA Declaration information. However, additional information included on the NFAS Delivery Docket or Form B required under the National Feedlot Accreditation Scheme (NFAS) must be transferred along the supply chain.

Table 19. Information outputs, Key Data Elements and Critical Tracking Event related documentation for a beef finishing-grain system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Agreement date	This is the date on which an agreement between two parties was made.	Yes	Commercial supply contract	
APVMA approval number	This is a unique number allocated to each label by the APVMA.	Yes	NVD	For more information visit the Australian Pesticides and Veterinary Medicine Authority.
Batch number	This is a unique number which identifies products sharing certain production characteristics and is used for traceability purposes.	Yes	NVD	
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Feed and water record, Receipt of purchase/Tax Invoice	
Contract number	This is a unique number allocated to the contract by the seller.	Yes	Commercial supply contract	
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Commercial supply contract, Feed and water record, MSA Declaration, NFAS Delivery Docket or Form B, NVD, Receipt of purchase/Tax Invoice, State specific movement forms	
From PIC	The Property Identification Code from/to where the livestock or product were consigned.	Yes	MSA Declaration, NFAS Delivery Docket or Form B, NLIS Movement Update, NVD, State specific movement forms	For more information visit the Integrity systems website.
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Commercial supply contract, MSA Declaration, NFAS Delivery Docket or Form B, NLIS Movement Update, NVD, State specific movement forms	
Movement time	This is the time at which cattle were moved from the property (PIC) of origin. Direct	Yes	MSA Declaration	

	consignments travelling to processors by road must be slaughtered with 48 hours of dispatch.			
MSA Declaration Serial Number	Each MSA Declaration form has a unique serial number.	Yes	MSA Declaration	For more information on MSA visit the MLA website.
MSA Licence Number	Any establishment consigning, supplying, or identifying MSA Certified Product must be registered and have a unique MSA Licence Number.	Yes	MSA Declaration, Receipt of purchase/Tax Invoice	For more information on MSA visit the MLA website.
NFAS Accreditation Number	This is a unique number given to accredited feedlots certified under the National Feedlot Accreditation Scheme (NFAS).	Yes	NFAS Delivery Docket or Form B	For more information visit the AUS-MEAT website.
NLIS Tag Number/RFID	All animals transported between PICs must have a permanent National Livestock Identification System tag attached. This tag has a unique animal identification number.	Yes	NLIS Movement Update	For more information visit the Integrity systems website.
NVD Serial Number	Each NVD form has a unique serial number.	Yes	NFAS Delivery Docket or Form B, NLIS Movement Update, NVD	For more information visit the Integrity systems website.
Producer/Vendor MSA Registration Number	Producers consigning cattle to MSA markets are required to be registered and have a unique MSA Registration Number.	Yes	MSA Declaration	For more information on MSA visit the MLA website.
Quality Assurance Officer (QAO) Certificate Number	A unique number issued to personnel issued with a Statement of Authority for demonstrating skills for compliance with meeting NFAS Rules and Standards.	Yes	NFAS Delivery Docket or Form B	For more information visit the AUS-MEAT website.
Recipient Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Feed and water record, Receipt of purchase/Tax Invoice	For more information visit the ATO website.
Seller/Supplier Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Feed and water record, Receipt of purchase/Tax Invoice	For more information visit the ATO website.
To PIC	The Property Identification Code from/to where the livestock or product were consigned.	Yes	NLIS Movement Update, NVD, State specific movement forms	For more information visit the Integrity systems website.
Transport registration number	The registration number of the vehicle in which the animals or product were transported. For shipments of product this will	Yes	NVD	

	be a shipping container number.			
Treatment date	The date on which a treatment or product was applied to a unit e.g., paddock, animal, fodder etc.	Yes	Feed and water record, NVD	

5.2.1.4.5 Regulatory and Industry Programs

Depending on the domestic or export target market, feedlots may need to meet additional requirements such as those set by the European Union Cattle Accreditation Scheme (EUCAS) for product sent to the EU. US exported meat and meat products must have records that comply with the US Quality System Assessment Program (US QAD).

- * AUS-MEAT
- * Australian Lot Feeders Association (ALFA)
- * eNVD
- * Livestock Production Assurance (LPA)
- * Meat Standards Australia (MSA)
- * National Feedlot Accreditation Scheme (NFAS)
- * National Livestock Identification System (NLIS)
- * Other data sources

5.2.1.4.6 Supply Chain Node Traceability

The National Livestock Identification System (NLIS) is the Australian livestock traceability program which is administered by Integrity Systems Company (ISC). Where stipulated by State legislation and certain export markets, the NLIS system requires all animals bought, sold, and moved along the supply chain to be tagged with an accredited NLIS ID tag. Each tag has an NLIS tag number or Radio Frequency Identifier (RFID) for the traceability of the animal throughout its lifetime. Every property which holds livestock must have a Property Identification Code (PIC) to which the livestock are assigned in the NLIS Database. Each time livestock are transferred between PICs within Australia they must be accompanied by a livestock movement declaration, such as the National Vendor Declaration (NVD) form. This document typically outlines the transporter details, consignment details, compliance with intended market specifications, withholding periods, and the details of the new property PIC. All livestock movements between PICs require an NLIS movement update to be made by either or both the consigner and receiver. Where NLIS ID tags are lost livestock must be issued with a new post-breeder tag if not on the PIC of birth and this reconciled in the NLIS Database.

5.2.1.4.7 Data flow diagrams

Table 20. Data flow diagrams for the inputs and outputs of a beef finishing-grain system.

Direction	Description
Input	Backgrounding to Finishing (grain or grass)
Input	Saleyard to Finishing (grain or grass)
Output	Finishing - Grain to Saleyard

Output	Finishing - Grain to Lairage

5.2.1.4.7.1 Backgrounding to Finishing (grain or grass)

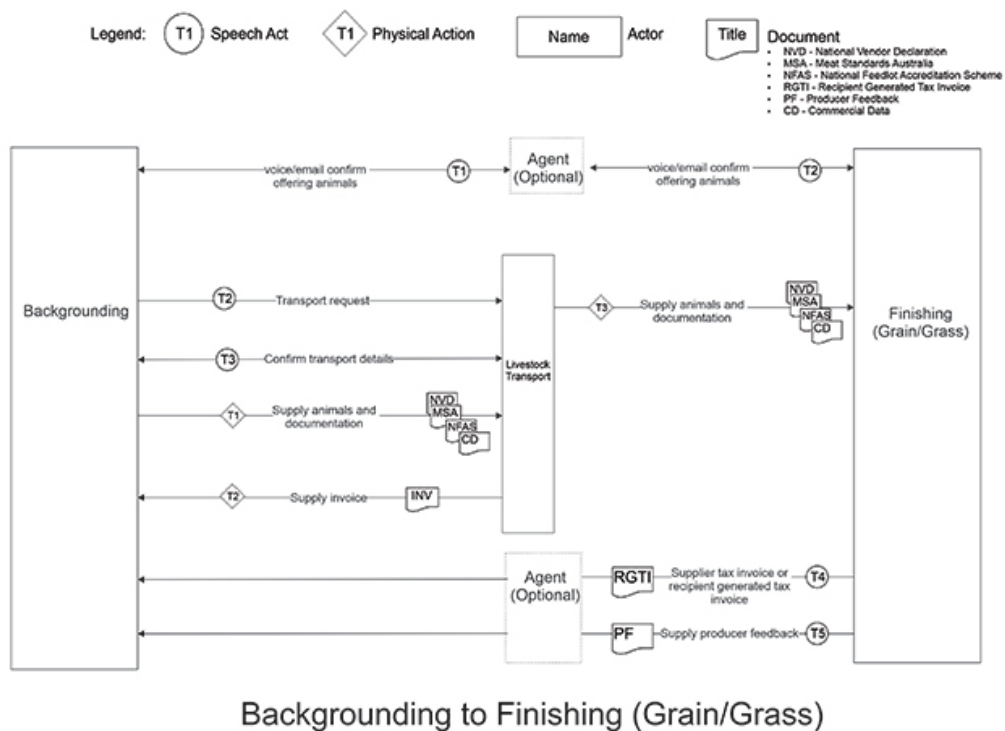


Figure 21. Data or information flows from the backgrounding to finishing (grain or grass) systems in the beef supply chain.

5.2.1.4.7.2 Saleyard to Finishing (grain or grass)

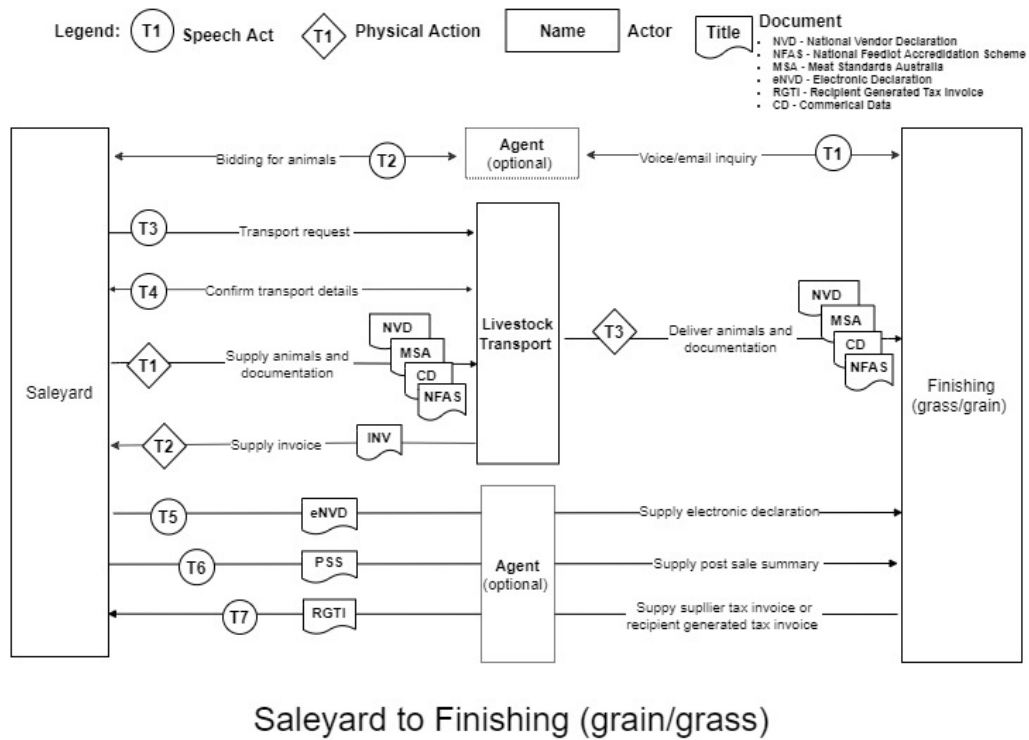
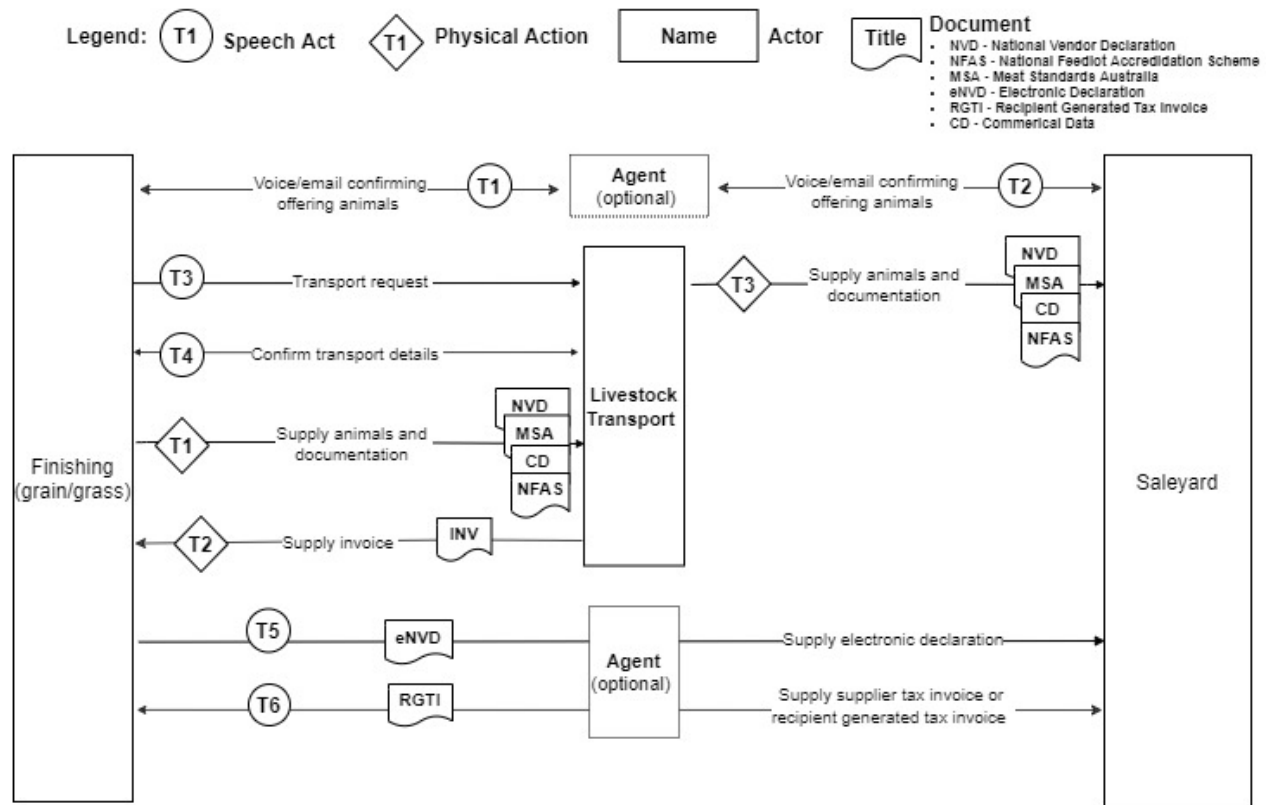


Figure 22. Data or information flows from the saleyard to finishing (grain or grass) systems in the beef supply chain.

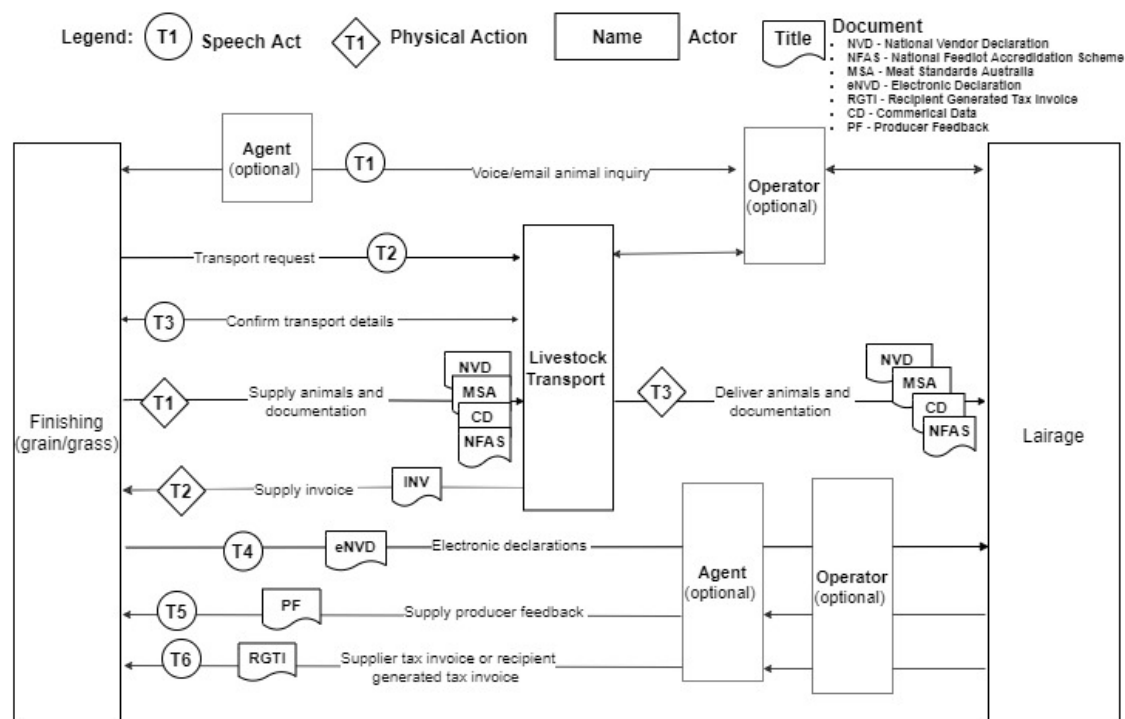
5.2.1.4.7.3 Finishing - Grain to Saleyard



Finishing (grain/grass) to Saleyard

Figure 23. Data or information flows from the finishing-grain to saleyard systems in the beef supply chain.

5.2.1.4.7.4 Finishing - Grain to Lairage



Finishing (grain/grass) to Lairage

Figure 24. Data or information flows from the finishing-grain to lairage systems in the beef supply chain.

5.2.1.5 Saleyard

There are many types of selling options for cattle, from forward contracts to paddock sales. However, saleyard auctions are commonly used for live cattle sales. Saleyards are a physical location to which animals are transported and penned for a short period of time. Cattle are subsequently auctioned by livestock agents to the highest bidder and then transported to either a finishing or backgrounding property, to lairage (intended for slaughter) or to live export.

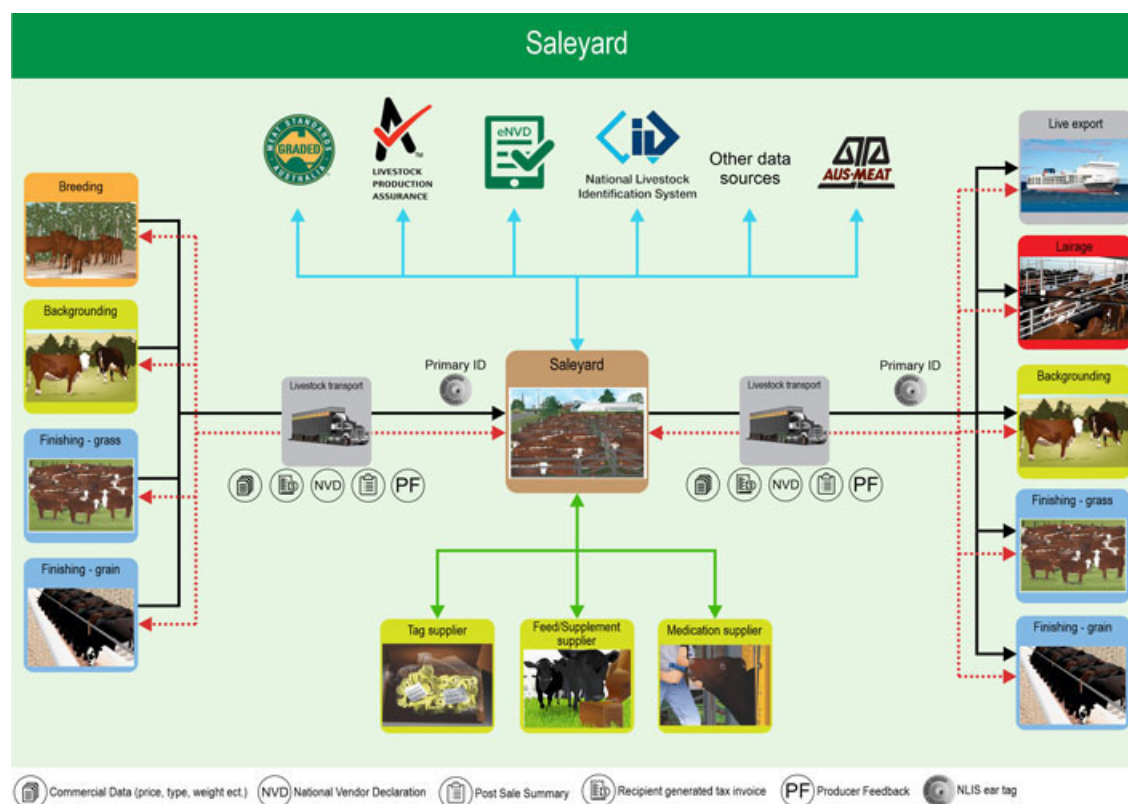


Figure 25. Inputs and outputs of the beef supply chain saleyard sector.

5.2.1.5.1 Physical Inputs including Critical Tracking Events (CTEs)

The physical inputs bought into the saleyard selling system for livestock include the livestock themselves, experts, and veterinarians for the delivery of advice and treatments relating to animal health management, health treatments, NLIS ID tags for traceability as well as feed and water.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with inputs to the saleyard system include the receipt of:

- * Cattle
- * Experts and veterinarians
- * Veterinary drugs or other health treatments
- * Feed supplies and supplements
- * NLIS ID tags.

Table 21. Physical inputs and associated Critical Tracking Event related documents for a beef saleyard system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Cattle	These are bovine livestock and may include any type of cattle e.g., cull cattle, calves etc.	Feed and water record, MSA Declaration, NFAS Delivery Docket or Form B, NLIS Movement Update, NVD,	

		Receipt of purchase/Tax Invoice, State specific movement forms	
Experts and veterinarians	These are professionals who provide services to the breeding enterprise which ensure the safety, wellbeing, and productivity of the livestock.	Receipt of purchase/Tax Invoice, Veterinary prescription	
Veterinary drugs or other health treatments	These may be prescribed, or non-prescribed treatments or medications given to ensure the health and wellbeing of the livestock.	Receipt of purchase/Tax Invoice, Veterinary prescription	
Feed supplies and supplements	These are supplementary animal feed products such as hay or silage fodder, or mineral supplements which are provided to ensure the production efficiency and health of livestock are maintained. This may also include clean drinking water e.g., where livestock are in transit or at saleyards.	Commodity Vendor Declaration (CVD), Receipt of purchase/Tax Invoice	
NLIS ID tags	These are animal identification tags with a unique number which must be attached to animal moved off a PIC for traceability purposes.	NLIS Movement Update	

5.2.1.5.2 Information Inputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). Information attributes and KDEs relating to the inputs of the saleyard system are those which can be drawn from the documents associated with the Critical Tracking Events. These namely include the National Vendor Declaration, any Receipts of Purchase/Tax Invoices, animal health treatments or feeding records and any other documents required under industry certification programs such as MSA or NFSA.

Table 22. Information inputs, Key Data Elements and Critical Tracking Event related documentation for a beef saleyard system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
APVMA approval number	This is a unique number allocated to each label by the APVMA.	Yes	Commodity Vendor Declaration, NVD	For more information visit the Australian Pesticides and Veterinary Medicine Authority.
Batch number	This is a unique number which identifies products sharing certain production characteristics and is used for traceability purposes.	Yes	Commodity Vendor Declaration, NVD	
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Feed and water record, Receipt of purchase/Tax Invoice	
Contract number	This is a unique number allocated to the contract by the seller.	Yes	Commodity Vendor Declaration	

Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Commodity Vendor Declaration, Feed and water record, MSA Declaration, NFAS Delivery Docket or Form B, NVD, Receipt of purchase/Tax Invoice, State specific movement forms	
From PIC	The Property Identification Code from/to where the livestock or product were consigned.	Yes	Commodity Vendor Declaration, MSA Declaration, NFAS Delivery Docket or Form B, NLIS Movement Update, NVD, State specific movement forms	For more information visit the Integrity systems website.
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Commodity Vendor Declaration, MSA Declaration, NFAS Delivery Docket or Form B, NLIS Movement Update, NVD, State specific movement forms	
Movement time	This is the time at which cattle were moved from the property (PIC) of origin. Direct consignments travelling to processors by road must be slaughtered with 48 hours of dispatch.	Yes	MSA Declaration	
MSA Declaration Serial Number	Each MSA Declaration form has a unique serial number.	Yes	MSA Declaration	For more information on MSA visit the MLA website.
MSA Licence Number	Any establishment consigning, supplying, or identifying MSA Certified Product must be registered and have a unique MSA Licence Number.	Yes	MSA Declaration, Receipt of purchase/Tax Invoice	For more information on MSA visit the MLA website.
National Grower Registration Number	A unique number assigned to individuals registered with the National Grower Register, an online business register for Australian growers.	Yes	Commodity Vendor Declaration	
NFAS Accreditation Number	This is a unique number given to accredited feedlots certified under the National Feedlot Accreditation Scheme (NFAS).	Yes	NFAS Delivery Docket or Form B	For more information visit the AUS-MEAT website.
NLIS Tag Number/RFID	All animals transported between PICs must have a permanent National Livestock Identification System tag attached. This tag has a unique animal identification number.	Yes	NLIS Movement Update	For more information visit the Integrity systems website.

NVD Serial Number	Each NVD form has a unique serial number.	Yes	NFAS Delivery Docket or Form B, NLIS Movement Update, NVD	For more information visit the Integrity systems website.
Prescription number	A unique certificate number issued for traceability purposes.	Yes	Veterinary prescription	
Producer/Vendor MSA Registration Number	Producers consigning cattle to MSA markets are required to be registered and have a unique MSA Registration Number.	Yes	MSA Declaration	For more information on MSA visit the MLA website.
Product code/description	This is a unique identifier or description assigned by the seller to each product type marketed or for sale.	Yes	Commodity Vendor Declaration	
Quality Assurance Officer (QAO) Certificate Number	A unique number issued to personnel issued with a Statement of Authority for demonstrating skills for compliance with meeting NFAS Rules and Standards.	Yes	NFAS Delivery Docket or Form B	For more information visit the AUS-MEAT website.
Recipient Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Feed and water record, Receipt of purchase/Tax Invoice	For more information visit the ATO website.
Seller/Supplier Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Feed and water record, Receipt of purchase/Tax Invoice	For more information visit the ATO website.
To PIC	The Property Identification Code from/to where the livestock or product were consigned.	Yes	Commodity Vendor Declaration, NLIS Movement Update, NVD, State specific movement forms	For more information visit the Integrity systems website.
Transport registration number	The registration number of the vehicle in which the animals or product were transported. For shipments of product this will be a shipping container number.	Yes	NVD	
Treatment date	The date on which a treatment or product was applied to a unit e.g., paddock, animal, fodder etc.	Yes	Commodity Vendor Declaration, Feed and water record, NVD	
Veterinary Registration Number	A unique number issued to veterinarians who are registered to practice, under the state legislative requirements, within the state in which they reside.	Yes	Veterinary prescription	

5.2.1.5.3 Physical Outputs including Critical Tracking Events (CTEs)

The outputs from a saleyard system are cattle that have been sold to a buyer (farm, feedlot, processor, exporter). For traceability purposes there is information that is required to be passed on to the next links in the supply chain and this information is associated with documents linked to the animals NLIS device such as the National Vendor Declaration of Post Sale Summary (PSS), NFAS Delivery Docket and MSA Declaration.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with the outputs of the saleyard system include the movement of:

* Cattle

off the property, premises, or supply chain sector.

Table 23. Physical outputs and associated Critical Tracking Event related documents for a beef saleyard system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Cattle	These are bovine livestock and may include any type of cattle e.g., cull cattle, calves etc.	Feed and water record, MSA Declaration, NFAS Agents Declaration, NFAS Delivery Docket or Form B, NLIS Movement Update, NVD, Post Sale Summary, Receipt of purchase/Tax Invoice, State specific movement forms	

5.2.1.5.4 Information Outputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). Information outputs of the saleyard system are related to cattle traceability and any health, feed or water treatments received. These are detailed on regulated documents required to be passed to the next links in the supply chain including the National Vendor Declaration Form, Post Sale Summary and any documentation relating to accreditation programs such as an NFAS Delivery Docket and MSA Declaration.

Table 24. Information outputs, Key Data Elements and Critical Tracking Event related documentation for a beef saleyard system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
APVMA approval number	This is a unique number allocated to each label by the APVMA.	Yes	NVD	For more information visit the Australian Pesticides and Veterinary Medicine Authority.
Batch number	This is a unique number which identifies products sharing certain production characteristics and is used for traceability purposes.	Yes	NVD	

Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Feed and water record, Receipt of purchase/Tax Invoice	
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Feed and water record, MSA Declaration, NFAS Agents Declaration, NFAS Delivery Docket or Form B, NVD, Post Sale Summary, Receipt of purchase/Tax Invoice, State specific movement forms	
From PIC	The Property Identification Code from/to where the livestock or product were consigned.	Yes	MSA Declaration, NFAS Delivery Docket or Form B, NLIS Movement Update, NVD, Post Sale Summary, State specific movement forms	For more information visit the Integrity systems website.
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	MSA Declaration, NFAS Agents Declaration, NFAS Delivery Docket or Form B, NLIS Movement Update, NVD, State specific movement forms	
Movement time	This is the time at which cattle were moved from the property (PIC) of origin. Direct consignments travelling to processors by road must be slaughtered with 48 hours of dispatch.	Yes	MSA Declaration	
MSA Declaration Serial Number	Each MSA Declaration form has a unique serial number.	Yes	MSA Declaration	For more information on MSA visit the MLA website.
MSA Licence Number	Any establishment consigning, supplying, or identifying MSA Certified Product must be registered and have a unique MSA Licence Number.	Yes	MSA Declaration, Receipt of purchase/Tax Invoice	For more information on MSA visit the MLA website.
NFAS Accreditation Number	This is a unique number given to accredited feedlots certified under the National Feedlot Accreditation Scheme (NFAS).	Yes	NFAS Delivery Docket or Form B	For more information visit the AUS-MEAT website.
NFAS Delivery Docket Number	Each NFAS document has a unique number or identity code.	Yes	NFAS Agents Declaration	For more information visit the AUS-MEAT website.
NLIS Tag Number/RFID	All animals transported between PICs must have a permanent National Livestock Identification System tag attached. This tag has a unique animal identification number.	Yes	NLIS Movement Update	For more information visit the Integrity systems website.
NVD Serial Number	Each NVD form has a unique serial number.	Yes	NFAS Delivery Docket or Form B, NLIS Movement Update, NVD, Post Sale Summary	For more information visit the Integrity systems website.

Producer/Vendor MSA Registration Number	Producers consigning cattle to MSA markets are required to be registered and have a unique MSA Registration Number.	Yes	MSA Declaration	For more information on MSA visit the MLA website.
Quality Assurance Officer (QAO) Certificate Number	A unique number issued to personnel issued with a Statement of Authority for demonstrating skills for compliance with meeting NFAS Rules and Standards.	Yes	NFAS Delivery Docket or Form B	For more information visit the AUS-MEAT website.
Recipient Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Feed and water record, Receipt of purchase/Tax Invoice	For more information visit the ATO website.
Seller/Supplier Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Feed and water record, Receipt of purchase/Tax Invoice	For more information visit the ATO website.
To PIC	The Property Identification Code from/to where the livestock or product were consigned.	Yes	NLIS Movement Update, NVD, Post Sale Summary, State specific movement forms	For more information visit the Integrity systems website.
Transport registration number	The registration number of the vehicle in which the animals or product were transported. For shipments of product this will be a shipping container number.	Yes	NVD	
Treatment date	The date on which a treatment or product was applied to a unit e.g., paddock, animal, fodder etc.	Yes	Feed and water record, NVD	

5.2.1.5.5 Regulatory and Industry Programs

- * AUS-MEAT
- * Australian Livestock Markets Association (AMLA)
- * eNVD
- * Livestock Production Assurance (LPA)
- * Meat Standards Australia (MSA)
- * National Feedlot Accreditation Scheme (NFAS)
- * National Livestock Identification System (NLIS)
- * Other data sources

5.2.1.5.6 Supply Chain Node Traceability

The National Livestock Identification System (NLIS) is the Australian livestock traceability program which is administered by Integrity Systems Company (ISC). Where stipulated by State legislation and certain export markets, the NLIS system requires all animals bought, sold, and moved along the supply chain to be tagged with an accredited NLIS ID tag. Each tag has an NLIS tag number or Radio Frequency Identifier (RFID) for the traceability of the animal throughout its lifetime. Every property which holds livestock must have a Property

Identification Code (PIC) to which the livestock are assigned in the NLIS Database. Each time livestock are transferred between PICs within Australia they must be accompanied by a livestock movement declaration, such as the National Vendor Declaration (NVD) form. This document typically outlines the transporter details, consignment details, compliance with intended market specifications, withholding periods, and the details of the new property PIC. All livestock movements between PICs require an NLIS movement update to be made by either or both the consigner and receiver. Where NLIS ID tags are lost livestock must be issued with a new post-breeder tag if not on the PIC of birth and this reconciled in the NLIS Database.

5.2.1.5.7 Data flow diagrams

Table 25. Data flow diagrams for the inputs and outputs of a beef saleyard system.

Direction	Description
Input	Breeding to Saleyard
Input	Backgrounding to Saleyard
Input	Finishing - grass to Saleyard
Input	Finishing - grain to Saleyard
Output	Saleyard to Live export
Output	Saleyard to Lairage
Output	Saleyard to Backgrounding
Output	Saleyard to Finishing - grass
Output	Saleyard to Finishing - grain

5.2.1.5.7.1 Breeding to Saleyard

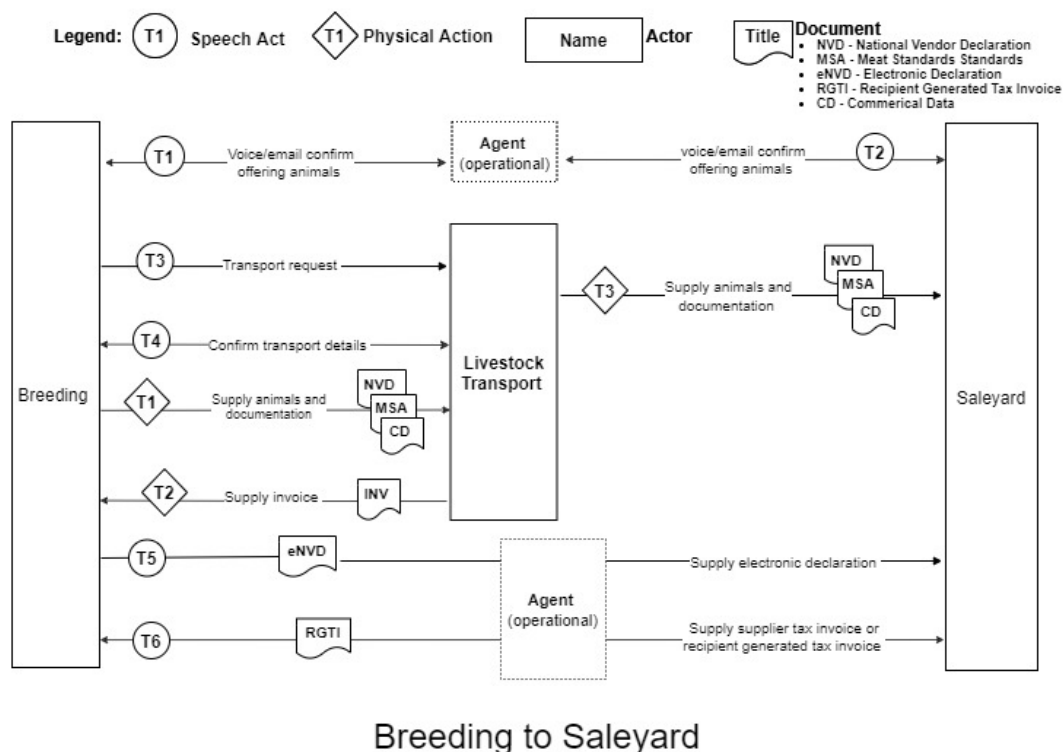


Figure 26. Data or information flows from the breeding to saleyard systems in the beef supply chain.

5.2.1.5.7.2 Backgrounding to Saleyard

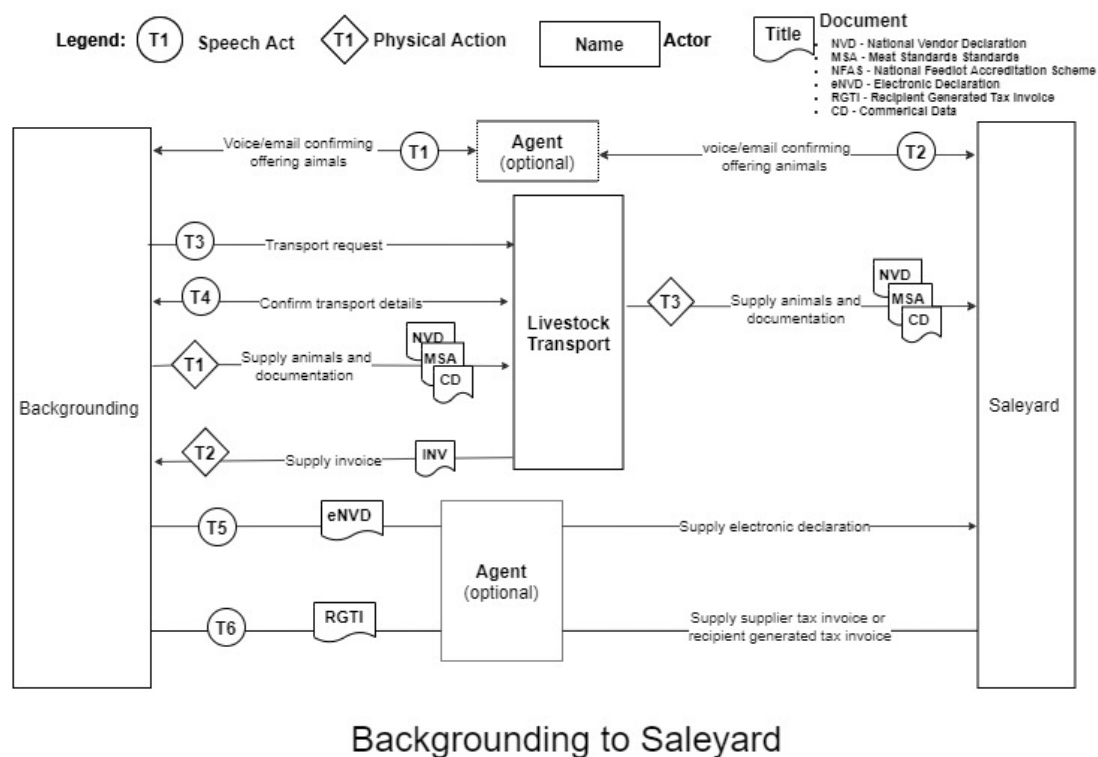
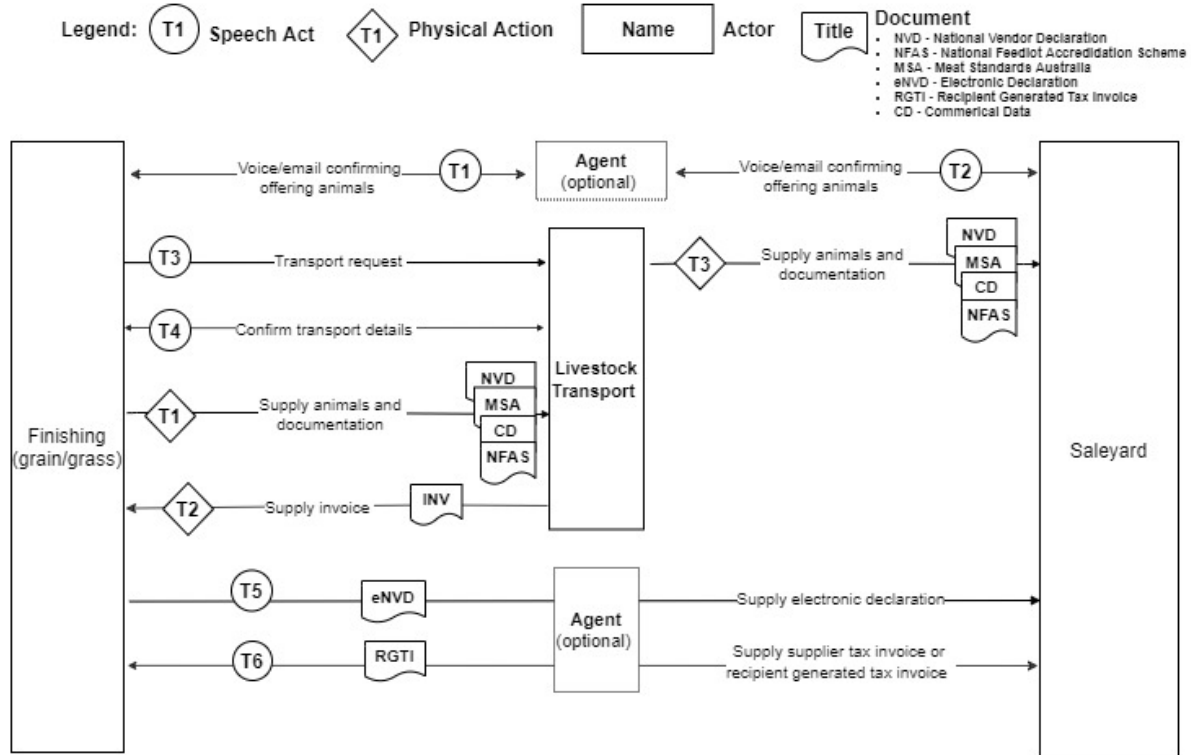


Figure 27. Data or information flows from the backgrounding to saleyard systems in the beef supply chain.

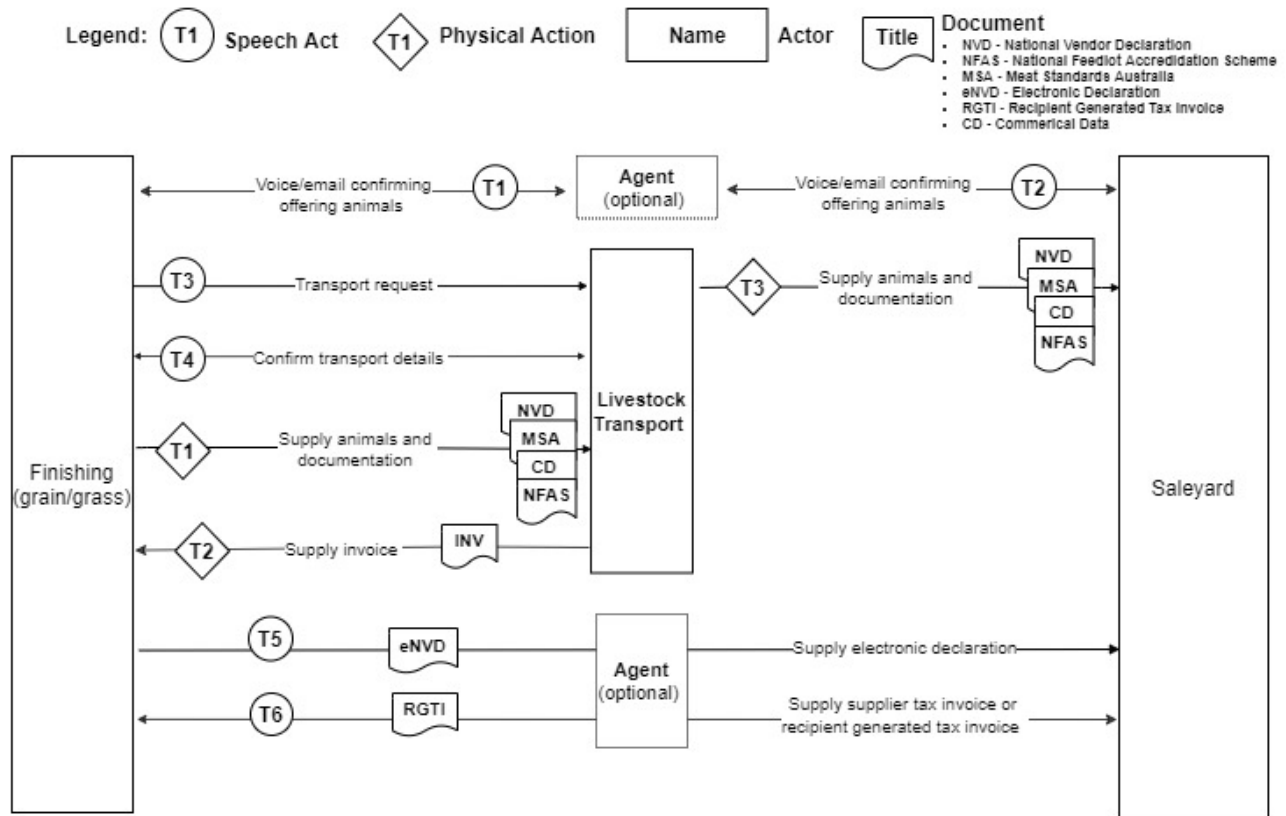
5.2.1.5.7.3 Finishing - grass to Saleyard



Finishing (grain/grass) to Saleyard

Figure 28. Data or information flows from the finishing-grass to saleyard systems in the beef supply chain.

5.2.1.5.7.4 Finishing - grain to Saleyard



Finishing (grain/grass) to Saleyard

Figure 29. Data or information flows from the finishing-grain to saleyard systems in the beef supply chain.

5.2.1.5.7.5 Saleyard to Live export

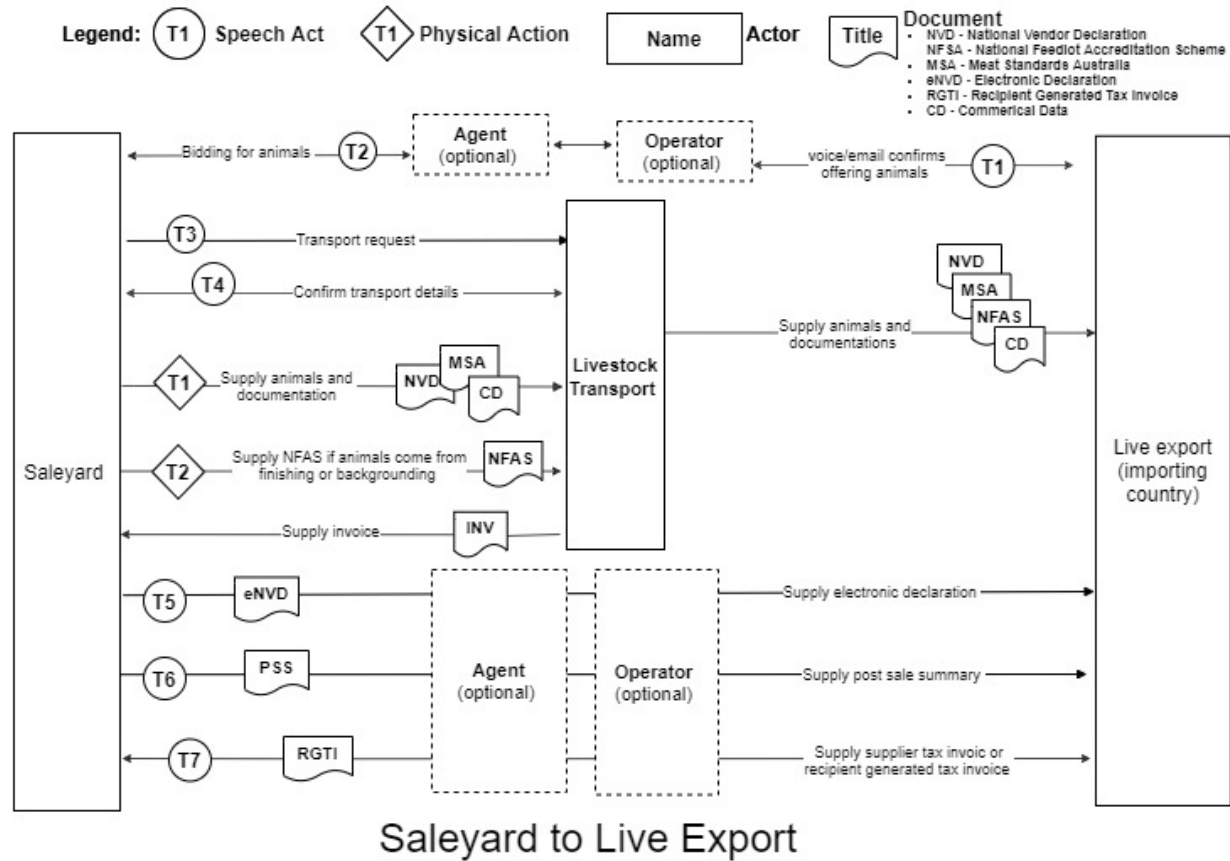


Figure 30. Data or information flows from saleyard to live export systems in the beef supply chain.

5.2.1.5.7.6 Saleyard to Lairage

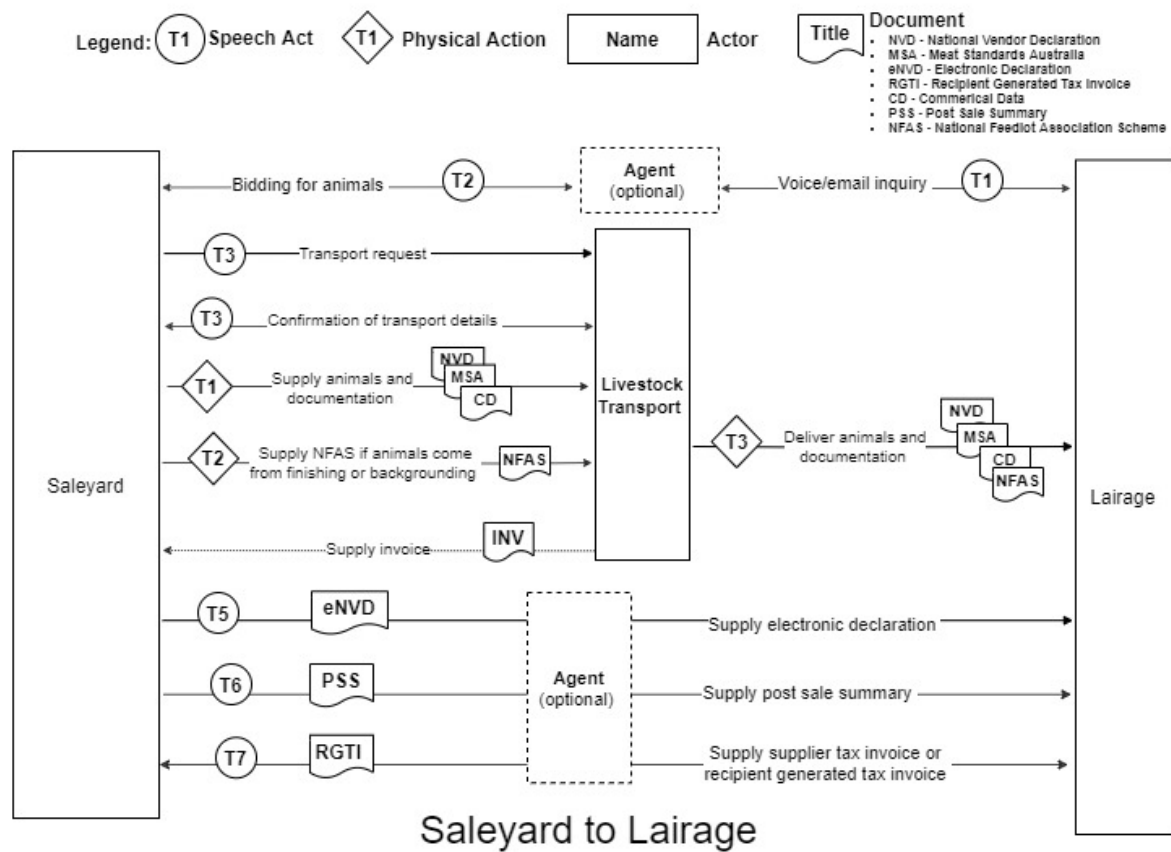


Figure 31. Data or information flows from the saleyard to lairage systems in the beef supply chain.

5.2.1.5.7.7 Saleyard to Backgrounding

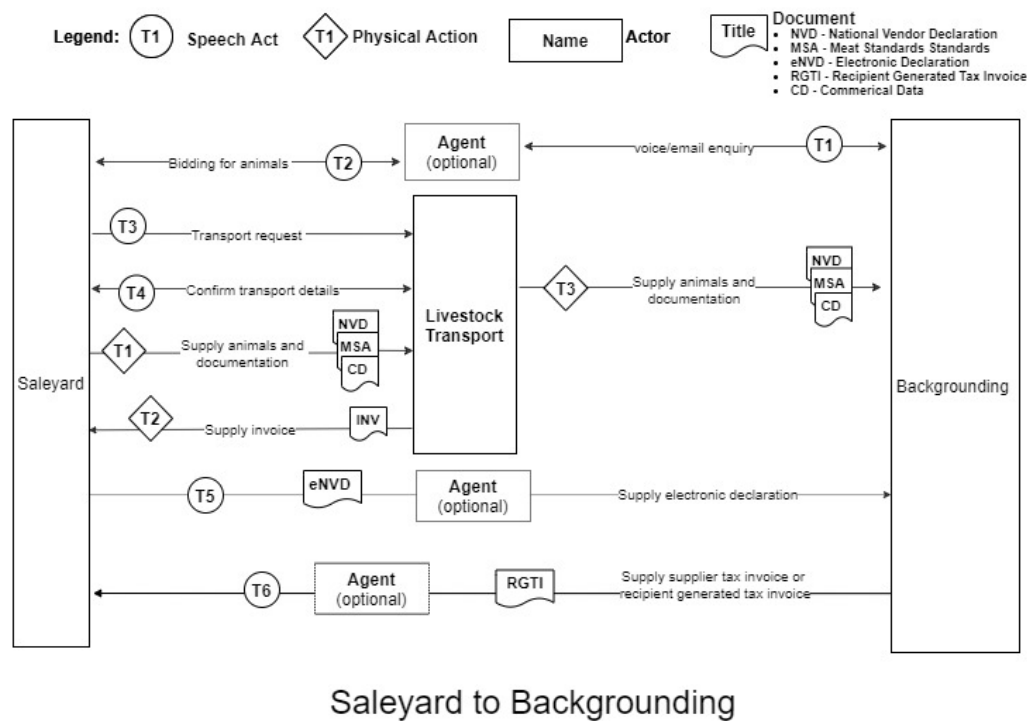


Figure 32. Data or information flows from the saleyard to backgrounding systems in the beef supply chain.

5.2.1.5.7.8 Saleyard to Finishing – grass

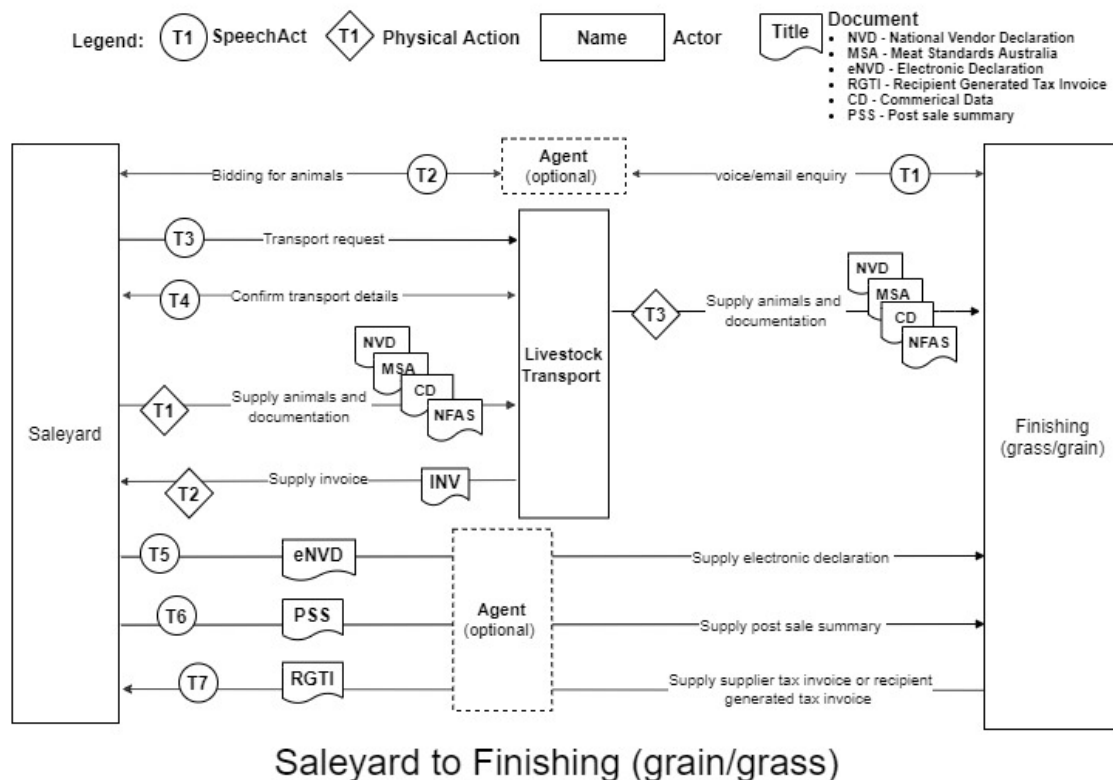


Figure 33. Data or information flows from the saleyard to finishing-grass systems in the beef supply chain.

5.2.1.5.7.9 Saleyard to Finishing – grain

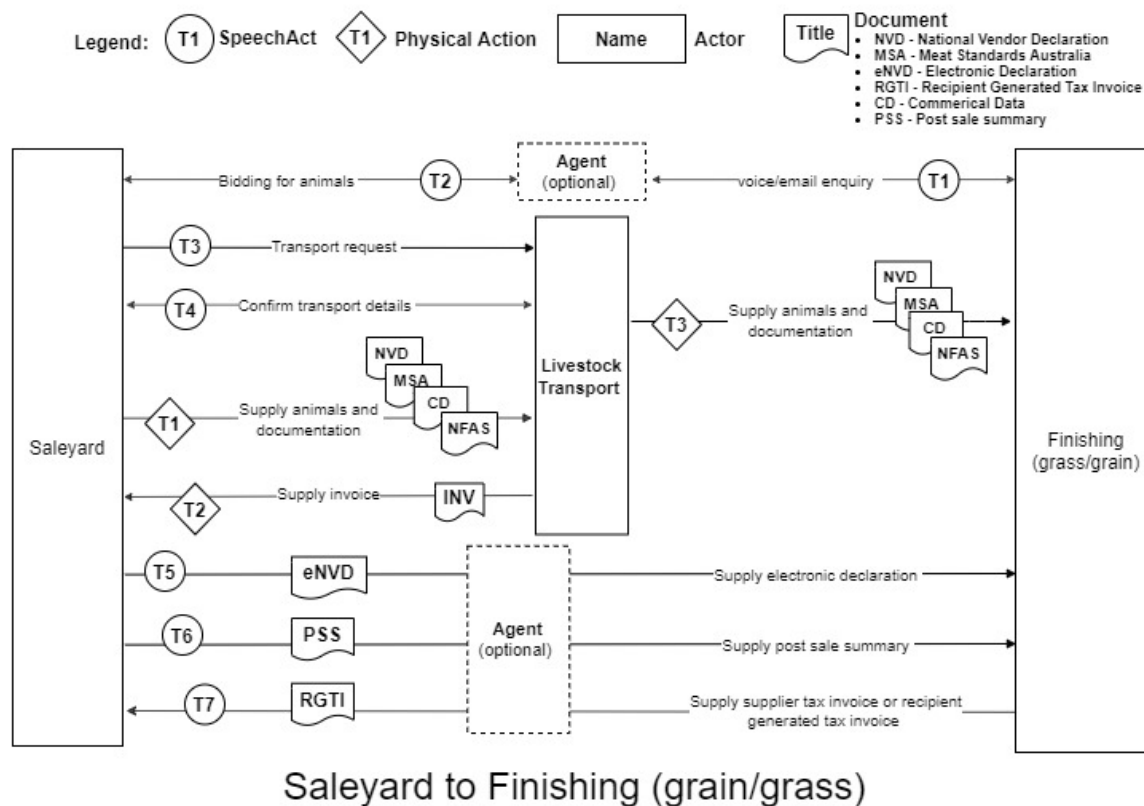


Figure 34. Data or information flows from the saleyard to finishing-grain systems in the beef supply chain.

5.2.1.6 Dairy culls - bobby calf

High quality and high-volume milk production are the primary objectives of a dairy cattle enterprise. Lactation is the process by which milk is produced and secreted from the mammary glands in a postpartum female for the purpose of feeding young. For dairy cattle to remain in lactation and continue producing milk they must undergo a yearly pregnancy and calving cycle. Bobby calves are one output of the dairy industry and are a result of surplus calf production i.e., not kept or sold as herd replacements. These calves are defined as bovine animals less than 30 days of age and weighing under 80kg liveweight that are not with their mother. Typically, bobby calves enter the red meat supply chain being sold for veal production or raised for dairy beef.

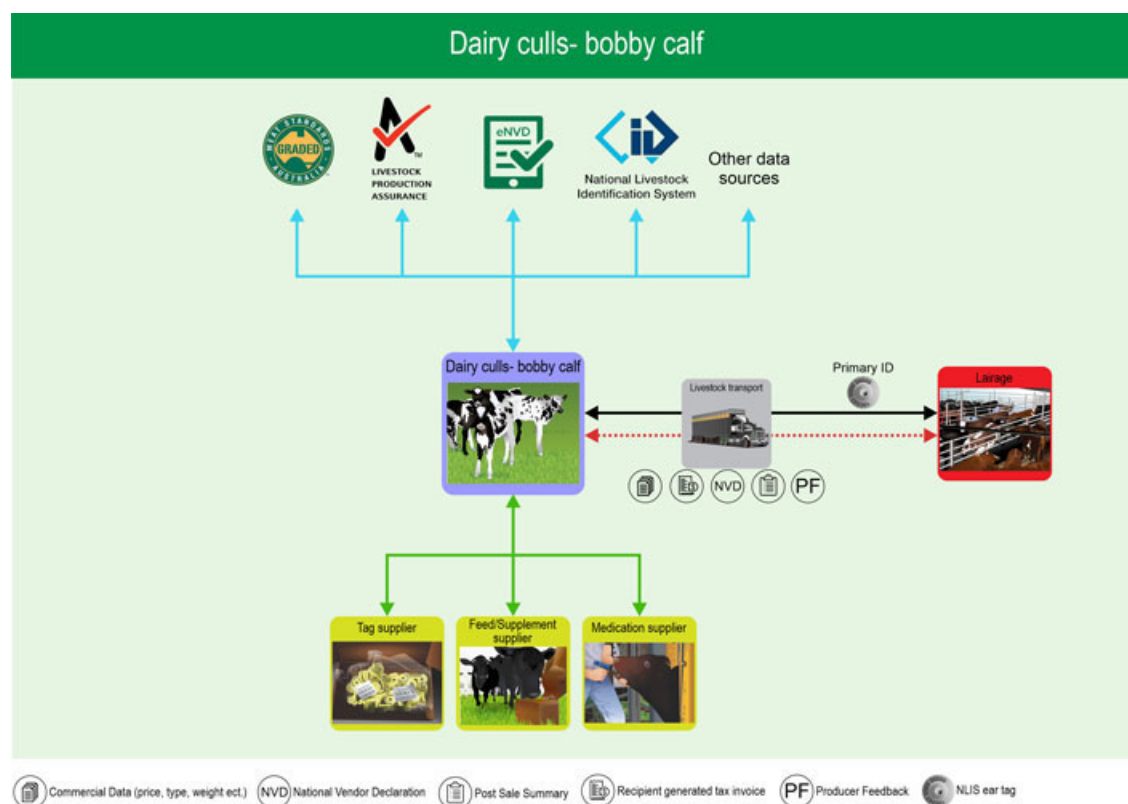


Figure 35. Inputs and outputs of the beef supply chain dairy culs-bobby calf sector.

5.2.1.6.1 Physical Inputs including Critical Tracking Events (CTEs)

The physical inputs into the bobby calf production system, which are related to the traceability of cattle exiting the system as bobby calves or dairy beef, are similar to that of a beef breeding system. These may include breeding cattle and/or technologies, veterinary input and feed supplies as well as NLIS ID tags. There are a number of documents required to track the movement of these system inputs.

Table 26. Physical inputs and associated Critical Tracking Event related documents for a beef dairy culs-bobby calf system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Breeding cattle	These are animals (bulls, cows/heifers) which have reached the appropriate age for breeding. Animals may be from a self-replacing herd or sourced from a seedstock breeder.	NVD, Commercial supply contract, Feed and water record, NLIS Movement Update, Receipt of purchase/Tax Invoice, State specific movement forms	
Artificial breeding technology	These are technologies such as artificial insemination or embryo transfer which are used in place of or in addition to traditional livestock breeding methods.	Commercial supply contract, Receipt of purchase/Tax Invoice	
Experts and veterinarians	These are professionals who provide services to the breeding enterprise which ensure the safety, wellbeing, and productivity of the livestock.	Receipt of purchase/Tax Invoice, Veterinary prescription	

Veterinary drugs or other health treatments	These may be prescribed, or non-prescribed treatments or medications given to ensure the health and wellbeing of the livestock.	Receipt of purchase/Tax Invoice, Veterinary prescription	
Feed supplies and supplements	These are supplementary animal feed products such as hay or silage fodder, or mineral supplements which are provided to ensure the production efficiency and health of livestock are maintained. This may also include clean drinking water e.g., where livestock are in transit or at saleyards.	Commodity Vendor Declaration (CVD), Receipt of purchase/Tax Invoice	
Crop and pasture treatments	These are agricultural chemicals applied to crops, pastures and/or paddocks (inclusive of spot spraying) which livestock may come into contact with or consume.	Product label, Receipt of purchase/Tax Invoice	
NLIS ID tags	These are animal identification tags with a unique number which must be attached to animal moved off a PIC for traceability purposes.	NLIS Movement Update	

5.2.1.6.2 Information Inputs including Key Data Elements (KDEs)

There are a range of information inputs that are essential for the traceability of calf movements and treatments applied to the bobby calves in a dairy enterprise. It is essential that all of these Key Data Elements are recorded by the producer for auditing purposes. These may include the NVD Serial Number, NLIS Tag Number, To and From PIC, Movement date and Veterinary Registration Number.

Table 27. Information inputs, Key Data Elements and Critical Tracking Event related documentation for a beef dairy culls-bobby calf system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Agreement date	This is the date on which an agreement between two parties was made.	Yes	Commercial supply contract	
APVMA approval number	This is a unique number allocated to each label by the APVMA.	Yes	Commodity Vendor Declaration, NVD, Product label	For more information visit the Australian Pesticides and Veterinary Medicine Authority.
Batch number	This is a unique number which identifies products sharing certain production characteristics and is used for traceability purposes.	Yes	Commodity Vendor Declaration, NVD, Product label	
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Feed and water record, Receipt of purchase/Tax Invoice	
Contract number	This is a unique number allocated to the contract by the seller.	Yes	Commercial supply contract, Commodity Vendor Declaration	
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Commercial supply contract, Commodity Vendor Declaration, Feed	

			and water record, NVD, Receipt of purchase/Tax Invoice, State specific movement forms	
From PIC	The Property Identification Code from/to where the livestock or product were consigned.	Yes	Commodity Vendor Declaration, NLIS Movement Update, NVD, State specific movement forms	For more information visit the Integrity systems website.
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Commercial supply contract, Commodity Vendor Declaration, NLIS Movement Update, NVD, State specific movement forms	
MSA Licence Number	Any establishment consigning, supplying, or identifying MSA Certified Product must be registered and have a unique MSA Licence Number.	Yes	Receipt of purchase/Tax Invoice	For more information on MSA visit the MLA website.
National Grower Registration Number	A unique number assigned to individuals registered with the National Grower Register, an online business register for Australian growers.	Yes	Commodity Vendor Declaration	
NLIS Tag Number/RFID	All animals transported between PICs must have a permanent National Livestock Identification System tag attached. This tag has a unique animal identification number.	Yes	NLIS Movement Update	For more information visit the Integrity systems website.
NVD Serial Number	Each NVD form has a unique serial number.	Yes	NLIS Movement Update, NVD	For more information visit the Integrity systems website.
Prescription number	A unique certificate number issued for traceability purposes.	Yes	Veterinary prescription	
Product code/description	This is a unique identifier or description assigned by the seller to each product type marketed or for sale.	Yes	Commodity Vendor Declaration	
Recipient Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Feed and water record, Receipt of purchase/Tax Invoice	For more information visit the ATO website.
Seller/Supplier Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Feed and water record, Receipt of purchase/Tax Invoice	For more information visit the ATO website.
To PIC	The Property Identification Code from/to where the livestock or product were consigned.	Yes	Commodity Vendor Declaration, NLIS Movement Update, NVD,	For more information visit the Integrity systems website.

			State specific movement forms	
Transport registration number	The registration number of the vehicle in which the animals or product were transported. For shipments of product this will be a shipping container number.	Yes	NVD	
Treatment date	The date on which a treatment or product was applied to a unit e.g., paddock, animal, fodder etc.	Yes	Commodity Vendor Declaration, Feed and water record, NVD	
Veterinary Registration Number	A unique number issued to veterinarians who are registered to practice, under the state legislative requirements, within the state in which they reside.	Yes	Veterinary prescription	

5.2.1.6.3 Physical Outputs including Critical Tracking Events (CTEs)

The physical outputs of a bobby calf production system which are associated with the red meat supply chain include the bobby calves themselves. Critical Tracking Event related documentation is very similar to that of a beef production system with documents such as the NVD, State specific movement forms and NLIS Movement Updates being required.

Table 28. Physical outputs and associated Critical Tracking Event related documents for a beef dairy culls-bobby calf system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Bobby calves	These are young cattle of less thirty days of age and weighing less than 80kg that are typically sold for meat or raised for dairy beef.	NVD, Commercial supply contract, Feed and water record, MSA Declaration, NLIS Movement Update, Receipt of purchase/Tax Invoice, State specific movement forms	

5.2.1.6.4 Information Outputs including Key Data Elements (KDEs)

There are a range of information outputs that are essential for the traceability of calf movements and treatments applied to the bobby calves in a dairy enterprise. It is essential that all of these Key Data Elements are recorded by the producer for auditing purposes. These may include the NVD Serial Number, NLIS Tag Number, To and From PIC, Movement date and Veterinary Registration Number.

Table 29. Information outputs, Key Data Elements and Critical Tracking Event related documentation for a beef dairy culls-bobby calf system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Agreement date	This is the date on which an agreement between two parties was made.	Yes	Commercial supply contract	

APVMA approval number	This is a unique number allocated to each label by the APVMA.	Yes	NVD	For more information visit the Australian Pesticides and Veterinary Medicine Authority.
Batch number	This is a unique number which identifies products sharing certain production characteristics and is used for traceability purposes.	Yes	NVD	
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Feed and water record, Receipt of purchase/Tax Invoice	
Contract number	This is a unique number allocated to the contract by the seller.	Yes	Commercial supply contract	
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Commercial supply contract, Feed and water record, MSA Declaration, NVD, Receipt of purchase/Tax Invoice, State specific movement forms	
From PIC	The Property Identification Code from/to where the livestock or product were consigned.	Yes	MSA Declaration, NLIS Movement Update, NVD, State specific movement forms	For more information visit the Integrity systems website.
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Commercial supply contract, MSA Declaration, NLIS Movement Update, NVD, State specific movement forms	
Movement time	This is the time at which cattle were moved from the property (PIC) of origin. Direct consignments travelling to processors by road must be slaughtered with 48 hours of dispatch.	Yes	MSA Declaration	
MSA Declaration Serial Number	Each MSA Declaration form has a unique serial number.	Yes	MSA Declaration	For more information on MSA visit the MLA website.
MSA Licence Number	Any establishment consigning, supplying, or identifying MSA Certified Product must be registered and have a unique MSA Licence Number.	Yes	MSA Declaration, Receipt of purchase/Tax Invoice	For more information on MSA visit the MLA website.
NLIS Tag Number/RFID	All animals transported between PICs must have a permanent National Livestock Identification System tag attached. This tag has a unique animal identification number.	Yes	NLIS Movement Update	For more information visit the Integrity systems website.

NVD Serial Number	Each NVD form has a unique serial number.	Yes	NLIS Movement Update, NVD	For more information visit the Integrity systems website.
Producer/Vendor MSA Registration Number	Producers consigning cattle to MSA markets are required to be registered and have a unique MSA Registration Number.	Yes	MSA Declaration	For more information on MSA visit the MLA website.
Recipient Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Feed and water record, Receipt of purchase/Tax Invoice	For more information visit the ATO website.
Seller/Supplier Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Feed and water record, Receipt of purchase/Tax Invoice	For more information visit the ATO website.
To PIC	The Property Identification Code from/to where the livestock or product were consigned.	Yes	NLIS Movement Update, NVD, State specific movement forms	For more information visit the Integrity systems website.
Transport registration number	The registration number of the vehicle in which the animals or product were transported. For shipments of product this will be a shipping container number.	Yes	NVD	
Treatment date	The date on which a treatment or product was applied to a unit e.g., paddock, animal, fodder etc.	Yes	Feed and water record, NVD	

5.2.1.6.5 Regulatory and Industry Programs

- * Dairy Australia
- * eNVD
- * Livestock Production Assurance (LPA)
- * Meat Standards Australia (MSA)
- * National Livestock Identification System (NLIS)
- * Other data sources

5.2.1.6.6 Supply Chain Node Traceability

The National Livestock Identification System (NLIS) is the Australian livestock traceability program which is administered by Integrity Systems Company (ISC). Where stipulated by State legislation and certain export markets, the NLIS system requires all animals bought, sold, and moved along the supply chain to be tagged with an accredited NLIS ID tag. Each tag has an NLIS tag number or Radio Frequency Identifier (RFID) for the traceability of the animal throughout its lifetime. Every property which holds livestock must have a Property Identification Code (PIC) to which the livestock are assigned in the NLIS Database. Each time livestock are transferred between PICs within Australia they must be accompanied by a livestock movement declaration, such as the National Vendor Declaration (NVD) form. This document typically outlines the transporter details, consignment details, compliance with intended market specifications, withholding periods, and the details of the new property PIC. All livestock movements between PICs require an NLIS movement update to be made by either or both the consigner and receiver. Where NLIS ID tags are lost livestock must be issued with a new post-breeder tag if not on the PIC of birth and this reconciled in the NLIS Database.

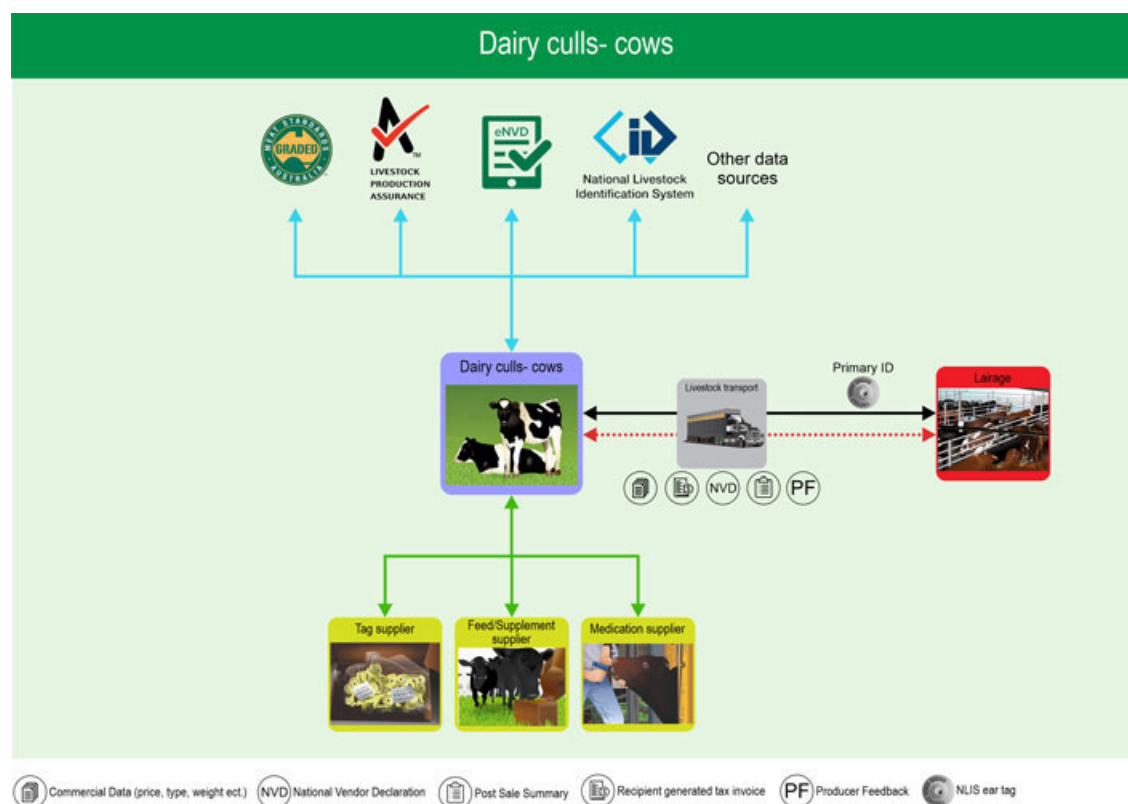


Figure 37. Inputs and outputs of the beef supply chain dairy culls-cows sector.

5.2.1.7.1 Physical Inputs including Critical Tracking Events (CTEs)

The physical inputs into the dairy production system, which are related to the traceability of cattle exiting the system as cull cattle, are similar to that of a beef breeding system. These may include breeding cattle and/or technologies, veterinary input and feed supplies as well as NLIS ID tags. There are a number of documents required to track the movement of these system inputs.

Table 31. Physical inputs and associated Critical Tracking Event related documents for a beef dairy culls-cows system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Breeding cattle	These are animals (bulls, cows/heifers) which have reached the appropriate age for breeding. Animals may be from a self-replacing herd or sourced from a seedstock breeder.	NVD, Commercial supply contract, Feed and water record, NLIS, Movement Update, Receipt of purchase/Tax Invoice, State specific movement forms	
Artificial breeding technology	These are technologies such as artificial insemination or embryo transfer which are used in place of or in addition to traditional livestock breeding methods.	Commercial supply contract, Receipt of purchase/Tax Invoice	
Experts and veterinarians	These are professionals who provide services to the breeding enterprise which ensure the safety, wellbeing, and productivity of the livestock.	Receipt of purchase/Tax Invoice, Veterinary prescription	

Veterinary drugs or other health treatments	These may be prescribed, or non-prescribed treatments or medications given to ensure the health and wellbeing of the livestock.	Receipt of purchase/Tax Invoice, Veterinary prescription	
Feed supplies and supplements	These are supplementary animal feed products such as hay or silage fodder, or mineral supplements which are provided to ensure the production efficiency and health of livestock are maintained. This may also include clean drinking water e.g., where livestock are in transit or at saleyards.	Commodity Vendor Declaration (CVD), Receipt of purchase/Tax Invoice	
Crop and pasture treatments	These are agricultural chemicals applied to crops, pastures and/or paddocks (inclusive of spot spraying) which livestock may come into contact with or consume.	Product label, Receipt of purchase/Tax Invoice	
NLIS ID tags	These are animal identification tags with a unique number which must be attached to animal moved off a PIC for traceability purposes.	NLIS Movement Update	

5.2.1.7.2 Information Inputs including Key Data Elements (KDEs)

There are a range of information inputs that are essential for the traceability of movements and treatments applied to the cull cattle in a dairy enterprise. It is essential that all of these Key Data Elements are recorded by the producer for auditing purposes. These may include the NVD Serial Number, NLIS Tag Number, To and From PIC, Movement date and Veterinary Registration Number.

Table 32. Information inputs, Key Data Elements and Critical Tracking Event related documentation for a beef dairy culls-cows system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Agreement date	This is the date on which an agreement between two parties was made.	Yes	Commercial supply contract	
APVMA approval number	This is a unique number allocated to each label by the APVMA.	Yes	Commodity Vendor Declaration, NVD, Product label	For more information visit the Australian Pesticides and Veterinary Medicine Authority.
Batch number	This is a unique number which identifies products sharing certain production characteristics and is used for traceability purposes.	Yes	Commodity Vendor Declaration, NVD, Product label	
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Receipt of purchase/Tax Invoice	
Contract number	This is a unique number allocated to the contract by the seller.	Yes	Commercial supply contract, Commodity Vendor Declaration	
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Commercial supply contract, Commodity Vendor Declaration, Feed	

			and water record, NVD, Receipt of purchase/Tax Invoice, State specific movement forms	
From PIC	The Property Identification Code from/to where the livestock or product were consigned.	Yes	Commodity Vendor Declaration, NLIS Movement Update, NVD, State specific movement forms	For more information visit the Integrity systems website.
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Commercial supply contract, Commodity Vendor Declaration, NLIS Movement Update, NVD, State specific movement forms	
MSA Licence Number	Any establishment consigning, supplying, or identifying MSA Certified Product must be registered and have a unique MSA Licence Number.	Yes	Receipt of purchase/Tax Invoice	For more information on MSA visit the MLA website.
National Grower Registration Number	A unique number assigned to individuals registered with the National Grower Register, an online business register for Australian growers.	Yes	Commodity Vendor Declaration	
NLIS Tag Number/RFID	All animals transported between PICs must have a permanent National Livestock Identification System tag attached. This tag has a unique animal identification number.	Yes	NLIS Movement Update	For more information visit the Integrity systems website.
NVD Serial Number	Each NVD form has a unique serial number.	Yes	NLIS Movement Update, NVD	For more information visit the Integrity systems website.
Prescription number	A unique certificate number issued for traceability purposes.	Yes	Veterinary prescription	
Product code/description	This is a unique identifier or description assigned by the seller to each product type marketed or for sale.	Yes	Commodity Vendor Declaration	
Recipient Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Feed and water record, Receipt of purchase/Tax Invoice	For more information visit the ATO website.
Seller/Supplier Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Feed and water record, Receipt of purchase/Tax Invoice	For more information visit the ATO website.
To PIC	The Property Identification Code from/to where the livestock or product were consigned.	Yes	Commodity Vendor Declaration, NLIS Movement Update, NVD,	For more information visit the Integrity systems website.

			State specific movement forms	
Transport registration number	The registration number of the vehicle in which the animals or product were transported. For shipments of product this will be a shipping container number.	Yes	NVD	
Treatment date	The date on which a treatment or product was applied to a unit e.g., paddock, animal, fodder etc.	Yes	Commodity Vendor Declaration, Feed and water record, NVD	
Veterinary Registration Number	A unique number issued to veterinarians who are registered to practice, under the state legislative requirements, within the state in which they reside.	Yes	Veterinary prescription	

5.2.1.7.3 Physical Outputs including Critical Tracking Events (CTEs)

The physical outputs of a dairy production system which are associated with the red meat supply chain include the cull cattle themselves. Critical Tracking Event related documentation is very similar to that of a beef production system with documents such as the NVD, State specific movement forms and NLIS Movement Updates being required.

Table 33. Physical outputs and associated Critical Tracking Event related documents for a beef dairy culls-cows system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Cull cattle	These are any unwanted livestock to be removed from the herd due to factors such as poor performance or age.	NVD, Commercial supply contract, Feed and water record, MSA Declaration, NLIS Movement Update, Receipt of purchase/Tax Invoice, State specific movement forms	

5.2.1.7.4 Information Outputs including Key Data Elements (KDEs)

There are a range of information outputs that are essential for the traceability of movements and treatments applied to cull cattle in a dairy enterprise. It is essential that all of these Key Data Elements are recorded by the producer for auditing purposes. These may include the NVD Serial Number, NLIS Tag Number, To and From PIC, Movement date and Veterinary Registration Number.

Table 34. Information outputs, Key Data Elements and Critical Tracking Event related documentation for a beef dairy culls-cows system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Agreement date	This is the date on which an agreement between two parties was made.	Yes	Commercial supply contract	

APVMA approval number	This is a unique number allocated to each label by the APVMA.	Yes	NVD	For more information visit the Australian Pesticides and Veterinary Medicine Authority.
Batch number	This is a unique number which identifies products sharing certain production characteristics and is used for traceability purposes.	Yes	NVD	
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Receipt of purchase/Tax Invoice	
Contract number	This is a unique number allocated to the contract by the seller.	Yes	Commercial supply contract	
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Commercial supply contract, Feed and water record, MSA Declaration, NVD, Receipt of purchase/Tax Invoice, State specific movement forms	
From PIC	The Property Identification Code from/to where the livestock or product were consigned.	Yes	MSA Declaration, NLIS Movement Update, NVD, State specific movement forms	For more information visit the Integrity systems website.
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Commercial supply contract, MSA Declaration, NLIS Movement Update, NVD, State specific movement forms	
Movement time	This is the time at which cattle were moved from the property (PIC) of origin. Direct consignments travelling to processors by road must be slaughtered with 48 hours of dispatch.	Yes	MSA Declaration	
MSA Declaration Serial Number	Each MSA Declaration form has a unique serial number.	Yes	MSA Declaration	For more information on MSA visit the MLA website.
MSA Licence Number	Any establishment consigning, supplying, or identifying MSA Certified Product must be registered and have a unique MSA Licence Number.	Yes	MSA Declaration, Receipt of purchase/Tax Invoice	For more information on MSA visit the MLA website.
NLIS Tag Number/RFID	All animals transported between PICs must have a permanent National Livestock Identification System tag attached. This tag has a unique animal identification number.	Yes	NLIS Movement Update	For more information on MSA visit the MLA website.

NVD Serial Number	Each NVD form has a unique serial number.	Yes	NLIS Movement Update, NVD	For more information visit the Integrity systems website.
Producer/Vendor MSA Registration Number	Producers consigning cattle to MSA markets are required to be registered and have a unique MSA Registration Number.	Yes	MSA Declaration	For more information on MSA visit the MLA website.
Recipient Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Feed and water record, Receipt of purchase/Tax Invoice	For more information visit the ATO website.
Seller/Supplier Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Feed and water record, Receipt of purchase/Tax Invoice	For more information visit the ATO website.
To PIC	The Property Identification Code from/to where the livestock or product were consigned.	Yes	NLIS Movement Update, NVD, State specific movement forms	For more information visit the Integrity systems website.
Transport registration number	The registration number of the vehicle in which the animals or product were transported. For shipments of product this will be a shipping container number.	Yes	NVD	
Treatment date	The date on which a treatment or product was applied to a unit e.g., paddock, animal, fodder etc.	Yes	Feed and water record, NVD	

5.2.1.7.5 Regulatory and Industry Programs

- * Dairy Australia
- * eNVD
- * Livestock Production Assurance (LPA)
- * Meat Standards Australia (MSA)
- * National Livestock Identification System (NLIS)
- * Other data sources

5.2.1.7.6 Supply Chain Node Traceability

The National Livestock Identification System (NLIS) is the Australian livestock traceability program which is administered by Integrity Systems Company (ISC). Where stipulated by State legislation and certain export markets, the NLIS system requires all animals bought, sold, and moved along the supply chain to be tagged with an accredited NLIS ID tag. Each tag has an NLIS tag number or Radio Frequency Identifier (RFID) for the traceability of the animal throughout its lifetime. Every property which holds livestock must have a Property Identification Code (PIC) to which the livestock are assigned in the NLIS Database. Each time livestock are transferred between PICs within Australia they must be accompanied by a livestock movement declaration, such as the National Vendor Declaration (NVD) form. This document typically outlines the transporter details, consignment details, compliance with intended market specifications, withholding periods, and the details of the new property PIC. All livestock movements between PICs require an NLIS movement update to be made by either or both the consigner and receiver. Where NLIS ID tags are lost livestock must be issued with a new post-breeder tag if not on the PIC of birth and this reconciled in the NLIS Database.

5.2.1.7.7 Data flow diagrams

Table 35. Data flow diagrams for the inputs and outputs of a beef dairy culls-cows system.

Direction	Description
Output	Dairy culls - cows to Lairage

5.2.1.7.7.1 Dairy culls - cows to Lairage

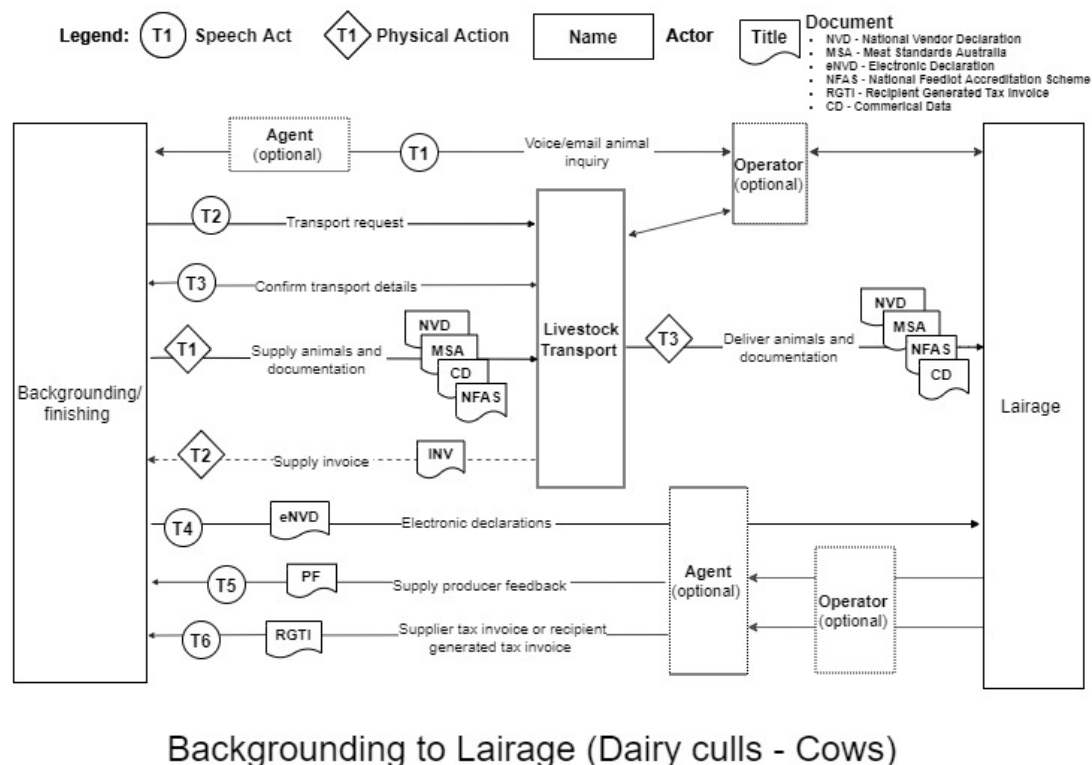


Figure 38. Data or information flows from the backgrounding to lairage (dairy culls-cows) systems in the beef supply chain.

5.2.2 Exporting Country - Processing

5.2.2.1 Lairage

Lairage is the location whereby animals are rested immediately prior to slaughter. These locations are usually holding pens where animals must spend a minimum of 2 hrs before being slaughtered. Typically, animals spend between 12-24 hrs in lairage in which time they have free access to potable water.

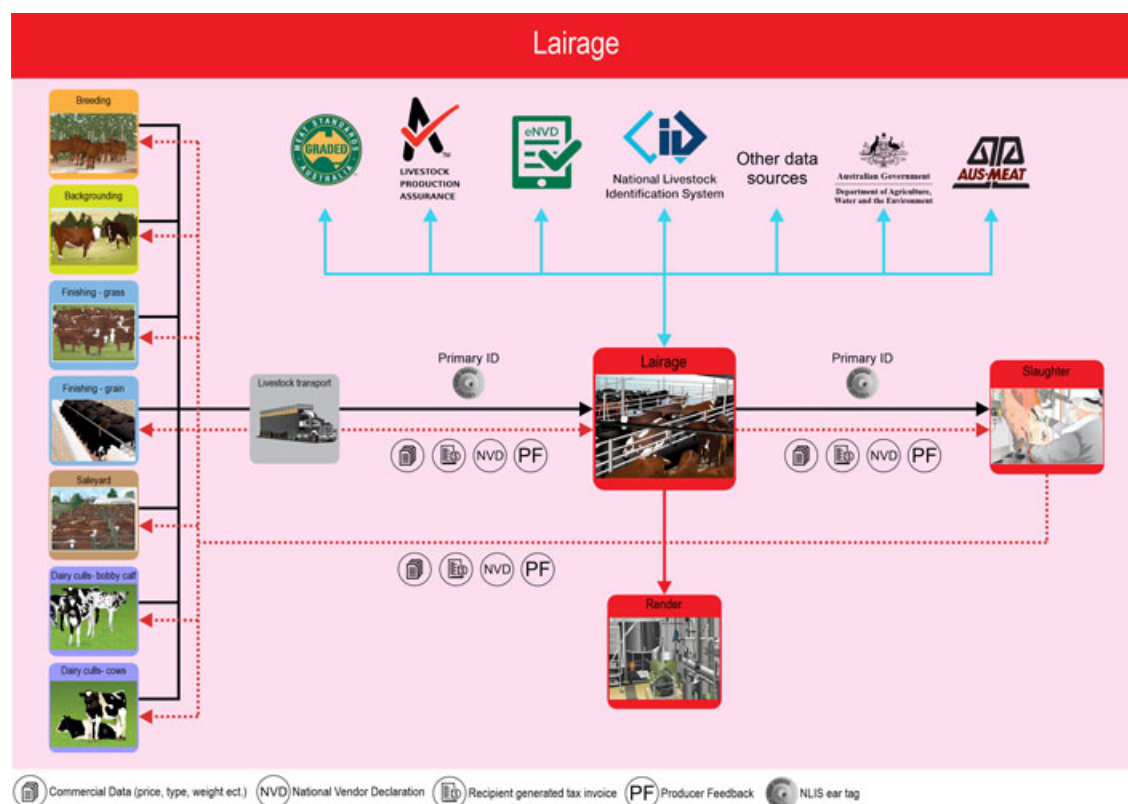


Figure 39. Inputs and outputs of the beef supply chain lairage sector.

5.2.2.1.1 Physical Inputs including Critical Tracking Events (CTEs)

Lairage is simply the area for holding the cattle before slaughter and doesn't include any complex processes. Therefore, the inputs are minimal.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with inputs to the lairage system include the receipt of:

* Cattle.

Table 36. Physical inputs and associated Critical Tracking Event related documents for a beef lairage system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Cattle	These are bovine livestock and may include any type of cattle e.g., cull cattle, calves etc.	Commercial supply contract, Feed and water record, MSA Declaration, NFAS Agents Declaration, NFAS Delivery Docket or Form B, NLIS Movement Update, NVD, Post Sale Summary, Receipt of purchase/Tax Invoice, State specific movement forms	

5.2.2.1.2 Information Inputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). Critical information associated with the transfer of cattle into lairage is drawn from key movement documentation such as the National Vendor Declaration form. Other information required by industry programs such as MSA and NFSA is also transferred into lairage.

Table 37. Information inputs, Key Data Elements and Critical Tracking Event related documentation for a beef lairage system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Agreement date	This is the date on which an agreement between two parties was made.	Yes	Commercial supply contract	
APVMA approval number	This is a unique number allocated to each label by the APVMA.	Yes	NVD	For information on veterinary drugs and chemicals look at the APVMA website.
Batch number	This is a unique number which identifies products sharing certain production characteristics and is used for traceability purposes.	Yes	NVD	For information on veterinary drugs and chemicals look at the APVMA website.
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Receipt of purchase/Tax Invoice	
Contract number	This is a unique number allocated to the contract by the seller.	Yes	Commercial supply contract	
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Commercial supply contract, Feed and water record, MSA Declaration, NFAS Agents Declaration, NFAS Delivery Docket or Form B, NVD, Post Sale Summary, Receipt of purchase/Tax Invoice, State specific movement forms	
From PIC	The Property Identification Code from/to where the livestock or product were consigned.	Yes	MSA Declaration, NFAS Delivery Docket or Form B, NLIS Movement Update, NVD, Post Sale Summary, State specific movement forms	For more information visit the Integrity systems website.
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Commercial supply contract, MSA Declaration, NFAS Agents Declaration, NFAS Delivery Docket or Form B, NLIS Movement Update, NVD, State specific movement forms	

Movement time	This is the time at which cattle were moved from the property (PIC) of origin. Direct consignments travelling to processors by road must be slaughtered with 48 hours of dispatch.	Yes	MSA Declaration	
MSA Declaration Serial Number	Each MSA Declaration form has a unique serial number.	Yes	MSA Declaration	For more information on MSA visit the MLA website.
MSA Licence Number	Any establishment consigning, supplying, or identifying MSA Certified Product must be registered and have a unique MSA Licence Number.	Yes	MSA Declaration, Receipt of purchase/Tax Invoice	For more information on MSA visit the MLA website.
NFAS Accreditation Number	This is a unique number given to accredited feedlots certified under the National Feedlot Accreditation Scheme (NFAS).	Yes	NFAS Delivery Docket or Form B	For more information visit the AUS-MEAT website.
NFAS Delivery Docket Number	Each NFAS document has a unique number or identity code.	Yes	NFAS Agents Declaration	For more information visit the AUS-MEAT website.
NLIS Tag Number/RFID	All animals transported between PICs must have a permanent National Livestock Identification System tag attached. This tag has a unique animal identification number.	Yes	NLIS Movement Update	For more information visit the Integrity systems website.
NVD Serial Number	Each NVD form has a unique serial number.	Yes	NFAS Delivery Docket or Form B, NLIS Movement Update, NVD, Post Sale Summary	For more information visit the Integrity systems website.
Producer/Vendor MSA Registration Number	Producers consigning cattle to MSA markets are required to be registered and have a unique MSA Registration Number.	Yes	MSA Declaration	For more information on MSA visit the MLA website.
Quality Assurance Officer (QAO) Certificate Number	A unique number issued to personnel issued with a Statement of Authority for demonstrating skills for compliance with meeting NFAS Rules and Standards.	Yes	NFAS Delivery Docket or Form B	For more information visit the AUS-MEAT website.
Recipient Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Receipt of purchase/Tax Invoice	For more information visit the ATO website.

Seller/Supplier Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Feed and water record, Receipt of purchase/Tax Invoice	For more information visit the ATO website.
To PIC	The Property Identification Code from/to where the livestock or product were consigned.	Yes	NLIS Movement Update, NVD, Post Sale Summary, State specific movement forms	For more information visit the Integrity systems website.
Transport registration number	The registration number of the vehicle in which the animals or product were transported. For shipments of product this will be a shipping container number.	Yes	NVD	
Treatment date	The date on which a treatment or product was applied to a unit e.g., paddock, animal, fodder etc.	Yes	Feed and water record, NVD	

5.2.2.1.3 Physical Outputs including Critical Tracking Events (CTEs)

The physical outputs from lairage include cattle suitable for processing, or in situations where animals are unfit for movement, they may be humanely slaughtered in lairage. In such instances, condemned carcasses may also be outputs.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with the outputs of the lairage system include the movement of:

- * Cattle
- * Condemned carcase

off the property, premises, or supply chain sector.

Table 38. Physical outputs and associated Critical Tracking Event related documents for a beef lairage system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Cattle	These are bovine livestock and may include any type of cattle e.g., cull cattle, calves etc.	Commercial supply contract, Feed and water record, MSA Declaration, NFAS Agents Declaration, NFAS Delivery Docket or Form B, NLIS Movement Update, NVD, Post Sale Summary, Processing plant production management system, Receipt of purchase/Tax Invoice, State specific movement forms	
Condemned carcase	The body of a slaughtered animal deemed unfit for human consumption. This may be a condemned dressed carcase when hide,	Commercial supply contract, Feed and water record, MSA Declaration, NFAS Agents Declaration, NFAS Delivery Docket or Form B, NLIS Movement Update, NVD, Post Sale Summary, Processing plant production management system, Receipt of purchase/Tax Invoice, State specific movement forms	

	head, feet and offal are removed.		

5.2.2.1.4 Information Outputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). Information outputs for lairage are those which are found on critical transfer documentation and the required documents for regulatory programs. This includes documents such as the NVD, NFAS Delivery Docket or Form B and MSA Declaration.

Table 39. Information outputs, Key Data Elements and Critical Tracking Event related documentation for a beef lairage system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Agreement date	This is the date on which an agreement between two parties was made.	Yes	Commercial supply contract, Processing plant production management system	
APVMA approval number	This is a unique number allocated to each label by the APVMA.	Yes	NVD, Processing plant production management system	For information on veterinary drugs and chemicals look at the AVPMA website.
Batch number	This is a unique number which identifies products sharing certain production characteristics and is used for traceability purposes.	Yes	NVD, Processing plant production management system	
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Processing plant production management system, Receipt of purchase/Tax Invoice	
Contract number	This is a unique number allocated to the contract by the seller.	Yes	Commercial supply contract, Processing plant production management system	
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Commercial supply contract, Feed and water record, MSA Declaration, NFAS Agents Declaration, NFAS Delivery Docket or Form B, NVD, Post Sale Summary, Processing plant production management system, Receipt of purchase/Tax Invoice, State specific movement forms	
From PIC	The Property Identification Code from/to where the livestock or product were consigned.	Yes	MSA Declaration, NFAS Delivery Docket or Form B, NLIS Movement Update, NVD, Post Sale Summary, Processing plant production management system, State specific movement forms	For more information visit the Integrity systems website.
Lot number	A lot is a number assigned by the processor to each group of cattle consigned	Yes	Processing plant production management system	

	to slaughter and is usually vendor specific.			
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Commercial supply contract, MSA Declaration, NFAS Agents Declaration, NFAS Delivery Docket or Form B, NLIS Movement Update, NVD, Processing plant production management system, State specific movement forms	
Movement time	This is the time at which cattle were moved from the property (PIC) of origin. Direct consignments travelling to processors by road must be slaughtered with 48 hours of dispatch.	Yes	MSA Declaration, Processing plant production management system	
MSA Declaration Serial Number	Each MSA Declaration form has a unique serial number.	Yes	MSA Declaration, Processing plant production management system	For more information on MSA visit the MLA website.
MSA Licence Number	Any establishment consigning, supplying, or identifying MSA Certified Product must be registered and have a unique MSA Licence Number.	Yes	MSA Declaration, Processing plant production management system, Receipt of purchase/Tax Invoice	For more information on MSA visit the MLA website.
NFAS Accreditation Number	This is a unique number given to accredited feedlots certified under the National Feedlot Accreditation Scheme (NFAS).	Yes	NFAS Delivery Docket or Form B, Processing plant production management system	For more information visit the AUS-MEAT website.
NFAS Delivery Docket Number	Each NFAS document has a unique number or identity code.	Yes	NFAS Agents Declaration, Processing plant production management system	For more information visit the AUS-MEAT website.
NLIS Tag Number/RFID	All animals transported between PICs must have a permanent National Livestock Identification System tag attached. This tag has a unique animal identification number.	Yes	NLIS Movement Update, Processing plant production management system	For more information visit the Integrity systems website.
NVD Serial Number	Each NVD form has a unique serial number.	Yes	NFAS Delivery Docket or Form B, NLIS Movement Update, NVD, Post Sale Summary, Processing plant production management system	For more information visit the Integrity systems website.
Producer/Vendor MSA Registration Number	Producers consigning cattle to MSA markets are required to be registered	Yes	MSA Declaration, Processing plant production management system	For more information on MSA visit the MLA website.

	and have a unique MSA Registration Number.			
Quality Assurance Officer (QAO) Certificate Number	A unique number issued to personnel issued with a Statement of Authority for demonstrating skills for compliance with meeting NFAS Rules and Standards.	Yes	NFAS Delivery Docket or Form B, Processing plant production management system	For more information visit the AUS-MEAT website.
Recipient Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Processing plant production management system, Receipt of purchase/Tax Invoice	For more information visit the ATO website.
Seller/Supplier Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Feed and water record, Processing plant production management system, Receipt of purchase/Tax Invoice	For more information visit the ATO website.
To PIC	The Property Identification Code from/to where the livestock or product were consigned.	Yes	NLIS Movement Update, NVD, Post Sale Summary, Processing plant production management system, State specific movement forms	For more information visit the Integrity systems website.
Transport registration number	The registration number of the vehicle in which the animals or product were transported. For shipments of product this will be a shipping container number.	Yes	NVD, Processing plant production management system	
Treatment date	The date on which a treatment or product was applied to a unit e.g., paddock, animal, fodder etc.	Yes	Feed and water record, NVD, Processing plant production management system	

5.2.2.1.5 Regulatory and Industry Programs

- * AUS-MEAT
- * Australian Meat Industry Council (AMIC)
- * Department of Agriculture
- * eNVD
- * Livestock Production Assurance (LPA)
- * Meat Standards Australia (MSA)
- * National Livestock Identification System (NLIS)
- * Other data sources

5.2.2.1.6 Supply Chain Node Traceability

The National Livestock Identification System (NLIS) is the Australian livestock traceability program which is administered by Integrity Systems Company (ISC). Where stipulated by State legislation and certain export markets, the NLIS system requires all animals bought, sold, and moved along the supply chain to be tagged with an accredited NLIS ID tag. Each tag has an NLIS tag number or Radio Frequency Identifier (RFID) for the

traceability of the animal throughout its lifetime. Every property which holds livestock must have a Property Identification Code (PIC) to which the livestock are assigned in the NLIS Database. Each time livestock are transferred between PICs within Australia they must be accompanied by a livestock movement declaration, such as the National Vendor Declaration (NVD) form. This document typically outlines the transporter details, consignment details, compliance with intended market specifications, withholding periods, and the details of the new property PIC. All livestock movements between PICs require an NLIS movement update to be made by either or both the consigner and receiver. Where NLIS ID tags are lost livestock must be issued with a new post-breeder tag if not on the PIC of birth and this reconciled in the NLIS Database.

5.2.2.1.7 Data flow diagrams

Table 40. Data flow diagrams for the inputs and outputs of a beef lairage system.

Direction	Description
Input	Breeding to Lairage
Input	Backgrounding to Lairage
Input	Finishing -grass/grain to Lairage - over the hooks (direct consignment)
Input	Finishing -grass/grain to Lairage - company owned
Input	Finishing -grass/grain to Lairage - 3rd party kill or operator
Input	Saleyard to Lairage
Output	Lairage to Slaughter
Output	Lairage to Render - condemn or dead on arrival

5.2.2.1.7.1 Breeding to Lairage

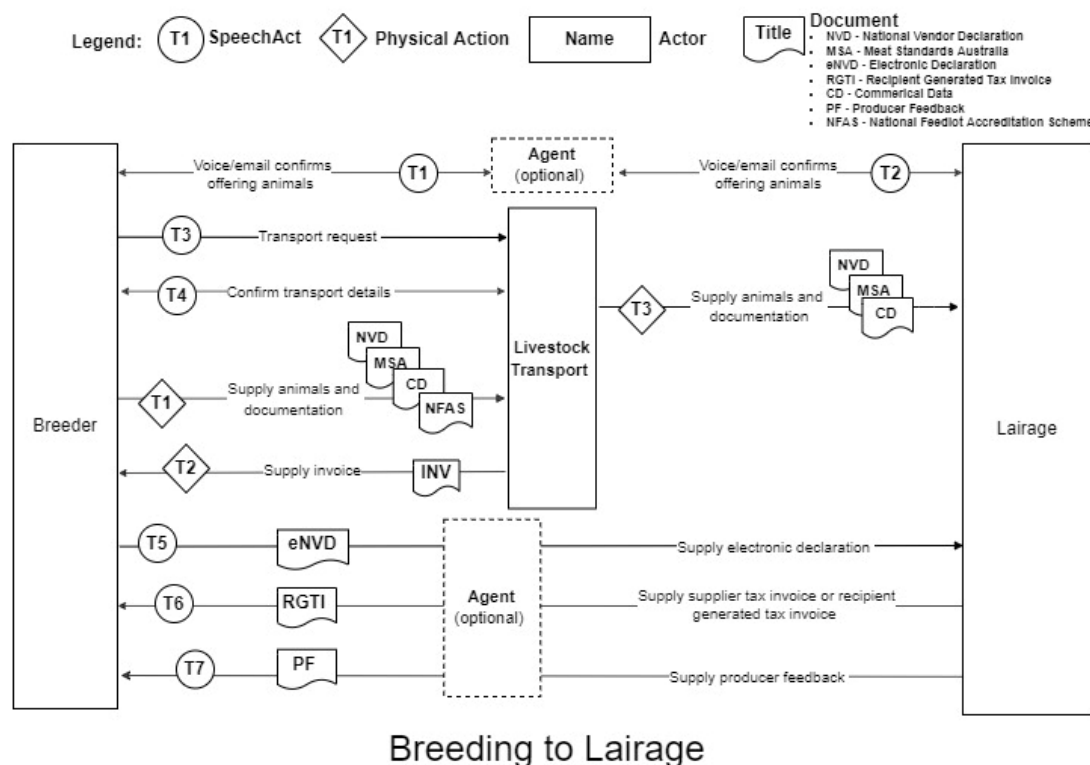


Figure 40. Data or information flows from the breeding to lairage systems in the beef supply chain.

5.2.2.1.7.2 Backgrounding to Lairage

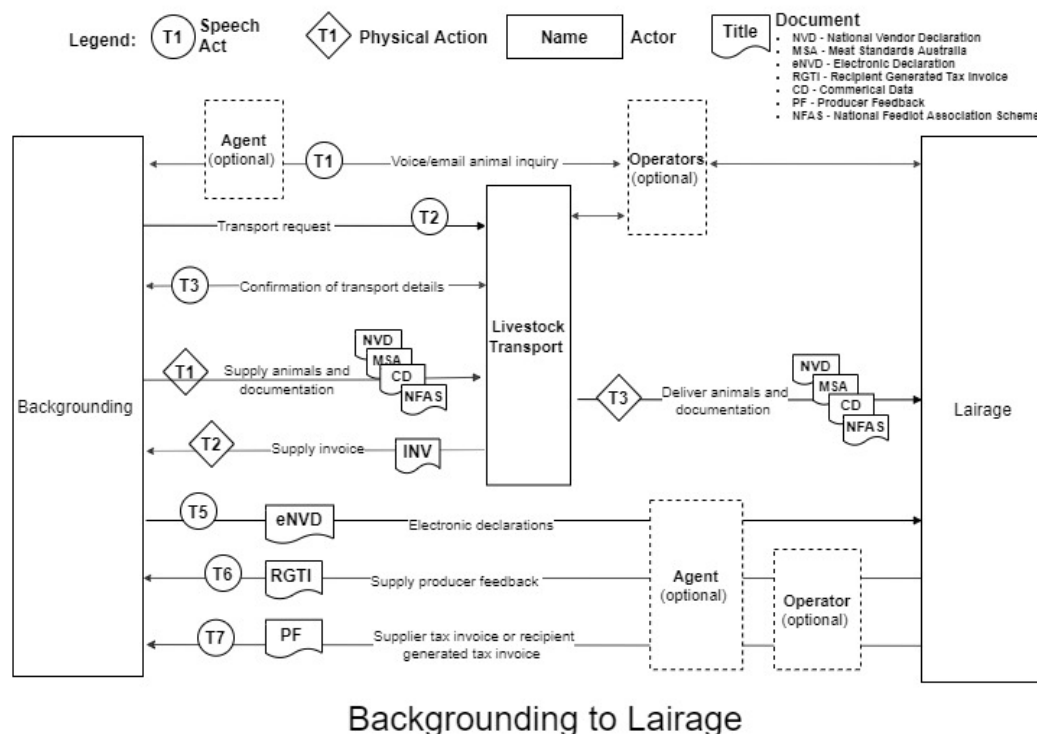
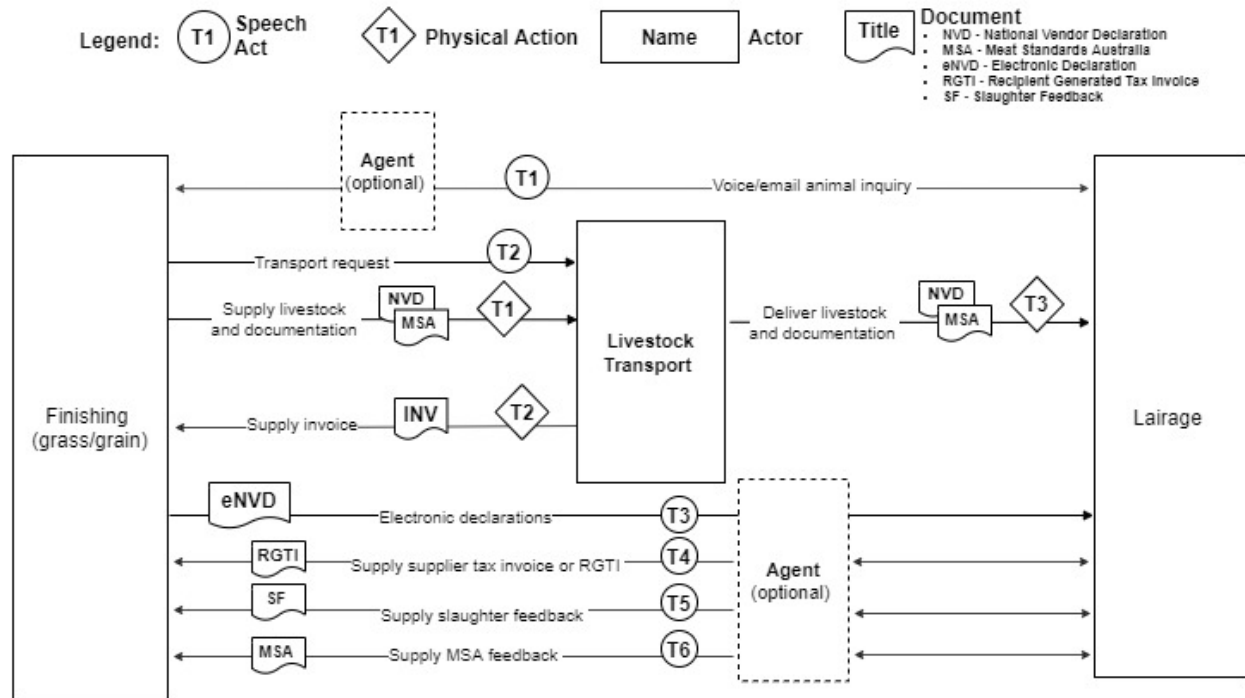


Figure 41. Data or information flows from the backgrounding to lairage systems in the beef supply chain.

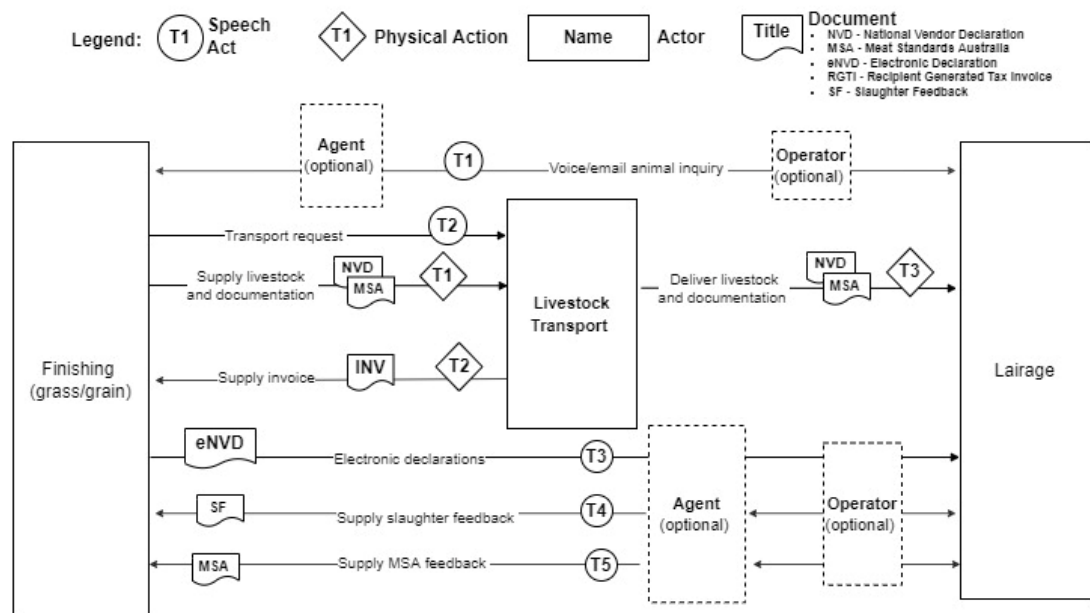
5.2.2.1.7.3 Finishing -grass/grain to Lairage - over the hooks (direct consignment)



Finishing - grass/grain to Lairage (over the hooks)

Figure 42. Data or information flows from the finishing-grass/grain to lairage (Over-The-Hooks) systems in the beef supply chain.

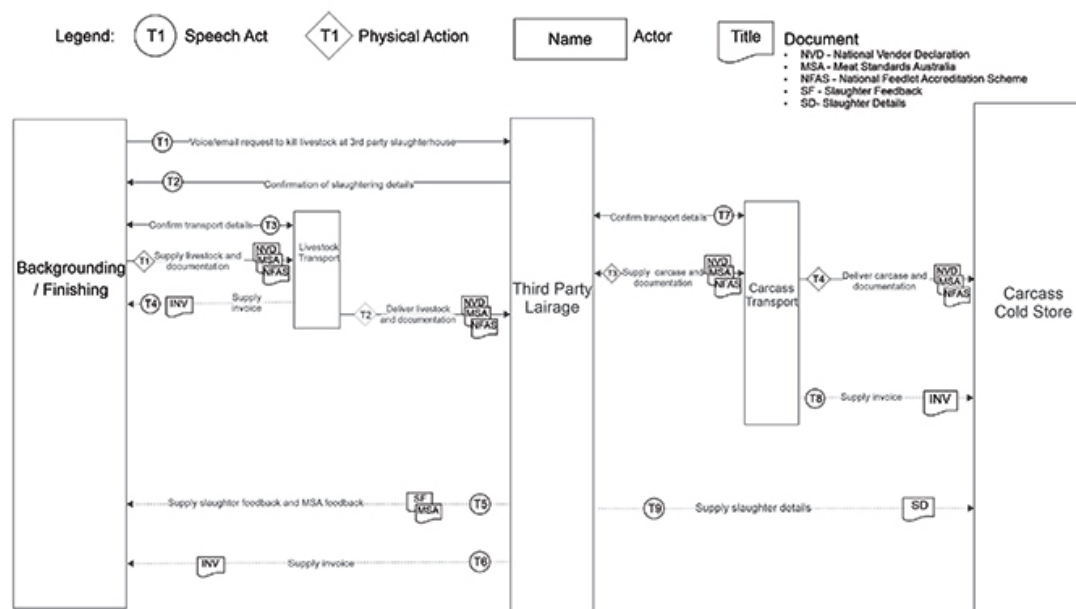
5.2.2.1.7.4 Finishing -grass/grain to Lairage - company owned



Finishing - grass/grain to Lairage (company owned)

Figure 43. Data or information flows from the finishing-grass/grain to lairage (company owned) systems in the beef supply chain.

5.2.2.1.7.5 Finishing -grass/grain to Lairage - 3rd party kill or operator



Feedlot to Lairage 3rd Party Kill

Figure 44. Data or information flows from the finishing-grass/grain to lairage (3rd party kill or operator) systems in the beef supply chain.

5.2.2.1.7.6 Saleyard to Lairage

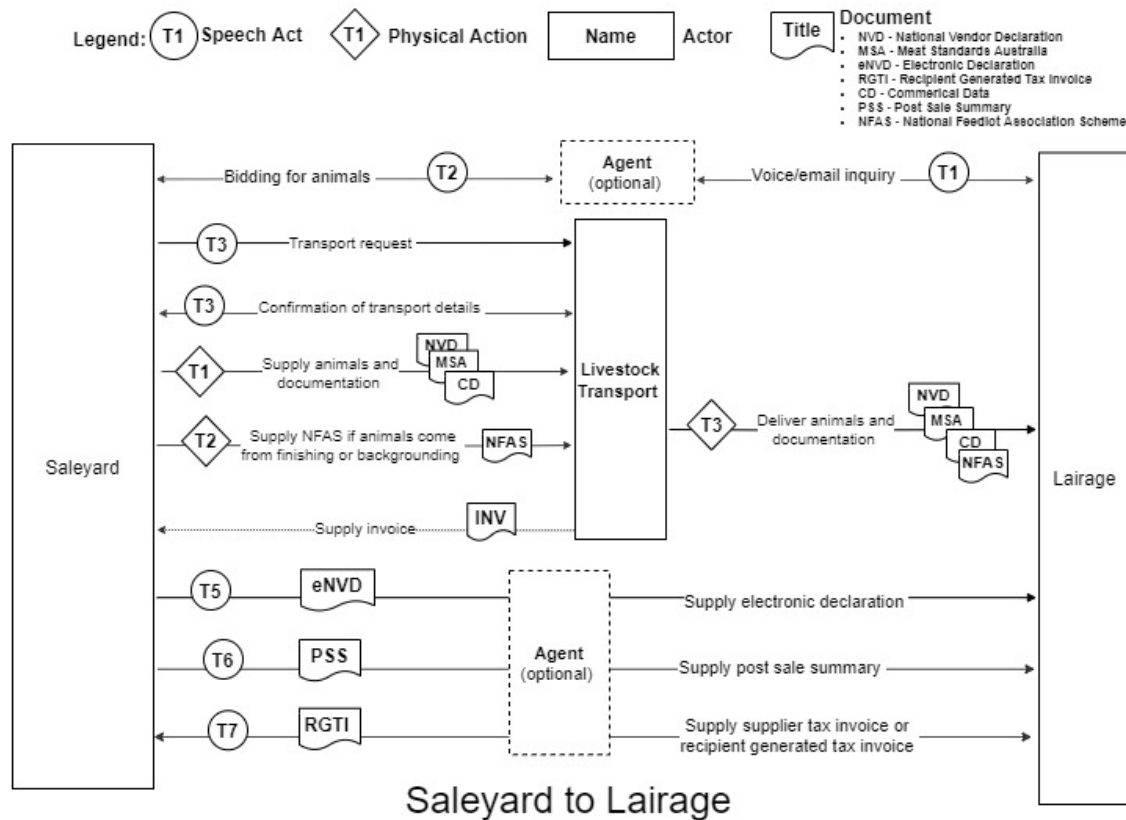


Figure 45. Data or information flows from the saleyard to lairage systems in the beef supply chain.

5.2.2.1.7.7 Lairage to Slaughter

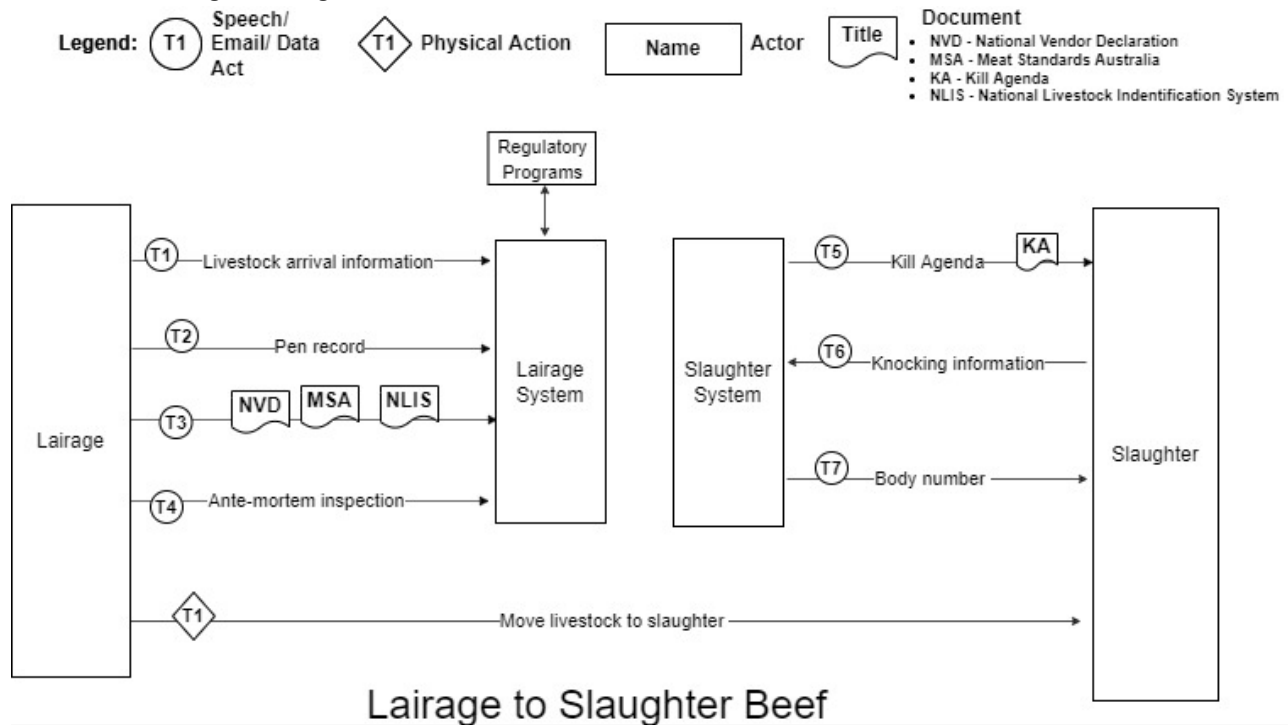


Figure 46. Data or information flows from the lairage to slaughter systems in the beef supply chain.

5.2.2.1.7.8 Lairage to Render - condemn or dead on arrival

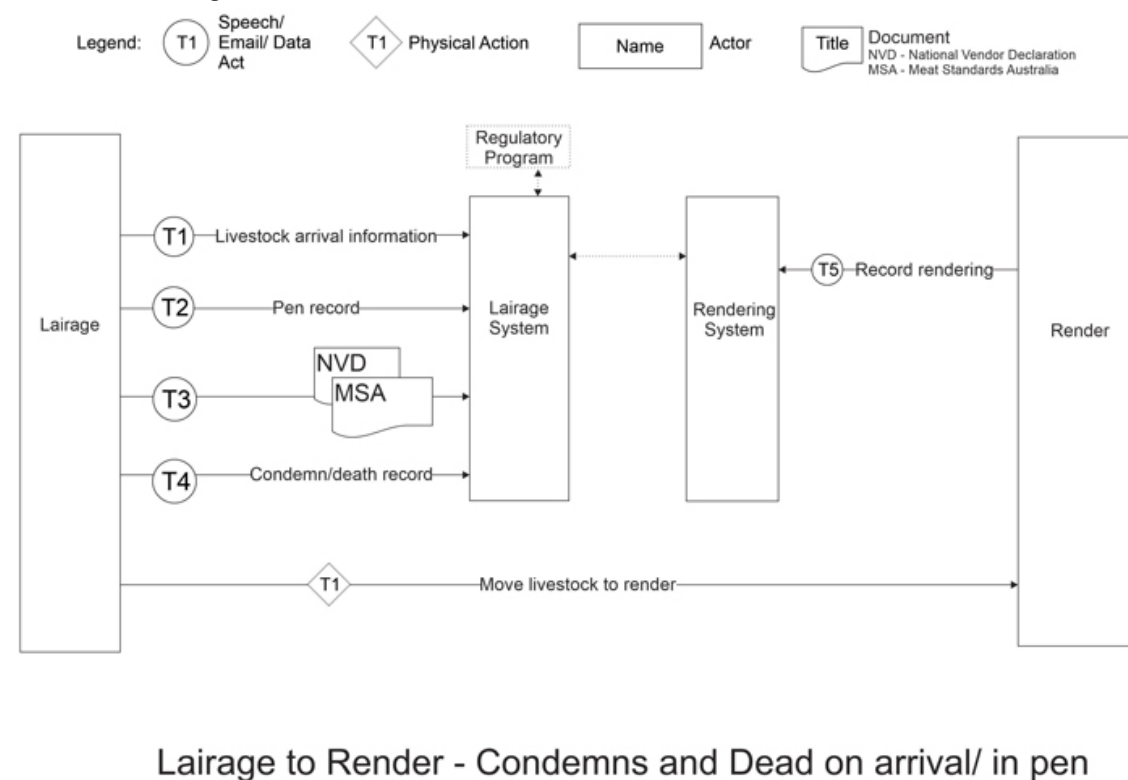


Figure 47. Data or information flows from the lairage to render (condemn or dead on arrival) systems in the beef supply chain.

5.2.2.2 Slaughter

Slaughter is the term which collectively describes a number of processes that begin with the slaughter of the live animal and end with a dressed carcass whereby the head, hide, legs, tail and viscera have been removed. These processes include the stunning, bleeding, evisceration, inspection, trimming and ticketing of carcasses. Towards the end of the slaughter process, each carcass is issued a carcass ticket with a unique serialised identifier. This identifier allows the forward and backward traceability of the carcass through the value chain, being correlated to the live animal NLIS tag number and remaining with the carcass until it is boned into cartoned product and receives a serialised carton label.

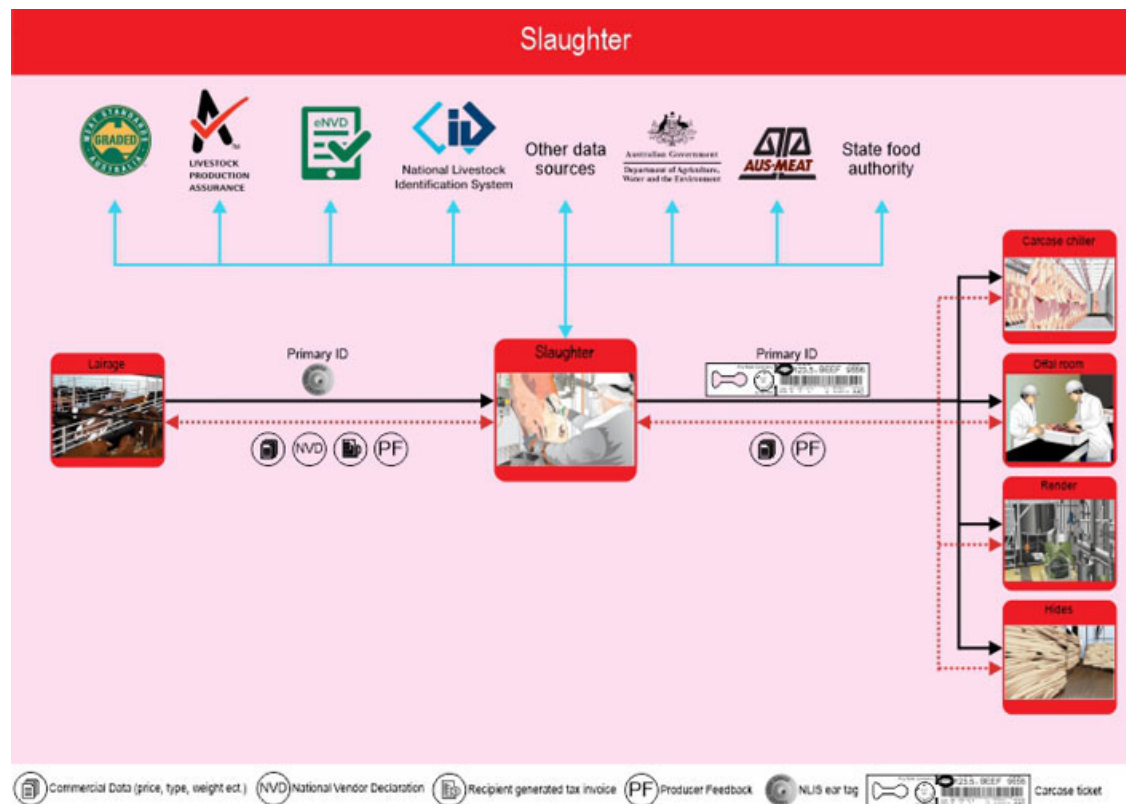


Figure 48. Inputs and outputs of the beef supply chain slaughter sector.

5.2.2.2.1 Physical Inputs including Critical Tracking Events (CTEs)

The slaughter process is carefully done to ensure that the animal is killed correctly and humanely and to increase efficiency. Live cattle from lairage, which have been passed for slaughter at ante mortem inspection by an Authorised Officer, are physical inputs into the slaughter system.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with inputs to the slaughter system include the receipt of:

- * Cattle.

Table 41. Physical inputs and associated Critical Tracking Event related documents for a beef slaughter system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Cattle	These are bovine livestock and may include any type of cattle e.g., cull cattle, calves etc.	Commercial supply contract, Feed and water record, MSA Declaration, NFAS Agents Declaration, NFAS Delivery Docket or Form B, NLIS Movement Update, NVD, Post Sale Summary, Processing plant production management system, Receipt of purchase/Tax Invoice, State specific movement Forms	

5.2.2.2.2 Information Inputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). Information inputs for slaughter are those which are carried through from lairage and associated with critical movement documentation.

Table 42. Information inputs, Key Data Elements and Critical Tracking Event related documentation for a beef slaughter system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Agreement date	This is the date on which an agreement between two parties was made.	Yes	Commercial supply contract, Processing plant production management system	
APVMA approval number	This is a unique number allocated to each label by the APVMA.	Yes	NVD, Processing plant production management system	For information on veterinary drugs and chemicals look at the AVPMA website.
Batch number	This is a unique number which identifies products sharing certain production characteristics and is used for traceability purposes.	Yes	NVD, Processing plant production management system	
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Processing plant production management system, Receipt of purchase/Tax Invoice	
Contract number	This is a unique number allocated to the contract by the seller.	Yes	Commercial supply contract, Processing plant production management system	
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Commercial supply contract, Feed and water record, MSA Declaration, NFAS Agents Declaration, NFAS Delivery Docket or Form B, NVD, Post Sale Summary, Processing plant production management system, Receipt of purchase/Tax Invoice, State specific movement forms	

From PIC	The Property Identification Code from/to where the livestock or product were consigned.	Yes	MSA Declaration, NFAS Delivery Docket or Form B, NLIS Movement Update, NVD, Post Sale Summary, Processing plant production management system, State specific movement forms	For more information visit the Integrity systems website.
Lot number	A lot is a number assigned by the processor to each group of cattle consigned to slaughter and is usually vendor specific.	Yes	Processing plant production management system	
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Commercial supply contract, MSA Declaration, NFAS Agents Declaration, NFAS Delivery Docket or Form B, NLIS Movement Update, NVD, Processing plant production management system, State specific movement forms	
Movement time	This is the time at which cattle were moved from the property (PIC) of origin. Direct consignments travelling to processors by road must be slaughtered with 48 hours of dispatch.	Yes	MSA Declaration, Processing plant production management system	
MSA Declaration Serial Number	Each MSA Declaration form has a unique serial number.	Yes	MSA Declaration, Processing plant production management system	For more information on MSA visit the MLA website.
MSA Licence Number	Any establishment consigning, supplying, or identifying MSA Certified Product must be registered and have a unique MSA Licence Number.	Yes	MSA Declaration, Processing plant production management system, Receipt of purchase/Tax Invoice	For more information on MSA visit the MLA website.
NFAS Accreditation Number	This is a unique number given to accredited feedlots certified under the National Feedlot Accreditation Scheme (NFAS).	Yes	NFAS Delivery Docket or Form B, Processing plant production management system	For more information visit the AUS-MEAT website.
NFAS Delivery Docket Number	Each NFAS document has a unique number or identity code.	Yes	NFAS Agents Declaration, Processing plant production management system	For more information visit the AUS-MEAT website.
NLIS Tag Number/RFID	All animals transported between PICs must have a permanent National Livestock Identification System tag attached. This tag has a unique animal identification number.	Yes	NLIS Movement Update, Processing plant production management system	For more information visit the Integrity systems website.

NVD Serial Number	Each NVD form has a unique serial number.	Yes	NFAS Delivery Docket or Form B, NLIS Movement Update, NVD, Post Sale Summary, Processing plant production management system	For more information visit the Integrity systems website.
Producer/Vendor MSA Registration Number	Producers consigning cattle to MSA markets are required to be registered and have a unique MSA Registration Number.	Yes	MSA Declaration, Processing plant production management system	For more information on MSA visit the MLA website.
Quality Assurance Officer (QAO) Certificate Number	A unique number issued to personnel issued with a Statement of Authority for demonstrating skills for compliance with meeting NFAS Rules and Standards.	Yes	NFAS Delivery Docket or Form B, Processing plant production management system	For more information visit the AUS-MEAT website.
Recipient Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Processing plant production management system, Receipt of purchase/Tax Invoice	For more information visit the ATO website.
Seller/Supplier Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Feed and water record, Processing plant production management system, Receipt of purchase/Tax Invoice	For more information visit the ATO website.
To PIC	The Property Identification Code from/to where the livestock or product were consigned.	Yes	NLIS Movement Update, NVD, Post Sale Summary, Processing plant production management system, State specific movement forms	For more information visit the Integrity systems website.
Transport registration number	The registration number of the vehicle in which the animals or product were transported. For shipments of product this will be a shipping container number.	Yes	NVD, Processing plant production management system	
Treatment date	The date on which a treatment or product was applied to a unit e.g., paddock, animal, fodder etc.	Yes	Feed and water record, NVD, Processing plant production management system	

5.2.2.2.3 Physical Outputs including Critical Tracking Events (CTEs)

The physical outputs from the slaughter process include carcasses and offal passed by Authorised Officers for human consumption, as well as condemned carcasses, carcase parts and offal. This product cannot be processed and sold for human consumption.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with the outputs of the slaughter system include the movement of:

- * Carcase
- * Offal
- * Hide/Skin
- * Condemned carcase
- * Condemned carcase parts
- * Condemned offal

off the property, premises, or supply chain sector.

Table 43. Physical outputs and associated Critical Tracking Event related documents for a beef slaughter system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Carcase	The body of a slaughtered animal after bleeding. Becomes a dressed carcase when hide, head, feet and offal are removed.	Carcase Ticket, MSA Data Capture Unit/myMSA, NLIS Movement Update, Processing plant production management system	
Offal	The organs of the thoracic and abdominal cavities, the brain, the muscular tissues of the head and diaphragm, the tail, feet or tendons.	Processing plant production management system	
Hide/Skin	The pelt of the animal. Typically referred to as 'hide' for larger animals e.g., cattle and 'skin' for smaller animals e.g., sheep, calves.	Processing plant production management system	
Condemned carcase	The body of a slaughtered animal deemed unfit for human consumption. This may be a condemned dressed carcase when hide, head, feet and offal are removed.	Carcase Ticket, Processing plant production management system	
Condemned carcase parts	Any tissue or structure removed from a slaughtered animal deemed unfit for human consumption. These parts may include the head, viscera, offal, musculature, and blood. NOTE: condemned offal is treated as a separate item here.	Processing plant production management system	
Condemned offal	Offal tissues deemed unfit for human consumption.	Processing plant production management system	

5.2.2.2.4 Information Outputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). Information outputs from slaughter are derived principally from carcase tickets which include regulated information for traceability purposes. This information is linked to that received in lairage through the processing production management system.

Table 44. Information outputs, Key Data Elements and Critical Tracking Event related documentation for a beef slaughter system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related	More details

			documents (including electronic)	
Batch number	This is a unique number which identifies products sharing certain production characteristics and is used for traceability purposes.	Yes	Processing plant production management system, Carcase Ticket, Processing plant production management system	
From Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Carcase Ticket, Processing plant production management system	For more information visit the Department of Agriculture, Water and the Environment website.
From PIC	The Property Identification Code from/to where the livestock or product were consigned.	Yes	NLIS Movement Update, Processing plant production management system	For more information visit the Integrity systems website.
Global Trade Item Number (GTIN)	Encoded in the GS1 barcode, the GTIN is a globally unique 14-digit number used to identify trade items, products, or services.	Yes	Carcase Ticket, Processing plant production management system	For more information visit the GS1 website.
Lot number	A lot is a number assigned by the processor to each group of cattle consigned to slaughter and is usually vendor specific.	Yes	MSA Data Capture Unit/myMSA, Carcase Ticket, Processing plant production management system	
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	NLIS Movement Update, Processing plant production management system	
MSA Declaration Serial Number	Each MSA Declaration form has a unique serial number.	Yes	MSA Data Capture Unit/myMSA, Processing plant production management system	For more information on MSA visit the MLA website.
MSA Licence Number	Any establishment consigning, supplying, or identifying MSA Certified Product must be	Yes	MSA Data Capture Unit/myMSA,	For more information on MSA visit the MLA website.

	registered and have a unique MSA Licence Number.		Processing plant production management system	
Net Weight (Kilograms)	Usually encoded in the GS1 barcode, the Net Weight is a variable measure of the trade item e.g., carton, pallet or shipment recorded in kilograms.	Yes	Carcase Ticket, Processing plant production management system	For more information visit the GS1 website.
NLIS Tag Number/RFID	All animals transported between PICs must have a permanent National Livestock Identification System tag attached. This tag has a unique animal identification number.	Yes	MSA Data Capture Unit/myMSA, NLIS Movement Update, Processing plant production management system	For more information visit the Integrity systems website.
NVD Serial Number	Each NVD form has a unique serial number.	Yes	NLIS Movement Update, Processing plant production management system	For more information visit the Integrity systems website.
Official mark	Any stamp, seal, label, or mark that is declared by the regulations to be an official mark. An official mark signifies that the product has been inspected by and approved as safe for human consumption by an Authorised Officer.	Yes	Carcase Ticket	For more information visit the Australian Government Federal Register of Legislation.
Producer/Vendor MSA Registration Number	Producers consigning cattle to MSA markets are required to be registered and have a unique MSA Registration Number.	Yes	MSA Data Capture Unit/myMSA, Processing plant production management system	For more information on MSA visit the MLA website.
Production Date (YYMMDD)	Encoded in the GS1 barcode, this is the 'kill' or slaughter' date of the product and is recorded in the format year, month, day (YYMMDD).	Yes	Carcase Ticket, Processing plant production management system	For more information visit the GS1 website.
Serial Number	Encoded in the GS1 barcode, this is a code, numeric or alphanumeric, assigned to an individual instance of an item for its lifetime.	Yes	Carcase Ticket, Processing plant production management system	For more information visit the GS1 website.
Slaughter or processing date	This is the date on which livestock were slaughtered by the processor or the day on which carcasses were processed (if different to slaughter date).	Yes	MSA Data Capture Unit/myMSA, NLIS Movement Update, Processing plant	

			production management system	
To PIC	The Property Identification Code from/to where the livestock or product were consigned.	Yes	NLIS Movement Update, Processing plant production management system	For more information visit the Integrity systems website.
Trade description	This is a collective set of words that says what the product is and may include information such as species, net weight of product, name and address of establishments, category ciphers, market endorsements, MSA eating quality etc.	Yes	Carcase Ticket, Processing plant production management system	

5.2.2.2.5 Regulatory and Industry Programs

- * AUS-MEAT
- * Australian Meat Industry Council (AMIC)
- * Department of Agriculture
- * eNVD
- * Livestock Production Assurance (LPA)
- * Meat Standards Australia (MSA)
- * National Livestock Identification System (NLIS)
- * State food authority
- * Other data sources

5.2.2.2.6 Supply Chain Node Traceability

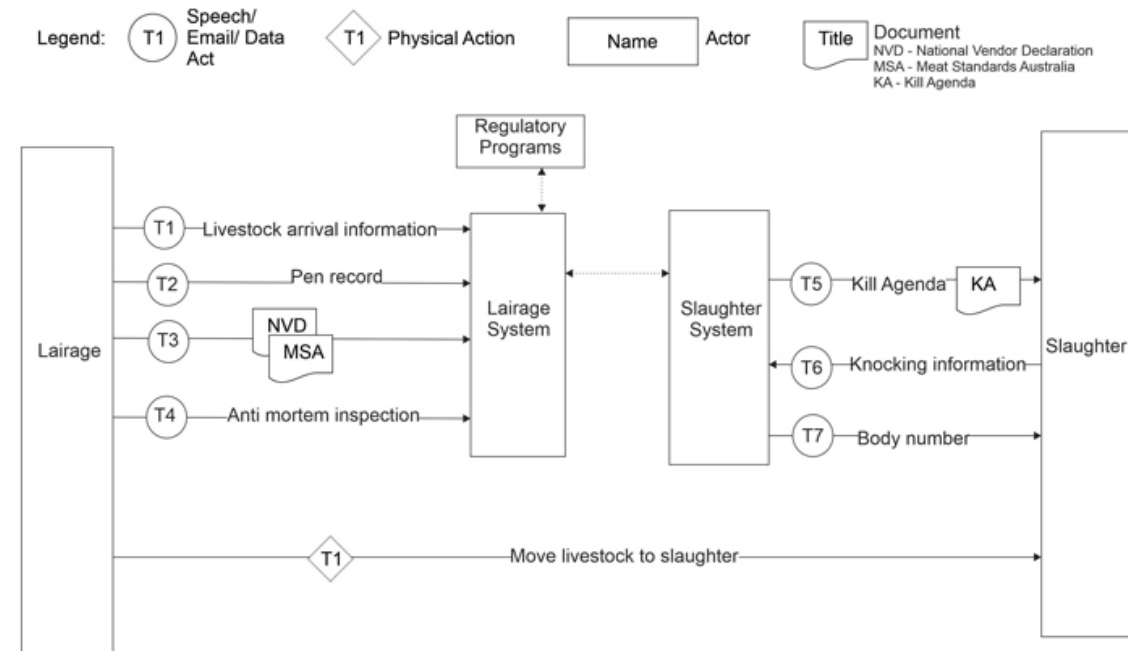
The National Livestock Identification System (NLIS) is the Australian livestock traceability program which is administered by Integrity Systems Company (ISC). Where stipulated by State legislation and certain export markets, the NLIS system requires all animals bought, sold, and moved along the supply chain to be tagged with an accredited NLIS ID tag. Each tag has an NLIS tag number or Radio Frequency Identifier (RFID) for the traceability of the animal throughout its lifetime. Every property which holds livestock must have a Property Identification Code (PIC) to which the livestock are assigned in the NLIS Database. Each time livestock are transferred between PICs within Australia they must be accompanied by a livestock movement declaration, such as the National Vendor Declaration (NVD) form. This document typically outlines the transporter details, consignment details, compliance with intended market specifications, withholding periods, and the details of the new property PIC. All livestock movements between PICs require an NLIS movement update to be made by either or both the consigner and receiver. Where NLIS ID tags are lost livestock must be issued with a new post-breeder tag if not on the PIC of birth and this reconciled in the NLIS Database. Once animals are slaughtered, carcasses are issued with a carcass ticket which contains key information correlating with the NLIS tag number or RFID. This key information, including GS1 meat industry barcode, body number, processing establishment number and production date or 'kill date' must be uploaded to the NLIS Database.

5.2.2.2.7 Data flow diagrams

Table 45. Data flow diagrams for the inputs and outputs of a beef slaughter system.

Direction	Description
Input	Lairage to Slaughter
Output	Slaughter to Render - Hides and Skins
Output	Slaughter to Render - Not Fit for Human Consumption
Output	Slaughter to Offal room
Output	Slaughter to Chiller

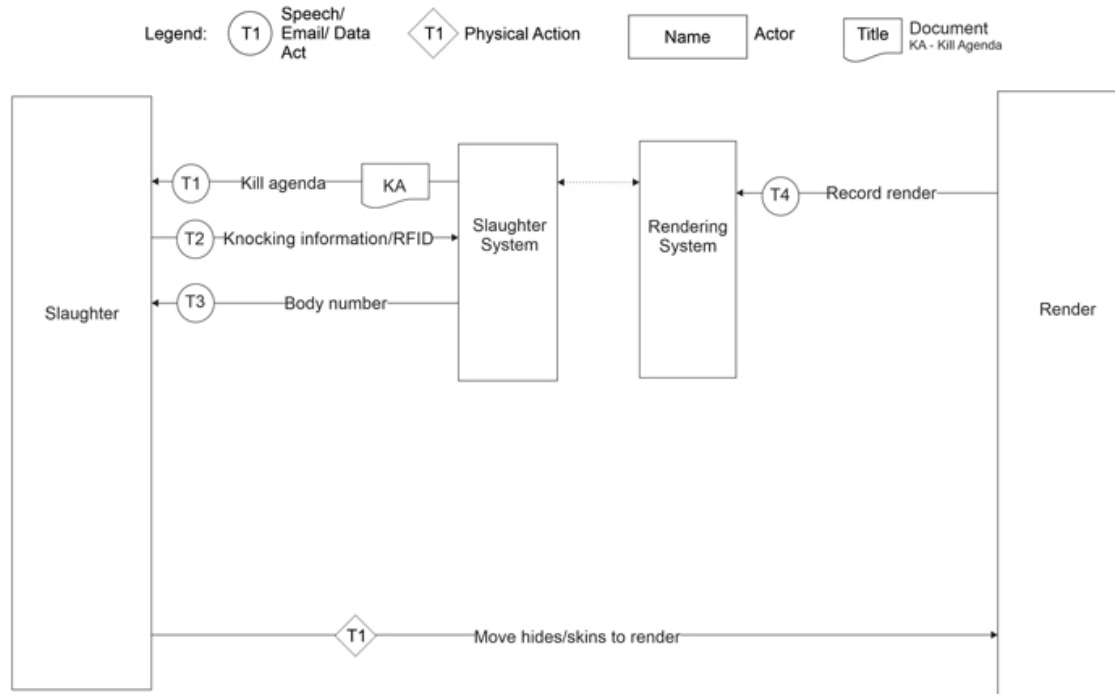
5.2.2.2.7.1 Lairage to Slaughter



Lairage to Slaughter Beef

Figure 49. Data or information flows from the lairage to slaughter systems in the beef supply chain.

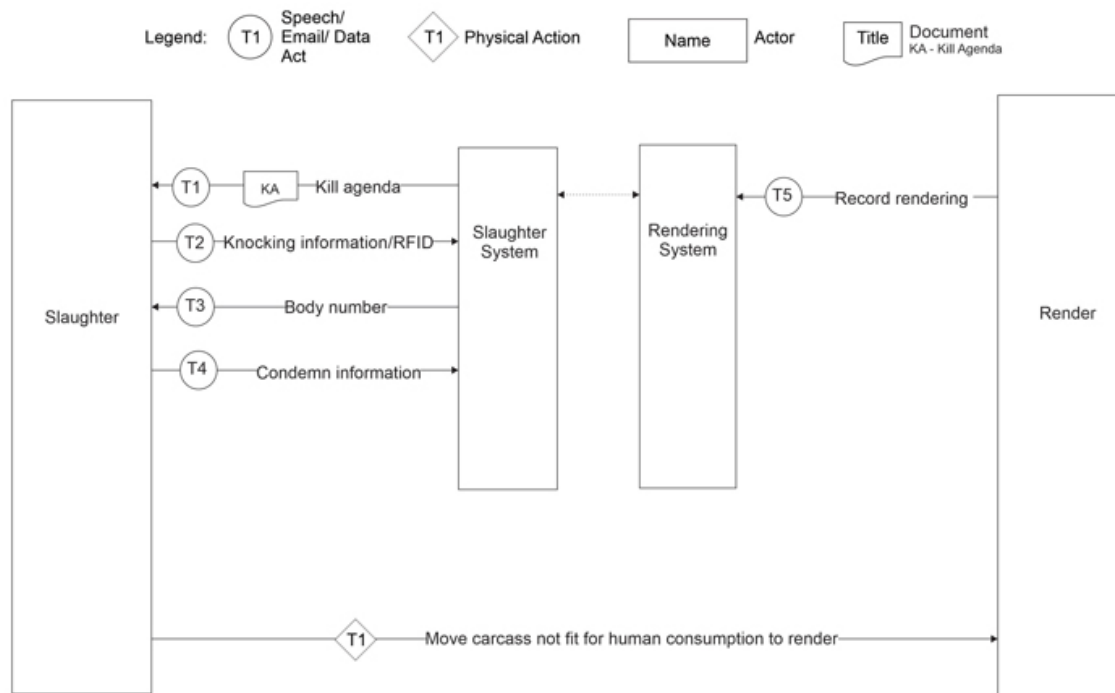
5.2.2.2.7.2 Slaughter to Render - Hides and Skins



Slaughter to Render -Hides/Skins

Figure 50. Data or information flows from the slaughter to render (hides and skins) systems in the beef supply chain.

5.2.2.2.7.3 Slaughter to Render - Not Fit for Human Consumption



Slaughter to Render-Not Fit for Human Consumption

Figure 51. Data or information flows from the slaughter to render (not fit for human consumption) systems in the beef supply chain.

5.2.2.2.7.4 Slaughter to Offal room

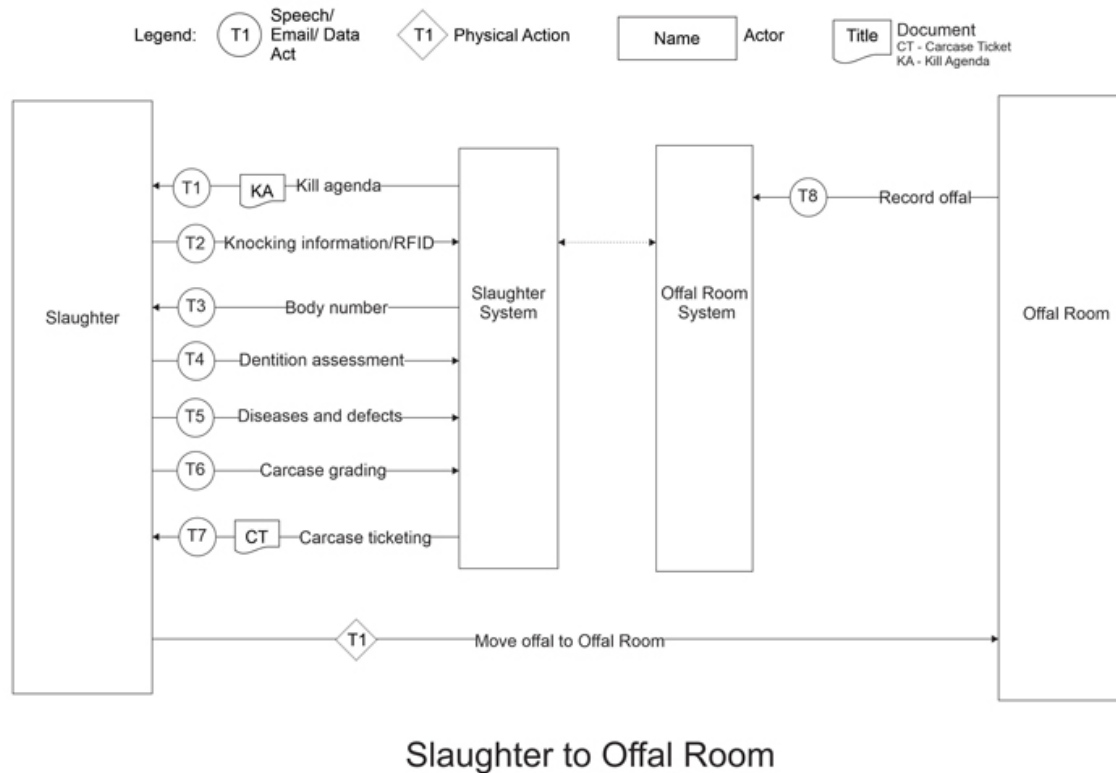


Figure 52. Data or information flows from the slaughter to offal room systems in the beef supply chain.

5.2.2.2.7.5 Slaughter to Chiller

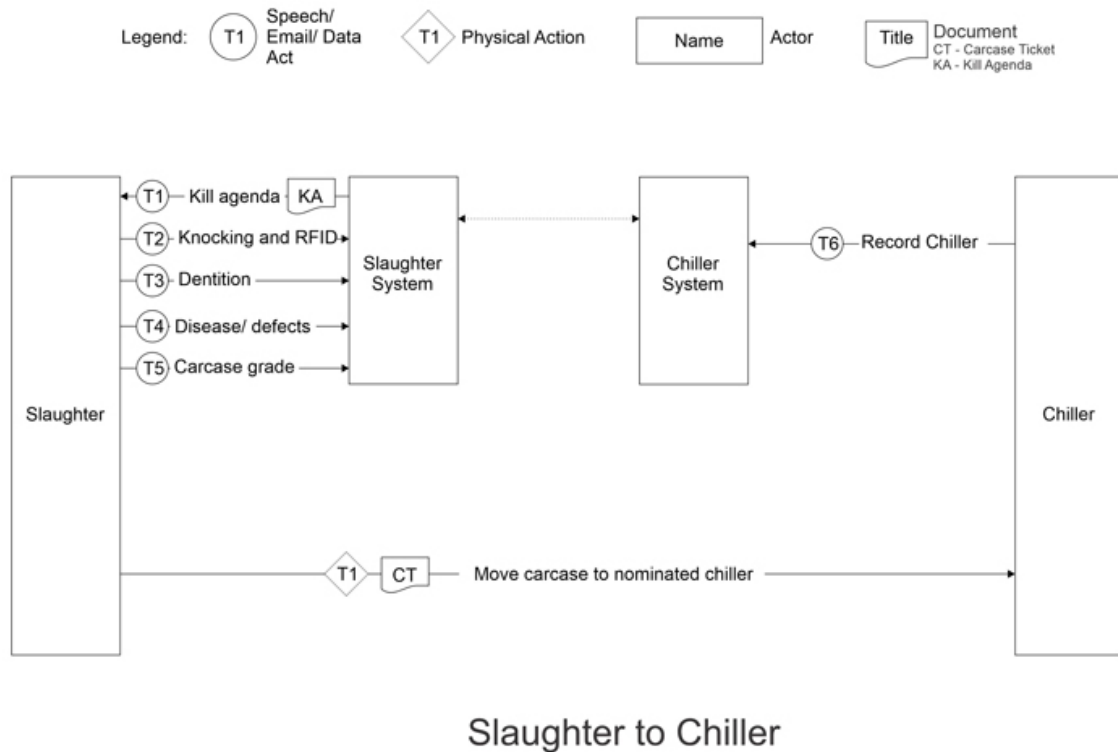


Figure 53. Data or information flows from the slaughter to chiller systems in the beef supply chain.

5.2.2.3 Carcase chiller

Once the slaughter process is complete, carcasses are transferred into the carcase chiller in order to maintain and ensure product wholesomeness (safe to eat and aesthetically pleasing). The Australian standard requires all carcasses to be placed under refrigeration conditions for chilling or freezing within two hours of slaughter. Carcasses must be chilled to no more than 7 degrees Celsius within a period of 24 hours. Additionally, it is essential that hot carcasses do not enter the same carcase chiller containing already chilled product. This is to ensure meat safety.

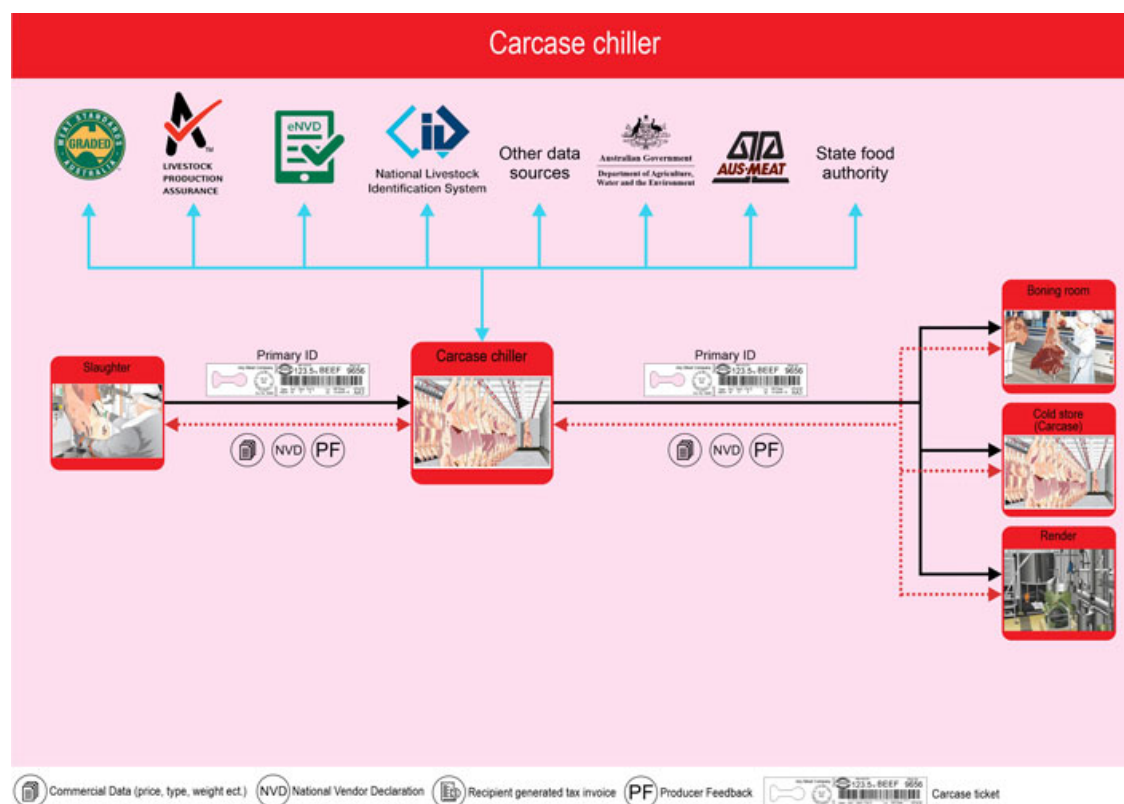


Figure 54. Inputs and outputs of the beef supply chain carcass chiller sector.

5.2.2.3.1 Physical Inputs including Critical Tracking Events (CTEs)

The physical inputs for carcass chillers include the carcasses themselves with the Critical Tracking Event related documents including those which include important traceability information such as the carcass ticket.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with inputs to the carcass chiller system include the receipt of:

* Carcass.

Table 46. Physical inputs and associated Critical Tracking Event related documents for a beef carcass chiller system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Carcass	The body of a slaughtered animal after bleeding. Becomes a dressed carcass when hide, head, feet and offal are removed.	Carcass Ticket, MSA Data Capture Unit/myMSA, Processing plant production management system	

5.2.2.3.2 Information Inputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). There are a number of information inputs associated with the movement of carcasses into

the carcass chiller system. These are largely included on the carcass ticket and are Key Data Elements encapsulated by the GS1 barcode, as well as other information required by federal legislation.

Table 47. Information inputs, Key Data Elements and Critical Tracking Event related documentation for a beef carcass chiller system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Body number	This is a number assigned to each carcass by the processor for identification purposes.	Yes	Carcass Ticket, MSA Data Capture Unit/myMSA, Processing plant production management system	
From Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Carcass Ticket, Processing plant production management system	
Global Trade Item Number (GTIN)	Encoded in the GS1 barcode, the GTIN is a globally unique 14-digit number used to identify trade items, products, or services.	Yes	Carcass Ticket, Processing plant production management system	For more information visit the GS1 website.
Lot number	A lot is a number assigned by the processor to each group of cattle consigned to slaughter and is usually vendor specific.	Yes	MSA Data Capture Unit/myMSA, Processing plant production management system	
MSA Declaration Serial Number	Each MSA Declaration form has a unique serial number.	Yes	MSA Data Capture Unit/myMSA, Processing plant production management system	For more information on MSA visit the MLA website.
MSA Licence Number	Any establishment consigning, supplying, or identifying MSA Certified Product must be registered and have a unique MSA Licence Number.	Yes	MSA Data Capture Unit/myMSA, Processing plant production management system	For more information on MSA visit the MLA website.

Net Weight (Kilograms)	Usually encoded in the GS1 barcode, the Net Weight is a variable measure of the trade item e.g., carton, pallet or shipment recorded in kilograms.	Yes	Carcase Ticket, Processing plant production management system	For more information visit the GS1 website.
NLIS Tag Number/RFID	All animals transported between PICs must have a permanent National Livestock Identification System tag attached. This tag has a unique animal identification number.	Yes	MSA Data Capture Unit/myMSA, Processing plant production management system	For more information visit the Integrity systems website.
Official mark	Any stamp, seal, label, or mark that is declared by the regulations to be an official mark. An official mark signifies that the product has been inspected by and approved as safe for human consumption by an Authorised Officer.	Yes	Carcase Ticket	For more information visit the Australian Government Federal Register of Legislation.
Producer/Vendor MSA Registration Number	Producers consigning cattle to MSA markets are required to be registered and have a unique MSA Registration Number.	Yes	MSA Data Capture Unit/myMSA, Processing plant production management system	For more information on MSA visit the MLA website.
Production Date (YYMMDD)	Encoded in the GS1 barcode, this is the 'kill' or slaughter' date of the product and is recorded in the format year, month, day (YYMMDD).	Yes	Carcase Ticket, Processing plant production management system	For more information visit the GS1 website.
Serial Number	Encoded in the GS1 barcode, this is a code, numeric or alphanumeric, assigned to an individual instance of an item for its lifetime.	Yes	Carcase Ticket, Processing plant production management system	For more information visit the GS1 website.
Slaughter or processing date	This is the date on which livestock were slaughtered by the processor or the day on which carcasses were processed (if different to slaughter date).	Yes	MSA Data Capture Unit/myMSA, Processing plant production management system	
Trade description	This is a collective set of words that says what the product is and may include information such as species, net weight of product, name and address of establishments, category ciphers, market endorsements, MSA eating quality etc.	Yes	Carcase Ticket, Processing plant production management system	

5.2.2.3.3 Physical Outputs including Critical Tracking Events (CTEs)

The physical outputs of the carcass chiller system include carcasses passed as safe for human consumption as well as any carcasses previously identified as requiring a further disposition and deemed unfit for consumption (condemned carcasses).

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with the outputs of the carcass chiller system include the movement of:

- * Carcase
- * Condemned carcass

off the property, premises, or supply chain sector.

Table 48. Physical outputs and associated Critical Tracking Event related documents for a beef carcass chiller system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Carcass	The body of a slaughtered animal after bleeding. Becomes a dressed carcass when hide, head, feet and offal are removed.	Carcass Ticket, MSA Carcass Ticket, MSA Data Capture Unit/myMSA, Processing plant production management system	
Condemned carcass	The body of a slaughtered animal deemed unfit for human consumption. This may be a condemned dressed carcass when hide, head, feet and offal are removed.	Carcass Ticket, Processing plant production management system	

5.2.2.3.4 Information Outputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). The information outputs relating to the movement of carcasses out of the chiller system is largely the same as for the movement of carcasses into the chiller system. This information can predominantly be found on the carcass ticket and will be stored in the processing plants production management system.

Table 49. Information outputs, Key Data Elements and Critical Tracking Event related documentation for a beef carcass chiller system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Body number	This is a number assigned to each carcass by the processor for identification purposes.	Yes	Carcass Ticket, MSA Data Capture Unit/myMSA, Processing plant production management system	
From Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For	Yes	Carcass Ticket, Processing plant production	

	transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.		management system	
Global Trade Item Number (GTIN)	Encoded in the GS1 barcode, the GTIN is a globally unique 14-digit number used to identify trade items, products, or services.	Yes	Carcase Ticket, Processing plant production management system	For more information visit the GS1 website.
Lot number	A lot is a number assigned by the processor to each group of cattle consigned to slaughter and is usually vendor specific.	Yes	MSA Data Capture Unit/myMSA, Processing plant production management system	
MSA Declaration Serial Number	Each MSA Declaration form has a unique serial number.	Yes	MSA Data Capture Unit/myMSA, Processing plant production management system	For more information on MSA visit the MLA website.
MSA Licence Number	Any establishment consigning, supplying, or identifying MSA Certified Product must be registered and have a unique MSA Licence Number.	Yes	MSA Data Capture Unit/myMSA, Processing plant production management system	For more information on MSA visit the MLA website.
Net Weight (Kilograms)	Usually encoded in the GS1 barcode, the Net Weight is a variable measure of the trade item e.g., carton, pallet or shipment recorded in kilograms.	Yes	Carcase Ticket, Processing plant production management system	For more information visit the GS1 website.
NLIS Tag Number/RFID	All animals transported between PICs must have a permanent National Livestock Identification System tag attached. This tag has a unique animal identification number.	Yes	MSA Data Capture Unit/myMSA, Processing plant production management system	For more information visit the Integrity systems website.
Official mark	Any stamp, seal, label, or mark that is declared by the regulations to be an official mark. An official mark signifies that the product has been inspected by and approved as safe for human consumption by an Authorised Officer.	Yes	Carcase Ticket	For more information visit the Australian Government Federal Register of Legislation.
Producer/Vendor MSA Registration Number	Producers consigning cattle to MSA markets are required to be registered and have a unique MSA Registration Number.	Yes	MSA Data Capture Unit/myMSA, Processing plant production	For more information on MSA visit the MLA website.

			management system	
Production Date (YYMMDD)	Encoded in the GS1 barcode, this is the 'kill' or slaughter' date of the product and is recorded in the format year, month, day (YYMMDD).	Yes	Carcase Ticket, Processing plant production management system	For more information visit the GS1 website.
Serial Number	Encoded in the GS1 barcode, this is a code, numeric or alphanumeric, assigned to an individual instance of an item for its lifetime.	Yes	Carcase Ticket, Processing plant production management system	For more information visit the GS1 website.
Slaughter or processing date	This is the date on which livestock were slaughtered by the processor or the day on which carcasses were processed (if different to slaughter date).	Yes	MSA Data Capture Unit/myMSA, Processing plant production management system	
Trade description	This is a collective set of words that says what the product is and may include information such as species, net weight of product, name and address of establishments, category ciphers, market endorsements, MSA eating quality etc.	Yes	Carcase Ticket, Processing plant production management system	

5.2.2.3.5 Regulatory and Industry Programs

- * AUS-MEAT
- * Australian Meat Industry Council (AMIC)
- * Department of Agriculture
- * eNVD
- * Livestock Production Assurance (LPA)
- * Meat Standards Australia (MSA)
- * National Livestock Identification System (NLIS)
- * State food authority
- * Other data sources

5.2.2.3.6 Supply Chain Node Traceability

Traceability of whole carcasses back to the live animal is possible and can be done by the processing establishment where the animal was slaughtered. Here, carcasses are issued a carcass ticket which correlates to the live animal identifier and contains key information, including GS1 meat industry barcode, body number, processing establishment number and production date or 'kill date'. This information is uploaded to the NLIS Database, by the processor, under the processing establishments Property Identification Code (PIC). Thus, whole carcasses (identified with a unique serialised carcass ticket) within a processing facility, chiller, cold store, or that are loaded for export or transport to other premises (e.g., retail) are fully traceable back to the individual live animal and property of origin.

5.2.2.3.7 Data flow diagrams

Table 50. Data flow diagrams for the inputs and outputs of a beef carcass chiller system.

Direction	Description
Input	Slaughter to Carcase Chiller
Output	Carcass chiller to Boning room
Output	Carcass chiller to Carcase Chill Store
Output	Carcass chiller to Render

5.2.2.3.7.1 Slaughter to Carcase Chiller

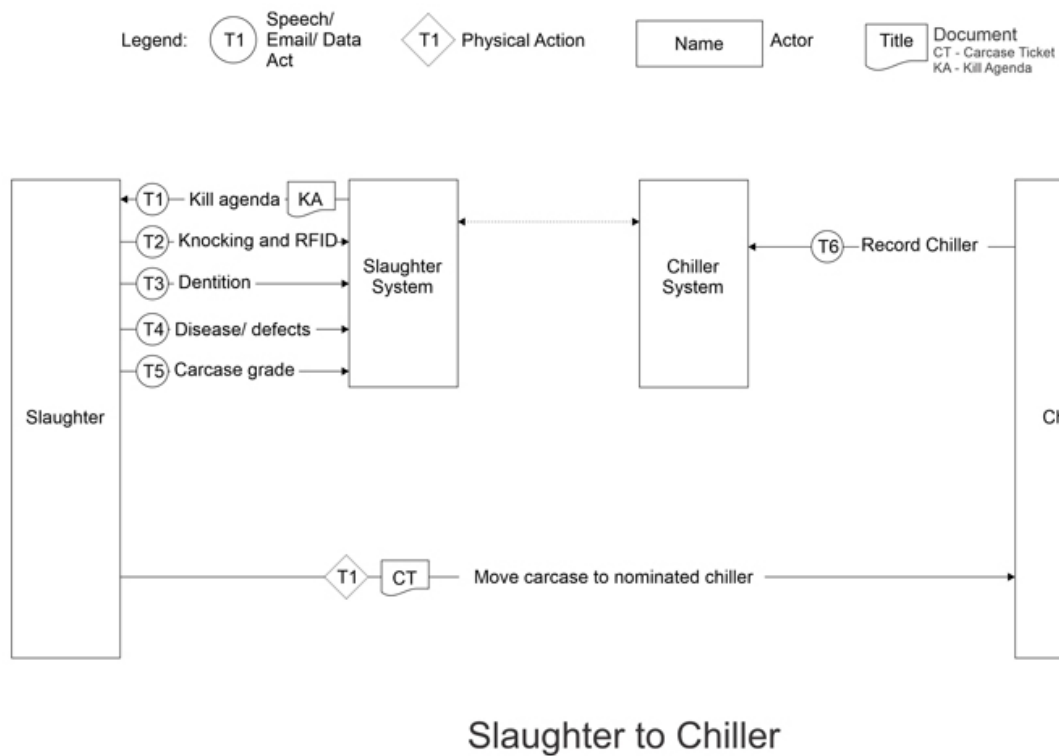


Figure 55. Data or information flows from the slaughter to chiller systems in the beef supply chain.

5.2.2.3.7.2 Carcase chiller to Boning room

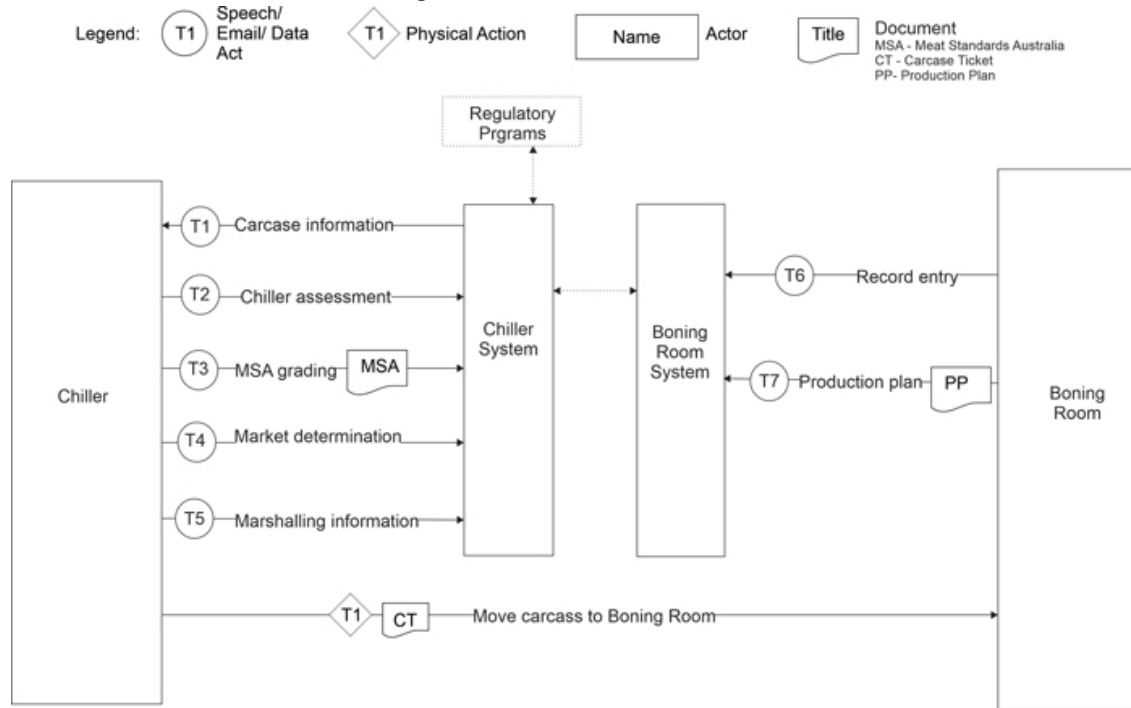
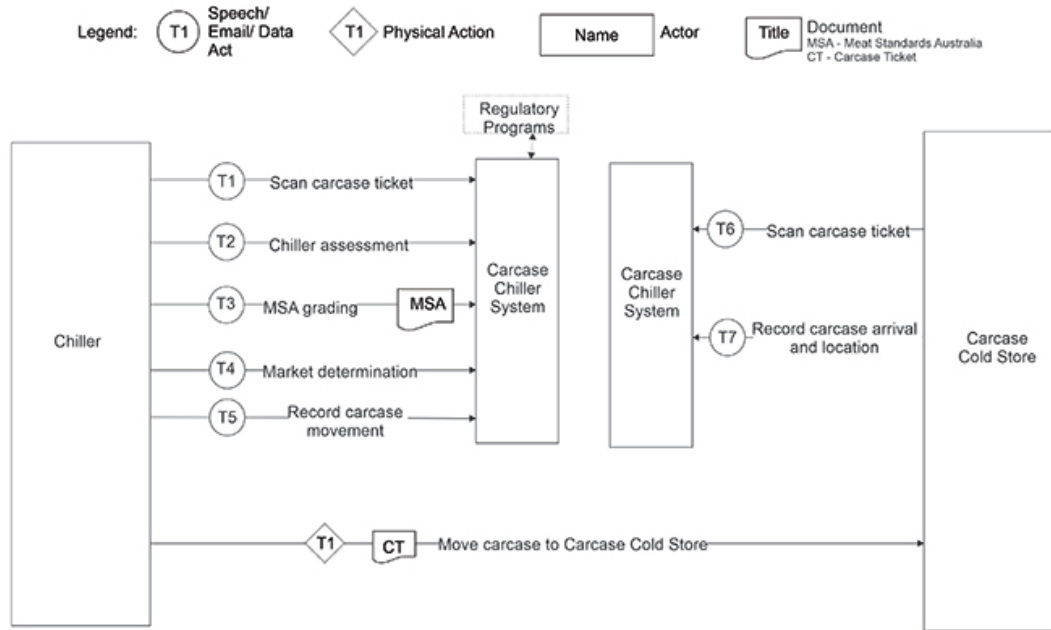


Figure 56. Data or information flows from the chiller to boning room systems in the beef supply chain.

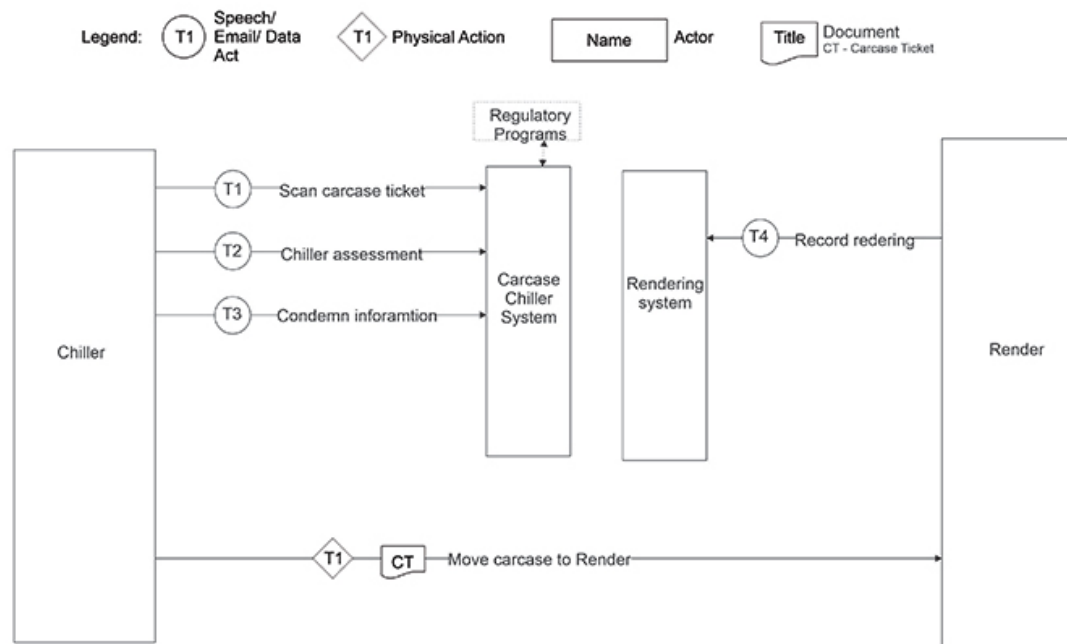
5.2.2.3.7.3 Carcase chiller to Carcase Chill Store



Chiller to Carcase Cold Store

Figure 57. Data or information flows from the chiller to carcase cold store systems in the beef supply chain.

5.2.2.3.7.4 Carcase chiller to Render



Carcase Chiller to Render

Figure 58. Data or information flows from the chiller to render systems in the beef supply chain.

5.2.2.4 Boning room

Boning is a process or procedure whereby meat is removed from carcasses or carcase parts, or bone-in or boneless meat cuts are produced. The boning room is the location where these activities occur. Typically, carcasses enter the boning room after chilling and are broken down into portions and cuts such as primal, sub-primal and trim cuts. This process is very critical, as any errors in cutting can decrease the value of a cut and impact directly on profit. Additionally, there is a high risk of cross contamination to the cuts, and health and safety risks to workers operating the boning room tools and machinery.

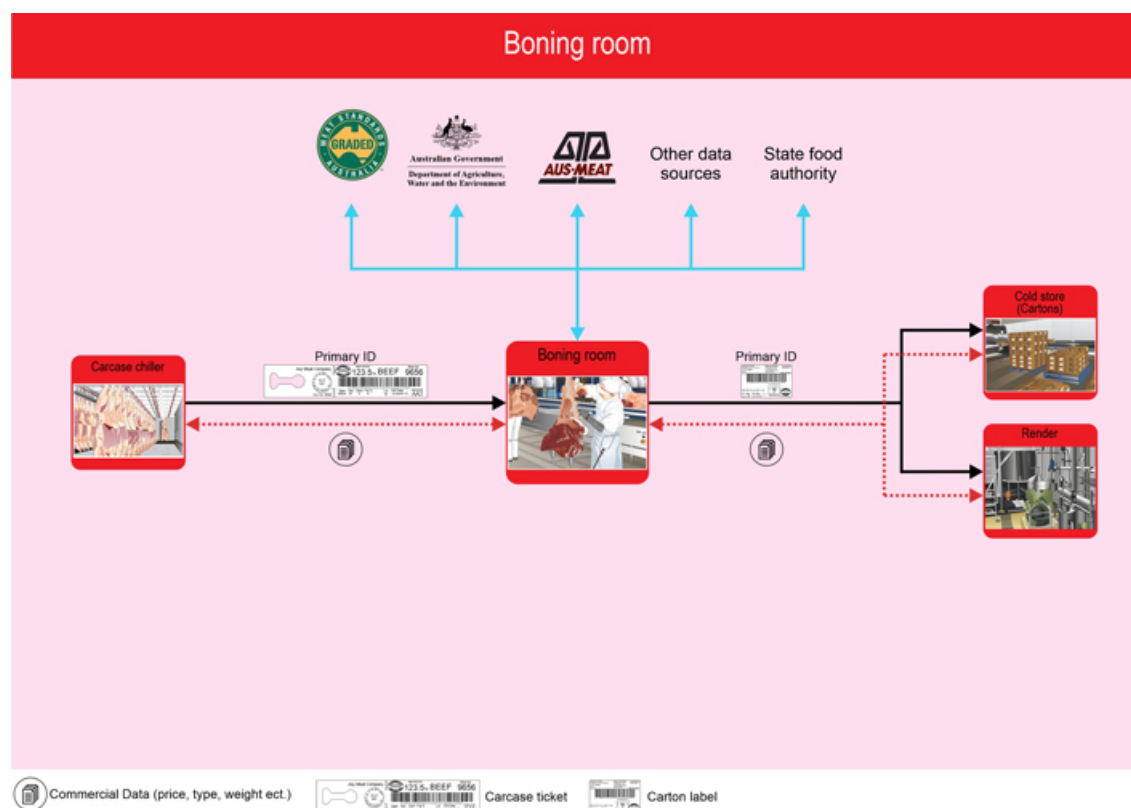


Figure 59. Inputs and outputs of the beef supply chain boning room sector.

5.2.2.4.1 Physical Inputs including Critical Tracking Events (CTEs)

Physical inputs into the boning room related to product traceability are those carcasses transferred out of the carcass chiller system. This includes the CTE documentation such as the carcass ticket.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with inputs to the boning room system include the receipt of:

* Carcass.

Table 51. Physical inputs and associated Critical Tracking Event related documents for a beef boning room system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Carcass	The body of a slaughtered animal after bleeding. Becomes a dressed carcass when hide, head, feet and offal are removed.	Carcass Ticket, MSA Carcass Ticket, Processing plant production management system	

5.2.2.4.2 Information Inputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). The information inputs associated with the movement of carcasses into the boning room can

largely be found on the carcase ticket. This may include the GS1 barcode as well as other carcase information. In addition, carcasses will be classified into different MSA eating quality grade groups for boning of like carcasses.

Table 52. Information inputs, Key Data Elements and Critical Tracking Event related documentation for a beef boning room system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Body number	This is a number assigned to each carcase by the processor for identification purposes.	Yes	Carcase Ticket, Processing plant production management system	
From Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Carcase Ticket, Processing plant production management system	
Global Trade Item Number (GTIN)	Encoded in the GS1 barcode, the GTIN is a globally unique 14-digit number used to identify trade items, products, or services.	Yes	Carcase Ticket, Processing plant production management system	For more information visit the GS1 website.
MSA eating quality group/grade	This identifies carcasses with similar MSA and eating quality grades, these may align with brands packed by the processor for logistic simplicity. Carcasses are grouped for boning according to eating quality grades.	Yes	MSA Carcase Ticket, Processing plant production management system	For more information on MSA visit the MLA website.
Net Weight (Kilograms)	Usually encoded in the GS1 barcode, the Net Weight is a variable measure of the trade item e.g., carton, pallet or shipment recorded in kilograms.	Yes	Carcase Ticket, Processing plant production management system	For more information visit the GS1 website.
Official mark	Any stamp, seal, label, or mark that is declared by the regulations to be an official mark. An official mark signifies that the product has been inspected by and approved as safe for human consumption by an Authorised Officer.	Yes	Carcase Ticket	For more information visit the Australian Government Federal Register of Legislation.
Production Date (YYMMDD)	Encoded in the GS1 barcode, this is the 'kill' or slaughter' date of the product and is recorded in the format year, month, day (YYMMDD).	Yes	Carcase Ticket, Processing plant production	For more information visit the GS1 website.

			management system	
Serial Number	Encoded in the GS1 barcode, this is a code, numeric or alphanumeric, assigned to an individual instance of an item for its lifetime.	Yes	Carcase Ticket, Processing plant production management system	For more information visit the GS1 website.
Trade description	This is a collective set of words that says what the product is and may include information such as species, net weight of product, name and address of establishments, category ciphers, market endorsements, MSA eating quality etc.	Yes	Carcase Ticket, Processing plant production management system	
Lot number	A lot is a number assigned by the processor to each group of cattle consigned to slaughter and is usually vendor specific.	Yes	Carcase Ticket, Processing plant production management system	

5.2.2.4.3 Physical Outputs including Critical Tracking Events (CTEs)

The output of the Boning room is meat which can be classified, measured, and identified as red meat products for human consumption or condemned carcase parts such as trim. Product for human consumption may be packaged into cartons or onto pallets for transport.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with the outputs of the boning room system include the movement of:

- * Carton
- * Pallet
- * Condemned carcase parts

off the property, premises, or supply chain sector.

Table 53. Physical outputs and associated Critical Tracking Event related documents for a beef boning room system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Carton	This is a case, crate, or barrel of product.	Carton label, Official seal, Processing plant production management system	

Pallet	A logistic unit which includes a number of cartons or goods items packed together for transport or storage purposes.	SSCC/Pallet label, Processing plant production management system	
Condemned carcase parts	Any tissue or structure removed from a slaughtered animal deemed unfit for human consumption. These parts may include the head, viscera, offal, musculature, and blood. NOTE: condemned offal is treated as a separate item here.	Processing plant production management system	

5.2.2.4.4 Information Outputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). The information outputs associated with the movement of product out of the boning room is found on the carton and pallet labels. This information is also recorded in the processing plants production management system and includes application identifiers from the GS1 barcodes as well as other trade description information.

Table 54. Information outputs, Key Data Elements and Critical Tracking Event related documentation for a beef boning room system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Carton label, Processing plant production management system, SSCC/Pallet label	
Consignment Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., shipment/message that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Processing plant production management system, SSCC/Pallet label	For more information visit the GS1 website.
Count of Trade Items	Usually encoded in the GS1 barcode, this is the number of trade items e.g., cartons in the logistic unit.	Yes	Processing plant production management system, SSCC/Pallet label	For more information visit the GS1 website.
From Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets.	Yes	Carton label, Processing plant production	

			management system, SSCC/Pallet label	
Global Trade Item Number (GTIN)	Encoded in the GS1 barcode, the GTIN is a globally unique 14-digit number used to identify trade items, products, or services.	Yes	Carton label, Processing plant production management system, SSCC/Pallet label	For more information visit the GS1 website.
GTIN of Contained Trade Items	Encoded in the GS1 barcode, the GTIN of the contained trade items is a globally unique 14-digit number used to identify trade items, products, or services in the logistic unit.	Yes	Processing plant production management system, SSCC/Pallet label	For more information visit the GS1 website.
Net Weight (Kilograms)	Usually encoded in the GS1 barcode, the Net Weight is a variable measure of the trade item e.g., carton, pallet or shipment recorded in kilograms.	Yes	Carton label, Processing plant production management system, SSCC/Pallet label	For more information visit the GS1 website.
Official mark	Any stamp, seal, label, or mark that is declared by the regulations to be an official mark. An official mark signifies that the product has been inspected by and approved as safe for human consumption by an Authorised Officer.	Yes	Carton label, SSCC/Pallet label	
Packaging Date	Encoded in the GS1 barcode, the Packaging Date is the date on which the item was packaged and is recorded in the format year, month, day (YYMMDD).	Yes	Carton label, Processing plant production management system, SSCC/Pallet label	For more information visit the GS1 website.
Packaging Date Range	This includes the oldest and newest packaging dates for the logistic unit.	Yes	Processing plant production management system, SSCC/Pallet label	For more information visit the GS1 website.
Pallet Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., pallet that is assigned by the establishment constructing the unit. The	Yes	Processing plant production management system,	For more information visit the GS1 website.

	SSCC remains the same for the life of the logistic unit.		SSCC/Pallet label	
Seal Serial Number	This is a unique serial number printed on any tamper-evident seal issued by the Department.	Yes	Official seal, Processing plant production management system	For more information visit the Australian Government Federal Register of Legislation.
Serial Number	Encoded in the GS1 barcode, this is a code, numeric or alphanumeric, assigned to an individual instance of an item for its lifetime.	Yes	Carton label, Processing plant production management system	For more information visit the GS1 website.
Shipping Mark	Also known as a port mark, this is a code comprising of three letters representing the foreign establishment number and the last nine digits of the consignment SSCC.	Yes	Processing plant production management system, SSCC/Pallet label	
Trade description	This is a collective set of words that says what the product is and may include information such as species, net weight of product, name and address of establishments, category ciphers, market endorsements, MSA eating quality etc.	Yes	Carton label, Processing plant production management system, SSCC/Pallet label	

5.2.2.4.5 Regulatory and Industry Programs

- * Meat Standards Australia (MSA)
- * AUS-MEAT
- * Australian Meat Industry Council (AMIC)
- * Department of Agriculture
- * State food authority
- * Other data sources

5.2.2.4.6 Supply Chain Node Traceability

Traceability for cartoned and palletised product is limited to the carcasses that have entered the boning room for the production run of cartons that are created. For example, 200 carcasses (400 sides) individually identified with unique carcass tickets enter the boning room for a specific boning run. These carcass tickets are linked to the specific boning run. From these carcasses, 3 200 cartons of primal cuts and 1 000 cartons of trim and other highly mixed products are created. While all cartons are identified with unique serialised carton labels, including a GS1 meat industry barcode, linked to the boning run (and may be packaged into pallets containing unique serialised pallet labels including a GS1 SSCC barcode), it is not readily possible to identify which carcasses are in which cartons as the cartons will contain meat products from different carcasses. If the carcasses were sourced from several different properties, the resulting carton can only be traced to a number of possible carcasses and source properties.

5.2.2.4.7 Data flow diagrams

Table 55. Data flow diagrams for the inputs and outputs of a beef boning room system.

Direction	Description
Input	Carcase chiller to Boning room
Output	Boning room to Cold store (Cartons)
Output	Boning room to Render

5.2.2.4.7.1 Carcase chiller to Boning room

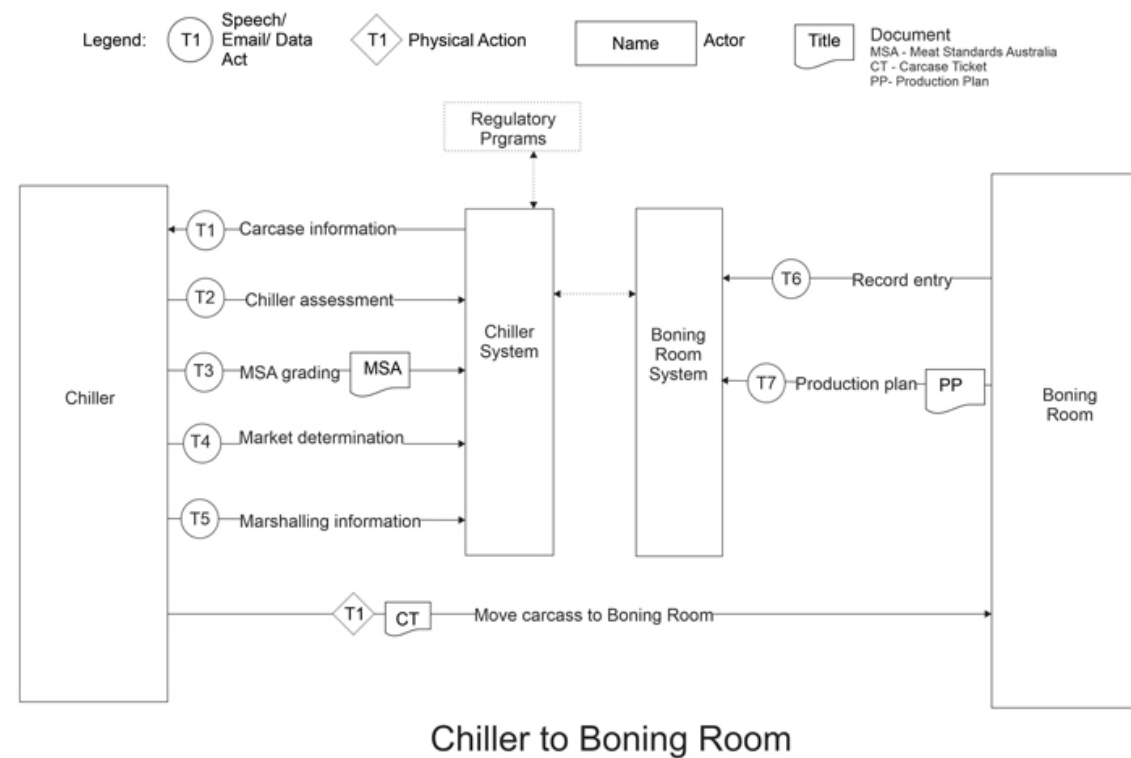


Figure 60. Data or information flows from the carcase chiller to boning room systems in the beef supply chain.

5.2.2.4.7.2 Boning room to Cold store (Cartons)

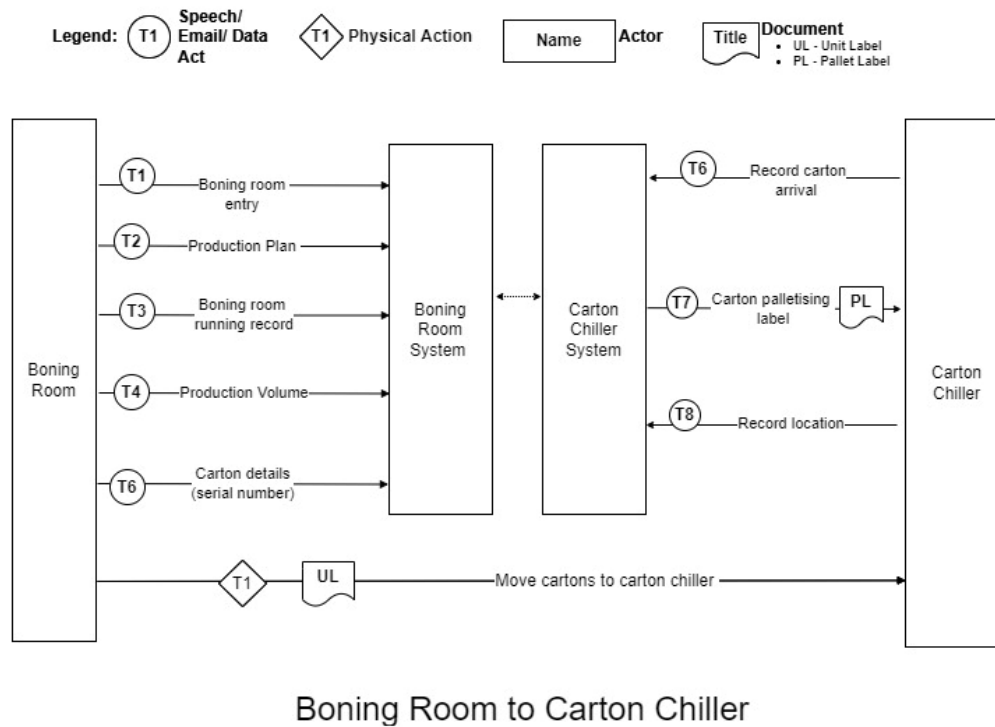


Figure 61. Data or information flows from the boning room to carton chiller systems in the beef supply chain.

5.2.2.4.7.3 Boning room to Render

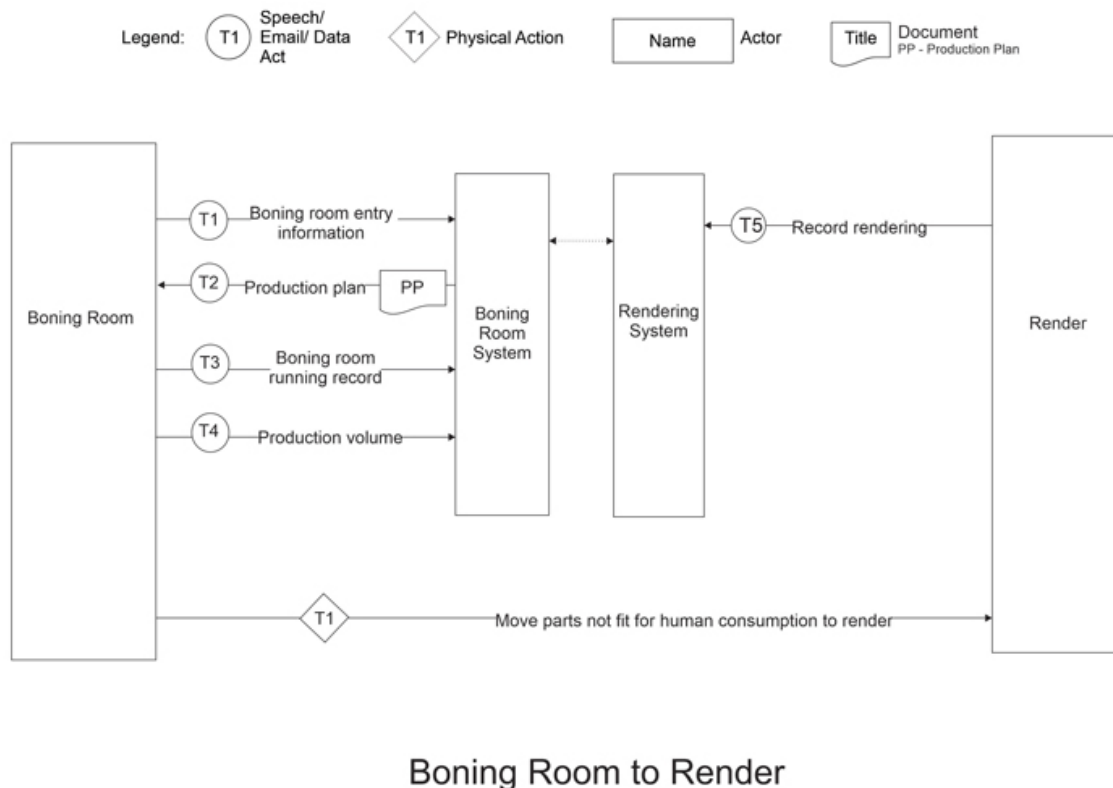


Figure 62. Data or information flows from the boning room to render systems in the beef supply chain.

5.2.2.5 Offal room

At slaughter, carcasses are eviscerated, and the internal organs are divided into green and red offal. Green offal includes the stomach, intestines, and additional parts of the digestive tract while red offal includes the heart, kidneys, lungs, and liver. These products are first inspected by Authorised Government Officers for compliance with food safety standards and then enter the offal room where they are processed and packaged for sale. With offal likely to develop off conditions far more quickly than carcasse product, it essential that offal is processed carefully, hygienically and refrigerated as quickly as possible.

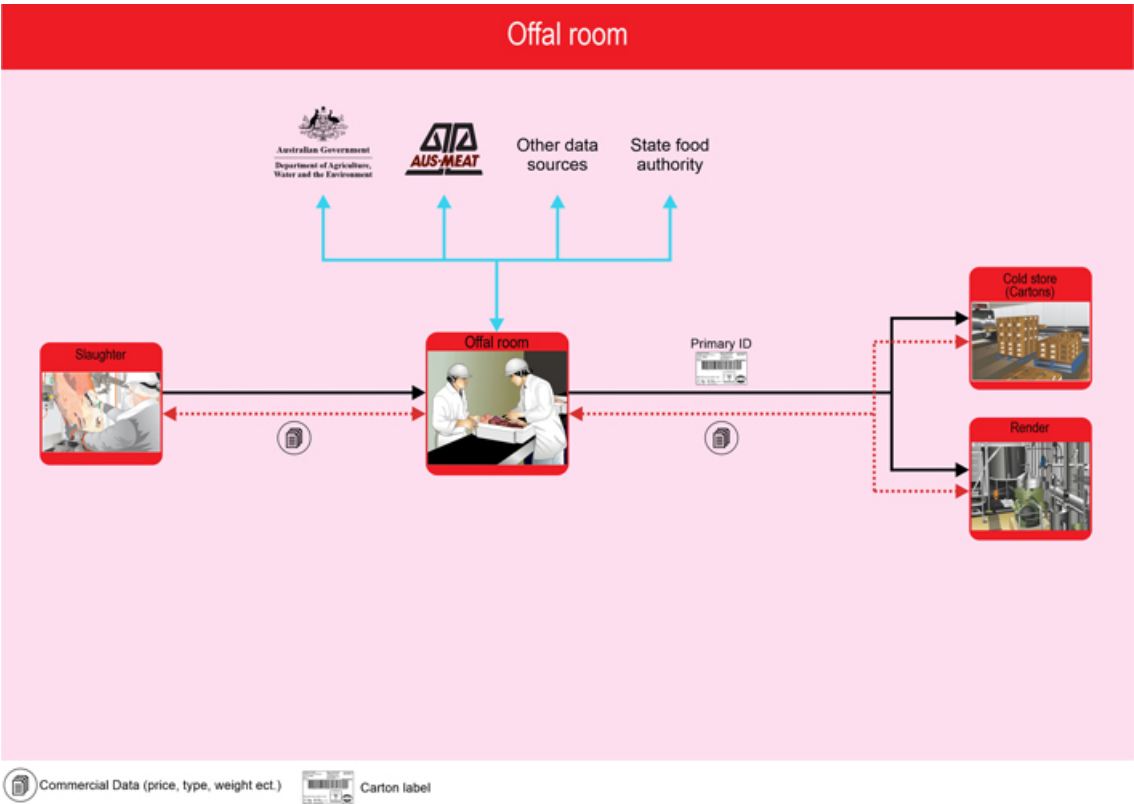


Figure 63. Inputs and outputs of the beef supply chain offal room sector.

5.2.2.5.1 Physical Inputs including Critical Tracking Events (CTEs)

The physical inputs into the offal room include the offal products e.g., heart, liver, lungs.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with inputs to the offal room system include the receipt of:

- * Offal.

Table 56. Physical inputs and associated Critical Tracking Event related documents for a beef offal room system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details

Offal	The organs of the thoracic and abdominal cavities, the brain, the muscular tissues of the head and diaphragm, the tail, feet, or tendons.	Processing plant production management system	

5.2.2.5.2 Information Inputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). Information inputs into the offal room are those which are found in the processors production management system and include basic product information such as establishment number and slaughter or processing date.

Table 57. Information inputs, Key Data Elements and Critical Tracking Event related documentation for a beef offal room system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Batch number	This is a unique number which identifies products sharing certain production characteristics and is used for traceability purposes.	Yes	Processing plant production management system	
From Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Processing plant production management system	
Lot number	A lot is a number assigned by the processor to each group of cattle consigned to slaughter and is usually vendor specific.	Yes	Processing plant production management system	
Slaughter or processing date	This is the date on which livestock were slaughtered by the processor or the day on which carcasses were processed (if different to slaughter date).	Yes	Processing plant production management system	

5.2.2.5.3 Physical Outputs including Critical Tracking Events (CTEs)

Physical outputs of the offal room include offal products which have been packaged into cartons or pallets for transport. Critical Tracking Event documentation accompanying these outputs include carton and pallet labels. In addition, condemned offal, product that is unsuitable for market may be sent to render. This information is all recorded in the processors production management system.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with the outputs of the offal room system include the movement of:

* Carton

* Pallet

* Condemned offal

off the property, premises, or supply chain sector.

Table 58. Physical outputs and associated Critical Tracking Event related documents for a beef offal room system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Carton	This is a case, crate, or barrel of product.	Carton label, Official seal, Processing plant production management system	
Pallet	A logistic unit which includes a number of cartons or goods items packed together for transport or storage purposes.	SSCC/Pallet label, Processing plant production management system	
Condemned offal	Offal tissues deemed unfit for human consumption.	Processing plant production management system	

5.2.2.5.4 Information Outputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). Information outputs from the offal room can be found on the carton and pallet labels and is stored in the processors production management system for traceability. Such information includes application identifiers included in the GS1 barcode as well as trade description information.

Table 59. Information outputs, Key Data Elements and Critical Tracking Event related documentation for a beef offal room system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Carton label, Processing plant production management system, SSCC/Pallet label	
Consignment Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., shipment/message that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Processing plant production management system, SSCC/Pallet label	For more information visit the GS1 website.

Count of Trade Items	Usually encoded in the GS1 barcode, this is the number of trade items e.g., cartons in the logistic unit.	Yes	Processing plant production management system, SSCC/Pallet label	
From Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Carton label, Processing plant production management system, SSCC/Pallet label	
Global Trade Item Number (GTIN)	Encoded in the GS1 barcode, the GTIN is a globally unique 14-digit number used to identify trade items, products, or services.	Yes	Carton label, Processing plant production management system, SSCC/Pallet label	
GTIN of Contained Trade Items	Encoded in the GS1 barcode, the GTIN of the contained trade items is a globally unique 14-digit number used to identify trade items, products, or services in the logistic unit.	Yes	Processing plant production management system, SSCC/Pallet label	For more information visit the GS1 website.
Net Weight (Kilograms)	Usually encoded in the GS1 barcode, the Net Weight is a variable measure of the trade item e.g., carton, pallet or shipment recorded in kilograms.	Yes	Carton label, Processing plant production management system, SSCC/Pallet label	For more information visit the GS1 website.
Official mark	Any stamp, seal, label, or mark that is declared by the regulations to be an official mark. An official mark signifies that the product has been inspected by and approved as safe for human consumption by an Authorised Officer.	Yes	Carton label, SSCC/Pallet label	For more information visit the Australian Government Federal Register of Legislation.
Packaging Date	Encoded in the GS1 barcode, the Packaging Date is the date on which the item was packaged and is recorded in the format year, month, day (YYMMDD).	Yes	Carton label, Processing plant production management system, SSCC/Pallet label	For more information visit the GS1 website.

Packaging Date Range	This includes the oldest and newest packaging dates for the logistic unit.	Yes	Processing plant production management system, SSCC/Pallet label	For more information visit the GS1 website.
Pallet Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., pallet that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Processing plant production management system, SSCC/Pallet label	For more information visit the GS1 website.
Seal Serial Number	This is a unique serial number printed on any tamper-evident seal issued by the Department.	Yes	Official seal, Processing plant production management system	For more information visit the Australian Government Federal Register of Legislation.
Serial Number	Encoded in the GS1 barcode, this is a code, numeric or alphanumeric, assigned to an individual instance of an item for its lifetime.	Yes	Carton label, Processing plant production management system	For more information visit the GS1 website.
Shipping Mark	Also known as a port mark, this is a code comprising of three letters representing the foreign establishment number and the last nine digits of the consignment SSCC.	Yes	Processing plant production management system, SSCC/Pallet label	
Trade description	This is a collective set of words that says what the product is and may include information such as species, net weight of product, name and address of establishments, category ciphers, market endorsements, MSA eating quality etc.	Yes	Carton label, Processing plant production management system, SSCC/Pallet label	

5.2.2.5.5 Regulatory and Industry Programs

- * Department of Agriculture
- * AUS-MEAT
- * Australian Meat Industry Council (AMIC)
- * State food authority
- * Other data sources

5.2.2.5.6 Supply Chain Node Traceability

Traceability for cartoned and palletised offal product is limited to the carcasses which were processed for the particular offal room production run from which cartons were created. For example, 1 000 carcasses (2 000 sides) are processed and individually identified with unique serialised carcass tickets, including GS1 meat industry barcodes. From these carcasses, 2 000 kidneys enter the offal room for the offal room production run and are packaged into 100 x 10 kg cartons. These cartons are identified by unique serialised carton labels, including a GS1 meat industry barcode, (and may be packaged into pallets containing unique serialised pallet labels including a GS1 SSCC barcode) linked to the offal room production run. It is not readily possible to identify which carcasses are in which cartons as the cartons will contain kidneys from different carcasses. If the carcasses were sourced from several different properties, the resulting carton can only be traced to a number of possible carcasses and source properties.

5.2.2.5.7 Data flow diagrams

Table 60. Data flow diagrams for the inputs and outputs of a beef offal room system.

Direction	Description
Input	Slaughter floor to Offal room
Output	Offal room to Cold store (Cartons)
Output	Offal room to Render

5.2.2.5.7.1 Slaughter floor to Offal room

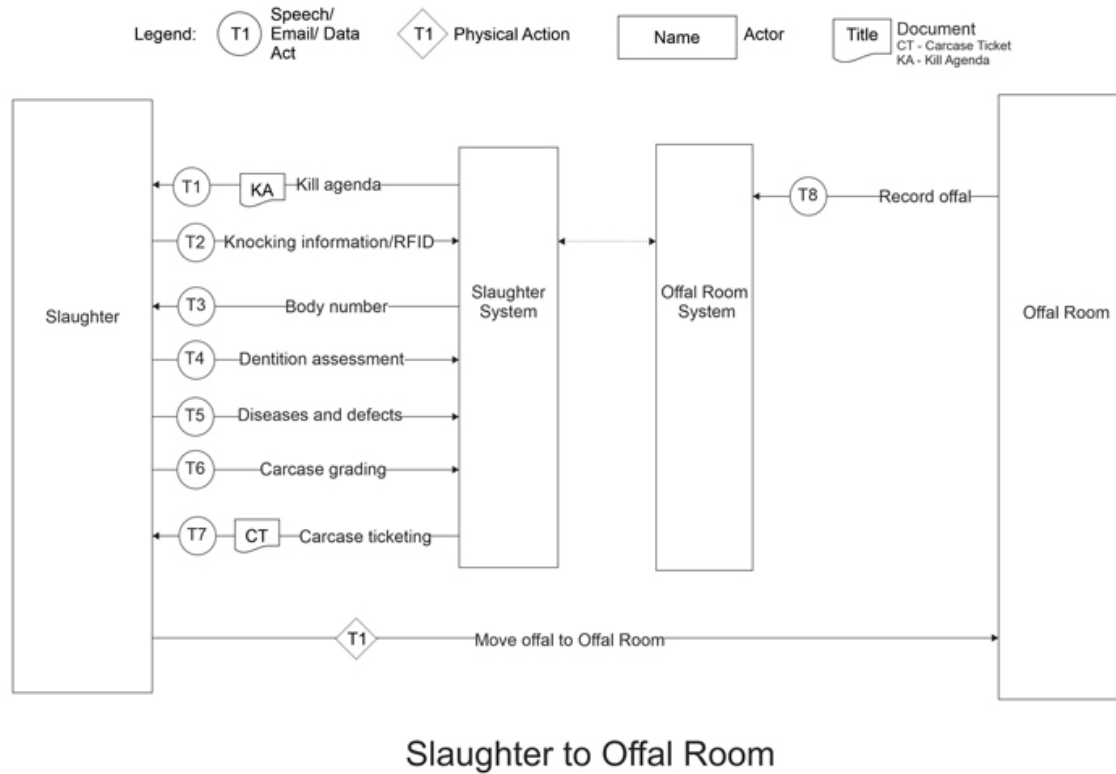
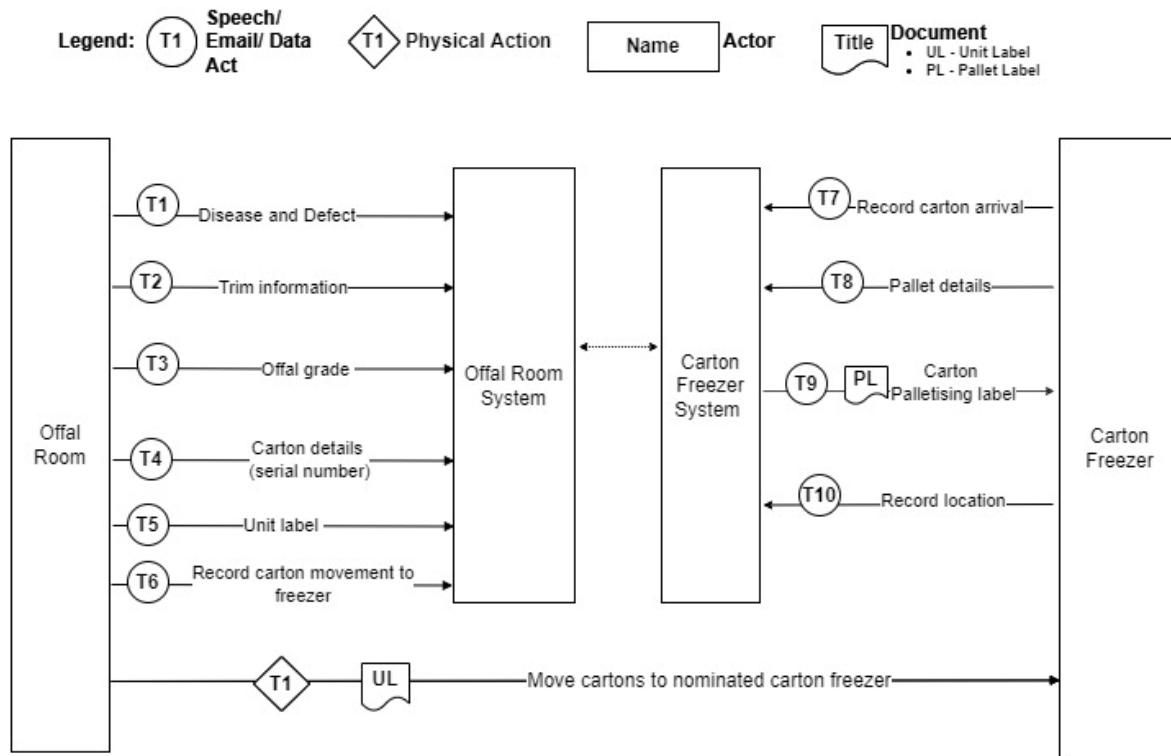


Figure 64. Data or information flows from the slaughter to offal room systems in the beef supply chain.

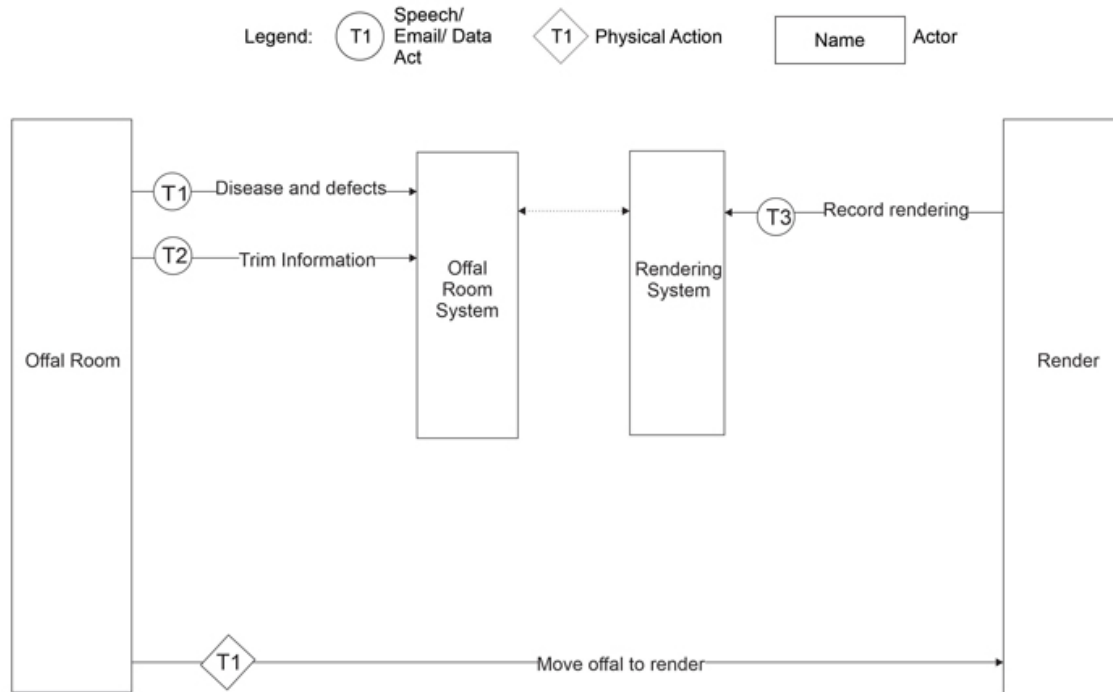
5.2.2.5.7.2 Offal room to Cold store (Cartons)



Offal Room to Carton Freezer

Figure 65. Data or information flows from the offal room to carton freezer systems in the beef supply chain.

5.2.2.5.7.3 Offal room to Render



Offal Room to Render

Figure 66. Data or information flows from the offal room to render systems in the beef supply chain.

5.2.2.6 Render

Rendering is the process of heat-treating raw materials to remove moisture and/or separate fat. Raw materials such as trim and condemned product enter the rendering plant from various processing stages such as slaughter, boning and the offal room and are converted into non-edible (for humans) by-products such as meat meal, tallow, and bone meal.

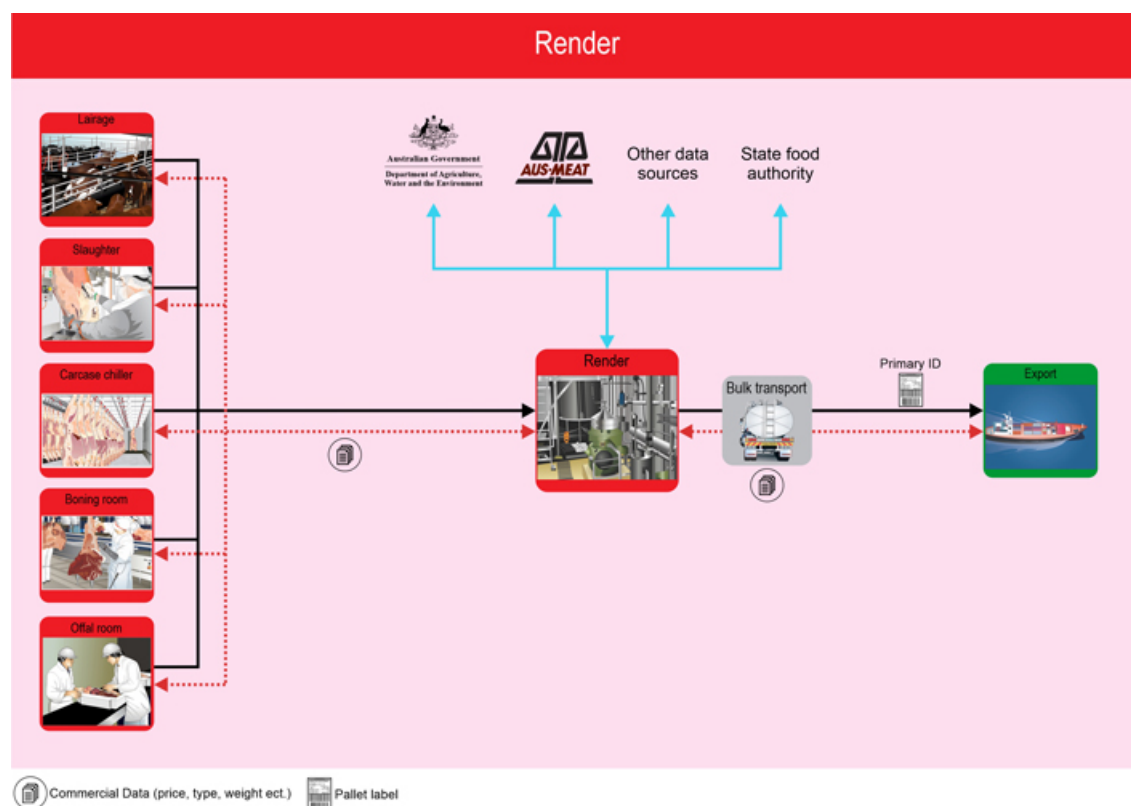


Figure 67. Inputs and outputs of the beef supply chain render sector.

5.2.2.6.1 Physical Inputs including Critical Tracking Events (CTEs)

Physical inputs to render include carcass products unsuitable or unfit for human consumption such as condemned carcasses, condemned carcass parts, condemned offal and cartons from carton rework.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with inputs to the render system include the receipt of:

- * Condemned carcass
- * Condemned carcass parts
- * Condemned offal
- * Carton.

Table 61. Physical inputs and associated Critical Tracking Event related documents for a beef render system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Condemned carcass	The body of a slaughtered animal deemed unfit for human consumption. This may be a condemned dressed carcass when hide, head, feet and offal are removed.	Carcass Ticket, Processing plant production	

		management system	
Condemned carcase parts	Any tissue or structure removed from a slaughtered animal deemed unfit for human consumption. These parts may include the head, viscera, offal, musculature, and blood. NOTE: condemned offal is treated as a separate item here.	Processing plant production management system	
Condemned offal	Offal tissues deemed unfit for human consumption.	Processing plant production management system	
Carton	This is a case, crate, or barrel of product.	Carton label, Official seal, Processing plant production management system	

5.2.2.6.2 Information Inputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). Information inputs for render include those KDEs included on CTE documentation from condemned product. This may include carcase tickets or information recorded in the processing plants production management system.

Table 62. Information inputs, Key Data Elements and Critical Tracking Event related documentation for a beef render system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Body number	This is a number assigned to each carcase by the processor for identification purposes.	Yes	Carcase Ticket, Processing plant production management system	
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Carton label, Processing plant production management system	
From Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Carcase Ticket, Carton label, Processing plant production management system	

Global Trade Item Number (GTIN)	Encoded in the GS1 barcode, the GTIN is a globally unique 14-digit number used to identify trade items, products, or services.	Yes	Carcase Ticket, Carton label, Processing plant production management system	For more information visit the GS1 website.
Net Weight (Kilograms)	Usually encoded in the GS1 barcode, the Net Weight is a variable measure of the trade item e.g., carton, pallet or shipment recorded in kilograms.	Yes	Carcase Ticket, Carton label, Processing plant production management system	For more information visit the GS1 website.
Official mark	Any stamp, seal, label, or mark that is declared by the regulations to be an official mark. An official mark signifies that the product has been inspected by and approved as safe for human consumption by an Authorised Officer.	Yes	Carcase Ticket, Carton label	For more information visit the Australian Government Federal Register of Legislation.
Packaging Date	Encoded in the GS1 barcode, the Packaging Date is the date on which the item was packaged and is recorded in the format year, month, day (YYMMDD).	Yes	Carton label, Processing plant production management system	For more information visit the GS1 website.
Production Date (YYMMDD)	Encoded in the GS1 barcode, this is the 'kill' or slaughter' date of the product and is recorded in the format year, month, day (YYMMDD).	Yes	Carcase Ticket, Processing plant production management system	For more information visit the GS1 website.
Seal Serial Number	This is a unique serial number printed on any tamper-evident seal issued by the Department.	Yes	Official seal, Processing plant production management system	For more information visit the Australian Government Federal Register of Legislation.
Serial Number	Encoded in the GS1 barcode, this is a code, numeric or alphanumeric, assigned to an individual instance of an item for its lifetime.	Yes	Carcase Ticket, Carton label, Processing plant production management system	For more information visit the GS1 website.
Trade description	This is a collective set of words that says what the product is and may include information such as species, net weight of product, name and address of establishments, category ciphers, market endorsements, MSA eating quality etc.	Yes	Carcase Ticket, Carton label, Processing plant production management system	

Lot number	A lot is a number assigned by the processor to each group of cattle consigned to slaughter and is usually vendor specific.	Yes	Carcase Ticket, Processing plant production management system	

5.2.2.6.3 Physical Outputs including Critical Tracking Events (CTEs)

The output of the render process is the production of by-products which can be used, stored, and sold. These by-products may include meat meal, meat and bone meal, bone meal, blood meal and tallow. Such products exit the render process packaged in store bags or are bulk transported in container system units.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with the outputs of the render system include the movement of:

- * Rendered product store bag

- * Container System Unit

off the property, premises, or supply chain sector.

Table 63. Physical outputs and associated Critical Tracking Event related documents for a beef render system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Rendered product store bag	A large storage bag which can temporarily store large quantities of product.	SSCC/Store bag label, Animal By Product Transfer Certificate (BPTC), Processing plant production management system, Receipt of purchase/Tax Invoice, Export Permit, Export clearance documentation, Delivery Docket/Manifest, Bill of lading/Air Waybill, Certificate of Analysis (COA)	
Container System Unit	A container designed for use as a unit of cargo handling equipment in the transport of goods by aircraft or ship.	Animal By Product Transfer Certificate (BPTC), Meat Messaging Consignment Report, Processing plant production management system, Receipt of purchase/Tax Invoice, Delivery Docket/Manifest, Export Permit, Export clearance documentation, Bill of lading/Air Waybill, Certificate of Analysis (COA)	

5.2.2.6.4 Information Outputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). Information outputs associated with rendered product include those derived from Critical Tracking Event related documents such as the Animal By Product Transfer Certificate (BPTC), Export clearance documentation and the Delivery Docket/Manifest.

Table 64. Information outputs, Key Data Elements and Critical Tracking Event related documentation for a beef render system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details

Bill of lading/Air Waybill document number	A unique document number issued for traceability purposes.	Yes	Bill of lading/Air Waybill, Processing plant production management system	
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Bill of lading/Air Waybill, Processing plant production management system, Receipt of purchase/Tax Invoice, SSCC/Store bag label, Certificate of Analysis (COA)	
Consignment Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., shipment/message that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Animal By Product Transfer Certificate (BPTC), Bill of lading/Air Waybill, Meat Messaging Consignment Report, Processing plant production management system, SSCC/Store bag label	For more information visit the GS1 website.
Contract number	This is a unique number allocated to the contract by the seller.	Yes	Delivery Docket/Manifest, Processing plant production management system	
Count of Pallets	This is the number of pallets in the logistic unit e.g., container system unit.	Yes	Meat Messaging Consignment Report, Processing plant production management system	
Count of Trade Items	Usually encoded in the GS1 barcode, this is the number of trade items e.g., cartons in the logistic unit.	Yes	Bill of lading/Air Waybill, Delivery Docket/Manifest, Meat Messaging Consignment Report, Processing plant production management system, SSCC/Store bag label	For more information visit the GS1 website.
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Animal By Product Transfer Certificate (BPTC), Bill of lading/Air Waybill, Delivery Docket/Manifest, Export clearance documentation, Meat Messaging Consignment Report, Processing plant production management system, Receipt of purchase/Tax Invoice, Certificate of Analysis (COA)	
Delivery Docket/Manifest number	This is a unique number allocated to the docket for identification purposes.	Yes	Delivery Docket/Manifest, Processing plant production management system	
Export Health Certificate Number	A unique number allocated to the health certificate issued for the export consignment for traceability purposes.	Yes	Meat Messaging Consignment Report, Processing plant production management system	
Export Permit Number	A unique permit number is allocated for the export consignment following submission of a correct and validated Request For Permit	Yes	Export Permit, Processing plant production management system	

	(RFP) which is then approved by the Secretary.			
From Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Animal By Product Transfer Certificate (BPTC), Delivery Docket/Manifest, Export clearance documentation, Meat Messaging Consignment Report, Processing plant production management system, SSCC/Store bag label, Certificate of Analysis (COA)	
Global Trade Item Number (GTIN)	Encoded in the GS1 barcode, the GTIN is a globally unique 14-digit number used to identify trade items, products, or services.	Yes	Meat Messaging Consignment Report, Processing plant production management system, SSCC/Store bag label	For more information visit the GS1 website.
GTIN of Contained Trade Items	Encoded in the GS1 barcode, the GTIN of the contained trade items is a globally unique 14-digit number used to identify trade items, products, or services in the logistic unit.	Yes	Processing plant production management system, SSCC/Store bag label	For more information visit the GS1 website.
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Animal By Product Transfer Certificate (BPTC), Bill of lading/Air Waybill, Delivery Docket/Manifest, Export clearance documentation, Processing plant production management system, Certificate of Analysis (COA)	
Net Weight (Kilograms)	Usually encoded in the GS1 barcode, the Net Weight is a variable measure of the trade item e.g., carton, pallet or shipment recorded in kilograms.	Yes	Bill of lading/Air Waybill, Meat Messaging Consignment Report, Processing plant production management system, SSCC/Store bag label	For more information visit the GS1 website.
Order date	This is the date on which the purchase order or contract was raised by the buyer.	Yes	Delivery Docket/Manifest, Processing plant production management system	
Packaging Date	Encoded in the GS1 barcode, the Packaging Date is the date on which the item was packaged and is recorded in the format year, month, day (YYMMDD).	Yes	Processing plant production management system, SSCC/Store bag label, Certificate of Analysis (COA)	
Packaging Date Range	This includes the oldest and newest packaging dates for the logistic unit.	Yes	Export clearance documentation, Processing plant production management system, SSCC/Store bag label	
Pallet Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., pallet that is assigned by the establishment constructing the unit. The SSCC remains the	Yes	Animal By Product Transfer Certificate (BPTC), Export clearance documentation, Meat Messaging Consignment Report, Processing plant	For more information visit the GS1 website.

	same for the life of the logistic unit.		production management system, SSCC/Store bag label	
Producer/Vendor MSA Registration Number	Producers consigning cattle to MSA markets are required to be registered and have a unique MSA Registration Number.	Yes	Processing plant production management system	For more information on MSA visit the MLA website.
Production Date (YYMMDD)	Encoded in the GS1 barcode, this is the 'kill' or slaughter' date of the product and is recorded in the format year, month, day (YYMMDD).	Yes	Animal By Product Transfer Certificate (BPTC)	For more information visit the GS1 website.
Recipient Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Processing plant production management system, Receipt of purchase/Tax Invoice	
Seal Serial Number	This is a unique serial number printed on any tamper-evident seal issued by the Department.	Yes	Animal By Product Transfer Certificate (BPTC), Bill of lading/Air Waybill, Export clearance documentation, Processing plant production management system	For more information visit the GS1 website.
Seller/Supplier Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Processing plant production management system, Receipt of purchase/Tax Invoice	
Shipping Mark	Also known as a port mark, this is a code comprising of three letters representing the foreign establishment number and the last nine digits of the consignment SSCC.	Yes	Bill of lading/Air Waybill, Delivery Docket/Manifest, Meat Messaging Consignment Report, Processing plant production management system, SSCC/Store bag label, Certificate of Analysis (COA)	
To Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Animal By Product Transfer Certificate (BPTC), Export clearance documentation, Processing plant production management system	
Trade description	This is a collective set of words that says what the product is and may include information such as species, net weight of product, name and address of establishments, category ciphers, market endorsements, MSA eating quality etc.	Yes	Animal By Product Transfer Certificate (BPTC), Delivery Docket/Manifest, Export clearance documentation, Meat Messaging Consignment Report, Processing plant production management system, SSCC/Store bag label	
Transfer Certificate number	A unique certificate number issued for traceability purposes.	Yes	Animal By Product Transfer Certificate (BPTC), Meat Messaging Consignment	

			Report, Processing plant production management system	
Transport registration number	The registration number of the vehicle in which the animals or product were transported. For shipments of product this will be a shipping container number.	Yes	Animal By Product Transfer Certificate (BPTC), Bill of lading/Air Waybill, Delivery Docket/Manifest, Export clearance documentation, Meat Messaging Consignment Report, Processing plant production management system	
Analysis Date	This is the date on which a product sample was analysed.	Yes	Certificate of Analysis (COA), Processing plant production management system	
Certificate of Analysis number	A unique certificate number issued for traceability purposes.	Yes	Certificate of Analysis (COA), Processing plant production management system	

5.2.2.6.5 Regulatory and Industry Programs

- * Department of Agriculture
- * AUS-MEAT
- * Australian Renderers Association (ARA)
- * Other data sources
- * State food authority

5.2.2.6.6 Supply Chain Node Traceability

The traceability of rendered and hide product back to the live animal and property of origin is operationally impractical. This is because rendered and hide products are bulk processed and packaged from any given processing day or number of processing days. While this means that the production date or kill date of animals from which hides or rendered product is likely to be known, any batch of product being packaged into store bags or pallets with unique serialised labels is only traceable to any number of cattle or source properties.

For example, hides or product for render which make up one batch come from a total of 6 plant kill day combinations. For each processing day 800 animals, sourced from 8 different properties are slaughtered and the unique serialised NLIS ID tag numbers known for each animal as well as that of the corresponding carcase ticket. With render or hide products from these processing days being processed and packaged in one batch, the unique serialised identifiers of output products can be linked only to that batch and the processing dates from which product was obtained. This means that one batch is comprised of any of 4 800 source animals that were supplied by any of 48 source properties.

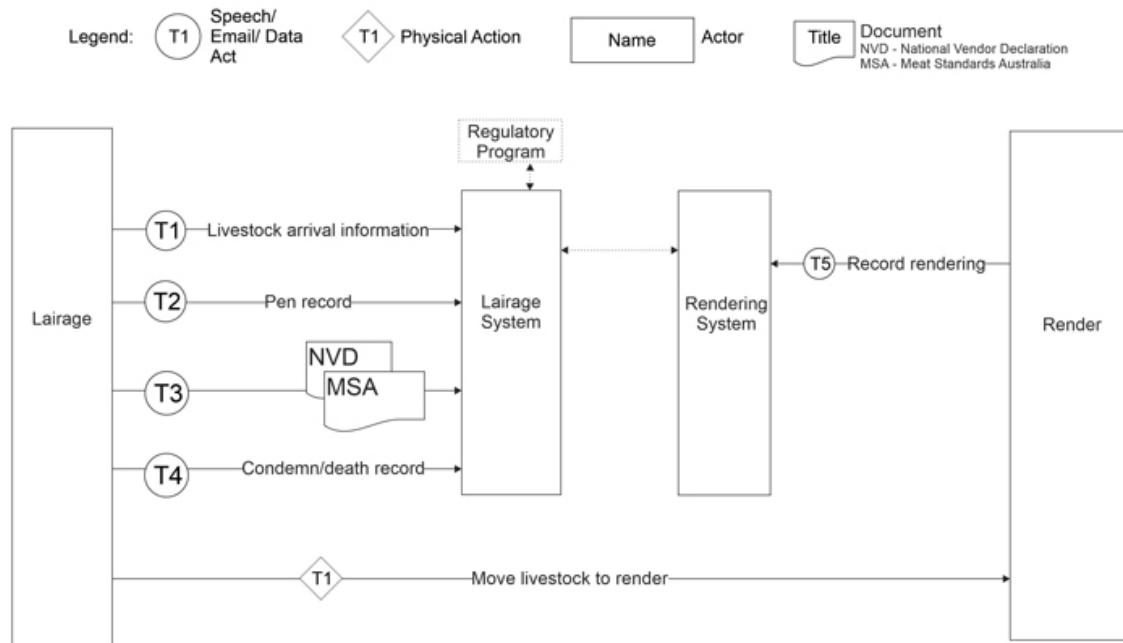
5.2.2.6.7 Data flow diagrams

Table 65. Data flow diagrams for the inputs and outputs of a beef render system.

Direction	Description
Input	Lairage to Render - condemns and dead on arrival/ in pen

Input	Slaughter floor to Render - hides/skins
Input	Slaughter floor to Render - not fit for human consumption (red bin)
Input	Offal room to Render
Input	Boning room to Render
Input	Carton rework to Render
Input	Carcase chiller to Render
Output	Render (meat/ bone meal) to Render loadout
Output	Render (tallow) to Render loadout

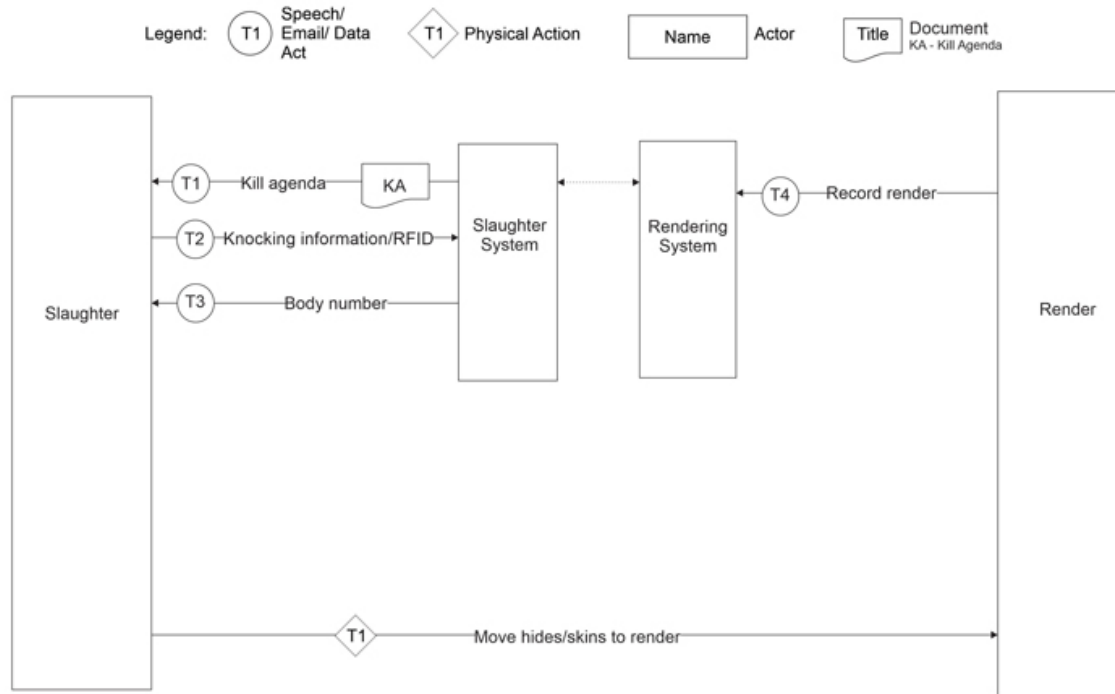
5.2.2.6.7.1 Lairage to Render - condemns and dead on arrival/ in pen



Lairage to Render - Condemns and Dead on arrival/ in pen

Figure 68. Data or information flows from the lairage to render (condemns and dead on arrival) systems in the beef supply chain.

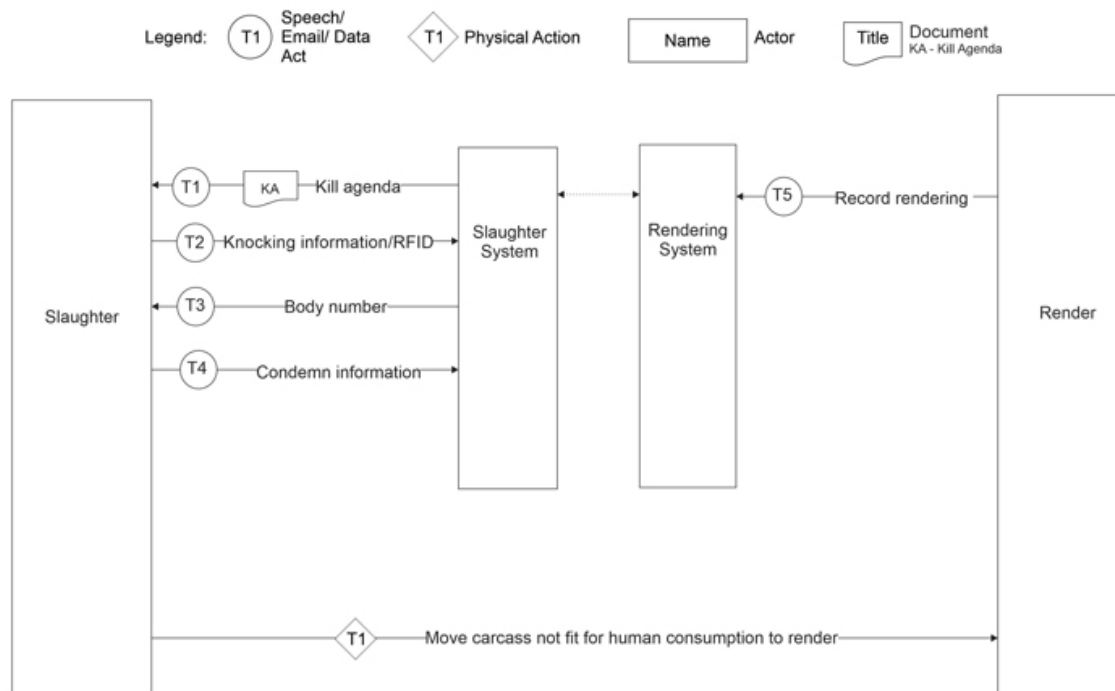
5.2.2.6.7.2 Slaughter floor to Render - hides/skins



Slaughter to Render -Hides/Skins

Figure 69. Data or information flows from the slaughter to render (hides/skins) systems in the beef supply chain.

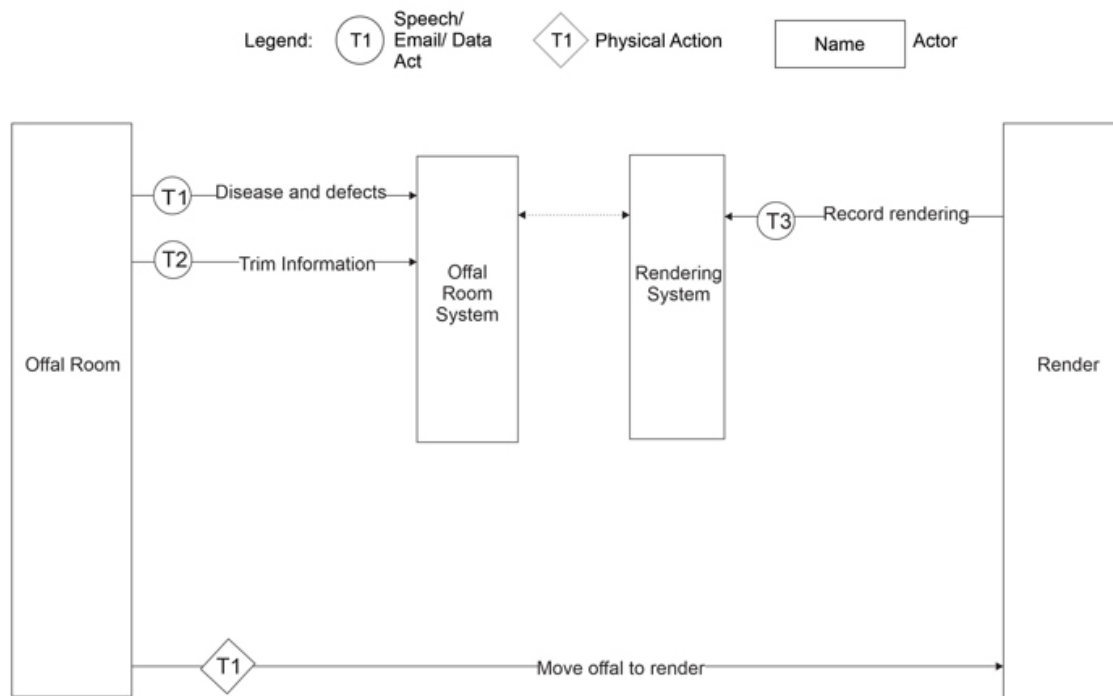
5.2.2.6.7.3 Slaughter floor to Render - not fit for human consumption (red bin)



Slaughter to Render-Not Fit for Human Consumption

Figure 70. Data or information flows from the slaughter to render (not fit for human consumption) systems in the beef supply chain.

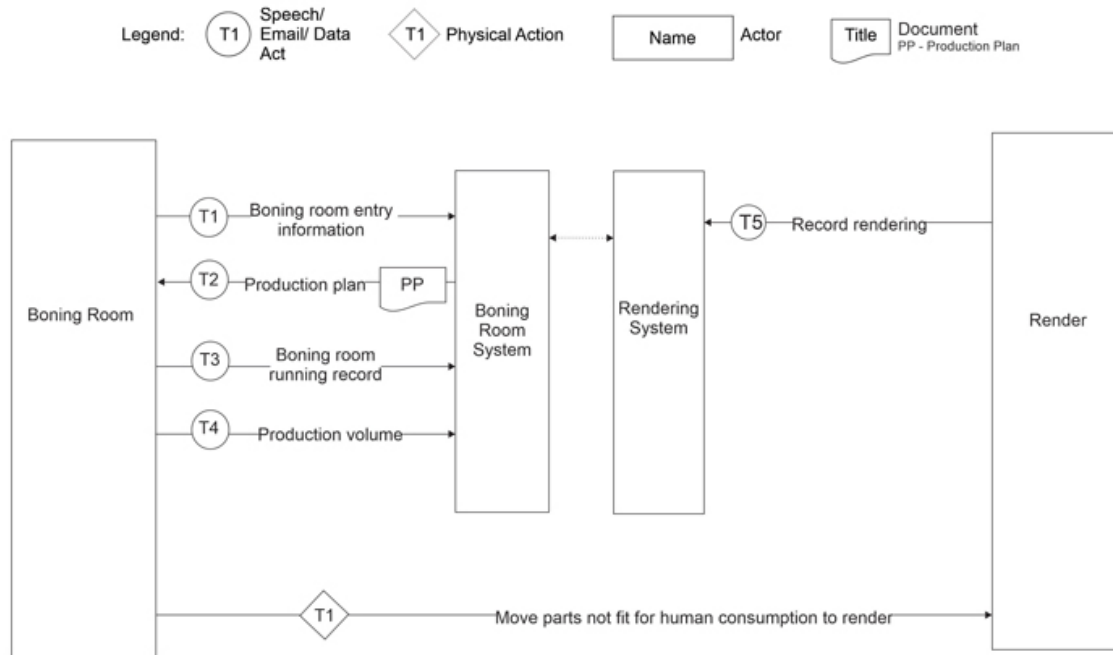
5.2.2.6.7.4 Offal room to Render



Offal Room to Render

Figure 71. Data or information flows from the offal room to render systems in the beef supply chain.

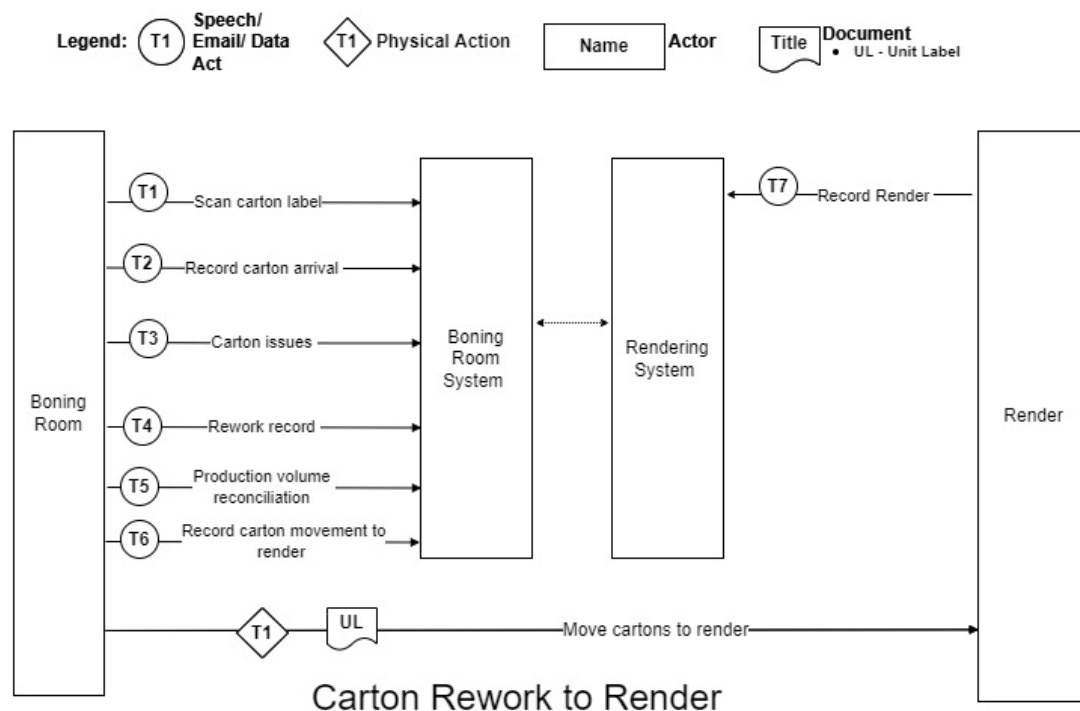
5.2.2.6.7.5 Boning room to Render



Boning Room to Render

Figure 72. Data or information flows from the boning room to render systems in the beef supply chain.

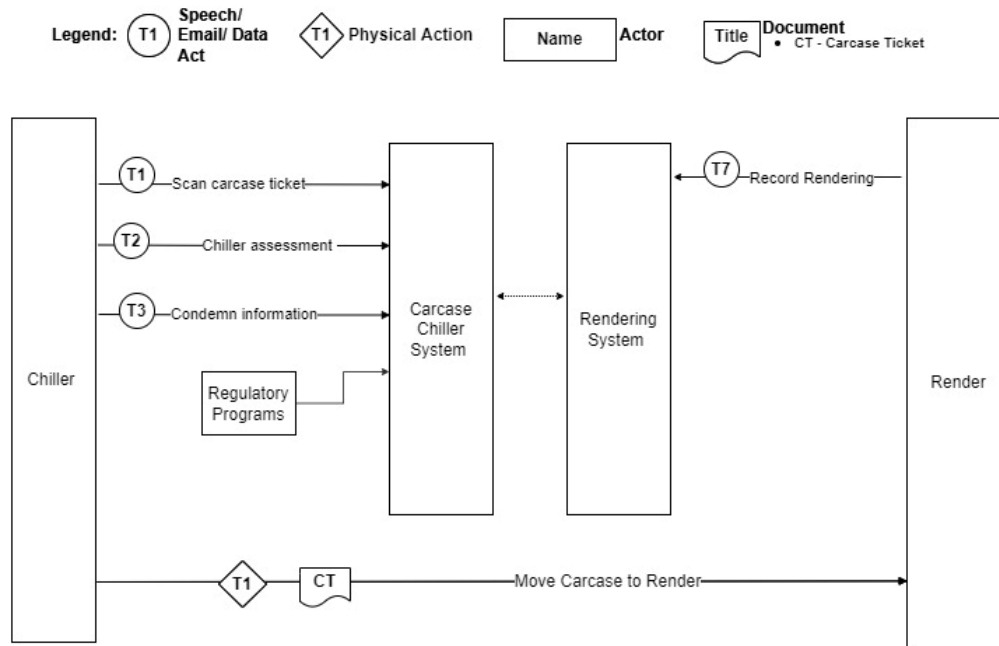
5.2.2.6.7.6 Carton rework to Render



Carton Rework to Render

Figure 73. Data or information flows from the carton rework to render systems in the beef supply chain.

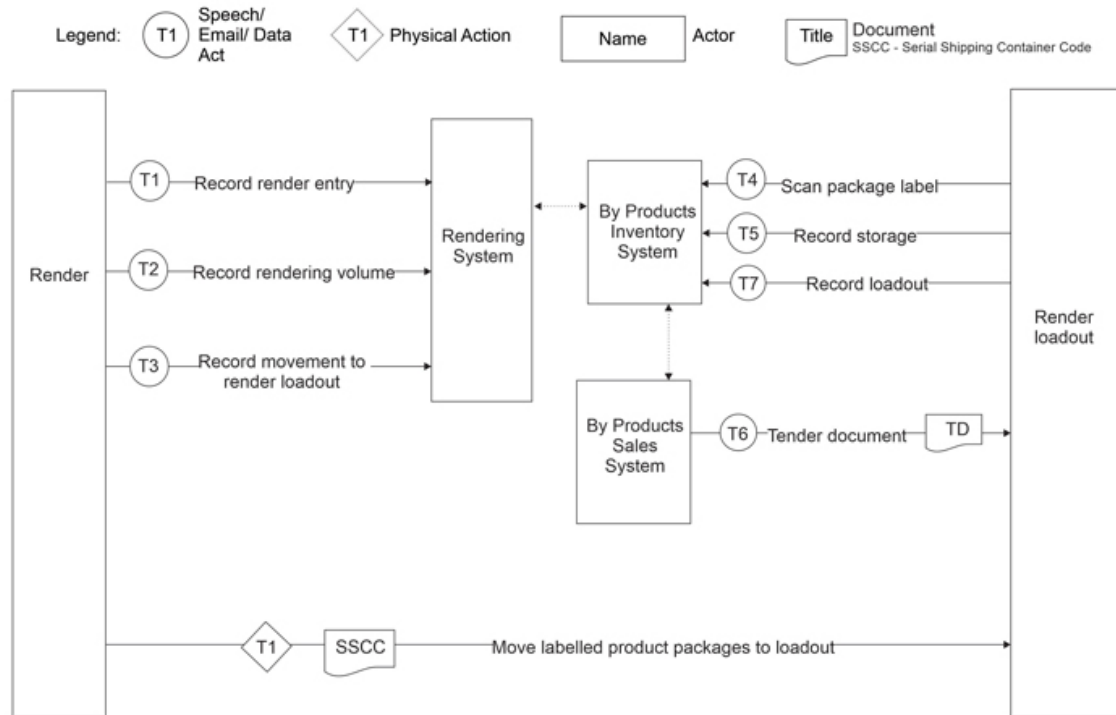
5.2.2.6.7.7 Carcase chiller to Render



Carcase Chiller to Render

Figure 74. Data or information flows from the carcase chiller to render systems in the beef supply chain.

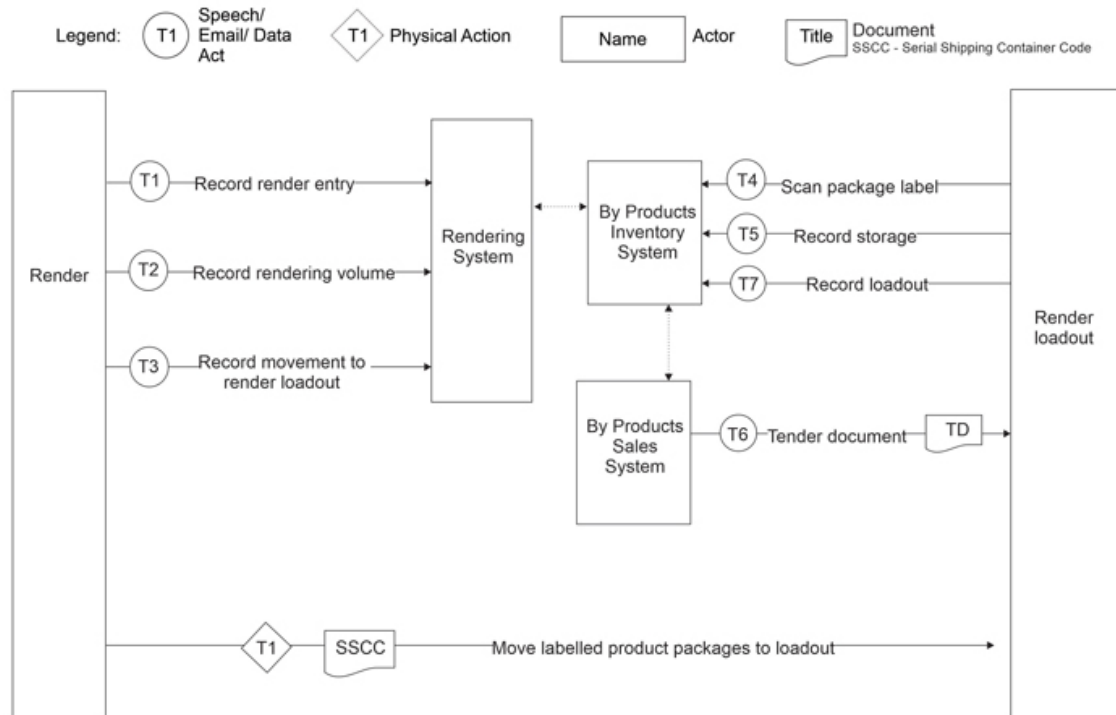
5.2.2.6.7.8 Render (meat/ bone meal) to Render loadout



Render (meat/bone meal) to Render Loadout

Figure 75. Data or information flows from the render (meat/bone meal) to render (loadout) systems in the beef supply chain.

5.2.2.6.7.9 Render (tallow) to Render loadout



Render (tallow) to Render Loadout

Figure 76. Data or information flows from the render (tallow) to render (loadout) systems in the beef supply chain.

5.2.2.7 Hides

Hide and skin processing is the location at the processing plant whereby hides and skins are prepared for export. This involves the trimming of raw materials to exclude internal organs, bone, and hoof as well as the preservation and treatment for insects and bacteria where required. Hides and skins are then packed to ensure the hygienic transportation of product to export markets.

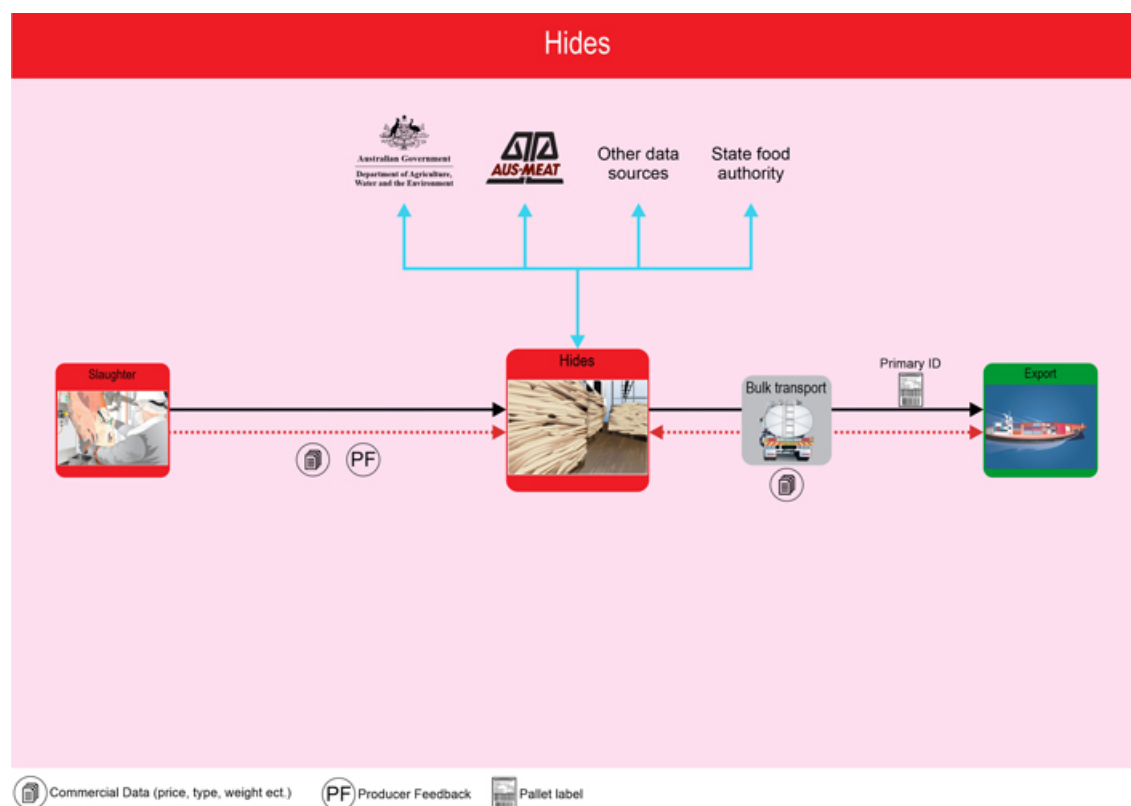


Figure 77. Inputs and outputs of the beef supply chain hides sector.

5.2.2.7.1 Physical Inputs including Critical Tracking Events (CTEs)

Once the hide is removed, it goes through various stages of processing before it is sold. Therefore, the inputs into the hide production system include the hide/skin, derived from slaughtered livestock, as well as hide/skin additives. Such additives are used for the treatment of hides before sale and may include products such as salt.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with inputs to the hide system include the receipt of:

- * Hide/Skin
- * Hide/Skin additives.

Table 66. Physical inputs and associated Critical Tracking Event related documents for a beef hides system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Hide/Skin	The pelt of the animal. Typically referred to as 'hide' for larger animals e.g., cattle and 'skin' for smaller animals e.g., sheep, calves.	Processing plant production management system	

Hide/Skin additives	Materials used in treatment of hides/skins for preservation purposes e.g., salt.	Processing plant production management system, Receipt of purchase/Tax Invoice	

5.2.2.7.2 Information Inputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). Information inputs into the hide/skin production system are those which are found in the processors production management system and include basic product information such as establishment number and production date.

Table 67. Information inputs, Key Data Elements and Critical Tracking Event related documentation for a beef hides system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Batch number	This is a unique number which identifies products sharing certain production characteristics and is used for traceability purposes.	Yes	Processing plant production management system	
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Processing plant production management system, Receipt of purchase/Tax Invoice	
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Processing plant production management system, Receipt of purchase/Tax Invoice	
From Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment	Yes	Processing plant production management system	

	numbers for both the dispatching and receiving establishments are recorded.			
Production Date (YYMMDD)	Encoded in the GS1 barcode, this is the 'kill' or slaughter' date of the product and is recorded in the format year, month, day (YYMMDD).	Yes	Processing plant production management system	For more information visit the GS1 website.
Recipient Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Processing plant production management system, Receipt of purchase/Tax Invoice	For more information visit the ATO website.
Seller/Supplier Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Processing plant production management system, Receipt of purchase/Tax Invoice	For more information visit the ATO website.
Treatment date	The date on which a treatment or product was applied to a unit e.g., paddock, animal, fodder etc.	Yes	Processing plant production management system	

5.2.2.7.3 Physical Outputs including Critical Tracking Events (CTEs)

Physical outputs of the hide/skin production system are treated hides which are loaded onto pallets or into container system units for transport and sale.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with the outputs of the hides system include the movement of:

- * Pallet
 - * Container System Unit
- off the property, premises, or supply chain sector.

Table 68. Physical outputs and associated Critical Tracking Event related documents for a beef hides system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Pallet	A logistic unit which includes a number of cartons or goods items packed together for transport or storage purposes.	Animal By Product Transfer Certificate (BPTC), Delivery Docket/Manifest, Export clearance documentation, Export Permit, Processing plant production management system, Receipt of purchase/Tax Invoice, SSCC/Pallet label, Bill of lading/Air Waybill, Certificate of Analysis (COA)	
Container System Unit	A container designed for use as a unit of cargo handling equipment in the transport of goods by aircraft or ship.	Animal By Product Transfer Certificate (BPTC), Delivery Docket/Manifest, Export clearance documentation, Export Permit, Meat Messaging Consignment Report, Processing plant production management system, Receipt of purchase/Tax Invoice, Bill of lading/Air Waybill, Certificate of Analysis (COA)	

5.2.2.7.4 Information Outputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). Information outputs from the hide/skin production system can be found on the pallet label and on container system unit documentation, as well as other sale/transport documentation. This information is stored in the processors production management system for traceability. Such information includes application identifiers included in the GS1 barcode as well as trade description information.

Table 69. Information outputs, Key Data Elements and Critical Tracking Event related documentation for a beef hides system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Bill of lading/Air Waybill document number	A unique document number issued for traceability purposes.	Yes	Bill of lading/Air Waybill, Processing plant production management system	
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Bill of lading/Air Waybill, Processing plant production management system, Receipt of purchase/Tax Invoice, SSCC/Pallet label, Certificate of Analysis (COA)	
Consignment Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., shipment/message that is assigned by the establishment constructing the	Yes	Animal By Product Transfer Certificate (BPTC), Bill of lading/Air Waybill, Export clearance documentation, Meat Messaging Consignment Report,	For more information visit the GS1 website.

	unit. The SSCC remains the same for the life of the logistic unit.		Processing plant production management system, SSCC/Pallet label	
Contract number	This is a unique number allocated to the contract by the seller.	Yes	Delivery Docket/Manifest, Processing plant production management system	
Count of Pallets	This is the number of pallets in the logistic unit e.g., container system unit.	Yes	Meat Messaging Consignment Report	
Count of Trade Items	Usually encoded in the GS1 barcode, this is the number of trade items e.g., cartons in the logistic unit.	Yes	Bill of lading/Air Waybill, Delivery Docket/Manifest, Meat Messaging Consignment Report, Processing plant production management system, SSCC/Pallet label	
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Animal By Product Transfer Certificate (BPTC), Bill of lading/Air Waybill, Delivery Docket/Manifest, Export clearance documentation, Meat Messaging Consignment Report, Processing plant production management system, Receipt of purchase/Tax Invoice, Certificate of Analysis (COA)	
Delivery Docket/Manifest number	This is a unique number allocated to the docket for identification purposes.	Yes	Delivery Docket/Manifest, Processing plant production management system	
Export Health Certificate Number	A unique number allocated to the health certificate issued for the export consignment for traceability purposes.	Yes	Meat Messaging Consignment Report, Processing plant production management system	For more information visit the Department of Agriculture, Water and the Environment website.
Export Permit Number	A unique permit number is allocated for the export consignment following submission of a correct and validated Request For Permit (RFP) which is then approved by the Secretary.	Yes	Export Permit, Processing plant production management system	For more information visit the Department of Agriculture, Water and the

				Environment website.
From Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Animal By Product Transfer Certificate (BPTC), Delivery Docket/Manifest, Export clearance documentation, Meat Messaging Consignment Report, Processing plant production management system, SSSC/Pallet label, Certificate of Analysis (COA)	
Global Trade Item Number (GTIN)	Encoded in the GS1 barcode, the GTIN is a globally unique 14-digit number used to identify trade items, products, or services.	Yes	Meat Messaging Consignment Report, Processing plant production management system, SSSC/Pallet label	For more information visit the GS1 website.
GTIN of Contained Trade Items	Encoded in the GS1 barcode, the GTIN of the contained trade items is a globally unique 14-digit number used to identify trade items, products, or services in the logistic unit.	Yes	Processing plant production management system, SSSC/Pallet label	For more information visit the GS1 website.
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Animal By Product Transfer Certificate (BPTC), Bill of lading/Air Waybill, Delivery Docket/Manifest, Export clearance documentation, Processing plant production management system, Certificate of Analysis (COA)	
Net Weight (Kilograms)	Usually encoded in the GS1 barcode, the Net Weight is a variable measure of the trade item e.g., carton, pallet or shipment recorded in kilograms.	Yes	Bill of lading/Air Waybill, Meat Messaging Consignment Report, Processing plant production management system, SSSC/Pallet label	For more information visit the GS1 website.
Official mark	Any stamp, seal, label, or mark that is declared by the regulations to be an official mark. An official mark signifies that the product has been inspected by and approved as	Yes	SSSC/Pallet label	For more information visit the Australian Government Federal

	safe for human consumption by an Authorised Officer.			Register of Legislation.
Order date	This is the date on which the purchase order or contract was raised by the buyer.	Yes	Delivery Docket/Manifest, Processing plant production management system	
Packaging Date	Encoded in the GS1 barcode, the Packaging Date is the date on which the item was packaged and is recorded in the format year, month, day (YYMMDD).	Yes	Processing plant production management system, SSCC/Pallet label, Certificate of Analysis (COA)	For more information visit the GS1 website.
Packaging Date Range	This includes the oldest and newest packaging dates for the logistic unit.	Yes	Export clearance documentation, Processing plant production management system, SSCC/Pallet label	
Pallet Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., pallet that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Animal By Product Transfer Certificate (BPTC), Export clearance documentation, Meat Messaging Consignment Report, Processing plant production management system, SSCC/Pallet label	For more information visit the GS1 website.
Production Date (YYMMDD)	Encoded in the GS1 barcode, this is the 'kill' or slaughter' date of the product and is recorded in the format year, month, day (YYMMDD).	Yes	Animal By Product Transfer Certificate (BPTC), Processing plant production management system	For more information visit the GS1 website.
Recipient Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Processing plant production management system, Receipt of purchase/Tax Invoice	For more information visit the ATO website.
Seller/Supplier Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Processing plant production management system, Receipt of purchase/Tax Invoice	For more information visit the ATO website.
Seal Serial Number	This is a unique serial number printed on any tamper-evident seal issued by the Department.	Yes	Animal By Product Transfer Certificate (BPTC), Bill of lading/Air Waybill, Export clearance documentation, Processing plant production management system	For more information visit the Australian Government Federal

				Register of Legislation.
Shipping Mark	Also known as a port mark, this is a code comprising of three letters representing the foreign establishment number and the last nine digits of the consignment SCCC.	Yes	Bill of lading/Air Waybill, Delivery Docket/Manifest, Meat Messaging Consignment Report, Processing plant production management system, SCCC/Pallet label, Certificate of Analysis (COA)	
To Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Animal By Product Transfer Certificate (BPTC), Export clearance documentation, Processing plant production management system	
Trade description	This is a collective set of words that says what the product is and may include information such as species, net weight of product, name and address of establishments, category ciphers, market endorsements, MSA eating quality etc.	Yes	Animal By Product Transfer Certificate (BPTC), Delivery Docket/Manifest, Export clearance documentation, Meat Messaging Consignment Report, Processing plant production management system, SCCC/Pallet label	
Transfer Certificate number	A unique certificate number issued for traceability purposes.	Yes	Animal By Product Transfer Certificate (BPTC), Meat Messaging Consignment Report, Processing plant production management system	For more information visit the Department of Agriculture, Water and the Environment website.
Transport registration number	The registration number of the vehicle in which the animals or product were transported. For shipments of product this will be a shipping container number.	Yes	Animal By Product Transfer Certificate (BPTC), Bill of lading/Air Waybill, Delivery Docket/Manifest, Export clearance documentation, Meat Messaging Consignment Report, Processing plant production management system	

Analysis Date	This is the date on which a product sample was analysed.	Yes	Certificate of Analysis (COA), Processing plant production management system	
Certificate of Analysis number	A unique certificate number issued for traceability purposes.	Yes	Certificate of Analysis (COA), Processing plant production management system	

5.2.2.7.5 Regulatory and Industry Programs

- * Department of Agriculture
- * AUS-MEAT
- * Australian Hides Skin and Leather Exporters Association (AHSLEA)
- * Other data sources
- * State food authority

5.2.2.7.6 Supply Chain Node Traceability

The traceability of rendered and hide product back to the live animal and property of origin is operationally impractical. This is because rendered and hide products are bulk processed and packaged from any given processing day or number of processing days. While this means that the production date or kill date of animals from which hides or rendered product is likely to be known, any batch of product being packaged into store bags or pallets with unique serialised labels is only traceable to any number of cattle or source properties.

For example, hides or product for render which make up one batch come from a total of 6 plant kill day combinations. For each processing day 800 animals, sourced from 8 different properties are slaughtered and the unique serialised NLIS ID tag numbers known for each animal as well as that of the corresponding carcase ticket. With render or hide products from these processing days being processed and packaged in one batch, the unique serialised identifiers of output products can be linked only to that batch and the processing dates from which product was obtained. This means that one batch is comprised of any of 4 800 source animals that were supplied by any of 48 source properties.

5.2.2.7.7 Data flow diagrams

Table 70. Data flow diagrams for the inputs and outputs of a beef hides system.

Direction	Description
Input	Slaughter floor to Hides
Output	Hides to Bulk loadout

5.2.2.8 Cold store (carcase)

Storing chilled carcases or carcase products (e.g., cartons) typically provides a stock buffer between production and dispatch of product intended for domestic or export markets. A cold storage system involves refrigerated chambers that can chill or freeze any perishable product for a period of time before dispatch. During this process, the ageing of meat also occurs, progressively increasing tenderness and flavour. Storage rooms must take into

account the storage requirements for different products, as well as rules for loading maintenance and hygiene of storage equipment. Carcasses, identified by unique GS1 barcoded carcass tickets, are stored, unloaded, and loaded on rails and may lose weight via evaporation. Therefore, short storage times for carcasses is very important.

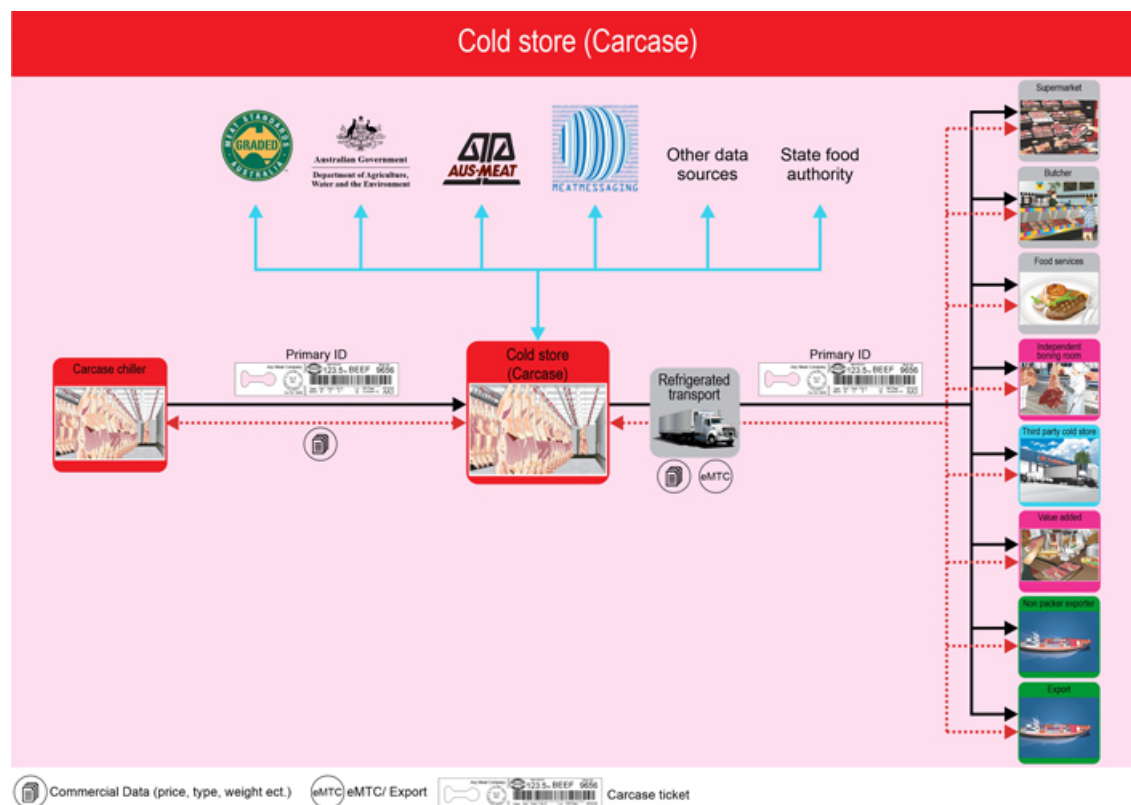


Figure 78. Inputs and outputs of the beef supply chain cold store (carcase) sector.

5.2.2.8.1 Physical Inputs including Critical Tracking Events (CTEs)

The physical inputs into the cold storage unit include dressed carcasses which have been passed as safe for human consumption by an Authorised Officer. Critical Tracking Event related documents accompanying these carcasses may include the carcass ticket and MSA carcass ticket. This information is recorded in the processing plants production management system.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with inputs to the carcase cold store system include the receipt of:

- * Carcase.

Table 71. Physical inputs and associated Critical Tracking Event related documents for a beef cold store (carcase) system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details

Carcase	The body of a slaughtered animal after bleeding. Becomes a dressed carcass when hide, head, feet and offal are removed.	Carcass Ticket, MSA Carcass Ticket, Processing plant production management system	

5.2.2.8.2 Information Inputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). There are a number of information inputs associated with the movement of carcasses into the cold storage system. These are largely included on the carcass ticket and are Key Data Elements encapsulated by the GS1 barcode, as well as other information required by federal legislation.

Table 72. Information inputs, Key Data Elements and Critical Tracking Event related documentation for a beef cold store (carcass) system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Body number	This is a number assigned to each carcass by the processor for identification purposes.	Yes	Carcass Ticket, Processing plant production management system	
From Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Carcass Ticket, Processing plant production management system	
Global Trade Item Number (GTIN)	Encoded in the GS1 barcode, the GTIN is a globally unique 14-digit number used to identify trade items, products, or services.	Yes	Carcass Ticket, Processing plant production management system	For more information visit the GS1 website.
MSA eating quality group/grade	This identifies carcasses with similar MSA and eating quality grades, these may align with brands packed by the processor for logistic simplicity. Carcasses are grouped for boning according to eating quality grades.	Yes	MSA Carcass Ticket, Processing plant production management system	For more information on MSA visit the MLA website.
Net Weight (Kilograms)	Usually encoded in the GS1 barcode, the Net Weight is a variable measure of the trade item e.g., carton, pallet or shipment recorded in kilograms.	Yes	Carcass Ticket, Processing plant production management system	For more information visit the GS1 website.

Official mark	Any stamp, seal, label, or mark that is declared by the regulations to be an official mark. An official mark signifies that the product has been inspected by and approved as safe for human consumption by an Authorised Officer.	Yes	Carcase Ticket	For more information visit the Australian Government Federal Register of Legislation.
Production Date (YYMMDD)	Encoded in the GS1 barcode, this is the 'kill' or slaughter' date of the product and is recorded in the format year, month, day (YYMMDD).	Yes	Carcase Ticket, Processing plant production management system	For more information visit the GS1 website.
Serial Number	Encoded in the GS1 barcode, this is a code, numeric or alphanumeric, assigned to an individual instance of an item for its lifetime.	Yes	Carcase Ticket, Processing plant production management system	For more information visit the GS1 website.
Trade description	This is a collective set of words that says what the product is and may include information such as species, net weight of product, name and address of establishments, category ciphers, market endorsements, MSA eating quality etc.	Yes	Carcase Ticket, Processing plant production management system	
Lot number	A lot is a number assigned by the processor to each group of cattle consigned to slaughter and is usually vendor specific.	Yes	Carcase Ticket, Processing plant production management system	

5.2.2.8.3 Physical Outputs including Critical Tracking Events (CTEs)

The physical outputs of the carcass chiller system include carcasses passed as safe for human consumption; these may be loaded into container system units for transport. Documents accompanying the movement of carcasses out of the cold storage system include those such as the delivery docket/manifest, Meat Transfer Certificate (MTC).

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with the outputs of the carcass cold store system include the movement of:

- * Carcase

- * Container System Unit

off the property, premises, or supply chain sector.

Table 73. Physical outputs and associated Critical Tracking Event related documents for a beef cold store (carcase) system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details

Carcase	The body of a slaughtered animal after bleeding. Becomes a dressed carcass when hide, head, feet and offal are removed.	Carcass Ticket, Delivery Docket/Manifest, Meat Transfer Certificate (MTC), MSA Carcass Ticket, Processing plant production management system, Receipt of purchase/Tax Invoice	
Container System Unit	A container designed for use as a unit of cargo handling equipment in the transport of goods by aircraft or ship.	Delivery Docket/Manifest, Export Health Certificate, Export Permit, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), Official seal, Processing plant production management system, Receipt of purchase/Tax Invoice, Bill of lading/Air Waybill, Certificate of Analysis (COA)	

5.2.2.8.4 Information Outputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). The information outputs relating to the movement of carcasses out of the cold storage system are derived from CTE documentation ranging from Receipt of purchase/Tax Invoices to the Bill of lading/Air Waybill and Meat Messaging Consignment Reports. This information will be stored in the processing plants production management system.

Table 74. Information outputs, Key Data Elements and Critical Tracking Event related documentation for a beef cold store (carcass) system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Bill of lading/Air Waybill document number	A unique document number issued for traceability purposes.	Yes	Bill of lading/Air Waybill, Processing plant production management system, Certificate of Analysis (COA)	
Body number	This is a number assigned to each carcass by the processor for identification purposes.	Yes	Carcass Ticket, Processing plant production management system	
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Bill of lading/Air Waybill, Processing plant production management system, Receipt of purchase/Tax Invoice, Certificate of Analysis (COA)	
Consignment Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., shipment/message that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Bill of lading/Air Waybill, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), Processing plant production management system	
Contract number	This is a unique number allocated to the contract by the seller.	Yes	Delivery Docket/Manifest, Processing plant production management system	

Count of Pallets	This is the number of pallets in the logistic unit e.g., container system unit.	Yes	Meat Messaging Consignment Report, Processing plant production management system	
Count of Trade Items	Usually encoded in the GS1 barcode, this is the number of trade items e.g., cartons in the logistic unit.	Yes	Bill of lading/Air Waybill, Delivery Docket/Manifest, Meat Messaging Consignment Report, Processing plant production management system	For more information visit the GS1 website.
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Bill of lading/Air Waybill, Delivery Docket/Manifest, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), Processing plant production management system, Receipt of purchase/Tax Invoice, Certificate of Analysis (COA)	
Delivery Docket/Manifest number	This is a unique number allocated to the docket for identification purposes.	Yes	Delivery Docket/Manifest, Processing plant production management system	
Export Health Certificate Number	A unique number allocated to the health certificate issued for the export consignment for traceability purposes.	Yes	Export Health Certificate, Meat Messaging Consignment Report, Processing plant production management system	For more information visit the Department of Agriculture, Water and the Environment website.
Export Permit Number	A unique permit number is allocated for the export consignment following submission of a correct and validated Request For Permit (RFP) which is then approved by the Secretary.	Yes	Export Permit, Processing plant production management system	For more information visit the Department of Agriculture, Water and the Environment website.
From Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Carcase Ticket, Delivery Docket/Manifest, Export Health Certificate, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), Processing plant production management system, Certificate of Analysis (COA)	
Global Trade Item Number (GTIN)	Encoded in the GS1 barcode, the GTIN is a globally unique 14-digit number used to identify trade items, products, or services.	Yes	Carcase Ticket, Meat Messaging Consignment Report, Processing plant production management system	For more information visit the GS1 website.
Movement date	The date on which livestock or other products (e.g., feed or meat	Yes	Bill of lading/Air Waybill, Delivery Docket/Manifest, Export Health Certificate,	

	products) were transported between PICs/establishments.		Meat Transfer Certificate (MTC), Processing plant production management system, Certificate of Analysis (COA)	
MSA eating quality group/grade	This identifies carcasses with similar MSA and eating quality grades, these may align with brands packed by the processor for logistic simplicity. Carcasses are grouped for boning according to eating quality grades.	Yes	MSA Carcase Ticket, Processing plant production management system	For more information on MSA visit the MLA website.
MSA Licence Number	Any establishment consigning, supplying, or identifying MSA Certified Product must be registered and have a unique MSA Licence Number.	Yes	Processing plant production management system, Receipt of purchase/Tax Invoice	For more information on MSA visit the MLA website.
Net Weight (Kilograms)	Usually encoded in the GS1 barcode, the Net Weight is a variable measure of the trade item e.g., carton, pallet or shipment recorded in kilograms.	Yes	Bill of lading/Air Waybill, Carcase Ticket, Export Health Certificate, Meat Messaging Consignment Report, Processing plant production management system	For more information visit the GS1 website.
Official mark	Any stamp, seal, label, or mark that is declared by the regulations to be an official mark. An official mark signifies that the product has been inspected by and approved as safe for human consumption by an Authorised Officer.	Yes	Carcase Ticket	For more information visit the Australian Government Federal Register of Legislation.
Order date	This is the date on which the purchase order or contract was raised by the buyer.	Yes	Delivery Docket/Manifest, Processing plant production management system	
Pallet Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., pallet that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), Processing plant production management system	For more information visit the GS1 website.
Production Date (YYMMDD)	Encoded in the GS1 barcode, this is the 'kill' or slaughter' date of the product and is recorded in the format year, month, day (YYMMDD).	Yes	Carcase Ticket, Meat Transfer Certificate (MTC), Processing plant production management system, Certificate of Analysis (COA)	For more information visit the GS1 website.
Recipient Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Processing plant production management system, Receipt of purchase/Tax Invoice	For more information visit the ATO website.

Seller/Supplier Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Processing plant production management system, Receipt of purchase/Tax Invoice	For more information visit the ATO website.
Seal Serial Number	This is a unique serial number printed on any tamper-evident seal issued by the Department.	Yes	Bill of lading/Air Waybill, Meat Transfer Certificate (MTC), Official seal, Processing plant production management system	For more information visit the Australian Government Federal Register of Legislation.
Serial Number	Encoded in the GS1 barcode, this is a code, numeric or alphanumeric, assigned to an individual instance of an item for its lifetime.	Yes	Carcase Ticket, Processing plant production management system	For more information visit the GS1 website.
Shipping Mark	Also known as a port mark, this is a code comprising of three letters representing the foreign establishment number and the last nine digits of the consignment SSCC.	Yes	Bill of lading/Air Waybill, Delivery Docket/Manifest, Export Health Certificate, Meat Messaging Consignment Report, Processing plant production management system, Certificate of Analysis (COA)	
To Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Meat Transfer Certificate (MTC), Processing plant production management system	
Trade description	This is a collective set of words that says what the product is and may include information such as species, net weight of product, name and address of establishments, category ciphers, market endorsements, MSA eating quality etc.	Yes	Carcase Ticket, Delivery Docket/Manifest, Export Health Certificate, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), Processing plant production management system	
Transfer Certificate number	A unique certificate number issued for traceability purposes.	Yes	Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), Processing plant production management system	For more information visit the Department of Agriculture, Water and the Environment website.
Transport registration number	The registration number of the vehicle in which the animals or product were transported. For shipments of product this will be a shipping container number.	Yes	Bill of lading/Air Waybill, Delivery Docket/Manifest, Export Health Certificate, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC),	

			Processing plant production management system	
Analysis Date	This is the date on which a product sample was analysed.	Yes	Certificate of Analysis (COA), Processing plant production management system	
Certificate of Analysis number	A unique certificate number issued for traceability purposes.	Yes	Certificate of Analysis (COA), Processing plant production management system	

5.2.2.8.5 Regulatory and Industry Programs

- * Meat Standards Australia (MSA)
- * AUS-MEAT
- * Australian Meat Industry Council (AMIC)
- * Department of Agriculture
- * Meat Messaging
- * Other data sources
- * State food authority

5.2.2.8.6 Supply Chain Node Traceability

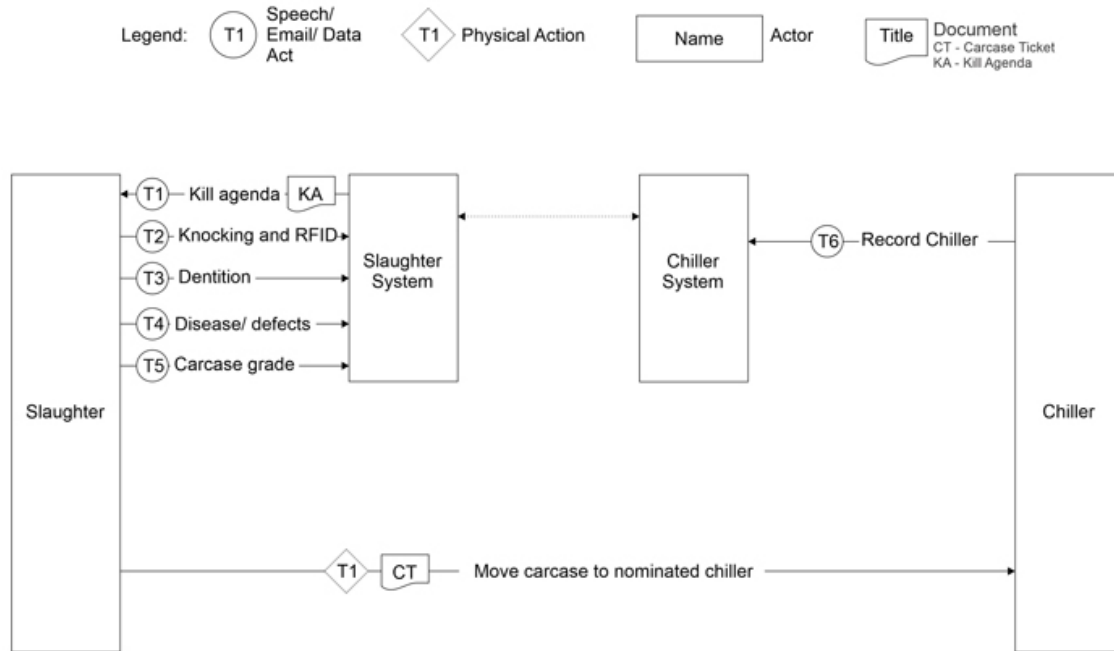
Traceability of whole carcasses back to the live animal is possible and can be done by the processing establishment where the animal was slaughtered. Here, carcasses are issued a carcass ticket which correlates to the live animal NLIS ID tag and contains key information, including body number, processing establishment number and production date or 'kill date'. This information is uploaded to the NLIS Database, by the processor, under the processing establishments Property Identification Code (PIC). Thus, whole carcasses (identified with a unique serialised carcass ticket) within a processing facility, chiller, cold store, or that are loaded for export or transport to other premises (e.g., retail) are fully traceable back to the individual live animal and property of origin.

5.2.2.8.7 Data flow diagrams

Table 75. Data flow diagrams for the inputs and outputs of a beef cold store (carcass) system.

Direction	Description
Input	Slaughter to Cold store (Carcass)
Output	Cold store (Carcass) to Supermarket
Output	Cold store (Carcass) to Butcher
Output	Cold store (Carcass) to Food Service
Output	Cold store (Carcass) to Third-Party Cold Store
Output	Cold store (Carcass) to Value Adding

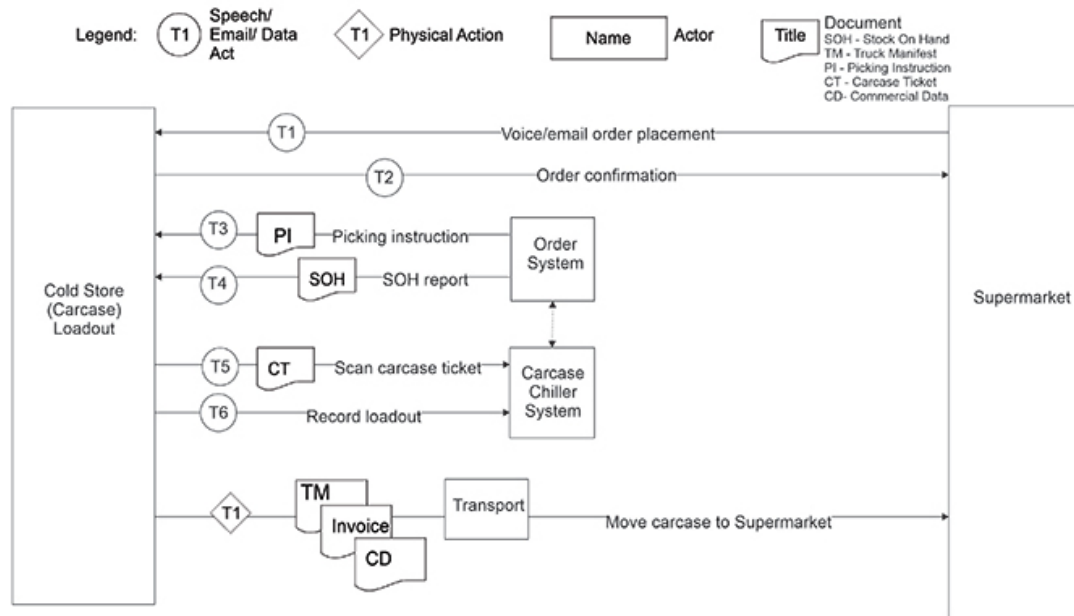
5.2.2.8.7.1 Slaughter to Cold store (Carcase)



Slaughter to Chiller

Figure 79. Data or information flows from the slaughter to chiller systems in the beef supply chain.

5.2.2.8.7.2 Cold store (Carcase) to Supermarket



Cold Store (Carcase) to Supermarket

Figure 80. Data or information flows from the cold store (carcase) to supermarket systems in the beef supply chain.

5.2.2.8.7.3 Cold store (Carcase) to Butcher

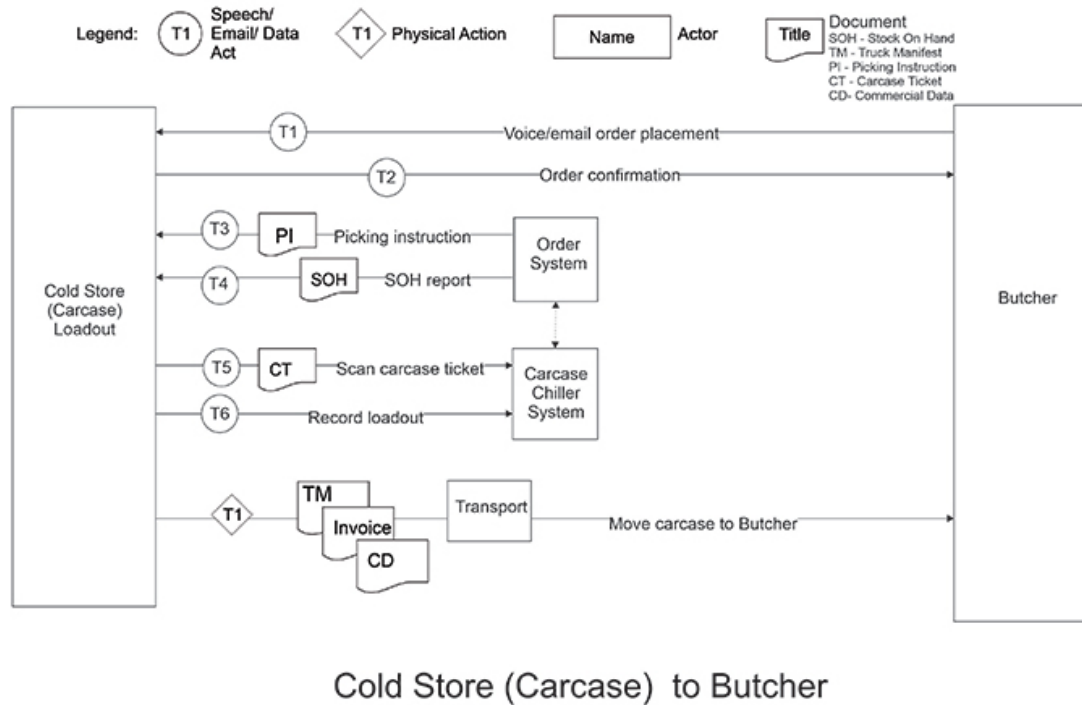
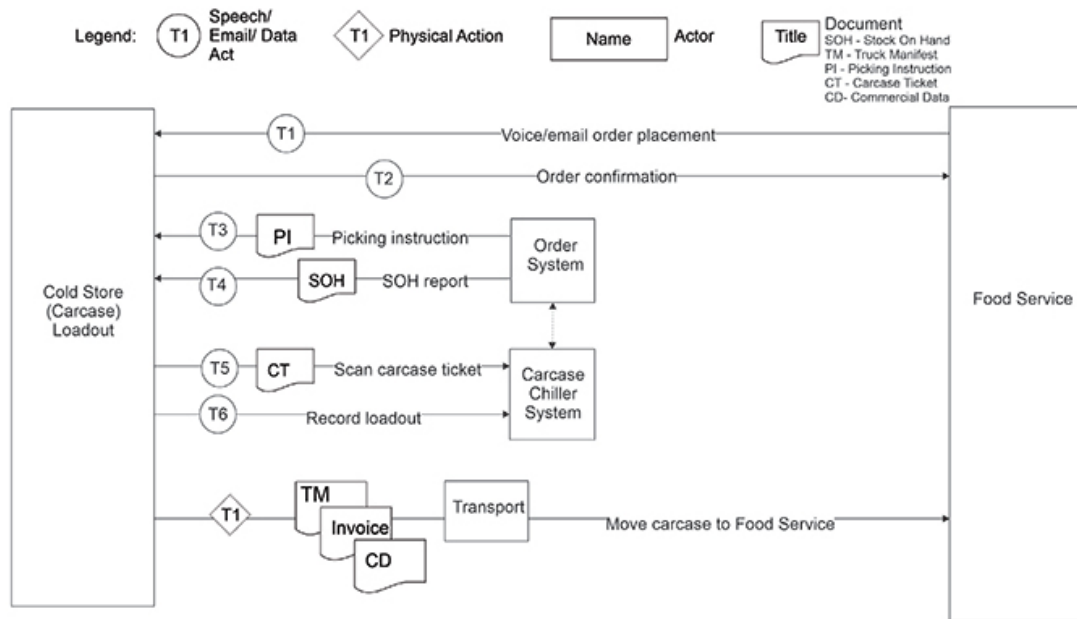


Figure 81. Data or information flows from the cold store (carcase) to butcher systems in the beef supply chain.

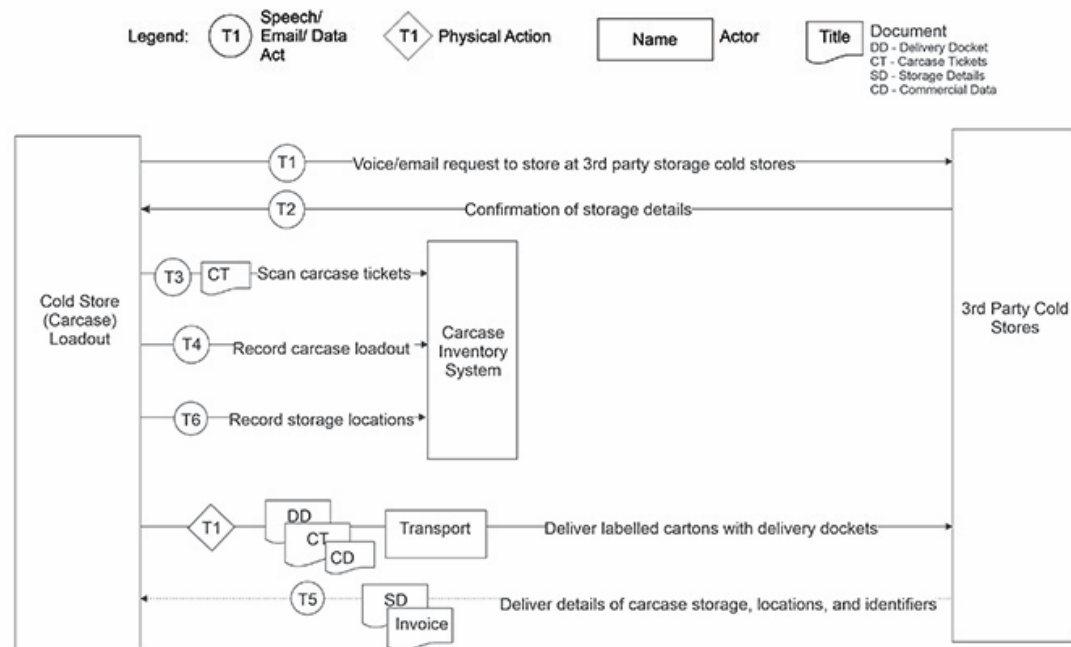
5.2.2.8.7.4 Cold store (Carcase) to Food Service



Cold Store (Carcase) to Food Service

Figure 82. Data or information flows from the cold store (carcase) to food service systems in the beef supply chain.

5.2.2.8.7.5 Cold store (Carcase) to Third-Party Cold Store



Carcass Loadout to 3rd Party Storage Cold Stores

Figure 83. Data or information flows from the cold store (carcase) to third-party cold store systems in the beef supply chain.

5.2.2.8.7.6 Cold store (Carcase) to Value Adding

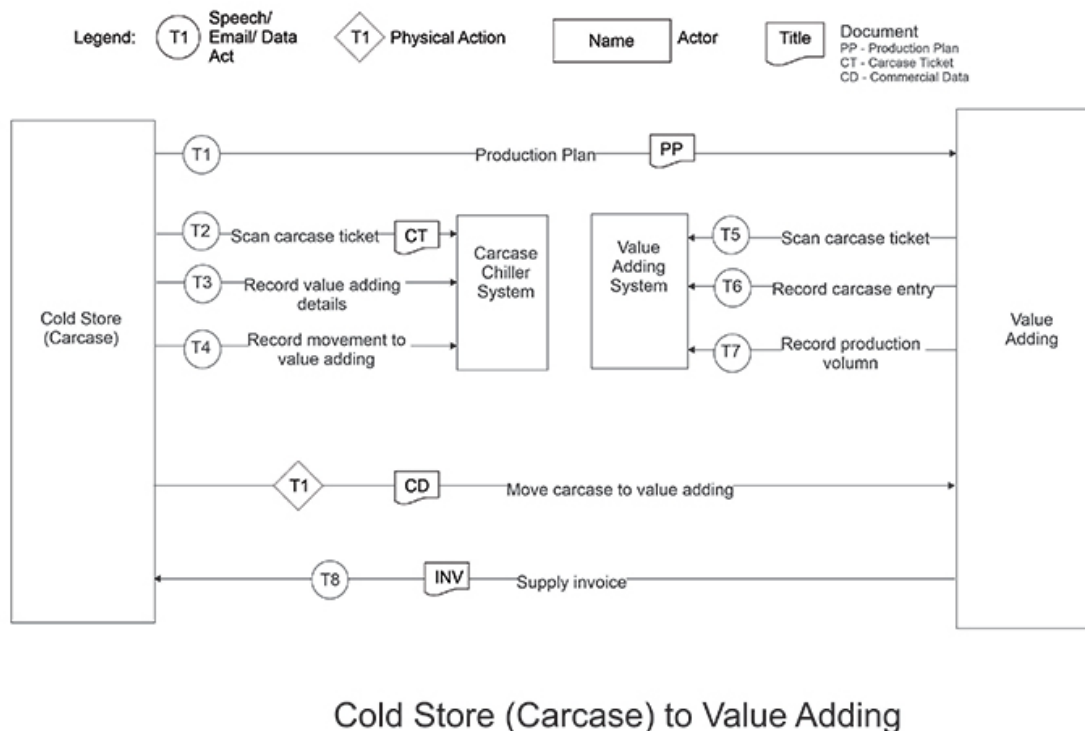


Figure 84. Data or information flows from the cold store (carcase) to value adding systems in the beef supply chain.

5.2.2.9 Cold store (cartons)

Storing chilled carcasses or carcase products (e.g., cartons) typically provides a stock buffer between production and dispatch of product intended for domestic or export markets. A cold storage system involves refrigerated chambers that can chill or freeze any perishable product for a period of time before dispatch. During this process, ageing of meat also occurs, progressively increasing tenderness and flavour. Storage rooms must take into account the storage requirements for different products as well as rules for loading, maintenance and hygiene of storage equipment. Cartons, identified by unique GS1 barcoded carton labels, are palletised with each pallet being identified by a unique GS1 barcoded pallet label. These pallets are loaded onto pallet racking for storage in the chiller system.

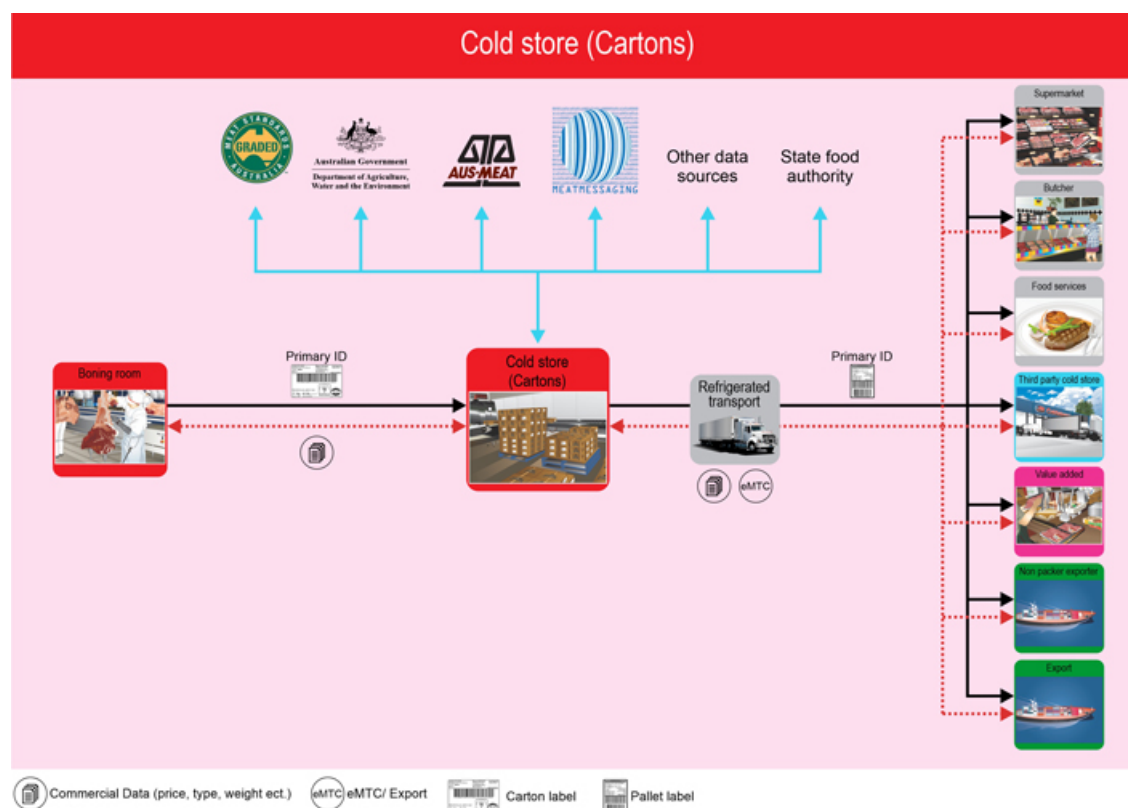


Figure 85. Inputs and outputs of the beef supply chain cold store (cartons) sector.

5.2.2.9.1 Physical Inputs including Critical Tracking Events (CTEs)

The physical inputs into the carton cold storage unit include cartons and pallets comprising of boned product that has been passed as safe for human consumption by an Authorised Officer. Critical Tracking Event related documents accompanying these inputs may include the carton and pallet labels. This information is recorded in the processing plants production management system.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with inputs to the cold store (cartons) system include the receipt of:

- * Carton
- * Pallet.

Table 76. Physical inputs and associated Critical Tracking Event related documents for a beef cold store (cartons) system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Carton	This is a case, crate, or barrel of product.	Carton label, Official seal, Processing plant production management system	
Pallet	A logistic unit which includes a number of cartons or goods items packed together for transport or storage purposes.	SSCC/Pallet label, Processing plant production management system	

5.2.2.9.2 Information Inputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). There are a number of information inputs associated with the movement of product into the carton cold storage system. These are largely included on the carton and pallet labels and are Key Data Elements encapsulated by the GS1 barcode, as well as other information required by federal legislation.

Table 77. Information inputs, Key Data Elements and Critical Tracking Event related documentation for a beef cold store (cartons) system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Carton label, Processing plant production management system, SSCC/Pallet label	
Consignment Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., shipment/message that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Processing plant production management system, SSCC/Pallet label	For more information visit the GS1 website.
Count of Trade Items	Usually encoded in the GS1 barcode, this is the number of trade items e.g., cartons in the logistic unit.	Yes	Processing plant production management system, SSCC/Pallet label	
From Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Carton label, Processing plant production management system, SSCC/Pallet label	
Global Trade Item Number (GTIN)	Encoded in the GS1 barcode, the GTIN is a globally unique 14-digit number used to identify trade items, products, or services.	Yes	Carton label, Processing plant production management system,	For more information visit the GS1 website.

			SSCC/Pallet label	
GTIN of Contained Trade Items	Encoded in the GS1 barcode, the GTIN of the contained trade items is a globally unique 14-digit number used to identify trade items, products, or services in the logistic unit.	Yes	Processing plant production management system, SSCC/Pallet label	For more information visit the GS1 website.
Net Weight (Kilograms)	Usually encoded in the GS1 barcode, the Net Weight is a variable measure of the trade item e.g., carton, pallet or shipment recorded in kilograms.	Yes	Carton label, Processing plant production management system, SSCC/Pallet label	For more information visit the GS1 website.
Official mark	Any stamp, seal, label, or mark that is declared by the regulations to be an official mark. An official mark signifies that the product has been inspected by and approved as safe for human consumption by an Authorised Officer.	Yes	Carton label, SSCC/Pallet label	For more information visit the Australian Government Federal Register of Legislation.
Packaging Date	Encoded in the GS1 barcode, the Packaging Date is the date on which the item was packaged and is recorded in the format year, month, day (YYMMDD).	Yes	Carton label, Processing plant production management system, SSCC/Pallet label	For more information visit the GS1 website.
Packaging Date Range	This includes the oldest and newest packaging dates for the logistic unit.	Yes	Processing plant production management system, SSCC/Pallet label	For more information visit the GS1 website.
Pallet Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., pallet that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Processing plant production management system, SSCC/Pallet label	For more information visit the GS1 website.
Seal Serial Number	This is a unique serial number printed on any tamper-evident seal issued by the Department.	Yes	Official seal, Processing plant production management system	For more information visit the Australian Government Federal Register of Legislation.

Serial Number	Encoded in the GS1 barcode, this is a code, numeric or alphanumeric, assigned to an individual instance of an item for its lifetime.	Yes	Carton label, Processing plant production management system	For more information visit the GS1 website.
Shipping Mark	Also known as a port mark, this is a code comprising of three letters representing the foreign establishment number and the last nine digits of the consignment SSCC.	Yes	Processing plant production management system, SSCC/Pallet label	
Trade description	This is a collective set of words that says what the product is and may include information such as species, net weight of product, name and address of establishments, category ciphers, market endorsements, MSA eating quality etc.	Yes	Carton label, Processing plant production management system, SSCC/Pallet label	
Lot number	A lot is a number assigned by the processor to each group of cattle consigned to slaughter and is usually vendor specific.	Yes	Carcase Ticket, Processing plant production management system	

5.2.2.9.3 Physical Outputs including Critical Tracking Events (CTEs)

The physical outputs of the carton cold storage system include cartons and pallets, these may be loaded into container system units for transport. Documents accompanying the movement of outputs of the cold storage system include those such as the delivery docket/manifest, Meat Transfer Certificate (MTC) and Meat Messaging Consignment Report.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with the outputs of the cold store (cartons) system include the movement of:

- * Carton
- * Pallet
- * Container System Unit

off the property, premises, or supply chain sector.

Table 78. Physical outputs and associated Critical Tracking Event related documents for a beef cold store (cartons) system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Carton	This is a case, crate, or barrel of product.	Carton label, Delivery Docket/Manifest, Meat Transfer Certificate (MTC), Official seal, Processing plant production management system, Receipt of purchase/Tax Invoice	

Pallet	A logistic unit which includes a number of cartons or goods items packed together for transport or storage purposes.	Bill of lading/Air Waybill, Delivery Docket/Manifest, Export Health Certificate, Export Permit, Meat Transfer Certificate (MTC), Processing plant production management system, Receipt of purchase/Tax Invoice, SSCC/Pallet label, Certificate of Analysis (COA)	
Container System Unit	A container designed for use as a unit of cargo handling equipment in the transport of goods by aircraft or ship.	Bill of lading/Air Waybill, Delivery Docket/Manifest, Export Health Certificate, Export Permit, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), Official seal, Processing plant production management system, Receipt of purchase/Tax Invoice, Certificate of Analysis (COA)	

5.2.2.9.4 Information Outputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). The information outputs relating to the movement of outputs of the cold storage system is derived from CTE documentation ranging from Receipt of purchase/Tax Invoices to the Bill of lading/Air Waybill and Meat Messaging Consignment Reports. This information will be stored in the processing plants production management system.

Table 79. Information outputs, Key Data Elements and Critical Tracking Event related documentation for a beef cold store (cartons) system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Bill of lading/Air Waybill document number	A unique document number issued for traceability purposes.	Yes	Bill of lading/Air Waybill, Processing plant production management system, Certificate of Analysis (COA)	
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Bill of lading/Air Waybill, Carton label, Processing plant production management system, Receipt of purchase/Tax Invoice, SSCC/Pallet label, Company/product code	
Consignment Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., shipment/message that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Bill of lading/Air Waybill, Export clearance documentation, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), Processing plant production management system, SSCC/Pallet label	For more information visit the GS1 website.
Contract number	This is a unique number allocated to the contract by the seller.	Yes	Delivery Docket/Manifest, Processing plant production management system	
Count of Pallets	This is the number of pallets in the logistic unit e.g., container system unit.	Yes	Meat Messaging Consignment Report,	

			Processing plant production management system	
Count of Trade Items	Usually encoded in the GS1 barcode, this is the number of trade items e.g., cartons in the logistic unit.	Yes	Bill of lading/Air Waybill, Delivery Docket/Manifest, Meat Messaging Consignment Report, Processing plant production management system, SSSC/Pallet label	For more information visit the GS1 website.
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Bill of lading/Air Waybill, Delivery Docket/Manifest, Export clearance documentation, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), Processing plant production management system, Receipt of purchase/Tax Invoice, Certificate of Analysis (COA)	
Delivery Docket/Manifest number	This is a unique number allocated to the docket for identification purposes.	Yes	Delivery Docket/Manifest, Processing plant production management system	
Export Health Certificate Number	A unique number allocated to the health certificate issued for the export consignment for traceability purposes.	Yes	Export Health Certificate, Meat Messaging Consignment Report, Processing plant production management system	For more information visit the Australian Government Federal Register of Legislation.
Export Permit Number	A unique permit number is allocated for the export consignment following submission of a correct and validated Request For Permit (RFP) which is then approved by the Secretary.	Yes	Export Permit, Processing plant production management system	For more information visit the Australian Government Federal Register of Legislation.
From Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Carton label, Delivery Docket/Manifest, Export clearance documentation, Export Health Certificate, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), Processing plant production management system, SSSC/Pallet label, Certificate of Analysis (COA)	
Global Trade Item Number (GTIN)	Encoded in the GS1 barcode, the GTIN is a globally unique 14-digit number used to identify trade items, products, or services.	Yes	Carton label, Meat Messaging Consignment Report, Processing plant production management system, SSSC/Pallet label	For more information visit the GS1 website.

GTIN of Contained Trade Items	Encoded in the GS1 barcode, the GTIN of the contained trade items is a globally unique 14-digit number used to identify trade items, products, or services in the logistic unit.	Yes	Processing plant production management system, SSCC/Pallet label	For more information visit the GS1 website.
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Bill of lading/Air Waybill, Delivery Docket/Manifest, Export clearance documentation, Export Health Certificate, Meat Transfer Certificate (MTC), Processing plant production management system, Certificate of Analysis (COA)	
MSA Licence Number	Any establishment consigning, supplying, or identifying MSA Certified Product must be registered and have a unique MSA Licence Number.	Yes	Processing plant production management system, Receipt of purchase/Tax Invoice	For more information on MSA visit the MLA website.
Net Weight (Kilograms)	Usually encoded in the GS1 barcode, the Net Weight is a variable measure of the trade item e.g., carton, pallet or shipment recorded in kilograms.	Yes	Bill of lading/Air Waybill, Carton label, Export Health Certificate, Meat Messaging Consignment Report, Processing plant production management system, SSCC/Pallet label	For more information visit the GS1 website.
Official mark	Any stamp, seal, label, or mark that is declared by the regulations to be an official mark. An official mark signifies that the product has been inspected by and approved as safe for human consumption by an Authorised Officer.	Yes	Carton label, SSCC/Pallet label	For more information visit the Australian Government Federal Register of Legislation.
Order date	This is the date on which the purchase order or contract was raised by the buyer.	Yes	Delivery Docket/Manifest, Processing plant production management system	
Packaging Date	Encoded in the GS1 barcode, the Packaging Date is the date on which the item was packaged and is recorded in the format year, month, day (YYMMDD).	Yes	Carton label, Processing plant production management system, SSCC/Pallet label, Certificate of Analysis (COA)	For more information visit the GS1 website.
Packaging Date Range	This includes the oldest and newest packaging dates for the logistic unit.	Yes	Export clearance documentation, Processing plant production management system, SSCC/Pallet label	
Pallet Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., pallet that is assigned by the establishment	Yes	Export clearance documentation, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), Processing	For more information visit the GS1 website.

	constructing the unit. The SSCC remains the same for the life of the logistic unit.		plant production management system, SSCC/Pallet label	
Production Date (YYMMDD)	Encoded in the GS1 barcode, this is the 'kill' or slaughter' date of the product and is recorded in the format year, month, day (YYMMDD).	Yes	Meat Transfer Certificate (MTC), Processing plant production management system	For more information visit the GS1 website.
Recipient Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Processing plant production management system, Receipt of purchase/Tax Invoice	For more information visit the ATO website.
Seller/Supplier Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Processing plant production management system, Receipt of purchase/Tax Invoice	For more information visit the ATO website.
Seal Serial Number	This is a unique serial number printed on any tamper-evident seal issued by the Department.	Yes	Bill of lading/Air Waybill, Export clearance documentation, Meat Transfer Certificate (MTC), Official seal, Processing plant production management system	For more information visit the Australian Government Federal Register of Legislation.
Serial Number	Encoded in the GS1 barcode, this is a code, numeric or alphanumeric, assigned to an individual instance of an item for its lifetime.	Yes	Carton label, Processing plant production management system	For more information visit the GS1 website.
Shipping Mark	Also known as a port mark, this is a code comprising of three letters representing the foreign establishment number and the last nine digits of the consignment SSCC.	Yes	Bill of lading/Air Waybill, Delivery Docket/Manifest, Export Health Certificate, Meat Messaging Consignment Report, Processing plant production management system, SSCC/Pallet label, Certificate of Analysis (COA)	
To Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Export clearance documentation, Meat Transfer Certificate (MTC), Processing plant production management system	
Trade description	This is a collective set of words that says what the product is and may include information such as species, net weight of product, name and address of establishments, category	Yes	Carton label, Delivery Docket/Manifest, Export clearance documentation, Export Health Certificate, Meat Messaging Consignment Report, Meat	

	ciphers, market endorsements, MSA eating quality etc.		Transfer Certificate (MTC), Processing plant production management system, SSCC/Pallet label	
Transfer Certificate number	A unique certificate number issued for traceability purposes.	Yes	Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), Processing plant production management system	For more information visit the Department of Agriculture, Water and the Environment website.
Transport registration number	The registration number of the vehicle in which the animals or product were transported. For shipments of product this will be a shipping container number.	Yes	Bill of lading/Air Waybill, Delivery Docket/Manifest, Export clearance documentation, Export Health Certificate, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), Processing plant production management system	
Analysis Date	This is the date on which a product sample was analysed.	Yes	Certificate of Analysis (COA), Processing plant production management system	
Certificate of Analysis number	A unique certificate number issued for traceability purposes.	Yes	Certificate of Analysis (COA), Processing plant production management system	

5.2.2.9.5 Regulatory and Industry Programs

- * Meat Standards Australia (MSA)
- * AUS-MEAT
- * Australian Meat Industry Council (AMIC)
- * Department of Agriculture
- * Meat Messaging
- * Other data sources
- * State food authority

5.2.2.9.6 Supply Chain Node Traceability

Traceability for cartoned and palletised product is limited to the carcasses that have entered the boning room for the production run of cartons that are created. For example, 200 carcasses (400 sides) individually identified with unique carcass tickets enter the boning room for a specific boning run. These carcass tickets are linked to the specific boning run. From these carcasses, 3 200 cartons of primal cuts and 1 000 cartons of trim and other highly mixed products are created. While all cartons are identified with unique serialised carton labels, including a GS1 meat industry barcode, linked to the boning run (and may be packaged into pallets containing unique serialised pallet labels including a GS1 SSCC barcode), it is not readily possible to identify which carcasses are in which cartons as the cartons will contain meat products from different carcasses. If the carcasses were sourced from several different properties, the resulting carton can only be traced to a number of possible carcasses and source properties.

5.2.2.9.7 Data flow diagrams

Table 80. Data flow diagrams for the inputs and outputs of a beef cold store (cartons) system.

Direction	Description
Input	Boning Room to Cold store (Carton)
Output	Cold store (Carton) to Supermarket
Output	Cold store (Carton) to Butcher
Output	Cold store (Carton) to Food Service
Output	Cold store (Carton) to Third-Party Cold Store
Output	Cold store (Carton) to Value Adding

5.2.2.9.7.1 Boning Room to Cold store (Carton)

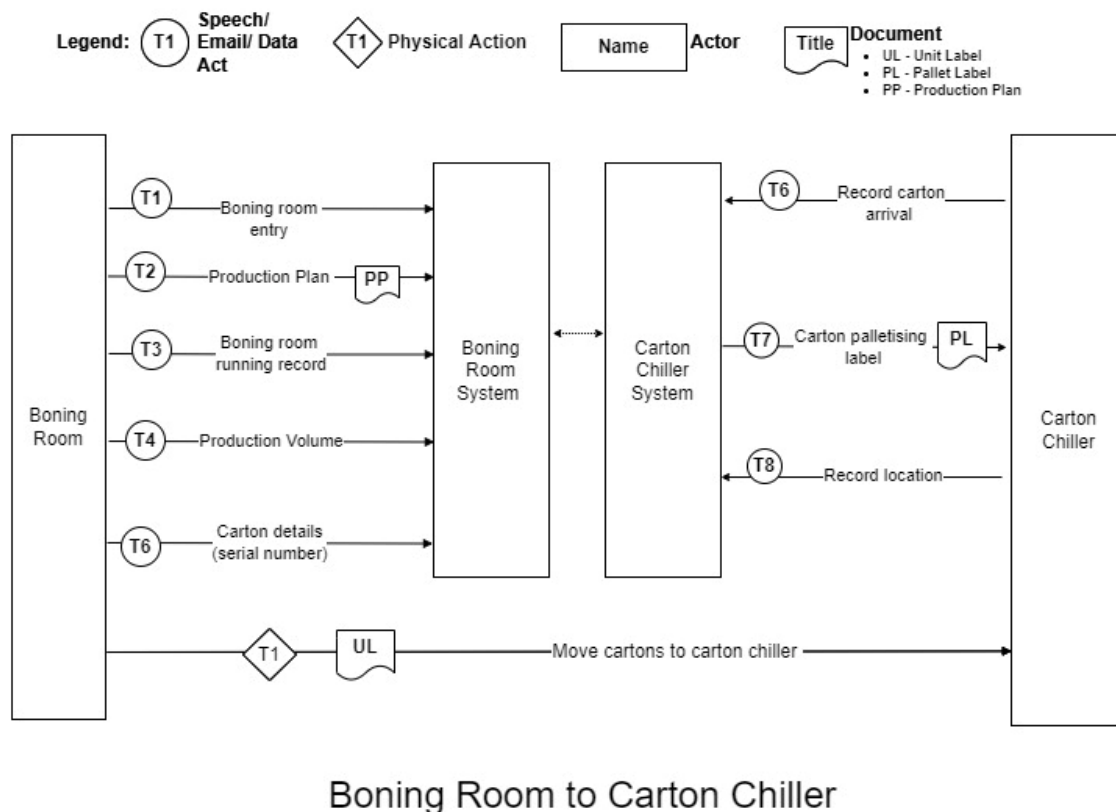
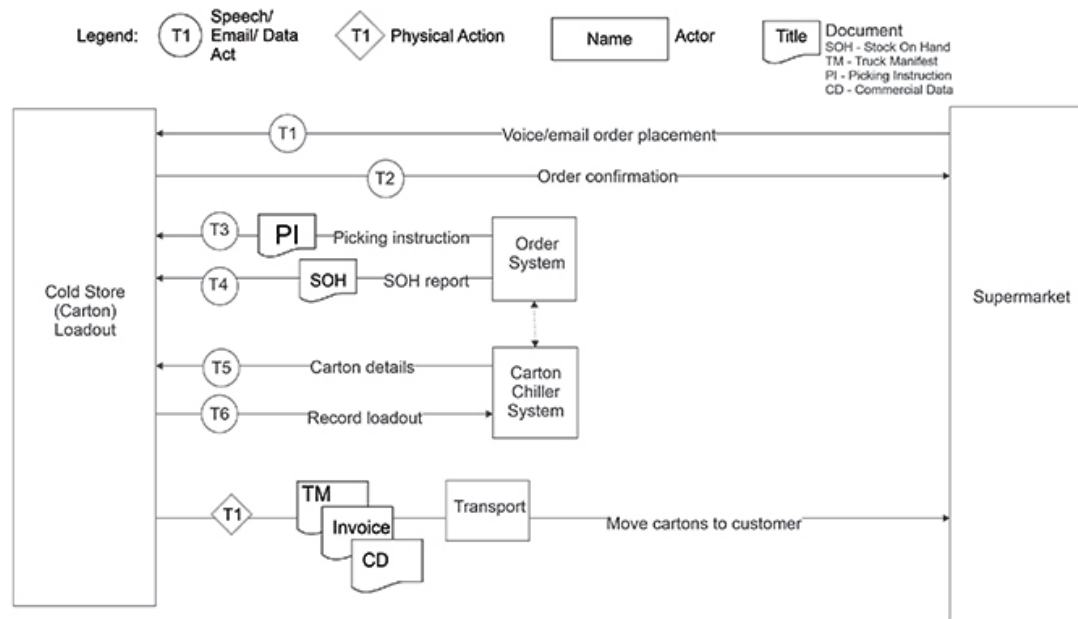


Figure 86. Data or information flows from the boning room to cold store (carton) systems in the beef supply chain.

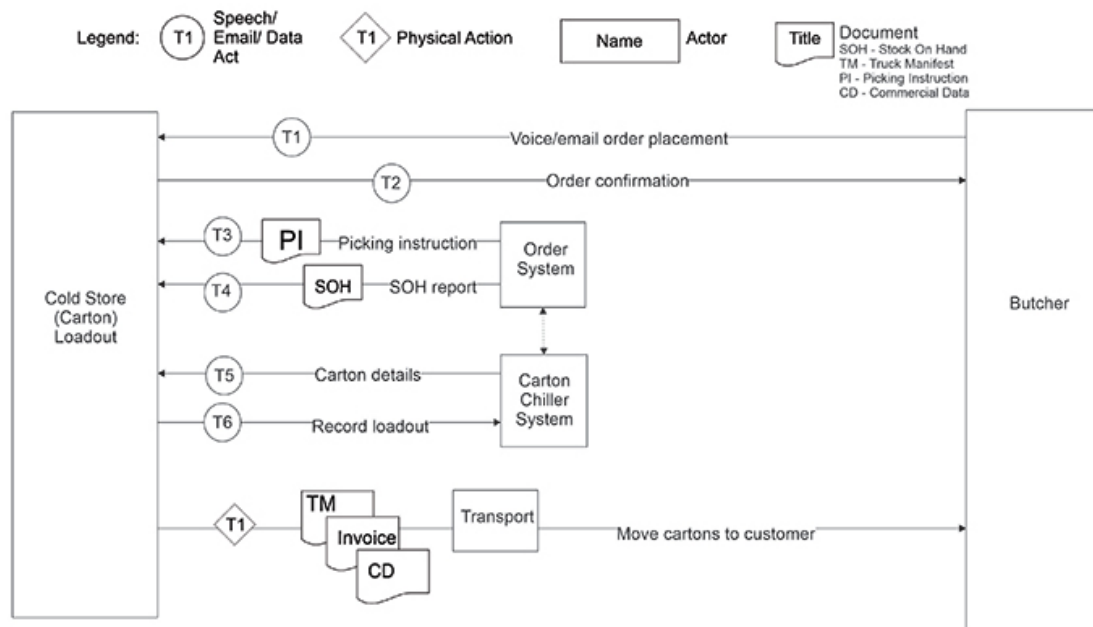
5.2.2.9.7.2 Cold store (Carton) to Supermarket



Cold Store (Carton) Loadout to Supermarket

Figure 87. Data or information flows from the cold store (carton) loadout to supermarket systems in the beef supply chain.

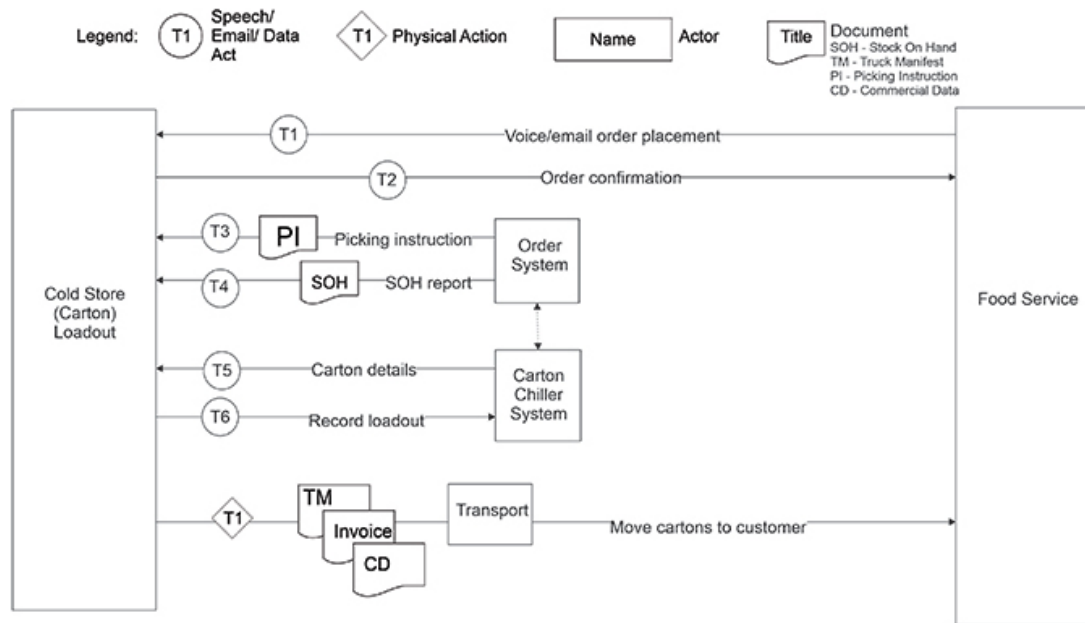
5.2.2.9.7.3 Cold store (Carton) to Butcher



Cold Store (Carton) Loadout to Butcher

Figure 88. Data or information flows from the cold store (carton) loadout to butcher systems in the beef supply chain.

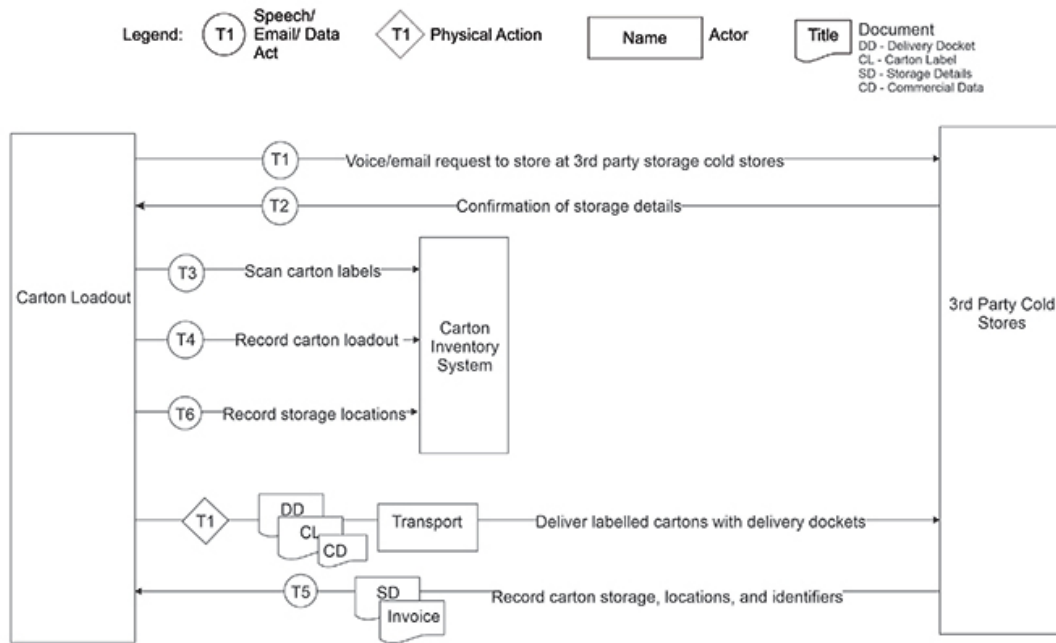
5.2.2.9.7.4 Cold store (Carton) to Food Service



Cold Store (Carton) Loadout to Food Service

Figure 89. Data or information flows from the cold store (carton) loadout to food service systems in the beef supply chain.

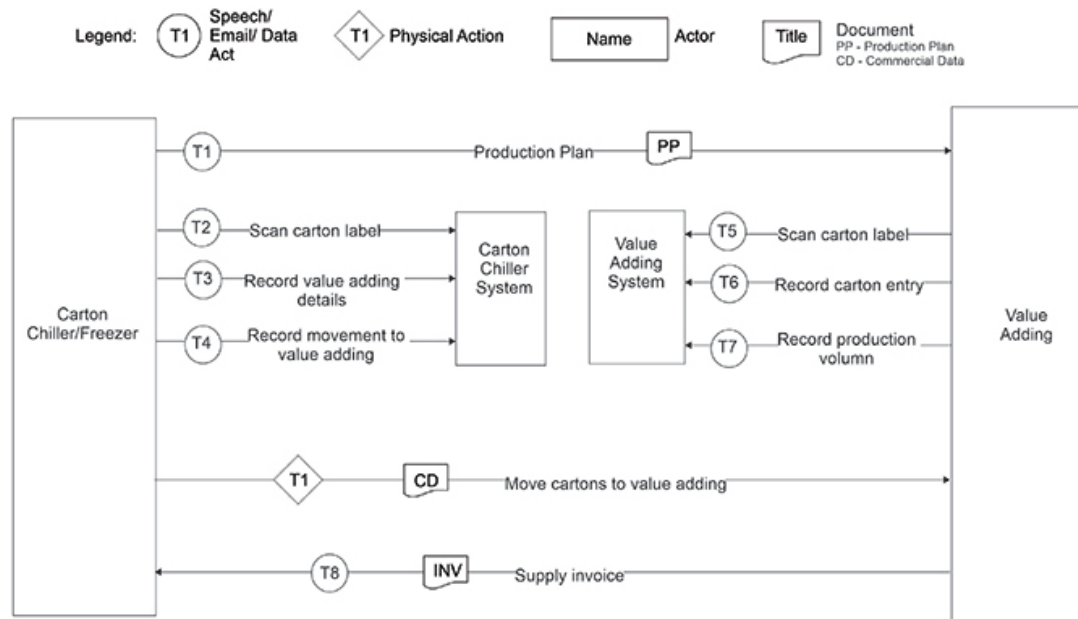
5.2.2.9.7.5 Cold store (Carton) to Third-Party Cold Store



Carton Loadout to 3rd Party Storage Cold Stores

Figure 90. Data or information flows from the cold store (carton) loadout to third-party cold store systems in the beef supply chain.

5.2.2.9.7.6 Cold store (Carton) to Value Adding



Carton Chiller/Freezer to Value Adding

Figure 91. Data or information flows from the cold store (carton) loadout to value adding systems in the beef supply chain.

5.2.3 Exporting Country - National distribution

5.2.3.1 Independent boning room

Boning is a process or procedure whereby meat is removed from carcasses or carcase parts, or bone-in or boneless meat cuts are produced. The boning room is the location where these activities occur. An independent boning room is an establishment, separate from a processing establishment, which performs activities the same as that for a boning room integrated into a processing plant. Typically, carcasses enter the boning room after chilling and refrigerated transport and are broken down into portions and cuts such as primal, sub-primal and trim cuts. This process is very critical, as any errors in cutting can decrease the value of a cut and impact directly on profit. Additionally, there is a high risk of cross contamination to the cuts, and health and safety risks to workers operating the boning room tools and machinery.

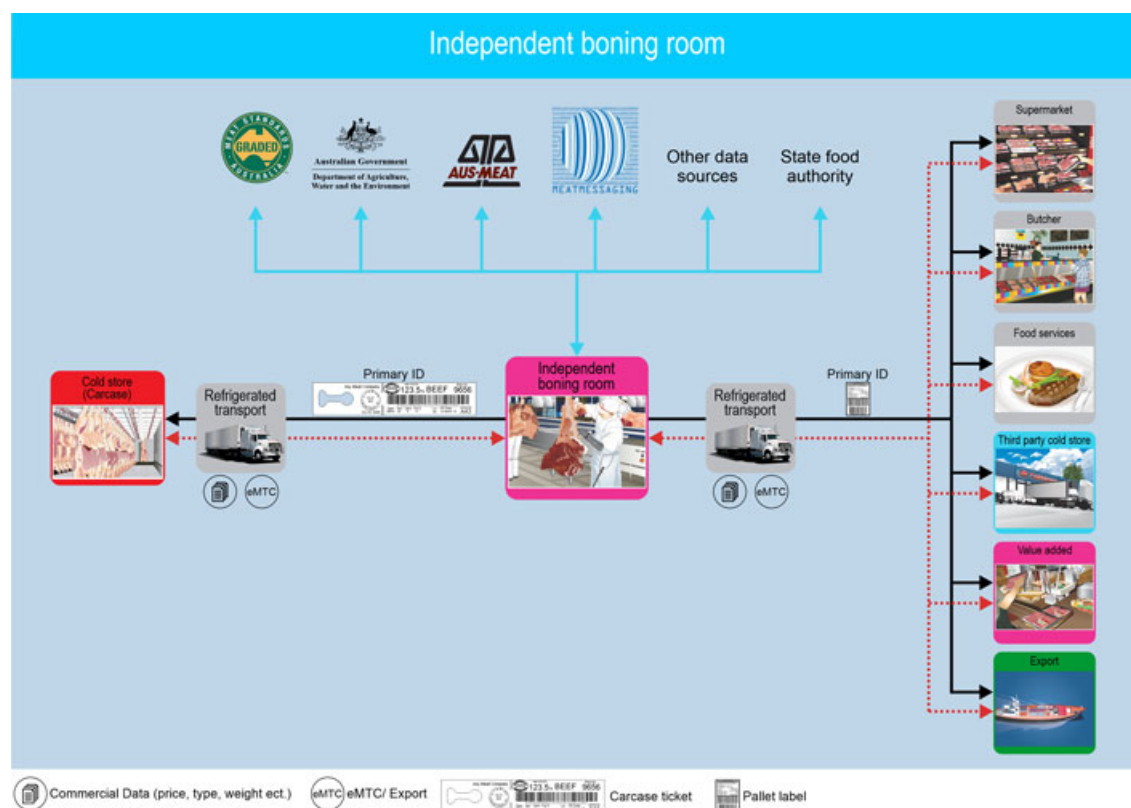


Figure 92. Inputs and outputs of the beef supply chain independent boning room sector.

5.2.3.1.1 Physical Inputs including Critical Tracking Events (CTEs)

Physical inputs into the boning room include carcasses transported from the cold store (carcase) system. Critical Tracking Event related documentation includes articles pertaining to the identification of individual products e.g., Carcase Ticket, the movement of carcasses e.g., MTC and the purchase of carcasses e.g., Receipt of purchase/Tax Invoice.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with inputs to the independent boning room system include the receipt of:

* Carcase.

Table 81. Physical inputs and associated Critical Tracking Event related documents for a beef independent boning room system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Carcase	The body of a slaughtered animal after bleeding. Becomes a dressed carcase when hide, head, feet and offal are removed.	Carcase Ticket, Delivery Docket/Manifest, Meat Transfer Certificate (MTC), MSA Carcase Ticket, Independent boning room production management system, Receipt of purchase/Tax Invoice	

5.2.3.1.2 Information Inputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). Information inputs or KDEs drawn from CTE documentation accompanying the movement of carcasses to the independent boning room include items such as the establishment number, the date of movement, GS1 barcode application identifiers and the transport registration number.

Table 82. Information inputs, Key Data Elements and Critical Tracking Event related documentation for a beef independent boning room system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Body number	This is a number assigned to each carcass by the processor for identification purposes.	Yes	Carcass Ticket, Independent Boning Room production management system	
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Independent Boning Room production management system, Receipt of purchase/Tax Invoice	
Consignment Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., shipment/message that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Independent Boning Room production management system, Meat Transfer Certificate (MTC)	
Contract number	This is a unique number allocated to the contract by the seller.	Yes	Delivery Docket/Manifest, Independent Boning Room production management system	
Count of Trade Items	Usually encoded in the GS1 barcode, this is the number of trade items e.g., cartons in the logistic unit.	Yes	Delivery Docket/Manifest Independent, Boning Room production management system	For more information visit the GS1 website.
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Delivery Docket/Manifest, Independent Boning Room production management system, Meat Transfer Certificate (MTC), Receipt of purchase/Tax Invoice	
Delivery Docket/Manifest number	This is a unique number allocated to the docket for identification purposes.	Yes	Delivery Docket/Manifest, Independent Boning Room production management system	

From Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Carcase Ticket, Delivery Docket/Manifest, Independent Boning Room production management system, Meat Transfer Certificate (MTC)	
Global Trade Item Number (GTIN)	Encoded in the GS1 barcode, the GTIN is a globally unique 14-digit number used to identify trade items, products, or services.	Yes	Carcase Ticket, Independent Boning Room production management system	For more information visit the GS1 website.
Lot number	A lot is a number assigned by the processor to each group of cattle consigned to slaughter and is usually vendor specific.	Yes	Carcase Ticket, Independent Boning Room production management system	
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Delivery Docket/Manifest, Independent Boning Room production management system, Meat Transfer Certificate (MTC)	
MSA eating quality group/grade	This identifies carcasses with similar MSA and eating quality grades, these may align with brands packed by the processor for logistic simplicity. Carcasses are grouped for boning according to eating quality grades.	Yes	Independent Boning Room production management system, MSA Carcase Ticket	For more information on MSA visit the MLA website.
MSA Licence Number	Any establishment consigning, supplying, or identifying MSA Certified Product must be registered and have a unique MSA Licence Number.	Yes	Independent Boning Room production management system, Receipt of purchase/Tax Invoice	For more information on MSA visit the MLA website.
Net Weight (Kilograms)	Usually encoded in the GS1 barcode, the Net Weight is a variable measure of the trade item e.g., carton, pallet or shipment recorded in kilograms.	Yes	Carcase Ticket, Independent Boning Room production management system	For more information visit the GS1 website.
Official mark	Any stamp, seal, label, or mark that is declared by the regulations to be an official mark. An official mark signifies that the product has been inspected by and approved as safe for human consumption by an Authorised Officer.	Yes	Carcase Ticket, Independent Boning Room production management system	For more information visit the Australian Government Federal Register of Legislation.
Order date	This is the date on which the purchase order or contract was raised by the buyer.	Yes	Delivery Docket/Manifest, Independent Boning Room production management system	

Pallet Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., pallet that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Independent Boning Room production management system, Meat Transfer Certificate (MTC)	For more information visit the GS1 website.
Production Date (YYMMDD)	Encoded in the GS1 barcode, this is the 'kill' or slaughter date of the product and is recorded in the format year, month, day (YYMMDD).	Yes	Carcase Ticket, Independent Boning Room production management system, Meat Transfer Certificate (MTC)	For more information visit the GS1 website.
Recipient Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Independent Boning Room production management system, Receipt of purchase/Tax Invoice	For more information visit the ATO website.
Seal Serial Number	This is a unique serial number printed on any tamper-evident seal issued by the Department.	Yes	Independent Boning Room production management system, Meat Transfer Certificate (MTC)	For more information visit the Australian Government Federal Register of Legislation.
Seller/Supplier Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Independent Boning Room production management system, Receipt of purchase/Tax Invoice	For more information visit the ATO website.
Serial Number	Encoded in the GS1 barcode, this is a code, numeric or alphanumeric, assigned to an individual instance of an item for its lifetime.	Yes	Carcase Ticket, Independent Boning Room production management system	For more information visit the GS1 website.
Shipping Mark	Also known as a port mark, this is a code comprising of three letters representing the foreign establishment number and the last nine digits of the consignment SSCC.	Yes	Delivery Docket/Manifest, Independent Boning Room production management system	
To Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Independent Boning Room production management system, Meat Transfer Certificate (MTC)	
Trade description	This is a collective set of words that says what the product is and may include information such as species, net weight of product, name and address of establishments, category ciphers, market endorsements, MSA eating quality etc.	Yes	Carcase Ticket, Delivery Docket/Manifest, Independent Boning Room production management system, Meat Transfer Certificate (MTC)	

Transfer Certificate number	A unique certificate number issued for traceability purposes.	Yes	Independent Boning Room production management system, Meat Transfer Certificate (MTC)	For more information visit the Department of Agriculture, Water and the Environment website.
Transport registration number	The registration number of the vehicle in which the animals or product were transported. For shipments of product this will be a shipping container number.	Yes	Delivery Docket/Manifest, Independent Boning Room production management system, Meat Transfer Certificate (MTC)	

5.2.3.1.3 Physical Outputs including Critical Tracking Events (CTEs)

The outputs of the independent boning room are similar to that of boning rooms located at processing establishments and include carton and palletised product as well as product loaded into shipping containers for transport and export. These products must be accompanied by documentation such as the Delivery Docket/Manifest, Meat Transfer Certificate and Certificate of Analysis when sent direct for export.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with the outputs of the independent boning room system include the movement of:

- * Carton
- * Pallet
- * Container System Unit

off the property, premises, or supply chain sector.

Table 83. Physical outputs and associated Critical Tracking Event related documents for a beef independent boning room system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Carton	This is a case, crate, or barrel of product.	Carton label, Delivery Docket/Manifest, Meat Transfer Certificate (MTC), Official seal, Independent boning room production management system, Receipt of purchase/Tax Invoice	
Pallet	A logistic unit which includes a number of cartons or goods items packed together for transport or storage purposes.	Bill of lading/Air Waybill, Delivery Docket/Manifest, Export Health Certificate, Export Permit, Meat Transfer Certificate (MTC), Independent boning room production management system, Receipt of purchase/Tax Invoice, Certificate of Analysis (COA), SSSC/Pallet label	
Container System Unit	A container designed for use as a unit of cargo handling equipment in the transport of goods by aircraft or ship.	Bill of lading/Air Waybill, Delivery Docket/Manifest, Export Health Certificate, Export Permit, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), Official seal, Independent boning room production management system, Certificate of Analysis (COA), Receipt of purchase/Tax Invoice	

5.2.3.1.4 Information Outputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). Information included on the CTE documentation for independent boning room product includes KDEs such as serial number identifiers for key documentation, production and packaging dates, transportation registration, sending and receiving establishment details and GS1 application identifiers.

Table 84. Information outputs, Key Data Elements and Critical Tracking Event related documentation for a beef independent boning room system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Analysis Date	This is the date on which a product sample was analysed.	Yes	Certificate of Analysis (COA), Independent Boning Room production management system	
Bill of lading/Air Waybill document number	A unique document number issued for traceability purposes.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA), Independent Boning Room production management system	
Certificate of Analysis number	A unique certificate number issued for traceability purposes.	Yes	Certificate of Analysis (COA), Independent Boning Room production management system	
COA test lot identifier	This is a unique identifier allocated to all cartons, pallets, and shipping containers for which an analysis sample represents.	Yes	Certificate of Analysis (COA), Independent Boning Room production management system	
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Bill of lading/Air Waybill, Carton label, Certificate of Analysis (COA), Independent Boning Room production management system, Receipt of purchase/Tax Invoice, SSCC/Pallet label	
Consignment Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., shipment/message that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Bill of lading/Air Waybill, Independent Boning Room production management system, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), SSCC/Pallet label	For more information visit the GS1 website.
Contract number	This is a unique number allocated to the contract by the seller.	Yes	Delivery Docket/Manifest, Independent Boning Room production management system	
Count of Pallets	This is the number of pallets in the logistic unit e.g., container system unit.	Yes	Independent Boning Room production management system, Meat Messaging Consignment Report	

Count of Trade Items	Usually encoded in the GS1 barcode, this is the number of trade items e.g., cartons in the logistic unit.	Yes	Bill of lading/Air Waybill, Delivery Docket/Manifest, Independent Boning Room production management system, Meat Messaging Consignment Report, SSCC/Pallet label	For more information visit the GS1 website.
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA), Delivery Docket/Manifest, Independent Boning Room production management system, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), Receipt of purchase/Tax Invoice	
Delivery Docket/Manifest number	This is a unique number allocated to the docket for identification purposes.	Yes	Delivery Docket/Manifest, Independent Boning Room production management system	
Export Health Certificate Number	A unique number allocated to the health certificate issued for the export consignment for traceability purposes.	Yes	Export Health Certificate, Independent Boning Room production management system, Meat Messaging Consignment Report	For more information visit the Department of Agriculture, Water and the Environment website.
Export Permit Number	A unique permit number is allocated for the export consignment following submission of a correct and validated Request For Permit (RFP) which is then approved by the Secretary.	Yes	Export Permit, Independent Boning Room production management system	For more information visit the Department of Agriculture, Water and the Environment website.
From Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Carton label, Certificate of Analysis (COA), Delivery Docket/Manifest, Export Health Certificate, Independent Boning Room production management system, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), SSCC/Pallet label	
Global Trade Item Number (GTIN)	Encoded in the GS1 barcode, the GTIN is a globally unique 14-digit number used to identify trade items, products, or services.	Yes	Carton label, Independent Boning Room production management system, Meat Messaging Consignment Report, SSCC/Pallet label	For more information visit the GS1 website.
GTIN of Contained Trade Items	Encoded in the GS1 barcode, the GTIN of the contained trade items is a globally unique 14-digit number used to identify trade	Yes	Independent Boning Room production management system, SSCC/Pallet label	For more information visit the GS1 website.

	items, products, or services in the logistic unit.			
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA), Delivery Docket/Manifest, Export Health Certificate, Independent Boning Room production management system, Meat Transfer Certificate (MTC)	
MSA Licence Number	Any establishment consigning, supplying, or identifying MSA Certified Product must be registered and have a unique MSA Licence Number.	Yes	Independent Boning Room production management system, Receipt of purchase/Tax Invoice	For more information on MSA visit the MLA website.
Net Weight (Kilograms)	Usually encoded in the GS1 barcode, the Net Weight is a variable measure of the trade item e.g., carton, pallet or shipment recorded in kilograms.	Yes	Bill of lading/Air Waybill, Carton label, Export Health Certificate, Independent Boning Room production management system, Meat Messaging Consignment Report, SSCC/Pallet label	For more information visit the GS1 website.
Official mark	Any stamp, seal, label, or mark that is declared by the regulations to be an official mark. An official mark signifies that the product has been inspected by and approved as safe for human consumption by an Authorised Officer.	Yes	Carton label, Independent Boning Room production management system, SSCC/Pallet label	For more information visit the Australian Government Federal Register of Legislation.
Order date	This is the date on which the purchase order or contract was raised by the buyer.	Yes	Delivery Docket/Manifest, Independent Boning Room production management system	
Packaging Date	Encoded in the GS1 barcode, the Packaging Date is the date on which the item was packaged and is recorded in the format year, month, day (YYMMDD).	Yes	Carton label, Certificate of Analysis (COA), Independent Boning Room production management system, SSCC/Pallet label	For more information visit the GS1 website.
Packaging Date Range	This includes the oldest and newest packaging dates for the logistic unit.	Yes	Independent Boning Room production management system, SSCC/Pallet label	
Pallet Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., pallet that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Independent Boning Room production management system, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), SSCC/Pallet label	For more information visit the GS1 website.
Production Date (YYMMDD)	Encoded in the GS1 barcode, this is the 'kill' or slaughter' date of the product and is recorded in	Yes	Independent Boning Room production management	For more information visit the GS1 website.

	the format year, month, day (YYMMDD).		system, Meat Transfer Certificate (MTC)	
Recipient Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Independent Boning Room production management system, Receipt of purchase/Tax Invoice	For more information visit the ATO website.
Seal Serial Number	This is a unique serial number printed on any tamper-evident seal issued by the Department.	Yes	Bill of lading/Air Waybill, Independent Boning Room production management system, Meat Transfer Certificate (MTC), Official seal	For more information visit the Australian Government Federal Register of Legislation.
Seller/Supplier Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Independent Boning Room production management system, Receipt of purchase/Tax Invoice	For more information visit the ATO website.
Serial Number	Encoded in the GS1 barcode, this is a code, numeric or alphanumeric, assigned to an individual instance of an item for its lifetime.	Yes	Carton label, Independent Boning Room production management system	For more information visit the GS1 website.
Shipping Mark	Also known as a port mark, this is a code comprising of three letters representing the foreign establishment number and the last nine digits of the consignment SSCC.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA), Delivery Docket/Manifest, Export Health Certificate, Independent Boning Room production management system, Meat Messaging Consignment Report, SSCC/Pallet label	
To Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Independent Boning Room production management system, Meat Transfer Certificate (MTC)	
Trade description	This is a collective set of words that says what the product is and may include information such as species, net weight of product, name and address of establishments, category ciphers, market endorsements, MSA eating quality etc.	Yes	Carton label, Delivery Docket/Manifest, Export Health Certificate, Independent Boning Room production management system, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), SSCC/Pallet label	
Transfer Certificate number	A unique certificate number issued for traceability purposes.	Yes	Independent Boning Room production management system, Meat Messaging	For more information visit the Department of Agriculture, Water and the

			Consignment Report, Meat Transfer Certificate (MTC)	Environment website.
Transport registration number	The registration number of the vehicle in which the animals or product were transported. For shipments of product this will be a shipping container number.	Yes	Bill of lading/Air Waybill, Delivery Docket/Manifest, Export Health Certificate, Independent Boning Room production management system, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC)	

5.2.3.1.5 Regulatory and Industry Programs

- * Meat Standards Australia (MSA)
- * AUS-MEAT
- * Australian Meat Industry Council (AMIC)
- * Department of Agriculture
- * Meat Messaging
- * Other data sources
- * State food authority

5.2.3.1.6 Supply Chain Node Traceability

Traceability for cartoned and palletised product is limited to the carcasses that have entered the boning room for the production run of cartons that are created. For example, 200 carcasses (400 sides) individually identified with unique carcass tickets enter the boning room for a specific boning run. These carcass tickets are linked to the specific boning run. From these carcasses, 3 200 cartons of primal cuts and 1 000 cartons of trim and other highly mixed products are created. While all cartons are identified with unique serialised carton labels, including a GS1 meat industry barcode, linked to the boning run (and may be packaged into pallets containing unique serialised pallet labels including a GS1 SSCC barcode), it is not readily possible to identify which carcasses are in which cartons as the cartons will contain meat products from different carcasses. If the carcasses were sourced from several different properties, the resulting carton can only be traced to a number of possible carcasses and source properties.

5.2.3.1.7 Data flow diagrams

Table 84. Data flow diagrams for the inputs and outputs of a beef cold store (cartons) system.

Direction	Description
Input	Cold Store (Carcass) to Independent Boning Room
Output	Independent Boning Room to Supermarket
Output	Independent Boning Room to Butcher
Output	Independent Boning Room to Food Service
Output	Independent Boning Room to Third-Party Cold Store

Output	Independent Boning Room to Value Added
Output	Independent Boning Room to Export

5.2.3.1.7.1 Cold Store (carcase) to Independent Boning Room

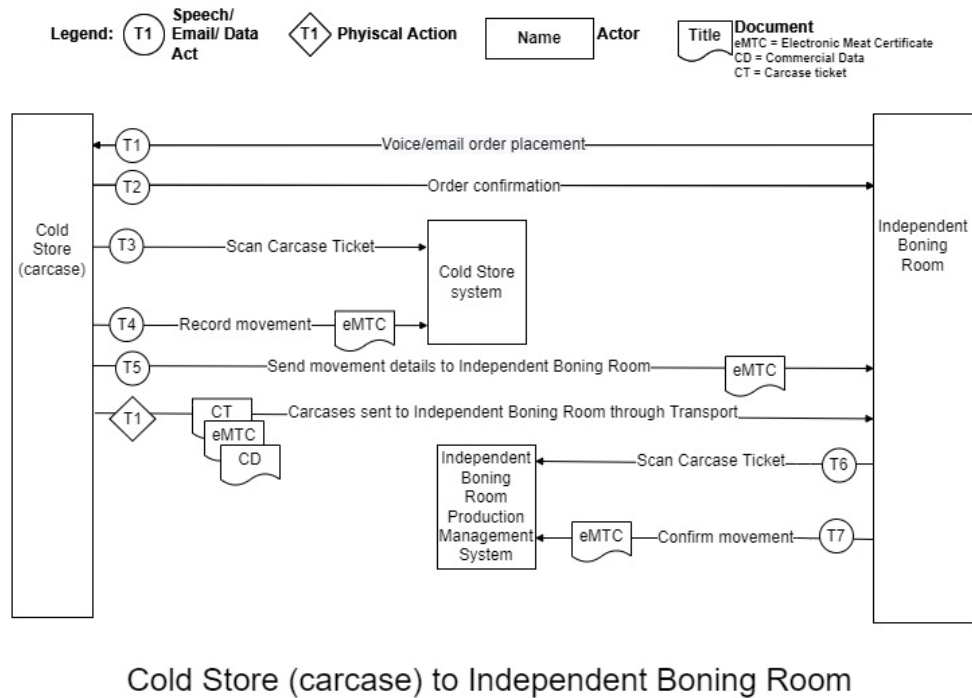
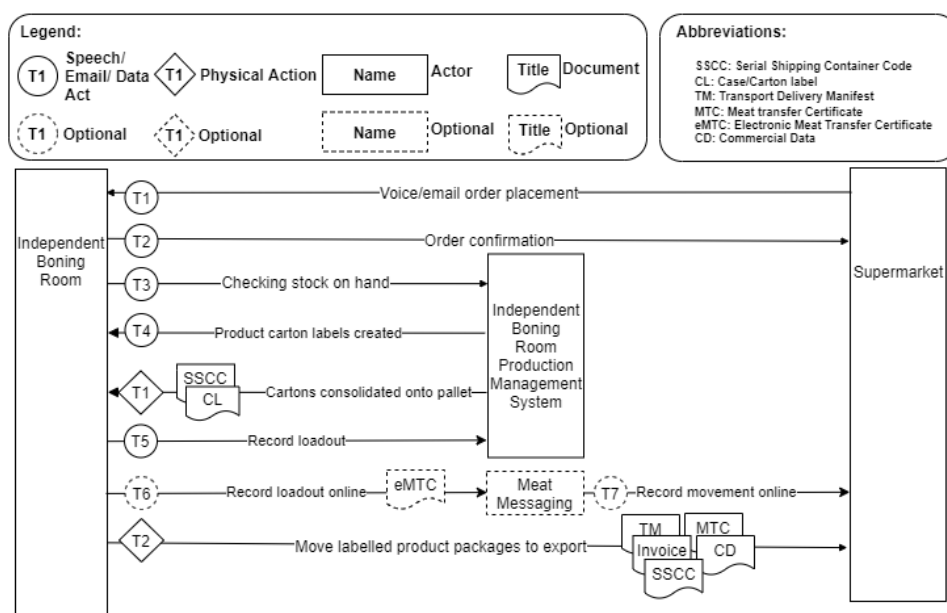


Figure 93. Data or information flows from the cold store (carton) loadout to Independent Boning Room in the beef supply chain.

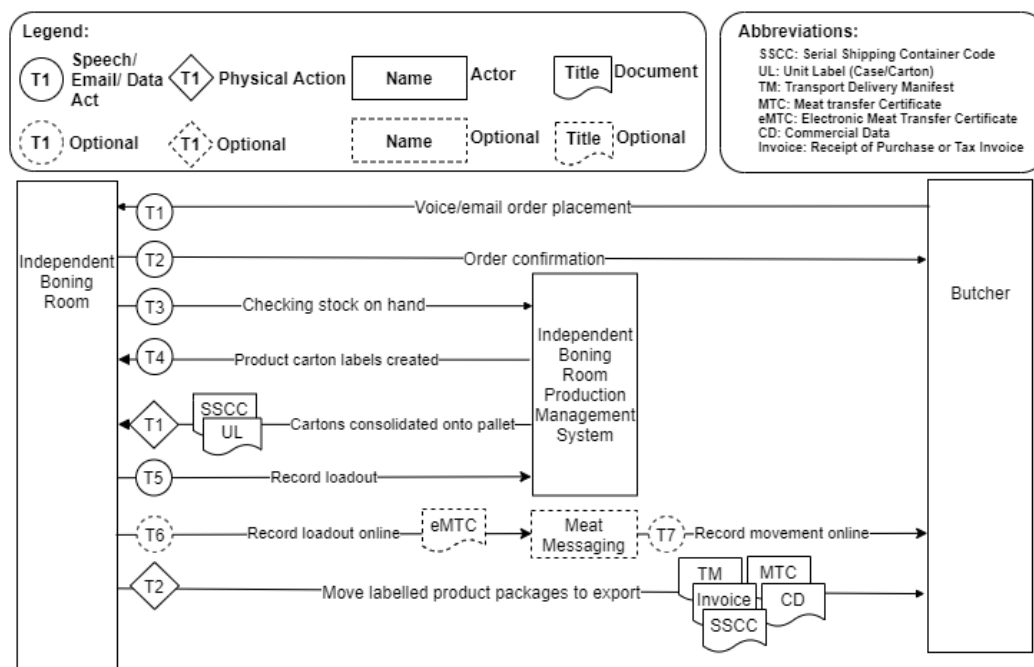
5.2.3.1.7.2 Independent Boning Room to Supermarket



Independent Boning Room to Supermarket

Figure 94. Data or information flows from the Independent Boning Room to Supermarket in the beef supply chain.

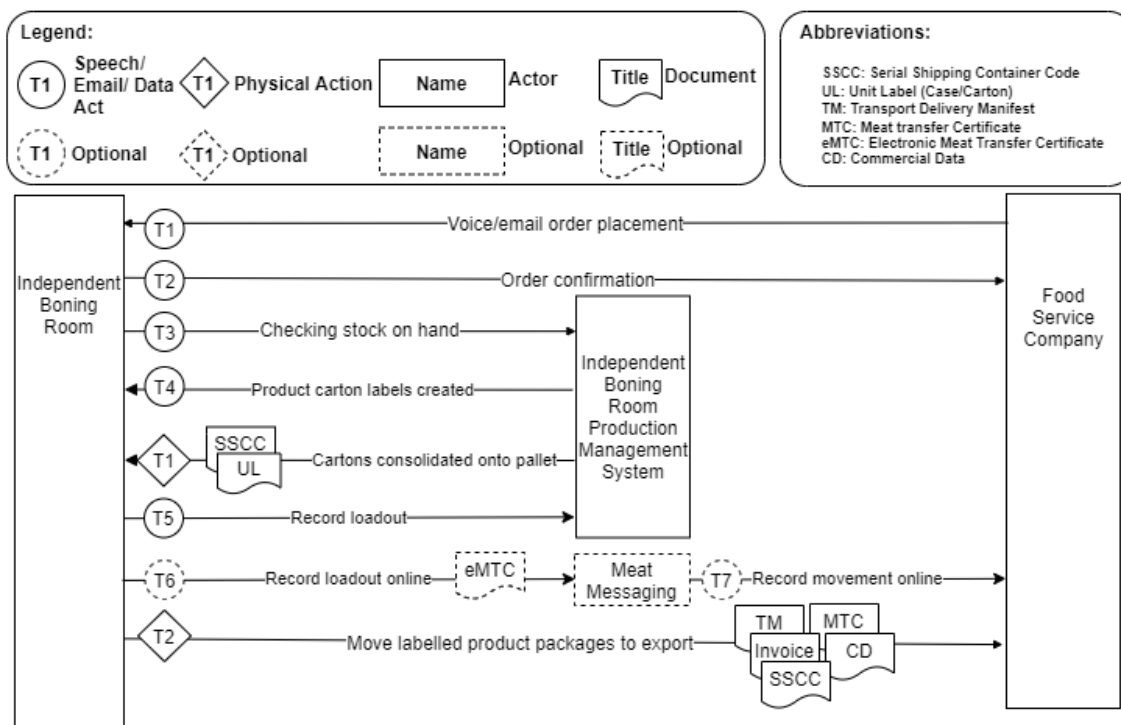
5.2.3.1.7.3 Independent Boning Room to Butcher



Independent Boning Room to Butcher

Figure 95. Data or information flows from the Independent Boning Room to Butcher in the beef supply chain.

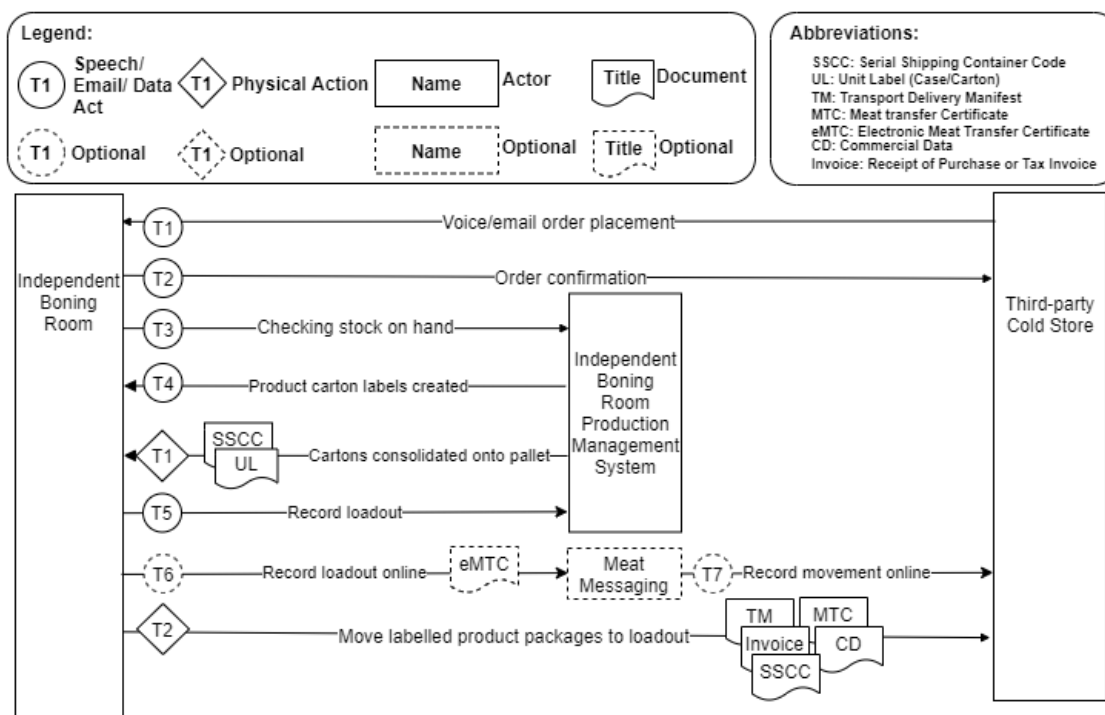
5.2.3.1.7.4 Independent Boning Room to Food Service



Independent Boning Room to Food Service

Figure 96. Data or information flows from Independent Boning Room to Food Service in the beef supply chain.

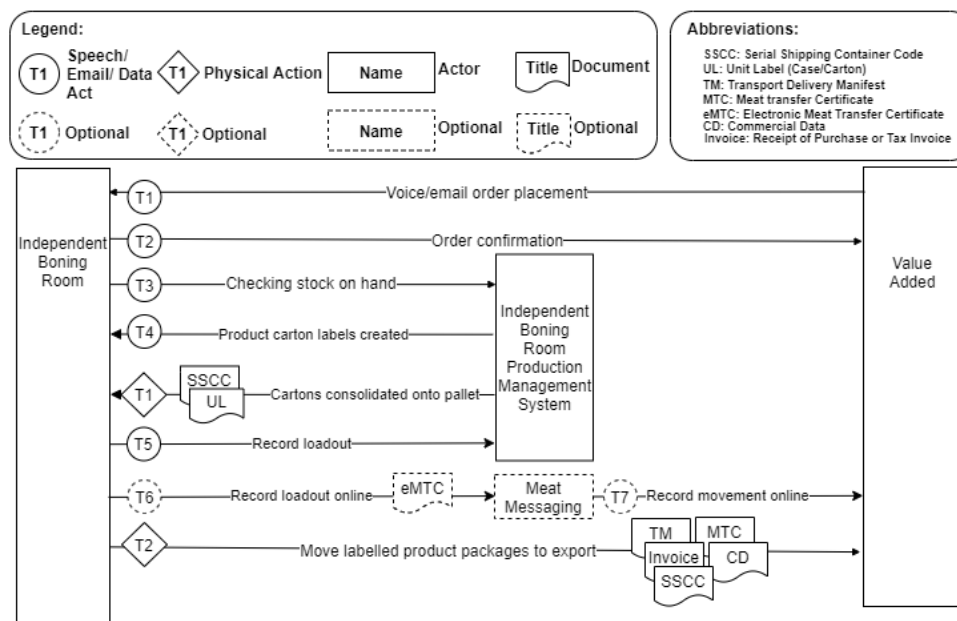
5.2.3.1.7.5 Independent Boning Room to Third-Party Cold Store



Independent Boning Room to Third Party Cold Store

Figure 97. Data or information flows from Independent Boning Room to Third Party Cold Store in the beef supply chain.

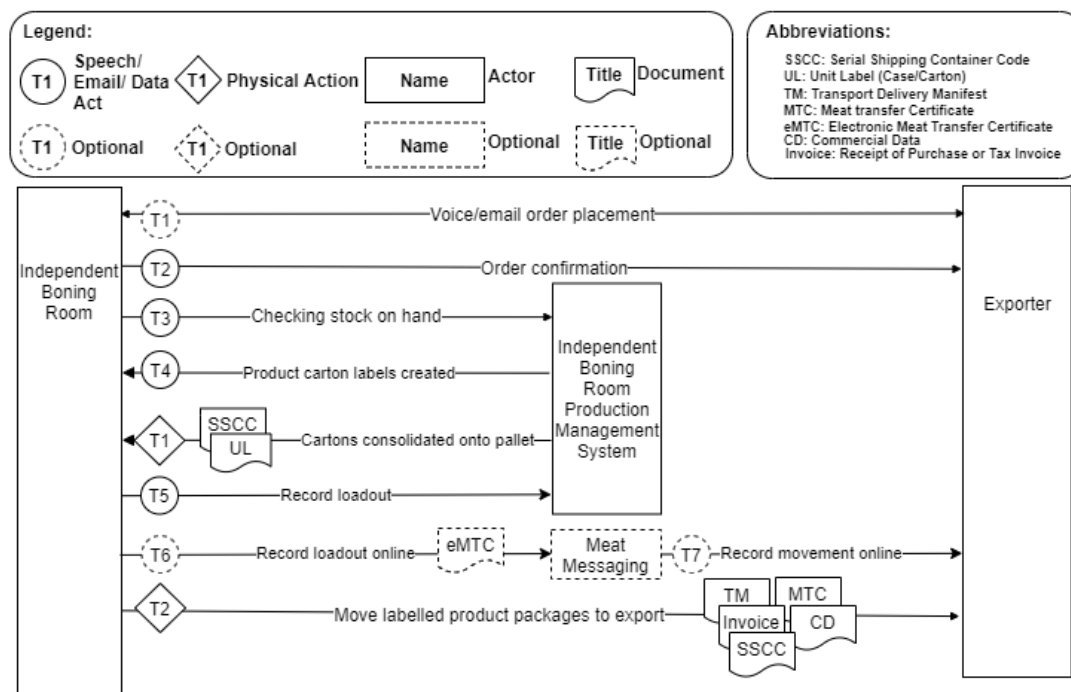
5.2.3.1.7.6 Independent Boning Room to Value Added



Independent Boning Room to Value Added

Figure 98. Data or information flows from the Independent Boning Room to Value Added in the beef supply chain.

5.2.3.1.7.7 Independent Boning Room to Export



Independent Boning Room to Export

Figure 99. Data or information flows from the Independent Boning Room to Export System in the beef supply chain.

5.2.3.2 Value-added

Value-adding includes any process or service in the supply chain that adds to or enhances the value of products to consumers and typically the profitability of raw meat products. This may be simply providing a new variety of cuts, changing the presentation of products, or adding additional ingredients to create new products or enhance the profitability of raw products. Value-adding may also include the processing of offal and raw products for sale. Typically, value adders receive carcase or cartoned product from processor cold stores, or from independent boning rooms or third-party cold store facilities via refrigerated transport.

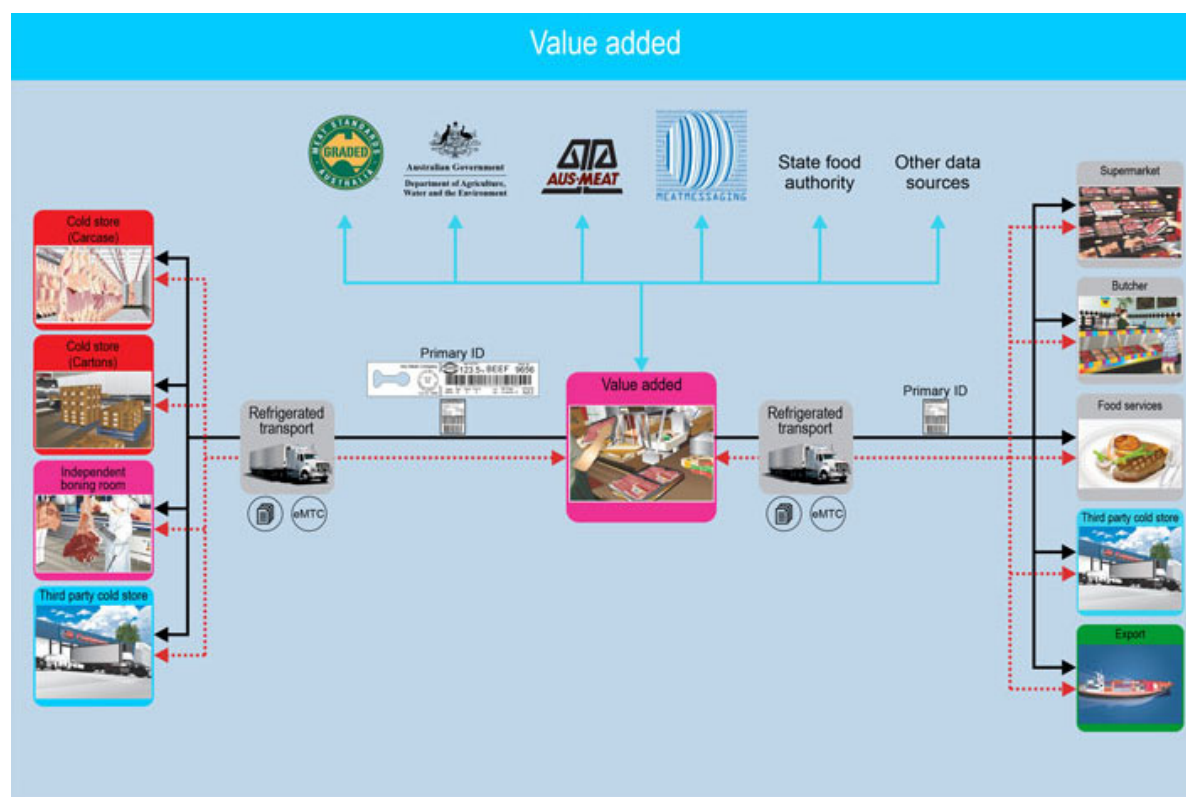


Figure 100. Inputs and outputs of the beef supply chain Value Added Sector.

5.2.3.2.1 Physical Inputs including Critical Tracking Events (CTEs)

Inputs into the value-added system include raw beef products such as carcasses, carton, and palletised items. Where additional ingredients are added to the product such as those used for marinade, these are also inputs to the system. Documentation associated with the movement of product into the value-added system may include Delivery Dockets, MTCs, Receipt of purchase/Tax Invoice etc.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with inputs to the value-added system include the receipt of:

- * Carcase
- * Carton
- * Pallet
- * Product additives.

Table 85. Physical inputs and associated Critical Tracking Event related documents for a beef value-added system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Carcase	The body of a slaughtered animal after bleeding. Becomes a dressed carcass when hide, head, feet and offal are removed.	Carcass Ticket, Delivery Docket/Manifest, Meat Transfer Certificate (MTC), MSA Carcass Ticket, Value Added production management system, Receipt of purchase/Tax Invoice	

Carton	This is a case, crate, or barrel of product.	Carton label, Delivery Docket/Manifest, Meat Transfer Certificate (MTC), Official seal, Value Added production management system, Receipt of purchase/Tax Invoice	
Pallet	A logistic unit which includes a number of cartons or goods items packed together for transport or storage purposes.	Delivery Docket/Manifest, Meat Transfer Certificate (MTC), Value Added production management system, Receipt of purchase/Tax Invoice, SSCC/Pallet label	
Product additives	These are ingredients or additives used to enhance the value of raw beef product.	Receipt of purchase/Tax Invoice, Value Added production management system	

5.2.3.2.2 Information Inputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). Key Data Elements drawn from Critical Tracking Event documentation range from carcass body numbers to delivery docket numbers to application identifiers included in the GS1 barcode on the carton or pallet label. All of this information is recorded in the value adder's production management system for product traceability purposes.

Table 86. Information inputs, Key Data Elements and Critical Tracking Event related documentation for a beef value-added system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Body number	This is a number assigned to each carcass by the processor for identification purposes.	Yes	Carcass Ticket, Value Added production management system	
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Carton label, Receipt of purchase/Tax Invoice, SSCC/Pallet label, Value Added production management system	
Consignment Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., shipment/message that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Meat Transfer Certificate (MTC), SSCC/Pallet label, Value Added production management system	For more information visit the GS1 website.
Contract number	This is a unique number allocated to the contract by the seller.	Yes	Delivery Docket/Manifest, Value Added production management system	
Count of Trade Items	Usually encoded in the GS1 barcode, this is the number of trade items e.g., cartons in the logistic unit.	Yes	Delivery Docket/Manifest, SSCC/Pallet label, Value Added production management system	For more information visit the GS1 website.
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Delivery Docket/Manifest, Meat Transfer Certificate	

			(MTC), Receipt of purchase/Tax Invoice, Value Added production management system	
Delivery Docket/Manifest number	This is a unique number allocated to the docket for identification purposes.	Yes	Delivery Docket/Manifest, Value Added production management system	
From Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Carcase Ticket, Carton label, Delivery Docket/Manifest, Meat Transfer Certificate (MTC), SSCC/Pallet label, Value Added production management system	
Global Trade Item Number (GTIN)	Encoded in the GS1 barcode, the GTIN is a globally unique 14-digit number used to identify trade items, products, or services.	Yes	Carcase Ticket, Carton label, SSCC/Pallet label, Value Added production management system	For more information visit the GS1 website.
GTIN of Contained Trade Items	Encoded in the GS1 barcode, the GTIN of the contained trade items is a globally unique 14-digit number used to identify trade items, products, or services in the logistic unit.	Yes	SSCC/Pallet label, Value Added production management system	For more information visit the GS1 website.
Lot number	A lot is a number assigned by the processor to each group of cattle consigned to slaughter and is usually vendor specific.	Yes	Carcase Ticket, Value Added production management system	
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Delivery Docket/Manifest, Meat Transfer Certificate (MTC), Value Added production management system	
MSA eating quality group/grade	This identifies carcasses with similar MSA and eating quality grades, these may align with brands packed by the processor for logistic simplicity. Carcasses are grouped for boning according to eating quality grades.	Yes	MSA Carcase Ticket, Value Added production management system	For more information on MSA visit the MLA website.
MSA Licence Number	Any establishment consigning, supplying, or identifying MSA Certified Product must be registered and have a unique MSA Licence Number.	Yes	Receipt of purchase/Tax Invoice, Value Added production management system	For more information on MSA visit the MLA website.
Net Weight (Kilograms)	Usually encoded in the GS1 barcode, the Net Weight is a variable measure of the trade item e.g.,	Yes	Carcase Ticket, Carton label, SSCC/Pallet label, Value Added production management system	For more information visit the GS1 website.

	carton, pallet or shipment recorded in kilograms.			
Official mark	Any stamp, seal, label, or mark that is declared by the regulations to be an official mark. An official mark signifies that the product has been inspected by and approved as safe for human consumption by an Authorised Officer.	Yes	Carcase Ticket, Carton label, SSCC/Pallet label, Value Added production management system	For more information visit the Australian Government Federal Register of Legislation.
Order date	This is the date on which the purchase order or contract was raised by the buyer.	Yes	Delivery Docket/Manifest, Value Added production management system	
Packaging Date	Encoded in the GS1 barcode, the Packaging Date is the date on which the item was packaged and is recorded in the format year, month, day (YYMMDD).	Yes	Carton label, SSCC/Pallet label, Value Added production management system	For more information visit the GS1 website.
Packaging Date Range	This includes the oldest and newest packaging dates for the logistic unit.	Yes	SSCC/Pallet label, Value Added production management system	
Pallet Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., pallet that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Meat Transfer Certificate (MTC), SSCC/Pallet label, Value Added production management system	For more information visit the GS1 website.
Production Date (YYMMDD)	Encoded in the GS1 barcode, this is the 'kill' or slaughter date of the product and is recorded in the format year, month, day (YYMMDD).	Yes	Carcase Ticket, Meat Transfer Certificate (MTC), Value Added production management system	For more information visit the GS1 website.
Recipient Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Receipt of purchase/Tax Invoice, Value Added production management system	For more information visit the ATO website.
Seal Serial Number	This is a unique serial number printed on any tamper-evident seal issued by the Department.	Yes	Meat Transfer Certificate (MTC), Official seal, Value Added production management system	For more information visit the Australian Government Federal Register of Legislation.
Seller/Supplier Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Receipt of purchase/Tax Invoice, Value Added production management system	For more information visit the ATO website.
Serial Number	Encoded in the GS1 barcode, this is a code, numeric or alphanumeric, assigned to an individual instance of an item for its lifetime.	Yes	Carcase Ticket, Carton label, Value Added production management system	For more information visit the GS1 website.
Shipping Mark	Also known as a port mark, this is a code comprising of three letters representing the foreign	Yes	Delivery Docket/Manifest, SSCC/Pallet label, Value	

	establishment number and the last nine digits of the consignment SCCC.		Added production management system	
To Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Meat Transfer Certificate (MTC), Value Added production management system	
Trade description	This is a collective set of words that says what the product is and may include information such as species, net weight of product, name and address of establishments, category ciphers, market endorsements, MSA eating quality etc.	Yes	Carcase Ticket, Carton label, Delivery Docket/Manifest, Meat Transfer Certificate (MTC), SCCC/Pallet label, Value Added production management system	
Transfer Certificate number	A unique certificate number issued for traceability purposes.	Yes	Meat Transfer Certificate (MTC), Value Added production management system	
Transport registration number	The registration number of the vehicle in which the animals or product were transported. For shipments of product this will be a shipping container number.	Yes	Delivery Docket/Manifest, Meat Transfer Certificate (MTC), Value Added production management system	

5.2.3.2.3 Physical Outputs including Critical Tracking Events (CTEs)

The outputs of the value-added system include altered meat product, with increased value, that is packaged into cartons, pallets, or shipping containers for distribution. Additional documentation required for the movement of product for export may include a Bill of lading/Air Waybill, Export Health Certificate, Export Permit and Certificate of Analysis.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with the outputs of the value-added system include the movement of:

- * Carton

- * Pallet

- * Container System Unit

off the property, premises, or supply chain sector.

Table 87. Physical outputs and associated Critical Tracking Event related documents for a beef value-adding system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details

Carton	This is a case, crate, or barrel of product.	Carton label, Delivery Docket/Manifest, Meat Transfer Certificate (MTC), Official seal, Value Added production management system, Receipt of purchase/Tax Invoice	
Pallet	A logistic unit which includes a number of cartons or goods items packed together for transport or storage purposes.	Bill of lading/Air Waybill, Delivery Docket/Manifest, Export Health Certificate, Export Permit, Meat Transfer Certificate (MTC), Value Added production management system, Receipt of purchase/Tax Invoice, SSCC/Pallet label, Certificate of Analysis (COA)	
Container System Unit	A container designed for use as a unit of cargo handling equipment in the transport of goods by aircraft or ship.	Bill of lading/Air Waybill, Delivery Docket/Manifest, Export Health Certificate, Export Permit, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), Official seal, Value Added production management system, Receipt of purchase/Tax Invoice, Certificate of Analysis (COA)	

5.2.3.2.4 Information Outputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). Key Data Elements from value added Critical Tracking Event related documentation will be stored in the value adder's production management system. Such information may include, but not be limited to, GS1 barcode application identifiers, movement dates, product net weight, seal serial numbers and transfer certificate numbers.

Table 88. Information outputs, Key Data Elements and Critical Tracking Event related documentation for a beef value-added system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Analysis Date	This is the date on which a product sample was analysed.	Yes	Certificate of Analysis (COA), Value Added production management system	
Bill of lading/Air Waybill document number	A unique document number issued for traceability purposes.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA), Value Added production management system	
Certificate of Analysis number	A unique certificate number issued for traceability purposes.	Yes	Certificate of Analysis (COA), Value Added production management system	
COA test lot identifier	This is a unique identifier allocated to all cartons, pallets, and shipping containers for which an analysis sample represents.	Yes	Certificate of Analysis (COA), Value Added production management system	
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Bill of lading/Air Waybill, Carton label, Certificate of Analysis (COA), Receipt of purchase/Tax Invoice, SSCC/Pallet label, Value	

			Added production management system	
Consignment Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., shipment/message that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Bill of lading/Air Waybill, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), SSCC/Pallet label, Value Added production management system	For more information visit the GS1 website.
Contract number	This is a unique number allocated to the contract by the seller.	Yes	Delivery Docket/Manifest, Value Added production management system	
Count of Pallets	This is the number of pallets in the logistic unit e.g., container system unit.	Yes	Meat Messaging Consignment Report, Value Added production management system	
Count of Trade Items	Usually encoded in the GS1 barcode, this is the number of trade items e.g., cartons in the logistic unit.	Yes	Bill of lading/Air Waybill, Delivery Docket/Manifest, Meat Messaging Consignment Report, SSCC/Pallet label, Value Added production management system	For more information visit the GS1 website.
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA), Delivery Docket/Manifest, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), Receipt of purchase/Tax Invoice, Value Added production management system	
Delivery Docket/Manifest number	This is a unique number allocated to the docket for identification purposes.	Yes	Delivery Docket/Manifest, Value Added production management system	
Export Health Certificate Number	A unique number allocated to the health certificate issued for the export consignment for traceability purposes.	Yes	Export Health Certificate, Meat Messaging Consignment Report, Value Added production management system	For more information visit the Department of Agriculture, Water and the Environment website.
Export Permit Number	A unique permit number is allocated for the export consignment following submission of a correct and validated Request For Permit (RFP) which is then approved by the Secretary.	Yes	Export Permit, Value Added production management system	For more information visit the Department of Agriculture, Water and the Environment website.
From Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were	Yes	Carton label, Certificate of Analysis (COA), Delivery Docket/Manifest, Export Health Certificate, Meat	

	distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.		Messaging Consignment Report, Meat Transfer Certificate (MTC), SSCC/Pallet label, Value Added production management system	
Global Trade Item Number (GTIN)	Encoded in the GS1 barcode, the GTIN is a globally unique 14-digit number used to identify trade items, products, or services.	Yes	Carton label, Meat Messaging Consignment Report, SSCC/Pallet label, Value Added production management system	For more information visit the GS1 website.
GTIN of Contained Trade Items	Encoded in the GS1 barcode, the GTIN of the contained trade items is a globally unique 14-digit number used to identify trade items, products, or services in the logistic unit.	Yes	SSCC/Pallet label, Value Added production management system	For more information visit the GS1 website.
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA), Delivery Docket/Manifest, Export Health Certificate, Meat Transfer Certificate (MTC), Value Added production management system	
MSA Licence Number	Any establishment consigning, supplying, or identifying MSA Certified Product must be registered and have a unique MSA Licence Number.	Yes	Receipt of purchase/Tax Invoice, Value Added production management system	For more information on MSA visit the MLA website.
Net Weight (Kilograms)	Usually encoded in the GS1 barcode, the Net Weight is a variable measure of the trade item e.g., carton, pallet or shipment recorded in kilograms.	Yes	Bill of lading/Air Waybill, Carton label, Export Health Certificate, Meat Messaging Consignment Report, SSCC/Pallet label, Value Added production management system	For more information visit the GS1 website.
Official mark	Any stamp, seal, label, or mark that is declared by the regulations to be an official mark. An official mark signifies that the product has been inspected by and approved as safe for human consumption by an Authorised Officer.	Yes	Carton label, SSCC/Pallet label, Value Added production management system	For more information visit the Australian Government Federal Register of Legislation.
Order date	This is the date on which the purchase order or contract was raised by the buyer.	Yes	Delivery Docket/Manifest, Value Added production management system	
Packaging Date	Encoded in the GS1 barcode, the Packaging Date is the date on which the item was packaged and is recorded in the format year, month, day (YYMMDD).	Yes	Carton label, Certificate of Analysis (COA), SSCC/Pallet label, Value Added production management system	For more information visit the GS1 website.

Packaging Date Range	This includes the oldest and newest packaging dates for the logistic unit.	Yes	SSCC/Pallet label, Value Added production management system	
Pallet Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., pallet that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), SSCC/Pallet label, Value Added production management system	For more information visit the GS1 website.
Production Date (YYMMDD)	Encoded in the GS1 barcode, this is the 'kill' or slaughter' date of the product and is recorded in the format year, month, day (YYMMDD).	Yes	Meat Transfer Certificate (MTC), Value Added production management system	For more information visit the GS1 website.
Recipient Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Receipt of purchase/Tax Invoice, Value Added production management system	For more information visit the ATO website.
Seal Serial Number	This is a unique serial number printed on any tamper-evident seal issued by the Department.	Yes	Bill of lading/Air Waybill, Meat Transfer Certificate (MTC), Official seal, Value Added production management system	For more information visit the GS1 website.
Seller/Supplier Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Receipt of purchase/Tax Invoice, Value Added production management system	For more information visit the ATO website.
Serial Number	Encoded in the GS1 barcode, this is a code, numeric or alphanumeric, assigned to an individual instance of an item for its lifetime.	Yes	Carton label, Value Added production management system	For more information visit the GS1 website.
Shipping Mark	Also known as a port mark, this is a code comprising of three letters representing the foreign establishment number and the last nine digits of the consignment SSCC.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA), Delivery Docket/Manifest, Export Health Certificate, Meat Messaging Consignment Report, SSCC/Pallet label, Value Added production management system	
To Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Meat Transfer Certificate (MTC), Value Added production management system	

Trade description	This is a collective set of words that says what the product is and may include information such as species, net weight of product, name and address of establishments, category ciphers, market endorsements, MSA eating quality etc.	Yes	Carton label, Delivery Docket/Manifest, Export Health Certificate, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), SSCC/Pallet label, Value Added production management system	
Transfer Certificate number	A unique certificate number issued for traceability purposes.	Yes	Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), Value Added production management system	
Transport registration number	The registration number of the vehicle in which the animals or product were transported. For shipments of product this will be a shipping container number.	Yes	Bill of lading/Air Waybill, Delivery Docket/Manifest, Export Health Certificate, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), Value Added production management system	

5.2.3.2.5 Regulatory and Industry Programs

- * Meat Standards Australia (MSA)
- * AUS-MEAT
- * Australian Meat Industry Council (AMIC)
- * Department of Agriculture
- * Meat Messaging
- * Other data sources
- * State food authority

5.2.3.2.6 Supply Chain Node Traceability

For Value Added operations the ability to trace product forward and track product backwards is defined by food safety regulations. In practice, this means that any prepared meat retail-ready or food service products are managed as a batch (with unique serialised carton labels or retail-ready product labels) with the inputs to the batch being all the carcass or carton identification units (carcass tickets/carton labels) that went into the batch. Should a recall occur related to any of the input material the whole value-added batch(s) would be recalled.

Tracing a single meat retail-ready or food service product (e.g., a portion prepared steak) back to a single animal or source property is operationally impractical. The example below shows the complexity of such a trace back.

Retail ready product traceability example:

1. The volume of retail-ready or food service product made in a batch would likely be in the order of 1 000 kg (50 x 20 kg primal cut cartons) which equates to 100 x 10 kg of finished retail-ready/food service cartons or approximately 5 000 x 200 g portioned steaks. This is managed as a production batch and as such, any one steak in any carton may have come from any of the 50 x 20 kg primal cut cartons.
2. The cartons from which this retail-ready product (50 x 20 kg cartons) was produced may have been comprised of 1 000 kg of cube roll primal cut cartons. These cartons might typically be sourced from 2 processing establishments and over 3 production days for each processing establishment, this is a total of 6 plant kill days.
3. The average weight of the cube rolls in each carton is 3.3 kg. This means that each carton has 6 cube rolls. With

each carcase having 2 cube rolls, the 50 cartons may have been produced from 150 head of cattle.

4. Each processing plant might kill 500 head per day, and these might come from an average of 20 source properties. The traceability of cartoned boning room product is limited to the carcasses that have entered the boning room for the production run of cartons that are created. This means that the primal cut e.g., cube roll in any carton may have come from any of the 500 carcasses for that boning run production day.

5. As the cube roll primal cut cartons came from a total of 6 plant kill day combinations, this equates to any primal cut coming from any one of a possible 3 000 head of cattle or 120 possible source properties.

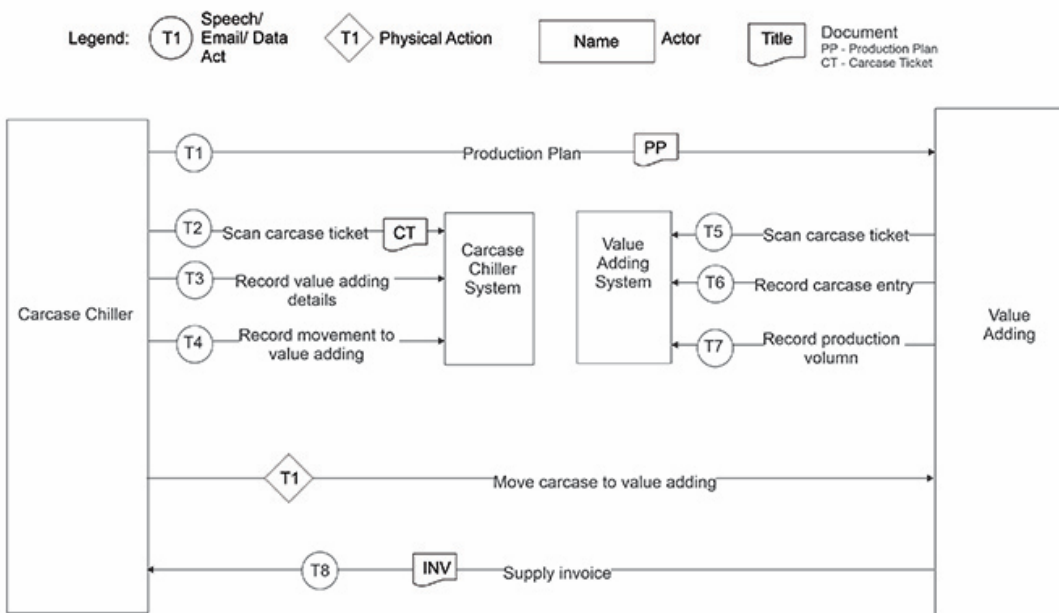
In summary, for this example, any individual 200 g portion cut steak may have come from any one of 3 000 head of cattle from any one of 120 source properties. It is possible in some very small scale and very high value commercial operations to manage single body boning and tracking the cuts to retail-ready packaging. However, this would represent less than a fraction of a percent of the total meat industry production volume.

5.2.3.2.7 Data flow diagrams

Table 89. Data flow diagrams for the inputs and outputs of a beef value-added system.

Direction	Description
Input	Carcase chiller to Value added
Input	Carton chiller/ freezer to Value added
Output	Value added to Supermarket
Output	Value added to Butcher
Output	Value added to Food services
Output	Value added to Third party cold store
Output	Value added to Value added
Output	Value added to export

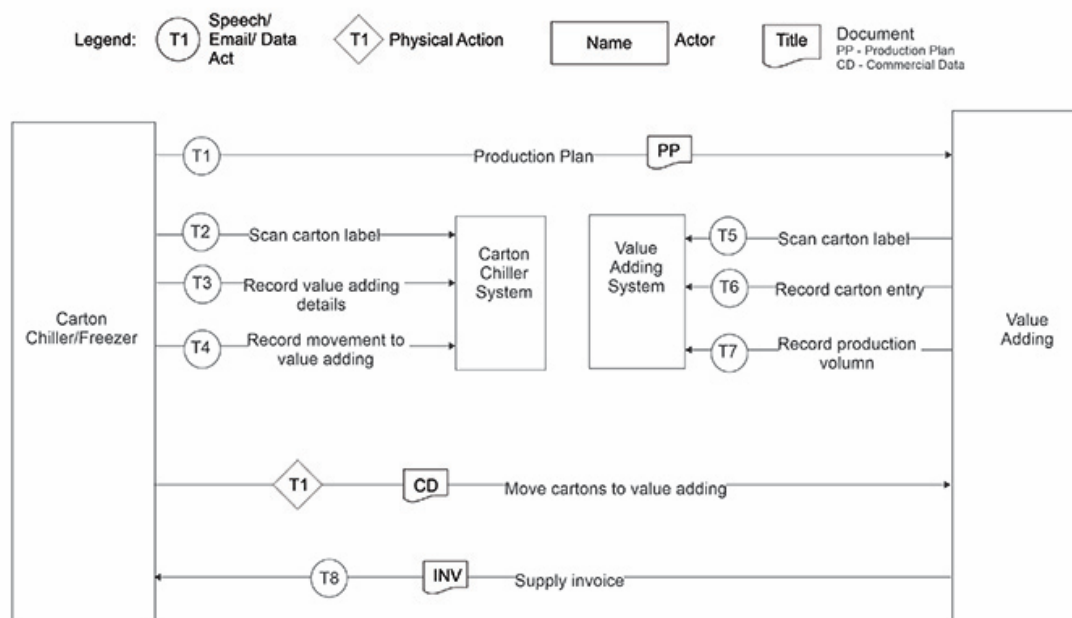
5.2.3.2.7.1 Carcase chiller to Value adding



Carcase Chiller to Value Adding

Figure 101. Data or information flows from the carcase chiller to value-added systems in the beef supply chain.

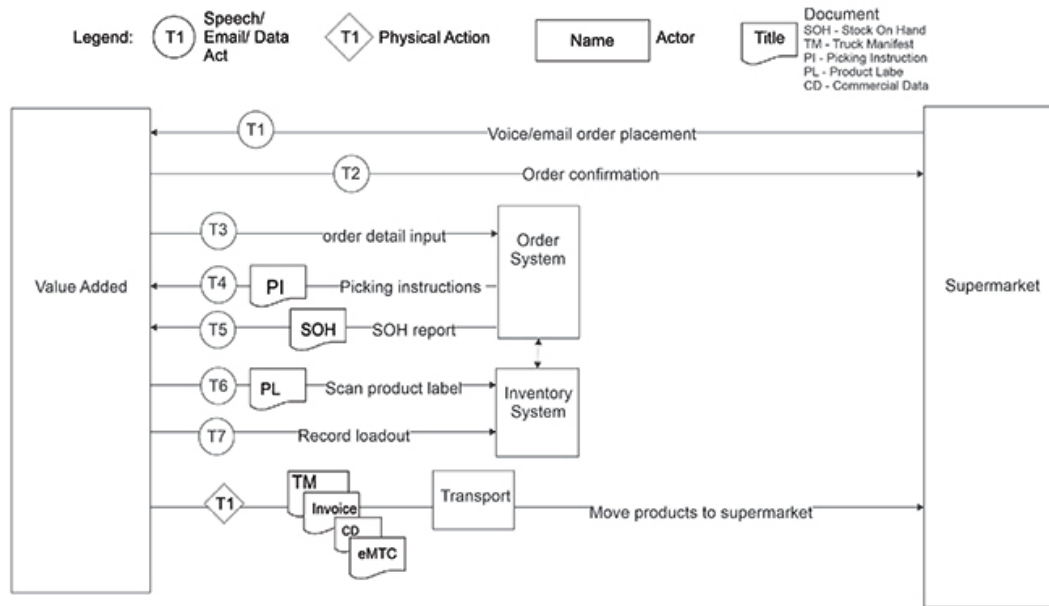
5.2.3.2.7.2 Carton chiller/ freezer to Value adding



Carton Chiller/Freezer to Value Adding

Figure 102. Data or information flows from the carton chiller/freezer to value-added systems in the beef supply chain.

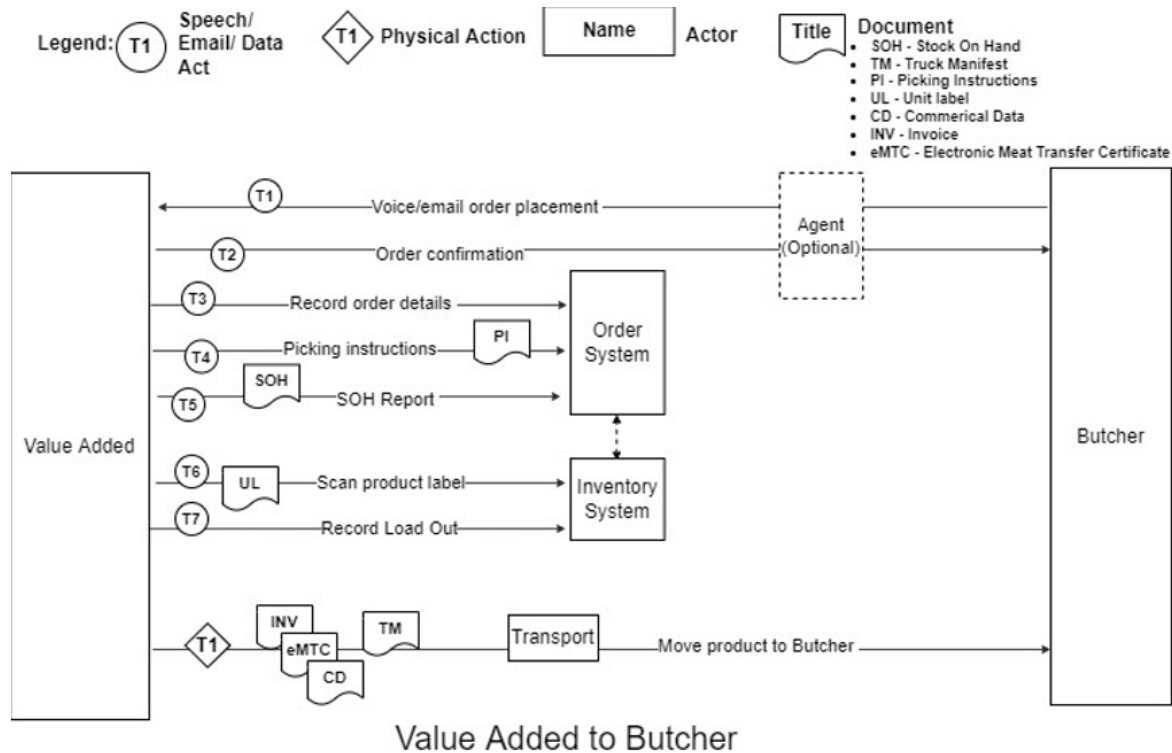
5.2.3.2.7.3 Value added to Supermarket



Value Added to Supermarket

Figure 103. Data or information flows from the value-added to supermarket systems in the beef supply chain.

5.2.3.2.7.4 Value added to Butcher



Value Added to Butcher

Figure 104. Data or information flows from the value-added to butcher systems in the beef supply chain.

5.2.3.2.7.5 Value added to Food services

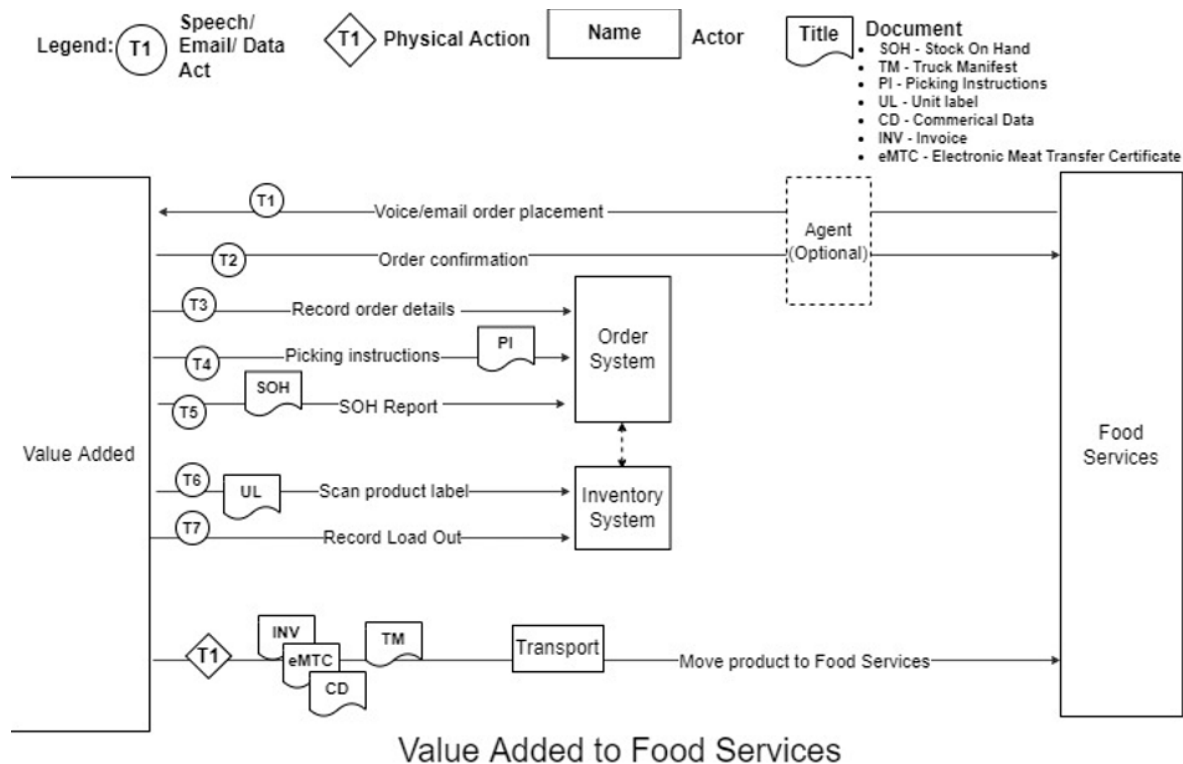


Figure 105. Data or information flows from the value-added to food services systems in the beef supply chain.

5.2.3.2.7.6 Value added to Third party cold store

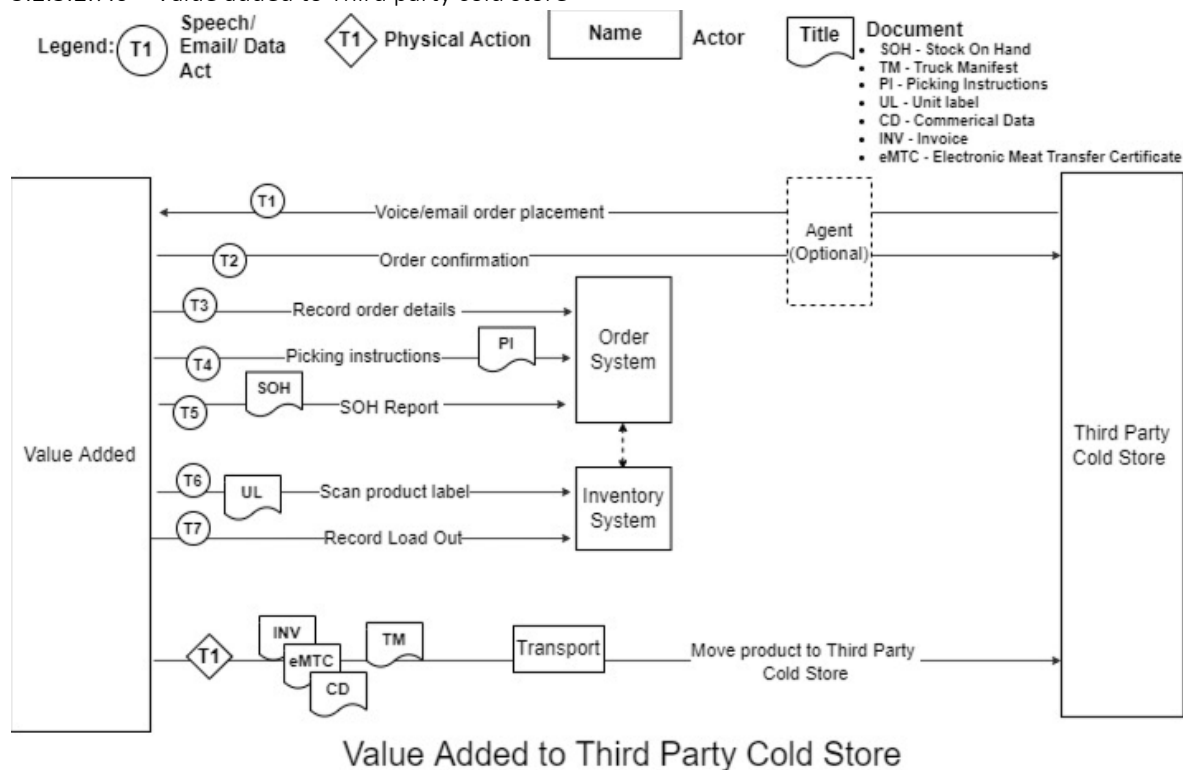


Figure 106. Data or information flows from the value-added to third party cold store systems in the beef supply chain.

5.2.3.2.7.7 Value added to Value added

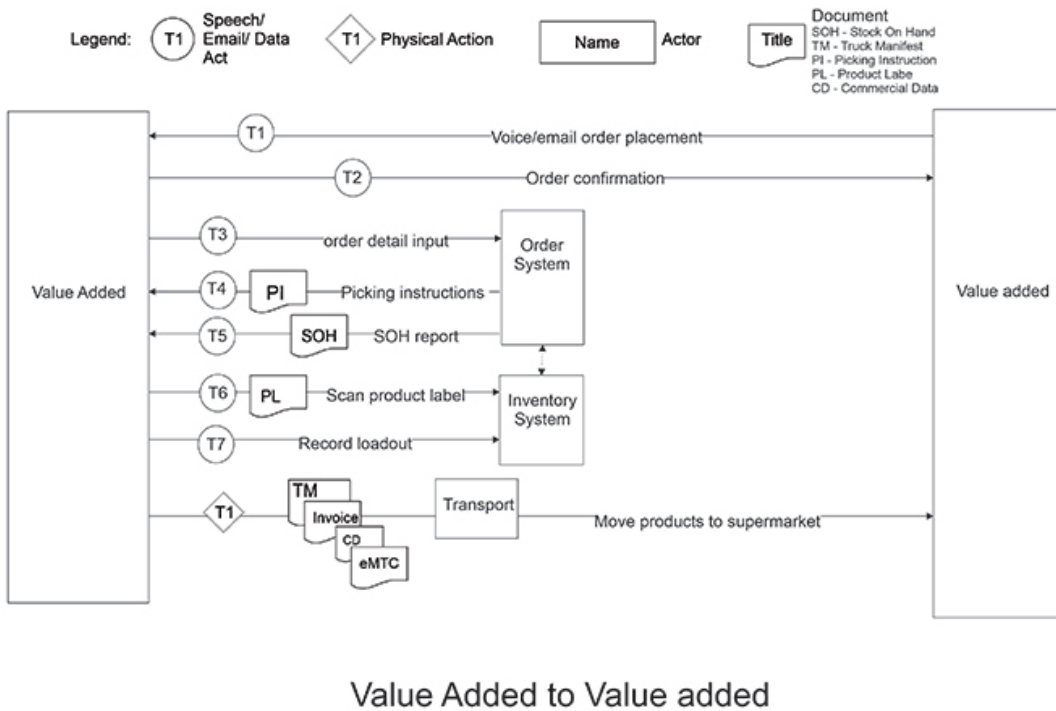


Figure 107. Data or information flows from the value-added to value-added systems in the beef supply chain.

5.2.3.2.7.8 Value added to export

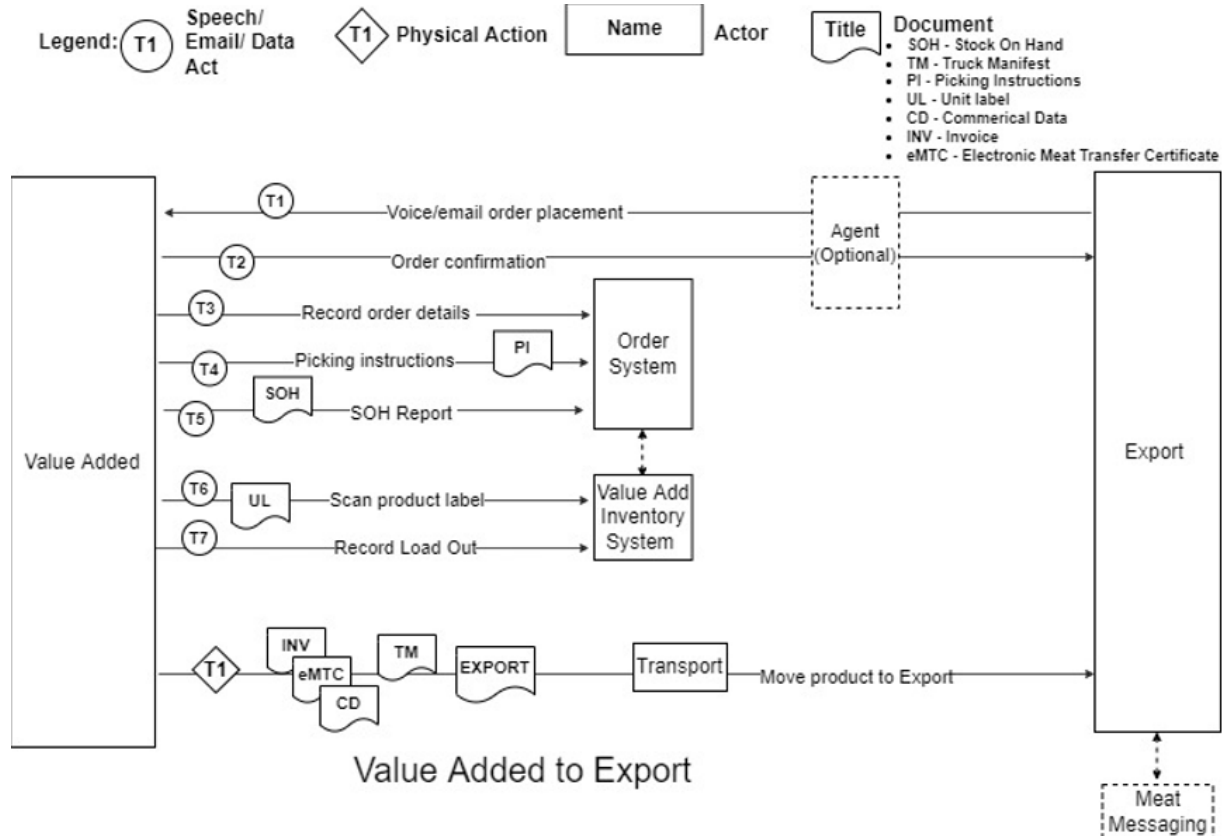


Figure 108. Data or information flows from the value-added to value-added systems in the beef supply chain.

5.2.3.3 Third party cold store

Storing chilled carcasses or carcase products (e.g., cartons) typically provides a stock buffer between production and dispatch of product intended for domestic or export markets. A third-party cold storage system is an establishment, separate from a processing establishment, which performs activities the same as that for a cold storage facility integrated into a processing plant. However, product from multiple suppliers may be stored and/combined for dispatch. A cold storage facility involves refrigerated chambers that can chill or freeze any perishable product for a period of time before dispatch. During this process, the ageing of meat also occurs, progressively increasing tenderness and flavour. Storage rooms must take into account the storage requirements for different products as well as rules for loading, maintenance and hygiene of storage equipment.

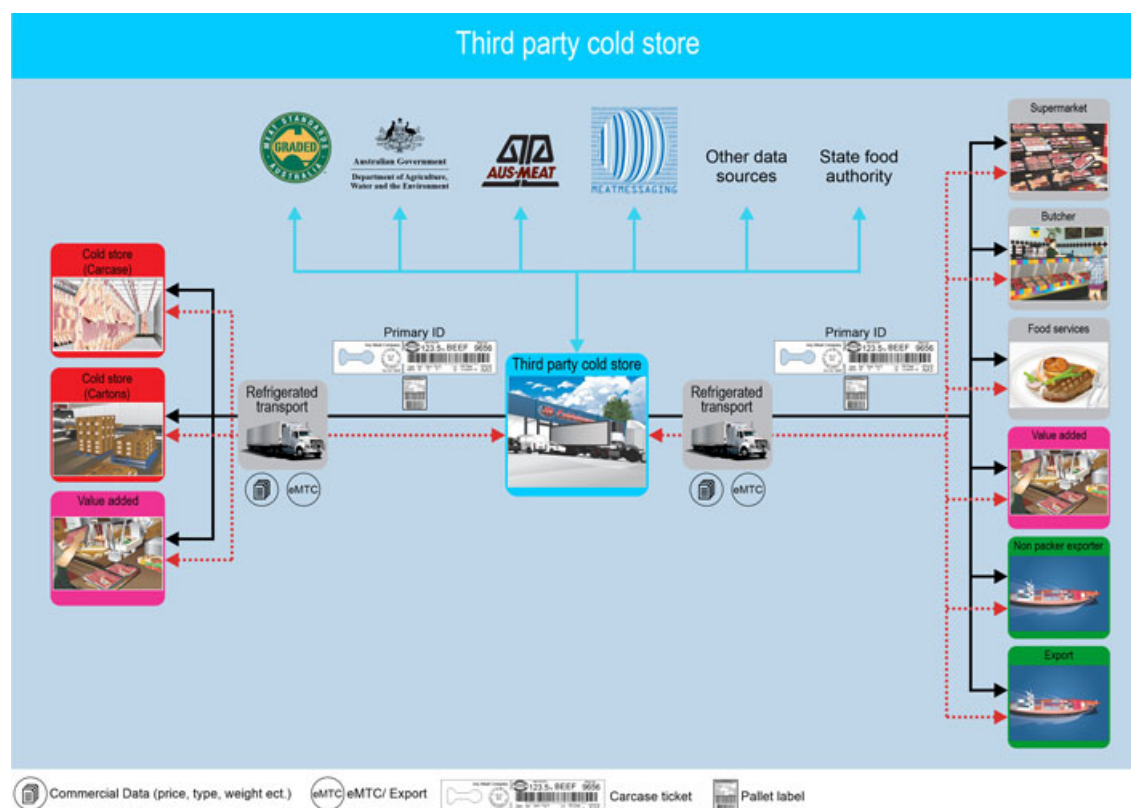


Figure 109. Inputs and outputs of the beef supply chain third party cold store sector.

5.2.3.3.1 Physical Inputs including Critical Tracking Events (CTEs)

Cold stores generally offer their clients a range of services involving stock rotation, logistics, maintenance, and systems of identification. Product moved into cold stores ranges from carcasses to pallets of product. These are accompanied by documentation such as Meat Transfer Certificates and Delivery Dockets.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with inputs to the third-party cold store system include the receipt of:

- * Carcase
- * Carton
- * Pallet.

Table 90. Physical inputs and associated Critical Tracking Event related documents for a beef third party cold store system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Carcase	The body of a slaughtered animal after bleeding. Becomes a dressed carcass when hide, head, feet and offal are removed.	Carcass Ticket, Delivery Docket/Manifest, Meat Transfer Certificate (MTC), MSA Carcass Ticket, Third Party Cold Store production management system, Receipt of purchase/Tax Invoice	

Carton	This is a case, crate, or barrel of product.	Carton label, Delivery Docket/Manifest, Meat Transfer Certificate (MTC), Official seal, Third Party Cold Store production management system, Receipt of purchase/Tax Invoice	
Pallet	A logistic unit which includes a number of cartons or goods items packed together for transport or storage purposes.	Delivery Docket/Manifest, Meat Transfer Certificate (MTC), Third Party Cold Store production management system, Receipt of purchase/Tax Invoice, SSCC/Pallet label	

5.2.3.3.2 Information Inputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). Key Data Elements found on CTE documentation accompanying the movement of product into cold stores ranges from carcass body numbers (found on the Carcass Ticket) to establishment numbers, official marks, and seal serial numbers.

Table 91. Information inputs, Key Data Elements and Critical Tracking Event related documentation for a beef third party cold store system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Body number	This is a number assigned to each carcass by the processor for identification purposes.	Yes	Carcass Ticket, Third Party Cold Store production management system	
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Carton label, Receipt of purchase/Tax Invoice, SSCC/Pallet label, Third Party Cold Store production management system	
Consignment Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., shipment/message that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Meat Transfer Certificate (MTC), SSCC/Pallet label, Third Party Cold Store production management system	
Contract number	This is a unique number allocated to the contract by the seller.	Yes	Delivery Docket/Manifest	
Count of Trade Items	Usually encoded in the GS1 barcode, this is the number of	Yes	Delivery Docket/Manifest, SSCC/Pallet label, Third	For more information visit

	trade items e.g., cartons in the logistic unit.		Party Cold Store production management system	the GS1 website.
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Delivery Docket/Manifest, Meat Transfer Certificate (MTC), Receipt of purchase/Tax Invoice, Third Party Cold Store production management system	
Delivery Docket/Manifest number	This is a unique number allocated to the docket for identification purposes.	Yes	Delivery Docket/Manifest, Third Party Cold Store production management system	
From Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Carcase Ticket, Carton label, Delivery Docket/Manifest, Meat Transfer Certificate (MTC), SSCC/Pallet label, Third Party Cold Store production management system	
Global Trade Item Number (GTIN)	Encoded in the GS1 barcode, the GTIN is a globally unique 14-digit number used to identify trade items, products, or services.	Yes	Carcase Ticket, Carton label, SSCC/Pallet label, Third Party Cold Store production management system	For more information visit the GS1 website.
GTIN of Contained Trade Items	Encoded in the GS1 barcode, the GTIN of the contained trade items is a globally unique 14-digit number used to identify trade items, products, or services in the logistic unit.	Yes	SSCC/Pallet label, Third Party Cold Store production management system	For more information visit the GS1 website.
Lot number	A lot is a number assigned by the processor to each group of cattle consigned to slaughter and is usually vendor specific.	Yes	Carcase Ticket, Third Party Cold Store production management system	
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Delivery Docket/Manifest, Meat Transfer Certificate (MTC), Third Party Cold	

			Store production management system	
MSA eating quality group/grade	This identifies carcasses with similar MSA and eating quality grades, these may align with brands packed by the processor for logistic simplicity. Carcasses are grouped for boning according to eating quality grades.	Yes	MSA Carcase Ticket, Third Party Cold Store production management system	For more information on MSA visit the MLA website.
MSA Licence Number	Any establishment consigning, supplying, or identifying MSA Certified Product must be registered and have a unique MSA Licence Number.	Yes	Receipt of purchase/Tax Invoice, Third Party Cold Store production management system	For more information on MSA visit the MLA website.
Net Weight (Kilograms)	Usually encoded in the GS1 barcode, the Net Weight is a variable measure of the trade item e.g., carton, pallet or shipment recorded in kilograms.	Yes	Carcase Ticket, Carton label, SSCC/Pallet label, Third Party Cold Store production management system	For more information visit the GS1 website.
Official mark	Any stamp, seal, label, or mark that is declared by the regulations to be an official mark. An official mark signifies that the product has been inspected by and approved as safe for human consumption by an Authorised Officer.	Yes	Carcase Ticket, Carton label, SSCC/Pallet label, Third Party Cold Store production management system	For more information visit the Australian Government Federal Register of Legislation.
Order date	This is the date on which the purchase order or contract was raised by the buyer.	Yes	Delivery Docket/Manifest, Third Party Cold Store production management system	
Packaging Date	Encoded in the GS1 barcode, the Packaging Date is the date on which the item was packaged and is recorded in the format year, month, day (YYMMDD).	Yes	Carton label, SSCC/Pallet label, Third Party Cold Store production management system	For more information visit the GS1 website.
Packaging Date Range	This includes the oldest and newest packaging dates for the logistic unit.	Yes	SSCC/Pallet label, Third Party Cold Store production management system	

Pallet Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., pallet that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Meat Transfer Certificate (MTC), SSCC/Pallet label, Third Party Cold Store production management system	For more information visit the GS1 website.
Production Date (YYMMDD)	Encoded in the GS1 barcode, this is the 'kill' or slaughter' date of the product and is recorded in the format year, month, day (YYMMDD).	Yes	Carcase Ticket, Meat Transfer Certificate (MTC), Third Party Cold Store production management system	For more information visit the GS1 website.
Recipient Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Receipt of purchase/Tax Invoice, Third Party Cold Store production management system	For more information visit the ATO website.
Seal Serial Number	This is a unique serial number printed on any tamper-evident seal issued by the Department.	Yes	Meat Transfer Certificate (MTC), Official seal, Third Party Cold Store production management system	For more information visit the Australian Government Federal Register of Legislation.
Seller/Supplier Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Receipt of purchase/Tax Invoice, Third Party Cold Store production management system	For more information visit the ATO website.
Serial Number	Encoded in the GS1 barcode, this is a code, numeric or alphanumeric, assigned to an individual instance of an item for its lifetime.	Yes	Carcase Ticket, Carton label, Third Party Cold Store production management system	For more information visit the GS1 website.
Shipping Mark	Also known as a port mark, this is a code comprising of three letters representing the foreign establishment number and the last nine digits of the consignment SSCC.	Yes	Delivery Docket/Manifest, SSCC/Pallet label, Third Party Cold Store production management system	
To Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both	Yes	Meat Transfer Certificate (MTC), Third Party Cold Store production management system	

	the dispatching and receiving establishments are recorded.			
Trade description	This is a collective set of words that says what the product is and may include information such as species, net weight of product, name and address of establishments, category ciphers, market endorsements, MSA eating quality etc.	Yes	Carcase Ticket, Carton label, Delivery Docket/Manifest, Meat Transfer Certificate (MTC), SSCC/Pallet label, Third Party Cold Store production management system	
Transfer Certificate number	A unique certificate number issued for traceability purposes.	Yes	Meat Transfer Certificate (MTC), Third Party Cold Store production management system	For more information visit the Department of Agriculture, Water and the Environment website.
Transport registration number	The registration number of the vehicle in which the animals or product were transported. For shipments of product this will be a shipping container number.	Yes	Delivery Docket/Manifest, Meat Transfer Certificate (MTC), Third Party Cold Store production management system	

5.2.3.3.3 Physical Outputs including Critical Tracking Events (CTEs)

Product exiting cold stores and transferred along the supply chain may include carcasses to shipping containers for export product. Documentation required here includes that for both domestic and export product such as a Delivery Docket/Manifest, MTC, Bill of lading/Air Waybill, Export Permit and Export Health Certificate.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with the outputs of the third-party cold store system include the movement of:

- * Carcase
- * Carton
- * Pallet
- * Container System Unit

off the property, premises, or supply chain sector.

Table 92. Physical outputs and associated Critical Tracking Event related documents for a beef third party cold store system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details

Carcase	The body of a slaughtered animal after bleeding. Becomes a dressed carcass when hide, head, feet and offal are removed.	Carcass Ticket, Delivery Docket/Manifest, Meat Transfer Certificate (MTC), MSA Carcass Ticket, Third Party Cold Store production management system, Receipt of purchase/Tax Invoice	
Carton	This is a case, crate, or barrel of product.	Carton label, Delivery Docket/Manifest, Meat Transfer Certificate (MTC), Official seal, Third Party Cold Store production management system, Receipt of purchase/Tax Invoice	
Pallet	A logistic unit which includes a number of cartons or goods items packed together for transport or storage purposes.	Bill of lading/Air Waybill, Delivery Docket/Manifest, Export Health Certificate, Export Permit, Meat Transfer Certificate (MTC), Third Party Cold Store production management system, Receipt of purchase/Tax Invoice, Certificate of Analysis (COA), SSCC/Pallet label	
Container System Unit	A container designed for use as a unit of cargo handling equipment in the transport of goods by aircraft or ship.	Bill of lading/Air Waybill, Delivery Docket/Manifest, Export Health Certificate, Export Permit, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), Official seal, Third Party Cold Store production management system, Certificate of Analysis (COA), Receipt of purchase/Tax Invoice	

5.2.3.3.4 Information Outputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). Key Data Elements from cold store CTE related documentation will be stored in the production management system. Such information may include, but not be limited to, GS1 barcode application identifiers, movement dates, product net weight, seal serial numbers and transfer certificate numbers.

Table 93. Information outputs, Key Data Elements and Critical Tracking Event related documentation for a beef third party cold store system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Analysis Date	This is the date on which a product sample was analysed.	Yes	Certificate of Analysis (COA), Third Party Cold Store production management system	
Bill of lading/Air Waybill document number	A unique document number issued for traceability purposes.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA), Third Party Cold Store production management system	

Body number	This is a number assigned to each carcase by the processor for identification purposes.	Yes	Carcase Ticket, Third Party Cold Store production management system	
Certificate of Analysis number	A unique certificate number issued for traceability purposes.	Yes	Certificate of Analysis (COA), Third Party Cold Store production management system	
COA test lot identifier	This is a unique identifier allocated to all cartons, pallets, and shipping containers for which an analysis sample represents.	Yes	Certificate of Analysis (COA), Third Party Cold Store production management system	
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Bill of lading/Air Waybill, Carton label, Certificate of Analysis (COA), Receipt of purchase/Tax Invoice, SSCC/Pallet label, Third Party Cold Store production management system, Value Added production management system	
Consignment Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., shipment/message that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Bill of lading/Air Waybill, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), SSCC/Pallet label, Third Party Cold Store production management system	For more information visit the GS1 website.
Contract number	This is a unique number allocated to the contract by the seller.	Yes	Delivery Docket/Manifest, Third Party Cold Store production management system	
Count of Pallets	This is the number of pallets in the logistic unit e.g., container system unit.	Yes	Meat Messaging Consignment Report, Third Party Cold Store production management system	
Count of Trade Items	Usually encoded in the GS1 barcode, this is the number of trade items e.g., cartons in the logistic unit.	Yes	Bill of lading/Air Waybill, Delivery Docket/Manifest, Meat Messaging Consignment Report, SSCC/Pallet label, Third Party Cold Store production management system	For more information visit the GS1 website.

Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA), Delivery Docket/Manifest, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), Receipt of purchase/Tax Invoice, Third Party Cold Store production management system	
Delivery Docket/Manifest number	This is a unique number allocated to the docket for identification purposes.	Yes	Delivery Docket/Manifest, Third Party Cold Store production management system	
Export Health Certificate Number	A unique number allocated to the health certificate issued for the export consignment for traceability purposes.	Yes	Export Health Certificate, Meat Messaging Consignment Report, Third Party Cold Store production management system	For more information visit the Department of Agriculture, Water and the Environment website.
Export Permit Number	A unique permit number is allocated for the export consignment following submission of a correct and validated Request For Permit (RFP) which is then approved by the Secretary.	Yes	Export Permit, Third Party Cold Store production management system	For more information visit the Department of Agriculture, Water and the Environment website.
From Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Carcase Ticket, Carton label, Certificate of Analysis (COA), Delivery Docket/Manifest, Export Health Certificate, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), SSCC/Pallet label, Third Party Cold Store production management system	
Global Trade Item Number (GTIN)	Encoded in the GS1 barcode, the GTIN is a globally unique 14-digit number used to identify trade items, products, or services.	Yes	Carcase Ticket, Carton label, Meat Messaging Consignment Report, SSCC/Pallet label, Third	For more information visit the GS1 website.

			Party Cold Store production management system	
GTIN of Contained Trade Items	Encoded in the GS1 barcode, the GTIN of the contained trade items is a globally unique 14-digit number used to identify trade items, products, or services in the logistic unit.	Yes	SSCC/Pallet label, Third Party Cold Store production management system	For more information visit the GS1 website.
Lot number	A lot is a number assigned by the processor to each group of cattle consigned to slaughter and is usually vendor specific.	Yes	Carcase Ticket, Third Party Cold Store production management system	
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA), Delivery Docket/Manifest, Export Health Certificate, Meat Transfer Certificate (MTC), Third Party Cold Store production management system	
MSA eating quality group/grade	This identifies carcasses with similar MSA and eating quality grades, these may align with brands packed by the processor for logistic simplicity. Carcasses are grouped for boning according to eating quality grades.	Yes	MSA Carcase Ticket, Third Party Cold Store production management system	For more information on MSA visit the MLA website.
MSA Licence Number	Any establishment consigning, supplying, or identifying MSA Certified Product must be registered and have a unique MSA Licence Number.	Yes	Receipt of purchase/Tax Invoice, Third Party Cold Store production management system	For more information on MSA visit the MLA website.
Net Weight (Kilograms)	Usually encoded in the GS1 barcode, the Net Weight is a variable measure of the trade item e.g., carton, pallet or shipment recorded in kilograms.	Yes	Bill of lading/Air Waybill, Carcase Ticket, Carton label, Export Health Certificate, Meat Messaging Consignment Report, SSCC/Pallet label, Third Party Cold Store production management system	For more information visit the GS1 website.
Official mark	Any stamp, seal, label, or mark that is declared by the regulations to be an official	Yes	Carcase Ticket, Carton label, SSCC/Pallet label, Third Party Cold Store	For more information visit the

	mark. An official mark signifies that the product has been inspected by and approved as safe for human consumption by an Authorised Officer.		production management system	Australian Government Federal Register of Legislation.
Order date	This is the date on which the purchase order or contract was raised by the buyer.	Yes	Delivery Docket/Manifest, Third Party Cold Store production management system	
Packaging Date	Encoded in the GS1 barcode, the Packaging Date is the date on which the item was packaged and is recorded in the format year, month, day (YYMMDD).	Yes	Carton label, Certificate of Analysis (COA), SSCC/Pallet label, Third Party Cold Store production management system	For more information visit the GS1 website.
Packaging Date Range	This includes the oldest and newest packaging dates for the logistic unit.	Yes	SSCC/Pallet label, Third Party Cold Store production management system	
Pallet Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., pallet that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), SSCC/Pallet label, Third Party Cold Store production management system	For more information visit the GS1 website.
Production Date (YYMMDD)	Encoded in the GS1 barcode, this is the 'kill' or slaughter' date of the product and is recorded in the format year, month, day (YYMMDD).	Yes	Carcase Ticket, Meat Transfer Certificate (MTC), Third Party Cold Store production management system	For more information visit the GS1 website.
Recipient Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Receipt of purchase/Tax Invoice, Third Party Cold Store production management system	For more information visit the ATO website.
Seal Serial Number	This is a unique serial number printed on any tamper-evident seal issued by the Department.	Yes	Bill of lading/Air Waybill, Meat Transfer Certificate (MTC), Official seal, Third Party Cold Store production management system	For more information visit the Australian Government Federal Register of Legislation.

Seller/Supplier Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Receipt of purchase/Tax Invoice, Third Party Cold Store production management system	For more information visit the ATO website.
Serial Number	Encoded in the GS1 barcode, this is a code, numeric or alphanumeric, assigned to an individual instance of an item for its lifetime.	Yes	Carcase Ticket, Carton label, Third Party Cold Store production management system	For more information visit the GS1 website.
Shipping Mark	Also known as a port mark, this is a code comprising of three letters representing the foreign establishment number and the last nine digits of the consignment SSCC.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA), Delivery Docket/Manifest, Export Health Certificate, Meat Messaging Consignment Report, SSCC/Pallet label, Third Party Cold Store production management system	
To Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Meat Transfer Certificate (MTC), Third Party Cold Store production management system	
Trade description	This is a collective set of words that says what the product is and may include information such as species, net weight of product, name and address of establishments, category ciphers, market endorsements, MSA eating quality etc.	Yes	Carcase Ticket, Carton label, Delivery Docket/Manifest, Export Health Certificate, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), SSCC/Pallet label, Third Party Cold Store production management system	
Transfer Certificate number	A unique certificate number issued for traceability purposes.	Yes	Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), Third Party Cold Store production management system	For more information visit the Department of Agriculture, Water and the Environment website.

Transport registration number	The registration number of the vehicle in which the animals or product were transported. For shipments of product this will be a shipping container number.	Yes	Bill of lading/Air Waybill, Delivery Docket/Manifest, Export Health Certificate, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), Third Party Cold Store production management system	

5.2.3.3.5 Regulatory and Industry Programs

- * Meat Standards Australia (MSA)
- * AUS-MEAT
- * Australian Meat Industry Council (AMIC)
- * Department of Agriculture
- * Meat Messaging
- * Other data sources
- * State food authority

5.2.3.3.6 Supply Chain Node Traceability

The traceability of third-party cold store product back to the live animal and property of origin is dependent on the form in which product enters the storage premises. This may include whole carcass, cartoned or palletised form.

Traceability of whole carcasses back to the live animal is possible and can be done by the processing establishment where the animal was slaughtered. Here, carcasses are issued a carcass ticket which correlates to the live animal identifier and contains key information, including GS1 meat industry barcode, body number, processing establishment number and production date or 'kill date'. This information is uploaded to the NLIS Database, by the processor, under the processing establishments Property Identification Code (PIC). Thus, whole carcasses (identified with a unique serialised carcass ticket) within a processing facility, chiller, cold store, or that are loaded for export or transport to other premises (e.g., retail) are fully traceable back to the individual live animal and property of origin.

Traceability for cartoned and palletised product is limited to the carcasses that have entered the boning room for the production run of cartons that are created. For example, 200 carcasses (400 sides) individually identified with unique carcass tickets enter the boning room for a specific boning run. These carcass tickets are linked to the specific boning run. From these carcasses, 3 200 cartons of primal cuts and 1 000 cartons of trim and other highly mixed products are created. While all cartons are identified with unique serialised carton labels, including a GS1 meat industry barcode, linked to the boning run (and may be packaged into pallets containing unique serialised pallet labels including a GS1 SSCC barcode), it is not readily possible to identify which carcasses are in which cartons as the cartons will contain meat products from different carcasses. If the carcasses were sourced from several different properties, the resulting carton can only be traced to a number of possible carcasses and source properties. In logistical systems such as transport and cold stores, cartons are typically processed by pallets with only the pallet label being scanned. Therefore, traceability through logistics is often at the pallet level.

5.2.3.3.7 Data flow diagrams

Table 94. Data flow diagrams for the inputs and outputs of a beef value-added system

Direction	Description
Input	Value added to Third Party Store
Input	Cold Store (cartons) to Third Party Store
Input	Cold Store (carcase) to Third Party Store
Output	Third Party cold store to Supermarket
Output	Third Party cold store to Butcher
Output	Third Party cold store to Food Services
Output	Third Party cold store to Value Add
Output	Third Party cold store to Non-packer exporter
Output	Third Party cold to Export

5.2.3.3.7.1 Value Added to Third Party Store

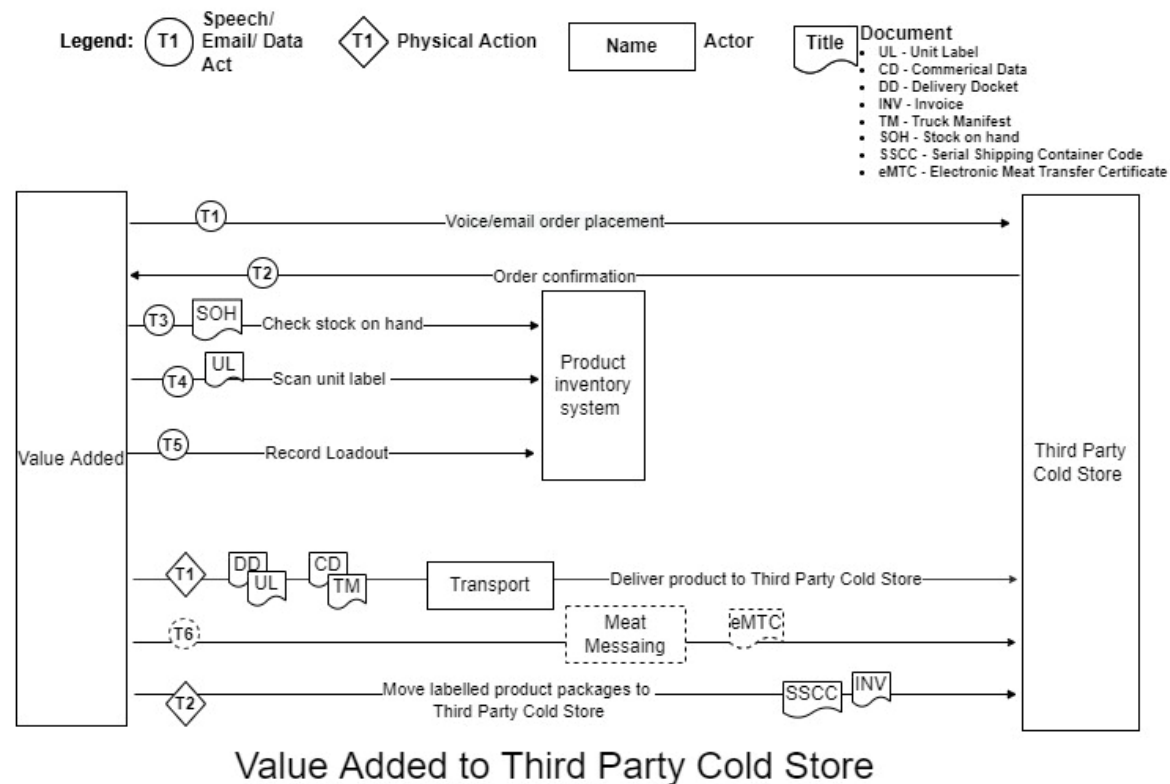


Figure 110 Data or information flows from the value added to third party cold store systems in the beef supply chain.

5.2.3.3.7.2 Cold Store (cartons) to Third Party Store

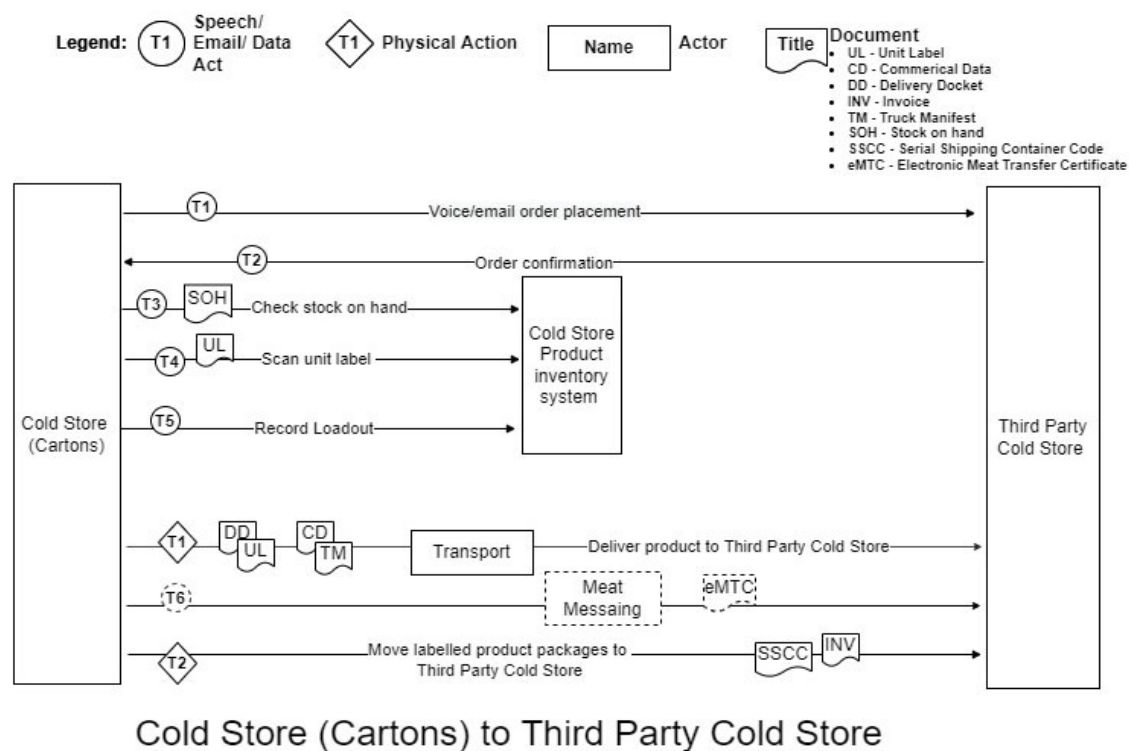


Figure 111 Data or information flows from the cold store (carton) loadout to third-party cold store systems in the beef supply chain.

5.2.3.3.7.3 Cold Store (carcase) to Third Party Store

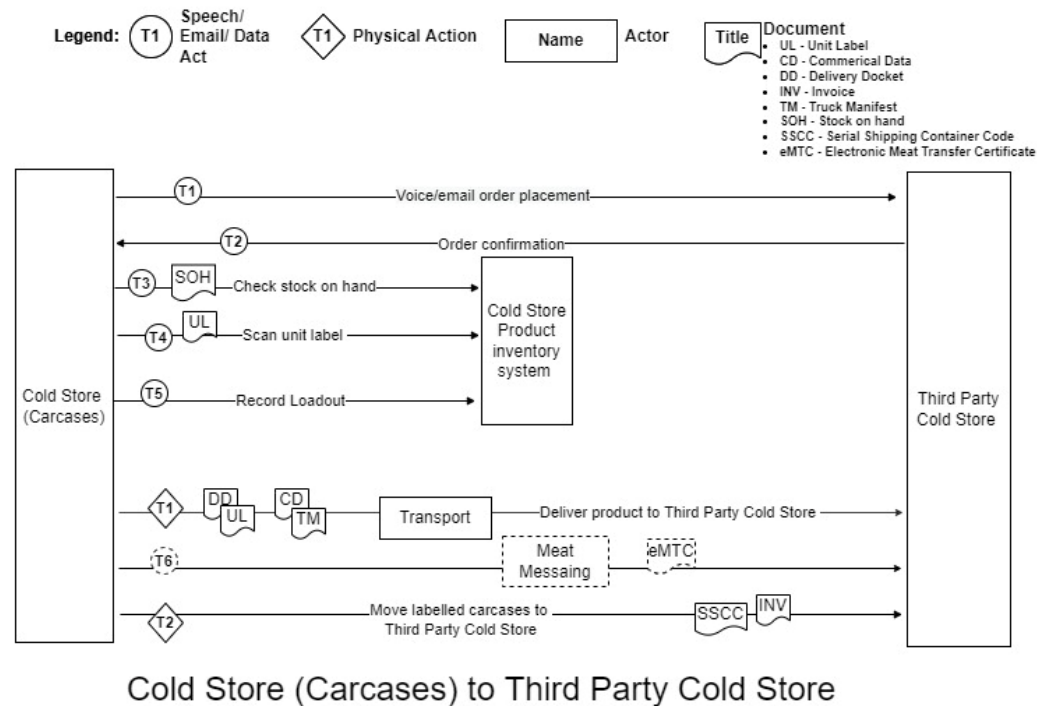
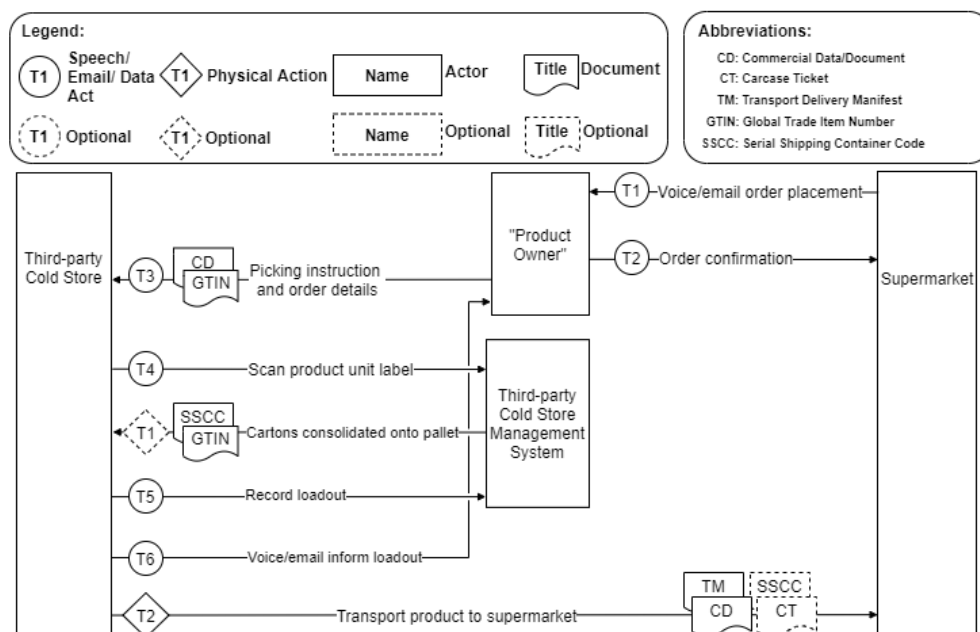


Figure 112 Data or information flows from the cold store (carcasses) loadout to third-party cold store systems in the beef supply chain.

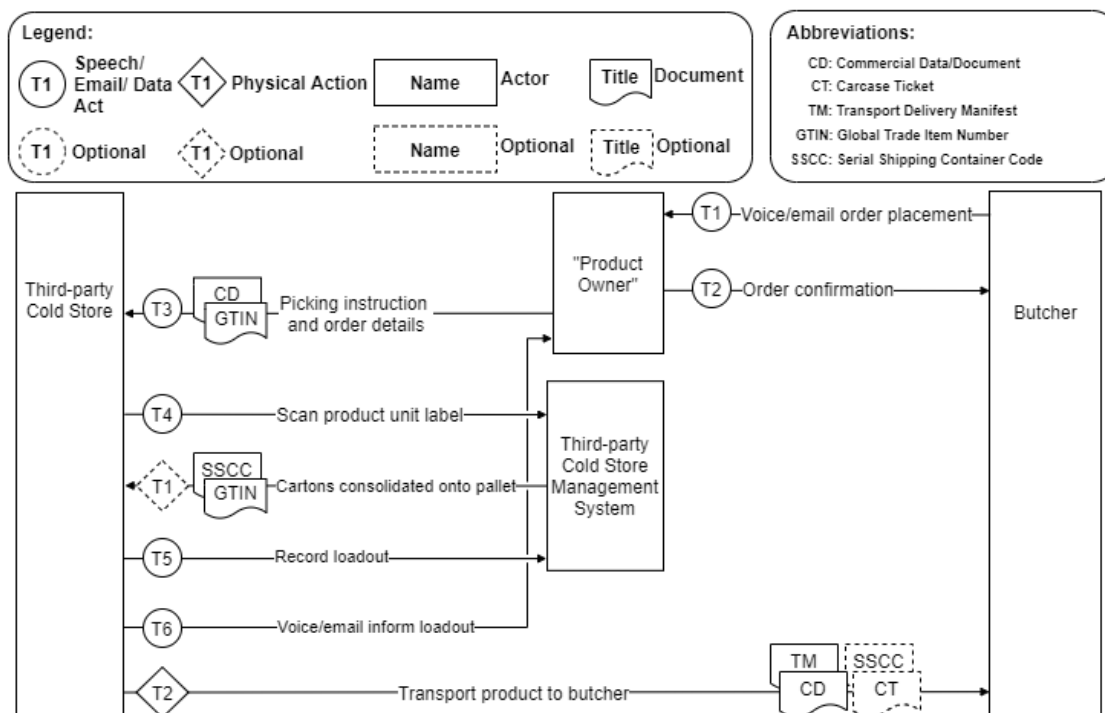
5.2.3.3.7.4 Third Party Cold Store to Supermarket



Third-party Cold Store to Supermarket

Figure 113 Data or information flows from third party cold tore to supermarket systems in the beef supply chain.

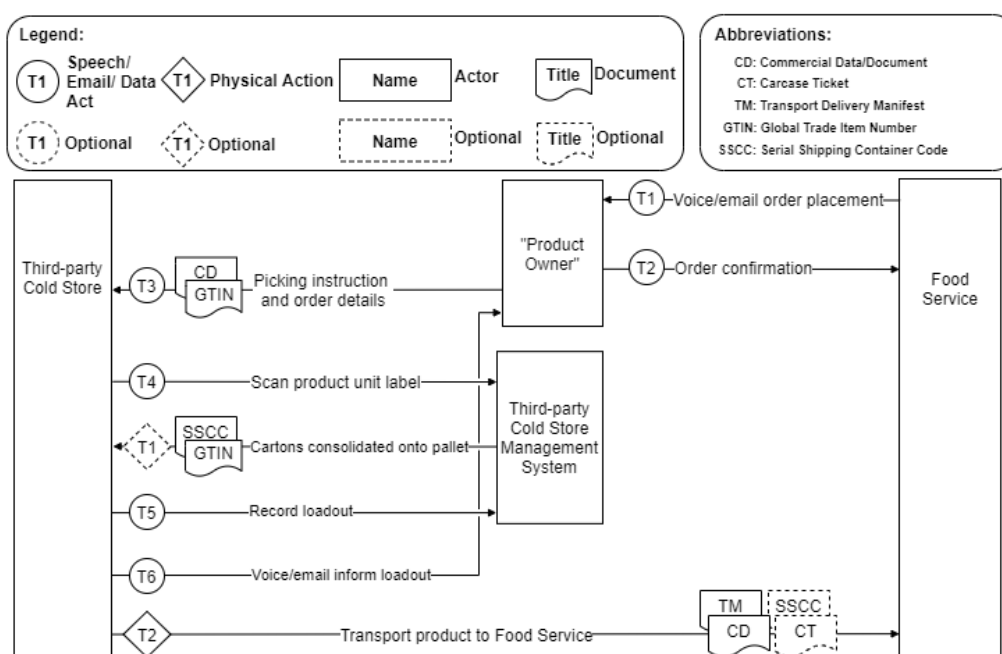
5.2.3.3.7.5 Third Party Cold Store to Butcher



Third-party Cold Store to Butcher

Figure 114 Data or information flows from third party cold store to butcher systems in the beef supply chain.

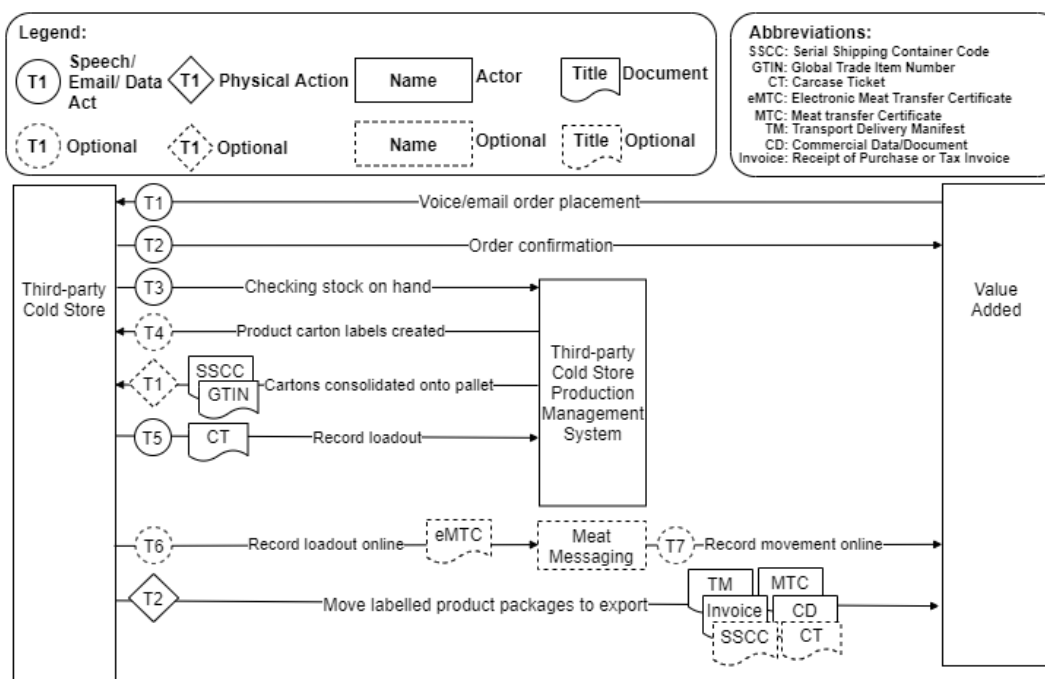
3.2.3.3.7.6 Third Party Cold Store to Food Services



Third-party Cold Store to Food Service

Figure 115 Data or information flows from third party cold store to food service systems in the beef supply chain.

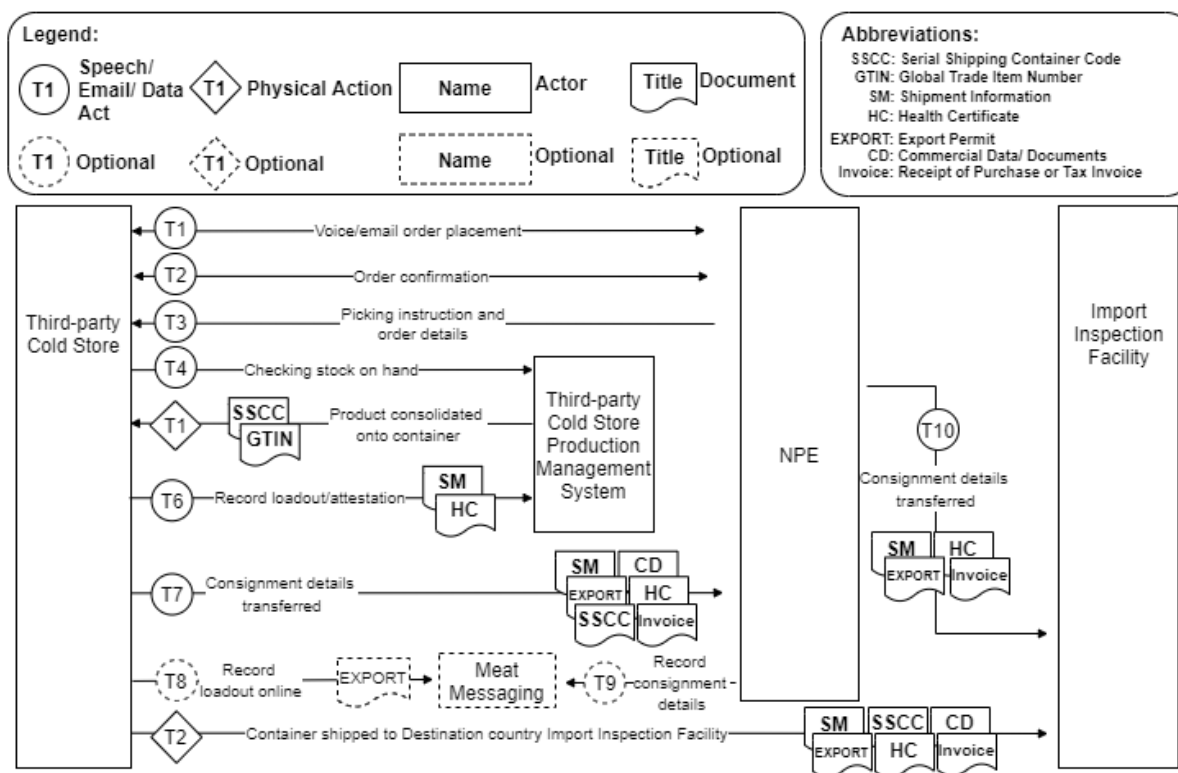
3.2.3.3.7.7 Third Party Cold Store to Value Add



Third-party Cold Store to Value Added

Figure 116 Data or information flows from the third party cold store to value added systems in the beef supply chain.

3.2.3.3.7.8 Third Party Cold Store to Non-Packer Exporter



Third-party Cold Store to Non Packer Exporter (NPE)

Figure 117 Data or information flows from the third party cold store to non-packer exporter systems in the beef supply chain.

5.2.3.4 Supermarket

Supermarkets are product distribution centres whereby retail-ready product is sourced from suppliers (processors, independent boning room or third-party cold store) or product is prepared on-site from carcase or cartoned product. These distribution centres may be chain or retail stores which assemble these goods, sourced from individual suppliers, for purchase by consumers. Product may be pre-packaged and branded by the supplier or by the supermarket and each item identified with a retail-ready product label. For MSA product, the supermarket must be an MSA licenced premises, and all products must be clearly labelled with the cooking method and MSA grade.

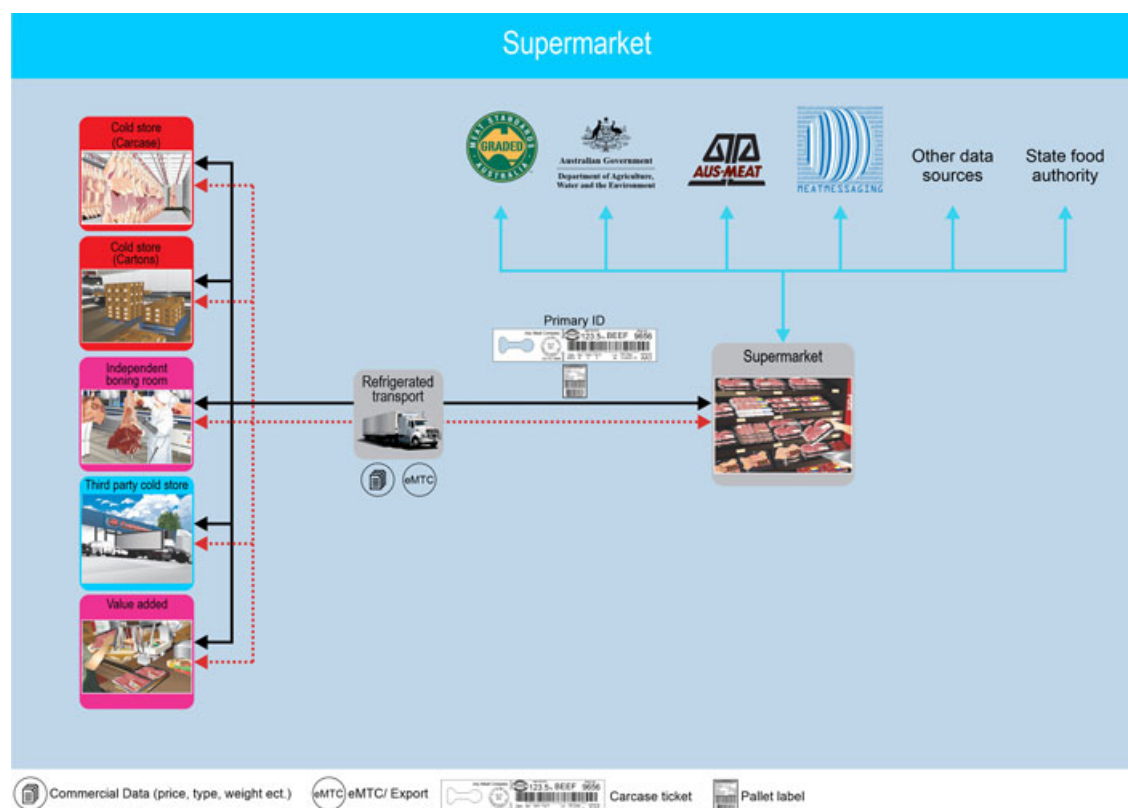


Figure 118. Inputs and outputs of the beef supply chain supermarket sector.

5.2.3.4.1 Physical Inputs including Critical Tracking Events (CTEs)

The inputs for the domestic supermarket include meat product in carcase form for onsite butchering as well as pre-packaged product from boning room and value adding facilities. Critical Tracking Event related documentation for the movement of product into supermarkets includes standard movement documentation such as the Delivery Docket/Manifest, Meat Transfer Certificate, carton, and pallet labels.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with inputs to the supermarket system include the receipt of:

- * Carcase
- * Carton
- * Pallet.

Table 95. Physical inputs and associated Critical Tracking Event related documents for a beef supermarket system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Carcase	The body of a slaughtered animal after bleeding. Becomes a dressed	Carcase Ticket, Delivery Docket/Manifest, Meat Transfer Certificate (MTC), MSA Carcase Ticket,	

	carcase when hide, head, feet and offal are removed.	Retail production management system, Receipt of purchase/Tax Invoice	
Carton	This is a case, crate, or barrel of product.	Carton label, Delivery Docket/Manifest, Meat Transfer Certificate (MTC), Official seal, Receipt of purchase/Tax Invoice, Retail production management system	
Pallet	A logistic unit which includes a number of cartons or goods items packed together for transport or storage purposes.	Delivery Docket/Manifest, Meat Transfer Certificate (MTC), Retail production management system, Receipt of purchase/Tax Invoice, SSCC/Pallet label	

5.2.3.4.2 Information Inputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). Information inputs or KDEs for the movement of meat product into the supermarket can be found on Critical Tracking Event related documentation and is stored in the retailer's production management system.

Table 96. Information inputs, Key Data Elements and Critical Tracking Event related documentation for a beef supermarket system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Body number	This is a number assigned to each carcase by the processor for identification purposes.	Yes	Carcase Ticket, Retail production management system	
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Carton label, Receipt of purchase/Tax Invoice, Retail production management system, SSCC/Pallet label	
Consignment Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., shipment/message that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Meat Transfer Certificate (MTC), Retail production management system, SSCC/Pallet label	For more information visit the GS1 website.
Contract number	This is a unique number allocated to the contract by the seller.	Yes	Delivery Docket/Manifest, Retail production management system	

Count of Trade Items	Usually encoded in the GS1 barcode, this is the number of trade items e.g., cartons in the logistic unit.	Yes	Delivery Docket/Manifest, Retail production management system, SSCC/Pallet label	For more information visit the GS1 website.
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Delivery Docket/Manifest, Meat Transfer Certificate (MTC), Receipt of purchase/Tax Invoice, Retail production management system	
Delivery Docket/Manifest number	This is a unique number allocated to the docket for identification purposes.	Yes	Delivery Docket/Manifest, Retail production management system	
From Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Carcase Ticket, Carton label, Delivery Docket/Manifest, Meat Transfer Certificate (MTC), Retail production management system, SSCC/Pallet label	
Global Trade Item Number (GTIN)	Encoded in the GS1 barcode, the GTIN is a globally unique 14-digit number used to identify trade items, products, or services.	Yes	Carcase Ticket, Carton label, Retail production management system, SSCC/Pallet label	For more information visit the GS1 website.
GTIN of Contained Trade Items	Encoded in the GS1 barcode, the GTIN of the contained trade items is a globally unique 14-digit number used to identify trade items, products, or services in the logistic unit.	Yes	Retail production management system, SSCC/Pallet label	For more information visit the GS1 website.
Lot number	A lot is a number assigned by the processor to each group of cattle consigned to slaughter and is usually vendor specific.	Yes	Carcase Ticket, Retail production management system	
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Delivery Docket/Manifest, Meat Transfer Certificate (MTC),	

			Retail production management system	
MSA Licence Number	Any establishment consigning, supplying, or identifying MSA Certified Product must be registered and have a unique MSA Licence Number.	Yes	Receipt of purchase/Tax Invoice, Retail production management system	For more information on MSA visit the MLA website.
Net Weight (Kilograms)	Usually encoded in the GS1 barcode, the Net Weight is a variable measure of the trade item e.g., carton, pallet or shipment recorded in kilograms.	Yes	Carcase Ticket, Carton label, Retail production management system, SSSC/Pallet label	For more information visit the GS1 website.
Official mark	Any stamp, seal, label, or mark that is declared by the regulations to be an official mark. An official mark signifies that the product has been inspected by and approved as safe for human consumption by an Authorised Officer.	Yes	Carcase Ticket, Carton label, Retail production management system, SSSC/Pallet label	For more information visit the Australian Government Federal Register of Legislation.
Order date	This is the date on which the purchase order or contract was raised by the buyer.	Yes	Delivery Docket/Manifest, Retail production management system	
Packaging Date	Encoded in the GS1 barcode, the Packaging Date is the date on which the item was packaged and is recorded in the format year, month, day (YYMMDD).	Yes	Carton label, Retail production management system, SSSC/Pallet label	For more information visit the GS1 website.
Packaging Date Range	This includes the oldest and newest packaging dates for the logistic unit.	Yes	Retail production management system, SSSC/Pallet label	
Pallet Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., pallet that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Meat Transfer Certificate (MTC), Retail production management system, SSSC/Pallet label	For more information visit the GS1 website.
Production Date (YYMMDD)	Encoded in the GS1 barcode, this is the 'kill' or slaughter' date of the product and is recorded in the format year, month, day (YYMMDD).	Yes	Carcase Ticket, Meat Transfer Certificate (MTC), Retail	For more information visit the GS1 website.

			production management system	
Recipient Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Receipt of purchase/Tax Invoice, Retail production management system	For more information visit the ATO website.
Seal Serial Number	This is a unique serial number printed on any tamper-evident seal issued by the Department.	Yes	Meat Transfer Certificate (MTC), Official seal, Retail production management system	For more information visit the Australian Government Federal Register of Legislation.
Seller/Supplier Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Receipt of purchase/Tax Invoice, Retail production management system	For more information visit the ATO website.
Serial Number	Encoded in the GS1 barcode, this is a code, numeric or alphanumeric, assigned to an individual instance of an item for its lifetime.	Yes	Carcase Ticket, Carton label, Retail production management system	For more information visit the GS1 website.
Shipping Mark	Also known as a port mark, this is a code comprising of three letters representing the foreign establishment number and the last nine digits of the consignment SSCC.	Yes	Delivery Docket/Manifest, Retail production management system, SSCC/Pallet label	
To Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Meat Transfer Certificate (MTC), Retail production management system	
Trade description	This is a collective set of words that says what the product is and may include information such as species, net weight of product, name and address of establishments, category ciphers, market endorsements, MSA eating quality etc.	Yes	Carcase Ticket, Carton label, Delivery Docket/Manifest, Meat Transfer Certificate (MTC), Retail production management system, SSCC/Pallet label	

Transfer Certificate number	A unique certificate number issued for traceability purposes.	Yes	Meat Transfer Certificate (MTC), Retail production management system	For more information visit the Department of Agriculture, Water and the Environment website.
Transport registration number	The registration number of the vehicle in which the animals or product were transported. For shipments of product this will be a shipping container number.	Yes	Delivery Docket/Manifest, Meat Transfer Certificate (MTC), Retail production management system	
MSA eating quality group/grade	This identifies carcasses with similar MSA and eating quality grades, these may align with brands packed by the processor for logistic simplicity. Carcasses are grouped for boning according to eating quality grades.	Yes	MSA Carcase Ticket	For more information on MSA visit the MLA website.

5.2.3.4.3 Physical Outputs including Critical Tracking Events (CTEs)

Retail ready meat products are the outputs of the supermarket system. Being purchased by consumers, CTE documentation includes the product label and receipt of purchase with product exiting the system being recorded in the retailer's production management system.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with the outputs of the supermarket system include the movement of:

* Retail Ready Product

off the property, premises, or supply chain sector.

Table 97. Physical outputs and associated Critical Tracking Event related documents for a beef supermarket system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Retail Ready Product	These are packaged meat products that are ready to be retailed and purchased by consumers.	Retail product label, Receipt of purchase/Tax Invoice, Retail production management system	

5.2.3.4.4 Information Outputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). Information outputs from the supermarket system include KDEs which can be drawn from CTE documentation such the product label and receipt of purchase. This may include purchase date, product code and application identifiers on the GS1 barcode.

Table 98. Information outputs, Key Data Elements and Critical Tracking Event related documentation for a beef supermarket system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Receipt of purchase/Tax Invoice, Retail production management system	
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Receipt of purchase/Tax Invoice, Retail production management system	
GS1 compliant numbering and barcode	Numbering and barcode compliant to the GS1 standards and as specified by the contract between the seller and the recipient i.e., retailer.	Yes	Retail product label, Retail production management system	For more information visit the GS1 website.
MSA Licence Number	Any establishment consigning, supplying, or identifying MSA Certified Product must be registered and have a unique MSA Licence Number.	Yes	Receipt of purchase/Tax Invoice, Retail production management system	For more information on MSA visit the MLA website.
Recipient Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Receipt of purchase/Tax Invoice, Retail production management system	For more information visit the ATO website.
Seller/Supplier Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Receipt of purchase/Tax Invoice, Retail production management system	For more information visit the ATO website.

5.2.3.4.5 Regulatory and Industry Programs

- * Meat Standards Australia (MSA)
- * AUS-MEAT
- * Australian Meat Industry Council (AMIC)

- * Department of Agriculture
- * Meat Messaging
- * Other data sources
- * State food authority

5.2.3.4.6 Supply Chain Node Traceability

The traceability of retail ready product back to the live animal and property of origin is dependent on the form in which product enters the retail premises. This may include whole carcass, cartoned, or palletised form. Further, the level of traceability for each input form is dependent on the packaging processes of the retailer. For example, whole carcass product may or may not be fully traceable back to the live animal. Where this is true, carcasses are broken down into retail cuts on site and may be packaged individually and labelled with a unique, serialised retail label. For this product, traceability back to the live animal is possible and can be done by the processing establishment where the animal was slaughtered. Here, carcasses are issued a carcass ticket which correlates to the live animal NLIS ID tag and contains key information, including body number, processing establishment number and production date or 'kill date'. This information is uploaded to the NLIS Database, by the processor, under the processing establishments Property Identification Code (PIC). Thus, there is the potential to trace whole carcasses entering retail premises back to the individual live animal and property of origin. Where carcass retail cuts are not individually packaged or are derived from palletised or cartoned product, retail ready product may have the same batch traceability limitations as per boning room and value-added product. Please refer to Boning room and Value Added 'Supply Chain Node Traceability' for more information.

5.2.3.4.7 Data flow diagrams

Table 99 Data Flow Diagrams for the inputs and outputs of the beef supermarket system

Direction	Description
Input	Cold Store (carcass) to Supermarket
Input	Cold Store (cartons) to Supermarket
Input	Independent Boning Room to Supermarket
Input	Third Party Cold Store to Supermarket
Input	Value Add to Supermarket

5.2.3.4.7.1 Cold Store (carcase) to Supermarket

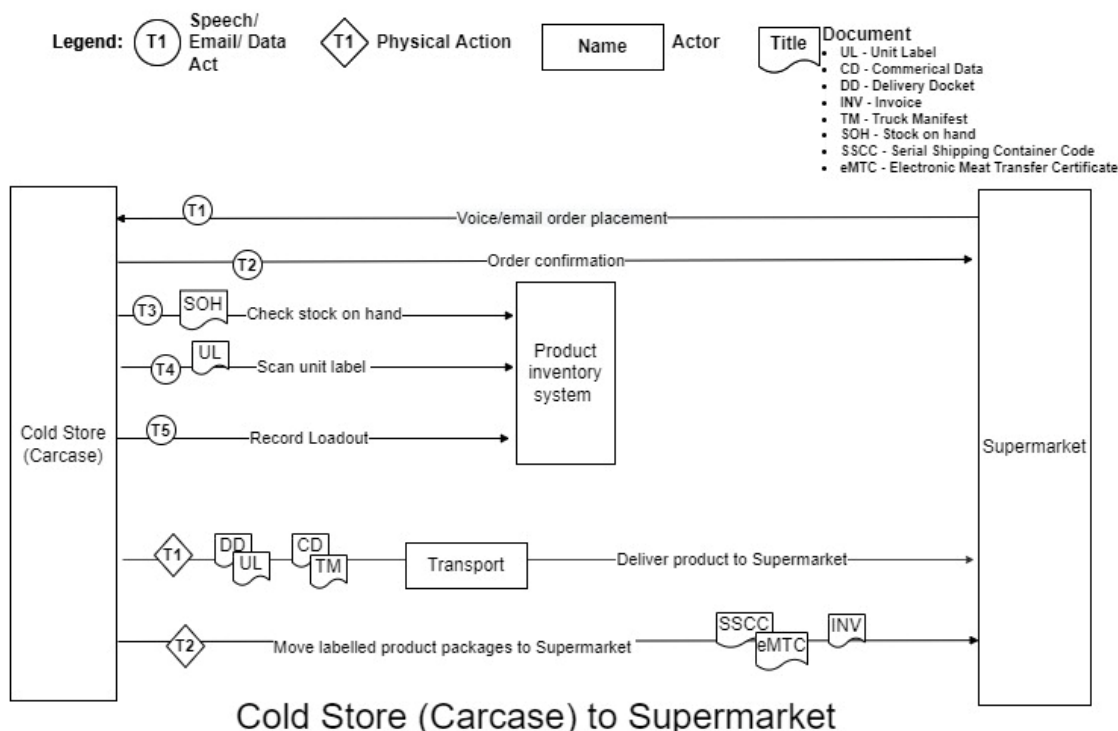


Figure 119 Data or information flows from the cold store (carcase) supermarket systems in the beef supply chain.

5.2.3.4.7.2 Cold Store (cartons) to Supermarket

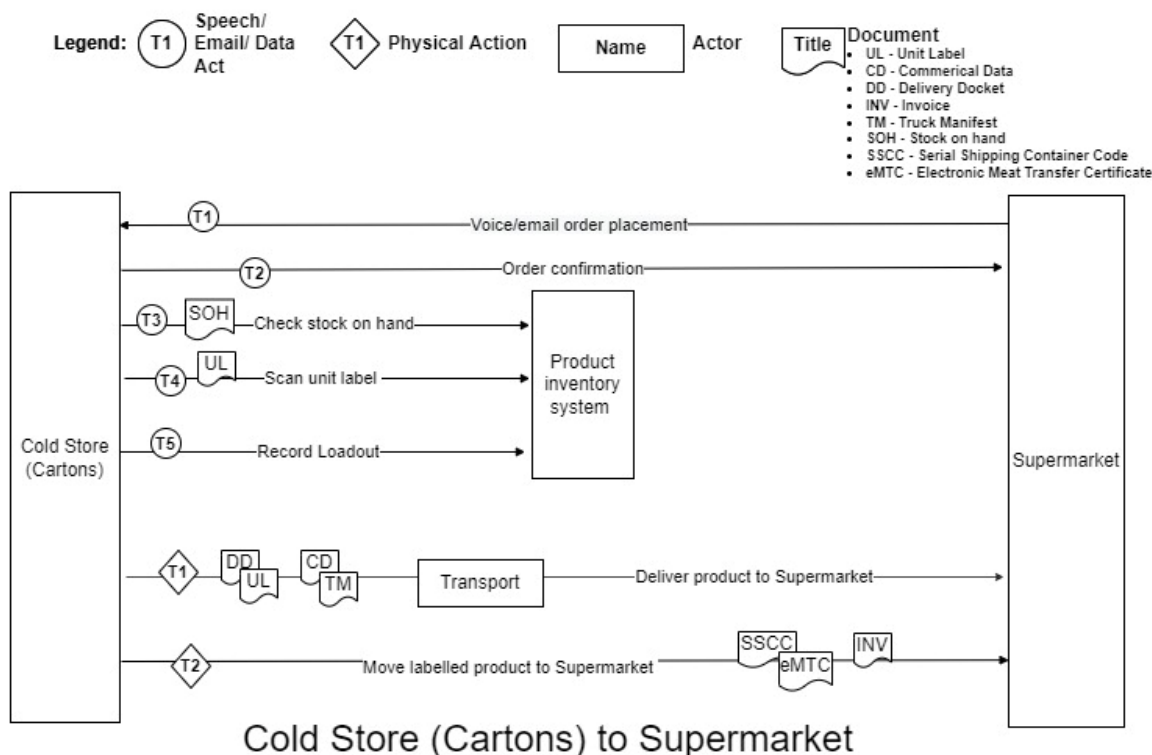


Figure 120 Data or information flows from the cold store (carton) to supermarket systems in the beef supply chain.

5.2.3.4.7.3 Independent Boning Room to Supermarket

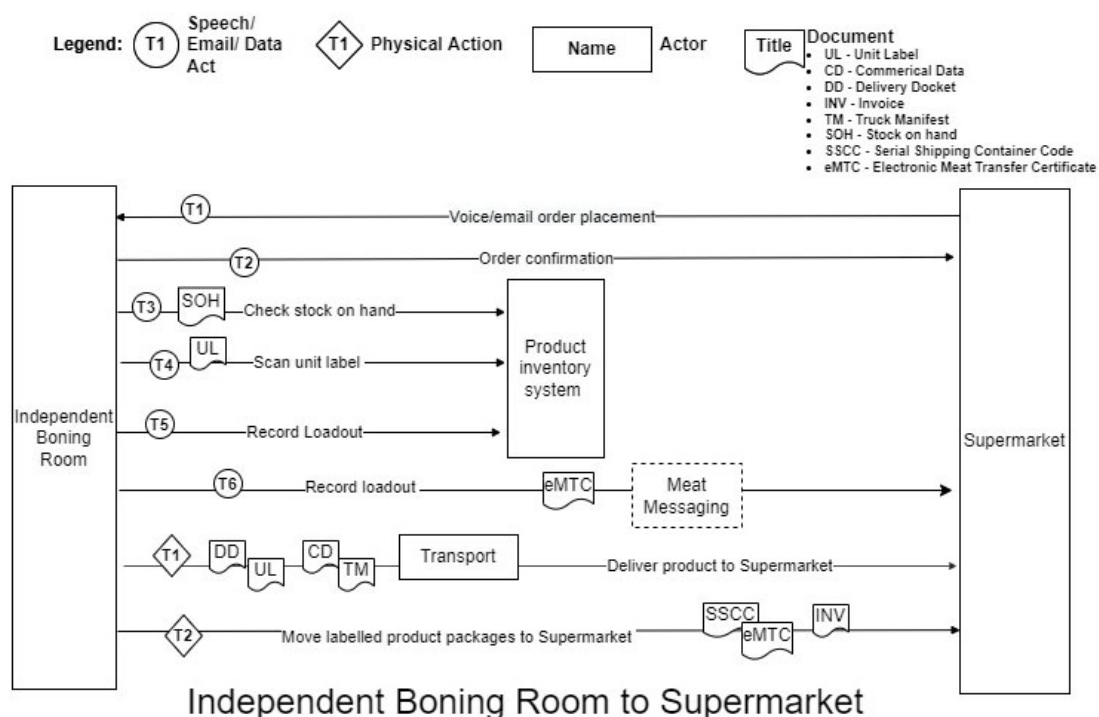


Figure 121 Data or information flows from the independent boning room to supermarket systems in the beef supply chain.

5.2.3.4.7.4 Third Party Cold Store to Supermarket

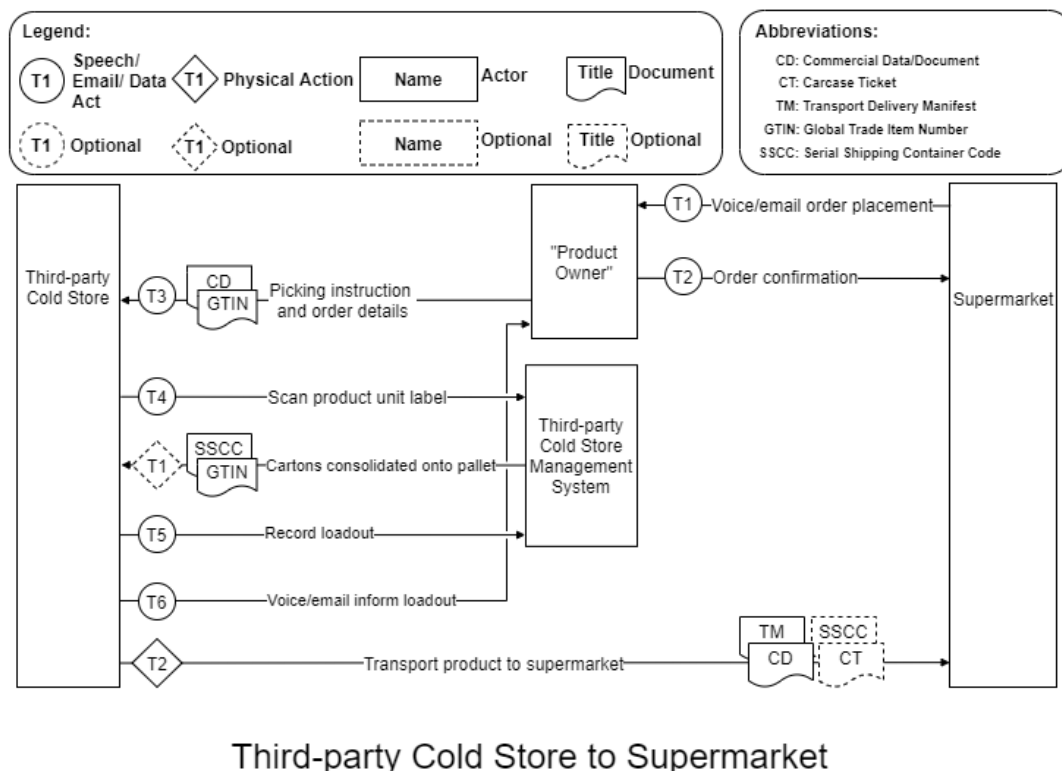


Figure 122 Data or information flows from the third party cold store to supermarket systems in the beef supply chain.

5.2.3.4.7.5 Value Add to Supermarket

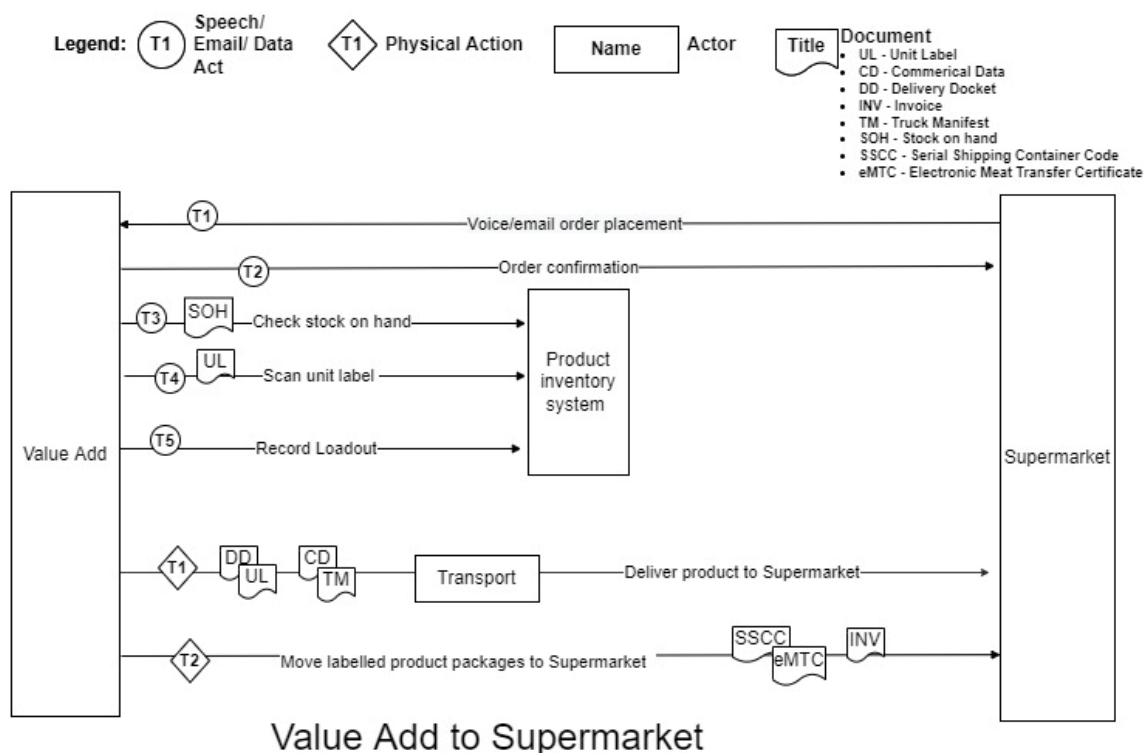


Figure 123 Data or information flows from the value add to supermarket systems in the beef supply chain.

5.2.3.5 Butcher

Butchers are meat and meat product retail stores whereby carcase or cartoned product is sourced from processors, third-party cold stores, independent boning rooms or value adders, and is prepared for sale to the consumer. This preparation may include value adding processes whereby a new variety of cuts is provided, the presentation of products is altered, or additional ingredients are added to create new products or enhance the profitability of raw product. For example, cutting primal products into steaks, roasts, or diced product, marinating meat to save time for the consumer, as well as making specialty goods such as mixed sausages and offal. For MSA product, the butcher must be an MSA licenced premises and all product must be clearly labelled with the cooking method and MSA grade.

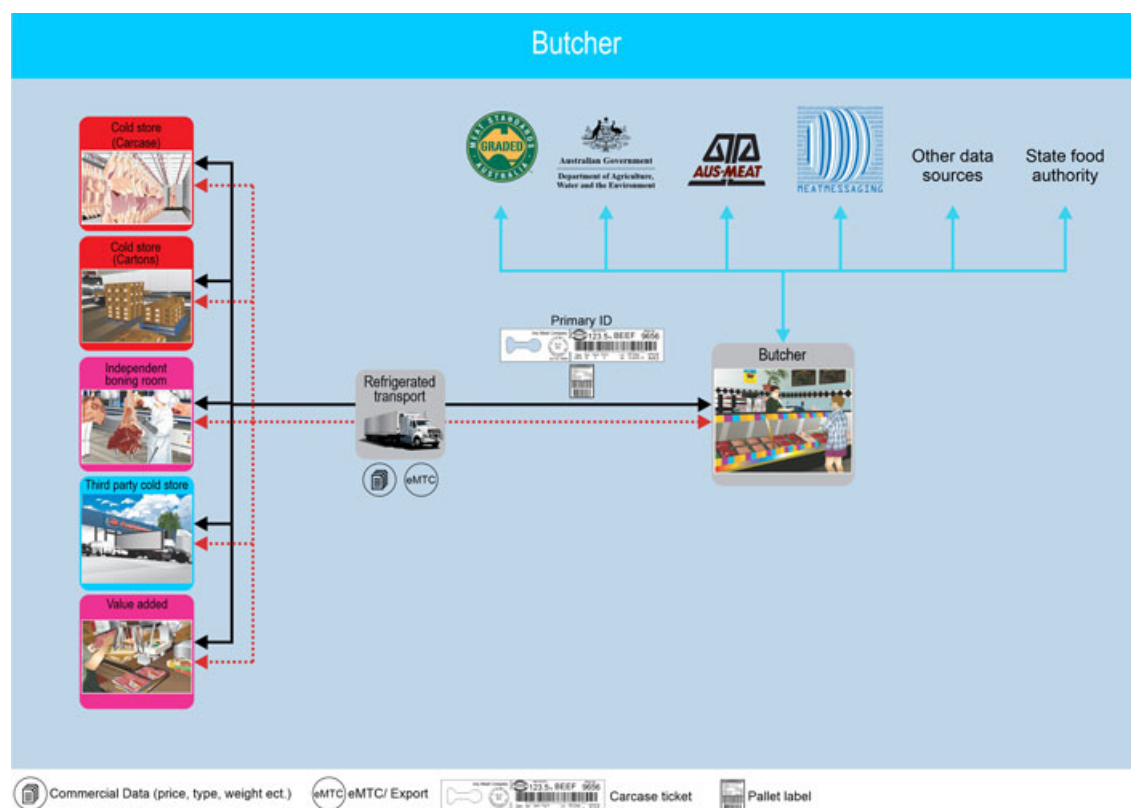


Figure 124. Inputs and outputs of the beef supply chain butcher sector.

5.2.3.5.1 Physical Inputs including Critical Tracking Events (CTEs)

The inputs to the butcher system include meat product in carcase form for onsite butchering as well primal or value-added product from boning room and value adding facilities. Critical Tracking Event related documentation for the movement of product into butchers includes standard movement documentation such as the Delivery Docket/Manifest, Meat Transfer Certificate, carton, and pallet labels.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with inputs to the butcher system include the receipt of:

- * Carcase
- * Carton
- * Pallet.

Table 100. Physical inputs and associated Critical Tracking Event related documents for a beef butcher system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Carcase	The body of a slaughtered animal after bleeding. Becomes a dressed	Carcase Ticket, Delivery Docket/Manifest, Meat Transfer Certificate (MTC), MSA Carcase Ticket,	

	carcase when hide, head, feet and offal are removed.	Retail production management system, Receipt of purchase/Tax Invoice	
Carton	This is a case, crate, or barrel of product.	Carton label, Delivery Docket/Manifest, Meat Transfer Certificate (MTC), Official seal, Retail production management system, Receipt of purchase/Tax Invoice	
Pallet	A logistic unit which includes a number of cartons or goods items packed together for transport or storage purposes.	Delivery Docket/Manifest, Meat Transfer Certificate (MTC), Retail production management system, Receipt of purchase/Tax Invoice, SSCC/Pallet label	

5.2.3.5.2 Information Inputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). Information inputs or KDEs for the movement of meat product into the butcher system can be found on Critical Tracking Event related documentation and is stored in the retailer's production management system.

Table 101. Information inputs, Key Data Elements and Critical Tracking Event related documentation for a beef butcher system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Body number	This is a number assigned to each carcase by the processor for identification purposes.	Yes	Carcase Ticket, Retail production management system	
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Carton label, Receipt of purchase/Tax Invoice, Retail production management system, SSCC/Pallet label	
Consignment Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., shipment/message that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Meat Transfer Certificate (MTC), Retail production management system, SSCC/Pallet label	For more information visit the GS1 website.
Contract number	This is a unique number allocated to the contract by the seller.	Yes	Delivery Docket/Manifest, Retail production management system	

Count of Trade Items	Usually encoded in the GS1 barcode, this is the number of trade items e.g., cartons in the logistic unit.	Yes	Delivery Docket/Manifest, Retail production management system, SSCC/Pallet label	For more information visit the GS1 website.
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Delivery Docket/Manifest, Meat Transfer Certificate (MTC), Receipt of purchase/Tax Invoice, Retail production management system	
Delivery Docket/Manifest number	This is a unique number allocated to the docket for identification purposes.	Yes	Delivery Docket/Manifest, Retail production management system	
From Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Carcase Ticket, Carton label, Delivery Docket/Manifest, Meat Transfer Certificate (MTC), Retail production management system, SSCC/Pallet label	
Global Trade Item Number (GTIN)	Encoded in the GS1 barcode, the GTIN is a globally unique 14-digit number used to identify trade items, products, or services.	Yes	Carcase Ticket, Carton label, Retail production management system, SSCC/Pallet label	For more information visit the GS1 website.
GTIN of Contained Trade Items	Encoded in the GS1 barcode, the GTIN of the contained trade items is a globally unique 14-digit number used to identify trade items, products, or services in the logistic unit.	Yes	Retail production management system, SSCC/Pallet label	For more information visit the GS1 website.
Lot number	A lot is a number assigned by the processor to each group of cattle consigned to slaughter and is usually vendor specific.	Yes	Carcase Ticket, Retail production management system	
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Delivery Docket/Manifest, Meat Transfer Certificate (MTC),	

			Retail production management system	
MSA eating quality group/grade	This identifies carcasses with similar MSA and eating quality grades, these may align with brands packed by the processor for logistic simplicity. Carcasses are grouped for boning according to eating quality grades.	Yes	MSA Carcase Ticket, Retail production management system	For more information on MSA visit the MLA website.
MSA Licence Number	Any establishment consigning, supplying, or identifying MSA Certified Product must be registered and have a unique MSA Licence Number.	Yes	Receipt of purchase/Tax Invoice, Retail production management system	For more information on MSA visit the MLA website.
Net Weight (Kilograms)	Usually encoded in the GS1 barcode, the Net Weight is a variable measure of the trade item e.g., carton, pallet or shipment recorded in kilograms.	Yes	Carcase Ticket, Carton label, Retail production management system, SSCC/Pallet label	For more information visit the GS1 website.
Official mark	Any stamp, seal, label, or mark that is declared by the regulations to be an official mark. An official mark signifies that the product has been inspected by and approved as safe for human consumption by an Authorised Officer.	Yes	Carcase Ticket, Carton label, Retail production management system, SSCC/Pallet label	For more information visit the Australian Government Federal Register of Legislation.
Order date	This is the date on which the purchase order or contract was raised by the buyer.	Yes	Delivery Docket/Manifest, Retail production management system	
Packaging Date	Encoded in the GS1 barcode, the Packaging Date is the date on which the item was packaged and is recorded in the format year, month, day (YYMMDD).	Yes	Carton label, Retail production management system, SSCC/Pallet label	For more information visit the GS1 website.
Packaging Date Range	This includes the oldest and newest packaging dates for the logistic unit.	Yes	Retail production management system, SSCC/Pallet label	
Pallet Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., pallet that is assigned by the establishment constructing the unit.	Yes	Meat Transfer Certificate (MTC), Retail production	For more information visit the GS1 website.

	The SSCC remains the same for the life of the logistic unit.		management system, SSCC/Pallet label	
Production Date (YYMMDD)	Encoded in the GS1 barcode, this is the 'kill' or slaughter' date of the product and is recorded in the format year, month, day (YYMMDD).	Yes	Carcase Ticket, Meat Transfer Certificate (MTC), Retail production management system	For more information visit the GS1 website.
Recipient Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Receipt of purchase/Tax Invoice, Retail production management system	For more information visit the ATO website.
Seal Serial Number	This is a unique serial number printed on any tamper-evident seal issued by the Department.	Yes	Meat Transfer Certificate (MTC), Official seal, Retail production management system	For more information visit the Australian Government Federal Register of Legislation.
Seller/Supplier Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Receipt of purchase/Tax Invoice, Retail production management system	For more information visit the ATO website.
Serial Number	Encoded in the GS1 barcode, this is a code, numeric or alphanumeric, assigned to an individual instance of an item for its lifetime.	Yes	Carcase Ticket, Carton label, Retail production management system	For more information visit the GS1 website.
Shipping Mark	Also known as a port mark, this is a code comprising of three letters representing the foreign establishment number and the last nine digits of the consignment SSCC.	Yes	Delivery Docket/Manifest, Retail production management system, SSCC/Pallet label	
To Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Meat Transfer Certificate (MTC), Retail production management system	
Trade description	This is a collective set of words that says what the product is and may include information such as species,	Yes	Carcase Ticket, Carton label, Delivery Docket/Manifest,	

	net weight of product, name and address of establishments, category ciphers, market endorsements, MSA eating quality etc.		Meat Transfer Certificate (MTC), Retail production management system, SSSC/Pallet label	
Transfer Certificate number	A unique certificate number issued for traceability purposes.	Yes	Meat Transfer Certificate (MTC), Retail production management system	For more information visit the Department of Agriculture, Water and the Environment website.
Transport registration number	The registration number of the vehicle in which the animals or product were transported. For shipments of product this will be a shipping container number.	Yes	Delivery Docket/Manifest, Meat Transfer Certificate (MTC), Retail production management system	

5.2.3.5.3 Physical Outputs including Critical Tracking Events (CTEs)

Retail ready meat products are the outputs of the butcher system. Being purchased by consumers, CTE documentation includes the product label and receipt of purchase with product exiting the system being recorded in the retailer's production management system.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with the outputs of the butcher system include the movement of:

* Retail Ready Product

off the property, premises, or supply chain sector.

Table 102. Physical outputs and associated Critical Tracking Event related documents for a beef butcher system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Retail Ready Product	These are packaged meat products that are ready to be retailed and purchased by consumers.	Retail product label, Receipt of purchase/Tax Invoice, Retail production management system	

5.2.3.5.4 Information Outputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). Information outputs from the butcher system include KDEs which can be drawn from CTE

documentation such as the product label and receipt of purchase. This may include purchase date, product code and application identifiers on the GS1 barcode.

Table 103. Information outputs, Key Data Elements and Critical Tracking Event related documentation for a beef butcher system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Receipt of purchase/Tax Invoice, Retail production management system	
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Receipt of purchase/Tax Invoice, Retail production management system	
GS1 compliant numbering and barcode	Numbering and barcode compliant to the GS1 standards and as specified by the contract between the seller and the recipient i.e., retailer.	Yes	Retail product label, Retail production management system	For more information visit the GS1 website.
MSA Licence Number	Any establishment consigning, supplying, or identifying MSA Certified Product must be registered and have a unique MSA Licence Number.	Yes	Receipt of purchase/Tax Invoice, Retail production management system	For more information on MSA visit the MLA website.
Recipient Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Receipt of purchase/Tax Invoice, Retail production management system	For more information visit the ATO website.
Seller/Supplier Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Receipt of purchase/Tax Invoice, Retail production management system	For more information visit the ATO website.

5.2.3.5.5 Regulatory and Industry Programs

- * Meat Standards Australia (MSA)
- * AUS-MEAT
- * Australian Meat Industry Council (AMIC)
- * Department of Agriculture
- * Meat Messaging

- * Other data sources
- * State food authority

5.2.3.5.6 Supply Chain Node Traceability

The traceability of retail ready product back to the live animal and property of origin is dependent on the form in which product enters the retail premises. This may include whole carcass, cartoned or palletised form. Further, the level of traceability for each input form is dependent on the packaging processes of the retailer. For example, whole carcass product may or may not be fully traceable back to the live animal. Where this is true, carcasses are broken down into retail cuts on site and may be packaged individually and labelled with a unique, serialised retail label. For this product, traceability back to the live animal is possible and can be done by the processing establishment where the animal was slaughtered. Here, carcasses are issued a carcass ticket which correlates to the live animal NLIS ID tag and contains key information, including body number, processing establishment number and production date or 'kill date'. This information is uploaded to the NLIS Database, by the processor, under the processing establishments Property Identification Code (PIC). Thus, there is the potential to trace whole carcasses entering retail premises back to the individual live animal and property of origin. Where carcass retail cuts are not individually packaged or are derived from palletised or cartoned product, retail ready product may have the same batch traceability limitations as per boning room and value-added product. Please refer to Boning room and Value Added 'Supply Chain Node Traceability' for more information.

5.2.3.5.7 Data flow diagrams

Table 104. Data flow diagrams for the inputs and outputs of a beef butcher system

Direction	Description
Input	Independent Boning Room to Butcher
Input	Third Party Cold Store to Butcher
Input	Value Add to Butcher
Input	Cold Store (carcass) to Butcher
Input	Cold Store (cartons) to Butcher

5.2.3.5.7.1 Independent Boning Room to Butcher

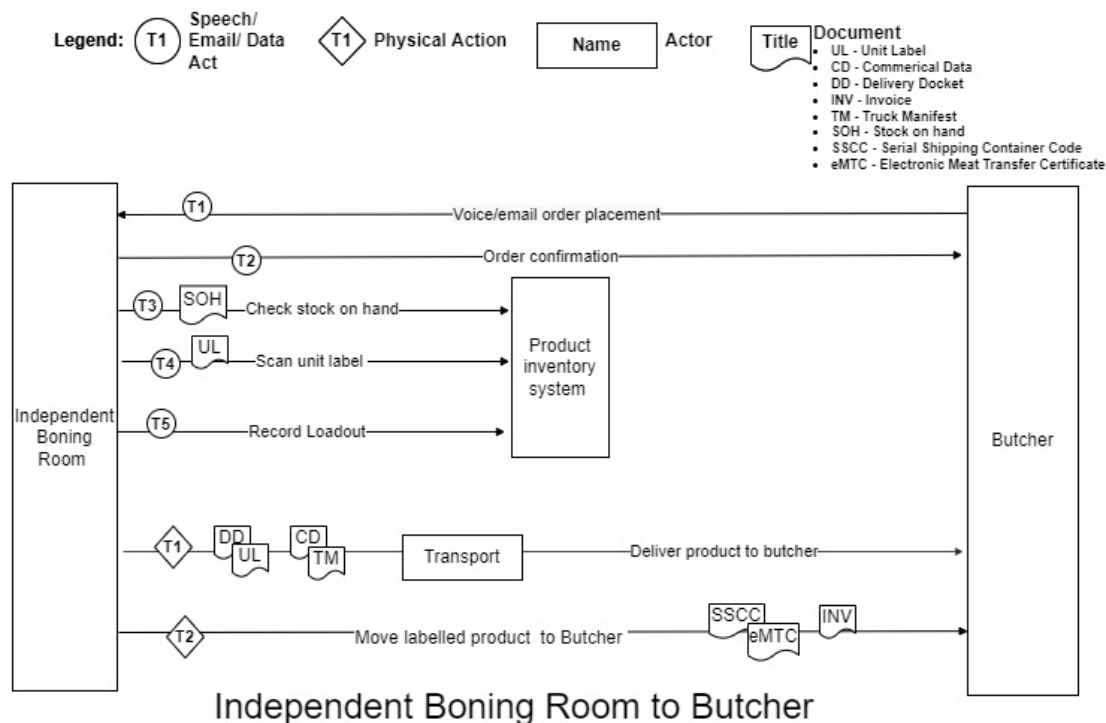


Figure 125. Data or information flows from the independent boning room to butcher systems in the beef supply chain.

5.2.3.5.7.2 Third Party Cold Store to Butcher

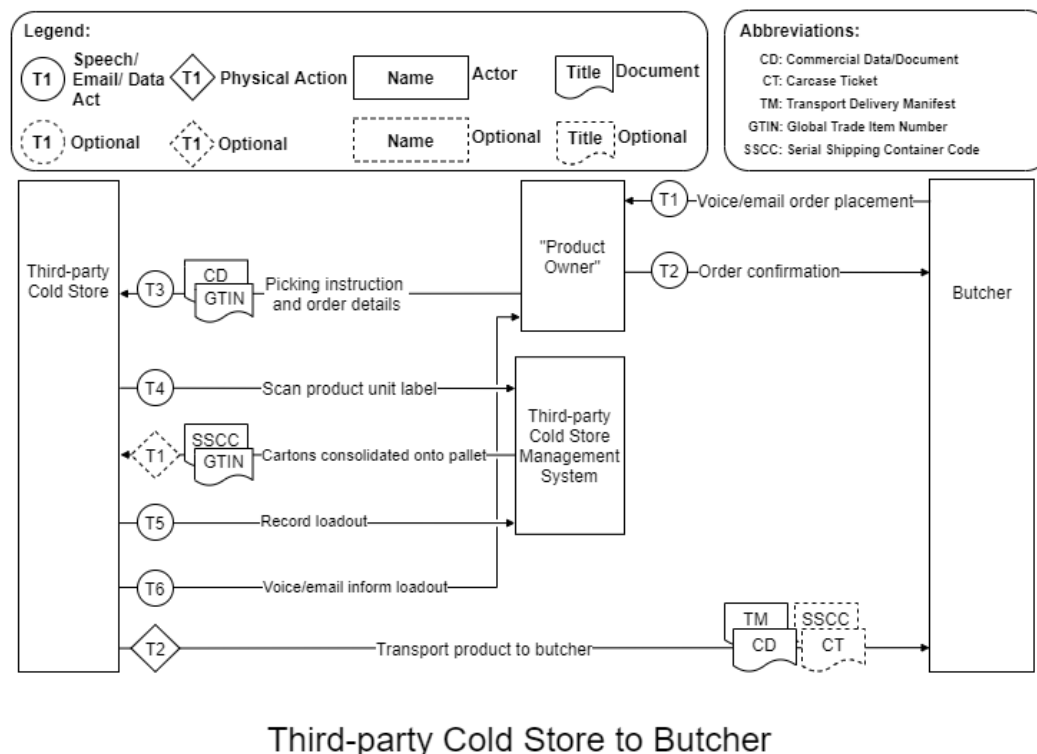


Figure 126. Data or information flows from the third party cold store to butcher systems in the beef supply chain.

5.2.3.5.7.3 Value Add to Butcher

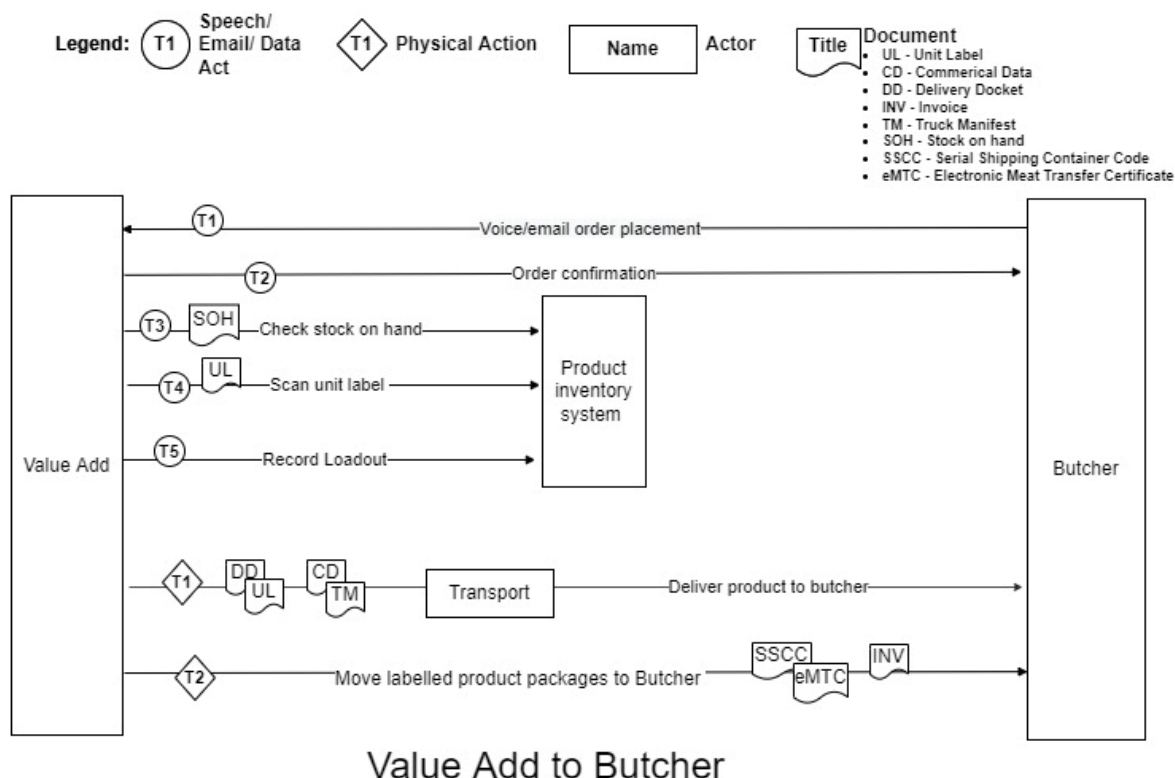


Figure 127. Data or information flows from the value add to butcher systems in the beef supply chain.

5.2.3.5.7.4 Cold Store (carcase) to Butcher

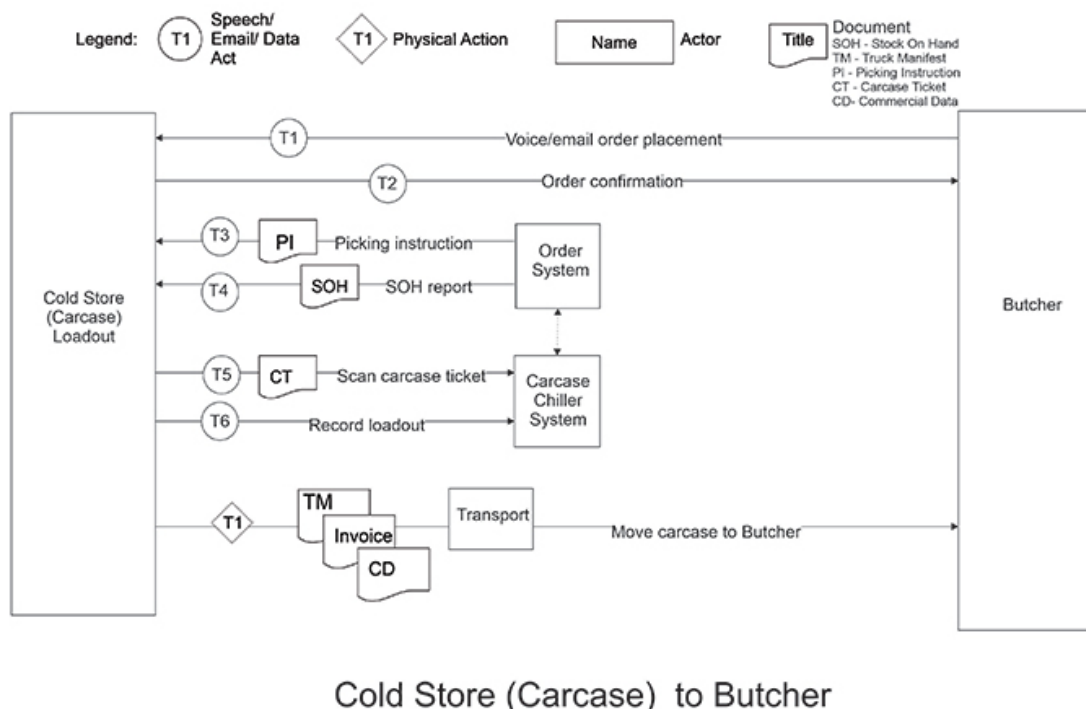
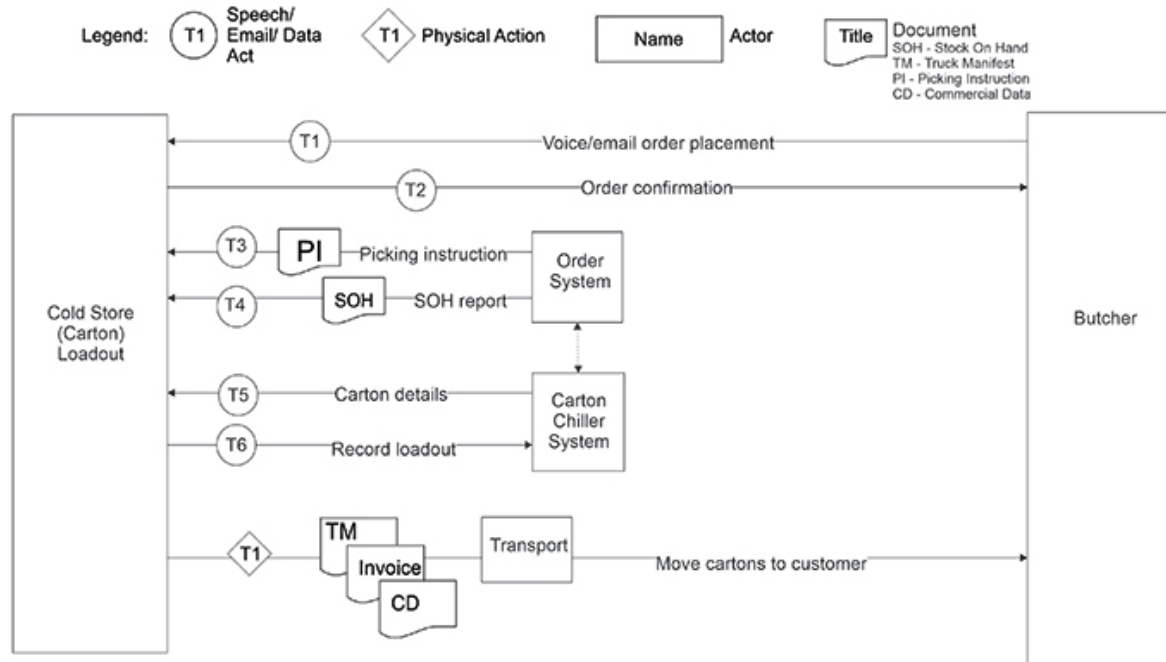


Figure 128. Data or information flows from the cold store (carcase) to the butcher systems in the beef supply chain.

5.2.3.5.7.5 Cold Store (carton) to Butcher



Cold Store (Carton) Loadout to Butcher

Figure 129. Data or information flows from the cold store (carton) loadout to butcher systems in the beef supply chain.

5.2.3.6 Food services

The food service sector includes those businesses which prepare meat products for consumption outside the home and may include schools, catering, cafes, restaurants, and other eateries. Product may be received in carcase or cartoned form and be sourced directly from the processor cold stores, independent boning room, third-party cold store, or value-adder. After preparation (curing or cooking) meals are purchased by the consumer.

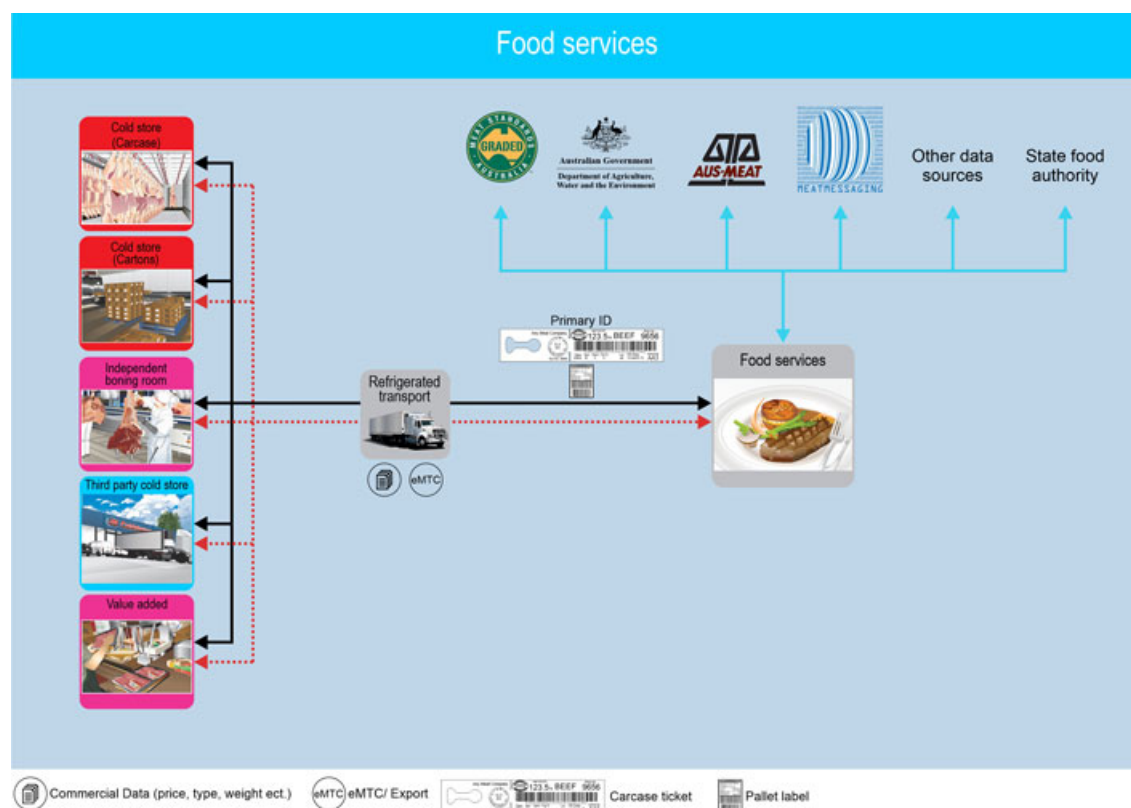


Figure 130. Inputs and outputs of the beef supply chain food services sector.

5.2.3.6.1 Physical Inputs including Critical Tracking Events (CTEs)

The inputs to the food service system include carcase, carton, or palletised product. Critical Tracking Event related documentation for the movement of product into the food service system includes standard movement documentation such as the Delivery Docket/Manifest, Meat Transfer Certificate, carton, and pallet labels.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with inputs to the food services system include the receipt of:

- * Carcase
- * Carton
- * Pallet.

Table 105. Physical inputs and associated Critical Tracking Event related documents for a beef food services system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Carcase	The body of a slaughtered animal after bleeding. Becomes a dressed carcase when hide, head, feet and offal are removed.	Carcase Ticket, Delivery Docket/Manifest, Meat Transfer Certificate (MTC), MSA Carcase Ticket, Retail production management system, Receipt of purchase/Tax Invoice	

Carton	This is a case, crate, or barrel of product.	Carton label, Delivery Docket/Manifest, Meat Transfer Certificate (MTC), Official seal, Retail production management system, Receipt of purchase/Tax Invoice	
Pallet	A logistic unit which includes a number of cartons or goods items packed together for transport or storage purposes.	Delivery Docket/Manifest, Meat Transfer Certificate (MTC), Retail production management system, Receipt of purchase/Tax Invoice, SSCC/Pallet label	

5.2.3.6.2 Information Inputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). Information inputs or KDEs for the movement of meat product into the food service system can be found on Critical Tracking Event related documentation and is stored in the retailer's production management system.

Table 106. Information inputs, Key Data Elements and Critical Tracking Event related documentation for a beef food services system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Body number	This is a number assigned to each carcase by the processor for identification purposes.	Yes	Carcase Ticket, Retail production management system	
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Carton label, Receipt of purchase/Tax Invoice, Retail production management system, SSCC/Pallet label	
Consignment Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., shipment/message that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Meat Transfer Certificate (MTC), Retail production management system, SSCC/Pallet label	For more information visit the GS1 website.
Contract number	This is a unique number allocated to the contract by the seller.	Yes	Delivery Docket/Manifest, Retail production management system	

Count of Trade Items	Usually encoded in the GS1 barcode, this is the number of trade items e.g., cartons in the logistic unit.	Yes	Delivery Docket/Manifest, Retail production management system, SSCC/Pallet label	For more information visit the GS1 website.
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Delivery Docket/Manifest, Meat Transfer Certificate (MTC), Receipt of purchase/Tax Invoice, Retail production management system	
Delivery Docket/Manifest number	This is a unique number allocated to the docket for identification purposes.	Yes	Delivery Docket/Manifest, Retail production management system	
From Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Carcase Ticket, Carton label, Delivery Docket/Manifest, Meat Transfer Certificate (MTC), Retail production management system, SSCC/Pallet label	
Global Trade Item Number (GTIN)	Encoded in the GS1 barcode, the GTIN is a globally unique 14-digit number used to identify trade items, products, or services.	Yes	Carcase Ticket, Carton label, Retail production management system, SSCC/Pallet label	For more information visit the GS1 website.
GTIN of Contained Trade Items	Encoded in the GS1 barcode, the GTIN of the contained trade items is a globally unique 14-digit number used to identify trade items, products, or services in the logistic unit.	Yes	Retail production management system, SSCC/Pallet label	For more information visit the GS1 website.
Lot number	A lot is a number assigned by the processor to each group of cattle consigned to slaughter and is usually vendor specific.	Yes	Carcase Ticket, Retail production management system	
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Delivery Docket/Manifest, Meat Transfer Certificate (MTC),	

			Retail production management system	
MSA Licence Number	Any establishment consigning, supplying, or identifying MSA Certified Product must be registered and have a unique MSA Licence Number.	Yes	Receipt of purchase/Tax Invoice, Retail production management system	For more information on MSA visit the MLA website.
Net Weight (Kilograms)	Usually encoded in the GS1 barcode, the Net Weight is a variable measure of the trade item e.g., carton, pallet or shipment recorded in kilograms.	Yes	Carcase Ticket, Carton label, Retail production management system, SSCC/Pallet label	For more information visit the GS1 website.
Official mark	Any stamp, seal, label, or mark that is declared by the regulations to be an official mark. An official mark signifies that the product has been inspected by and approved as safe for human consumption by an Authorised Officer.	Yes	Carcase Ticket, Carton label, Retail production management system, SSCC/Pallet label	For more information visit the Australian Government Federal Register of Legislation.
Order date	This is the date on which the purchase order or contract was raised by the buyer.	Yes	Delivery Docket/Manifest, Retail production management system	
Packaging Date	Encoded in the GS1 barcode, the Packaging Date is the date on which the item was packaged and is recorded in the format year, month, day (YYMMDD).	Yes	Carton label, Retail production management system, SSCC/Pallet label	For more information visit the GS1 website.
Packaging Date Range	This includes the oldest and newest packaging dates for the logistic unit.	Yes	Retail production management system, SSCC/Pallet label	
Pallet Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., pallet that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Meat Transfer Certificate (MTC), Retail production management system, SSCC/Pallet label	For more information visit the GS1 website.
Production Date (YYMMDD)	Encoded in the GS1 barcode, this is the 'kill' or slaughter' date of the product and is recorded in the format year, month, day (YYMMDD).	Yes	Carcase Ticket, Meat Transfer Certificate (MTC), Retail	For more information visit the GS1 website.

			production management system	
Recipient Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Receipt of purchase/Tax Invoice, Retail production management system	For more information visit the ATO website.
Seal Serial Number	This is a unique serial number printed on any tamper-evident seal issued by the Department.	Yes	Meat Transfer Certificate (MTC), Official seal, Retail production management system	For more information visit the Australian Government Federal Register of Legislation.
Seller/Supplier Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Receipt of purchase/Tax Invoice, Retail production management system	For more information visit the ATO website.
Serial Number	Encoded in the GS1 barcode, this is a code, numeric or alphanumeric, assigned to an individual instance of an item for its lifetime.	Yes	Carcase Ticket, Carton label, Retail production management system	For more information visit the GS1 website.
Shipping Mark	Also known as a port mark, this is a code comprising of three letters representing the foreign establishment number and the last nine digits of the consignment SSCC.	Yes	Delivery Docket/Manifest, Retail production management system, SSCC/Pallet label	
To Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Meat Transfer Certificate (MTC), Retail production management system	
Trade description	This is a collective set of words that says what the product is and may include information such as species, net weight of product, name and address of establishments, category ciphers, market endorsements, MSA eating quality etc.	Yes	Carcase Ticket, Carton label, Delivery Docket/Manifest, Meat Transfer Certificate (MTC), Retail production management system, SSCC/Pallet label	

Transfer Certificate number	A unique certificate number issued for traceability purposes.	Yes	Meat Transfer Certificate (MTC), Retail production management system	For more information visit the Department of Agriculture, Water and the Environment website.
Transport registration number	The registration number of the vehicle in which the animals or product were transported. For shipments of product this will be a shipping container number.	Yes	Delivery Docket/Manifest, Meat Transfer Certificate (MTC), Retail production management system	
MSA eating quality group/grade	This identifies carcasses with similar MSA and eating quality grades, these may align with brands packed by the processor for logistic simplicity. Carcasses are grouped for boning according to eating quality grades.	Yes	MSA Carcase Ticket	For more information on MSA visit the MLA website.

5.2.3.6.3 Physical Outputs including Critical Tracking Events (CTEs)

Retail ready meat products are the outputs of the food service system. Being purchased by consumers, CTE documentation may include the product label and receipt of purchase with product exiting the system being recorded in the retailer's production management system.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with the outputs of the food services system include the movement of:

* Retail Ready Product

off the property, premises, or supply chain sector.

Table 107. Physical outputs and associated Critical Tracking Event related documents for a beef food services system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Retail Ready Product	These are packaged meat products that are ready to be retailed and purchased by consumers.	Retail product label, Receipt of purchase/Tax Invoice, Retail production management system	

5.2.3.6.4 Information Outputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). Information outputs from the food service system include KDEs which can be drawn from

CTE documentation such the product label and receipt of purchase. This may include purchase date, product code and application identifiers on the GS1 barcode.

Table 108. Information outputs, Key Data Elements and Critical Tracking Event related documentation for a beef food services system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Receipt of purchase/Tax Invoice, Retail production management system	
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Receipt of purchase/Tax Invoice, Retail production management system	
GS1 compliant numbering and barcode	Numbering and barcode compliant to the GS1 standards and as specified by the contract between the seller and the recipient i.e., retailer.	Yes	Retail product label, Retail production management system	For more information visit the GS1 website.
MSA Licence Number	Any establishment consigning, supplying, or identifying MSA Certified Product must be registered and have a unique MSA Licence Number.	Yes	Receipt of purchase/Tax Invoice, Retail production management system	For more information on MSA visit the MLA website.
Recipient Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Receipt of purchase/Tax Invoice, Retail production management system	For more information visit the ATO website.
Seller/Supplier Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Receipt of purchase/Tax Invoice, Retail production management system	For more information visit the ATO website.

5.2.3.6.5 Regulatory and Industry Programs

- * Meat Standards Australia (MSA)
- * AUS-MEAT
- * Australian Meat Industry Council (AMIC)
- * Department of Agriculture
- * Meat Messaging

- * Other data sources
- * State food authority

5.2.3.6.6 Supply Chain Node Traceability

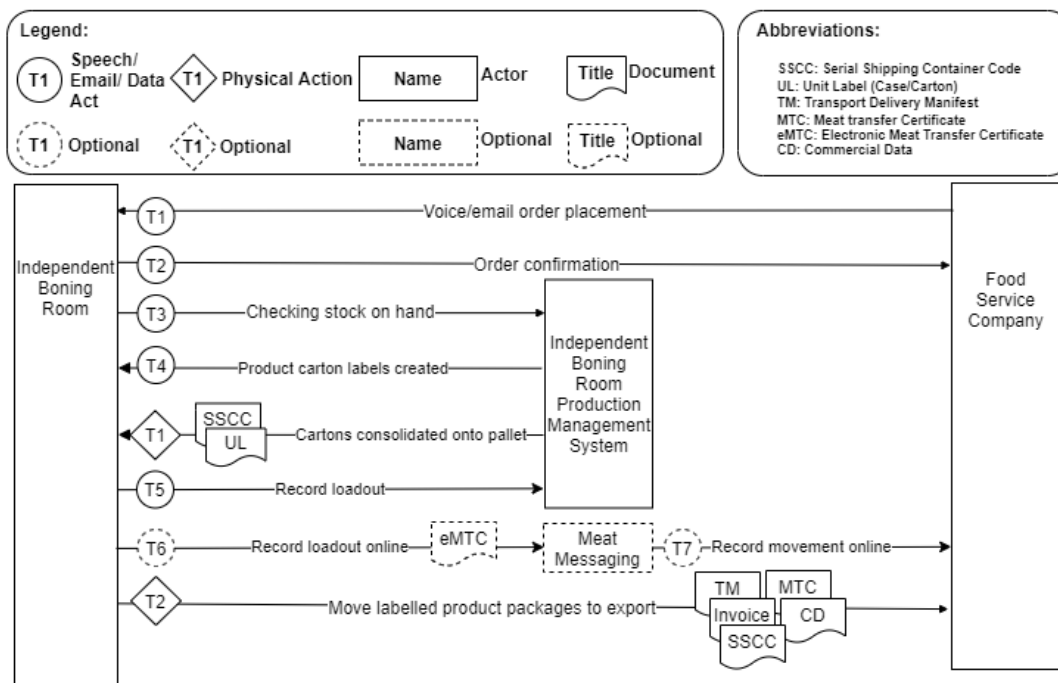
The traceability of retail ready product back to the live animal and property of origin is dependent on the form in which product enters the retail premises. This may include whole carcass, cartoned or palletised form. Further, the level of traceability for each input form is dependent on the packaging processes of the retailer. For example, whole carcass product may or may not be fully traceable back to the live animal. Where this is true, carcasses are broken down into retail cuts on site and may be packaged individually and labelled with a unique, serialised retail label. For this product, traceability back to the live animal is possible and can be done by the processing establishment where the animal was slaughtered. Here, carcasses are issued a carcass ticket which correlates to the live animal NLIS ID tag and contains key information, including body number, processing establishment number and production date or 'kill date'. This information is uploaded to the NLIS Database, by the processor, under the processing establishments Property Identification Code (PIC). Thus, there is the potential to trace whole carcasses entering retail premises back to the individual live animal and property of origin. Where carcass retail cuts are not individually packaged or are derived from palletised or cartoned product, retail ready product may have the same batch traceability limitations as per boning room and value-added product. Please refer to Boning room and Value Added 'Supply Chain Node Traceability' for more information.

5.2.3.6.7 Data flow diagrams

Table 109. Data flow diagrams for the inputs and outputs of a beef food service system

Direction	Description
Input	Independent Boning Room to Food Service
Input	Third Party Cold Store to Food Service
Input	Value Add to Food Service
Input	Cold Store (carcass) to Food Service
Input	Cold Store (cartons) to Food Service

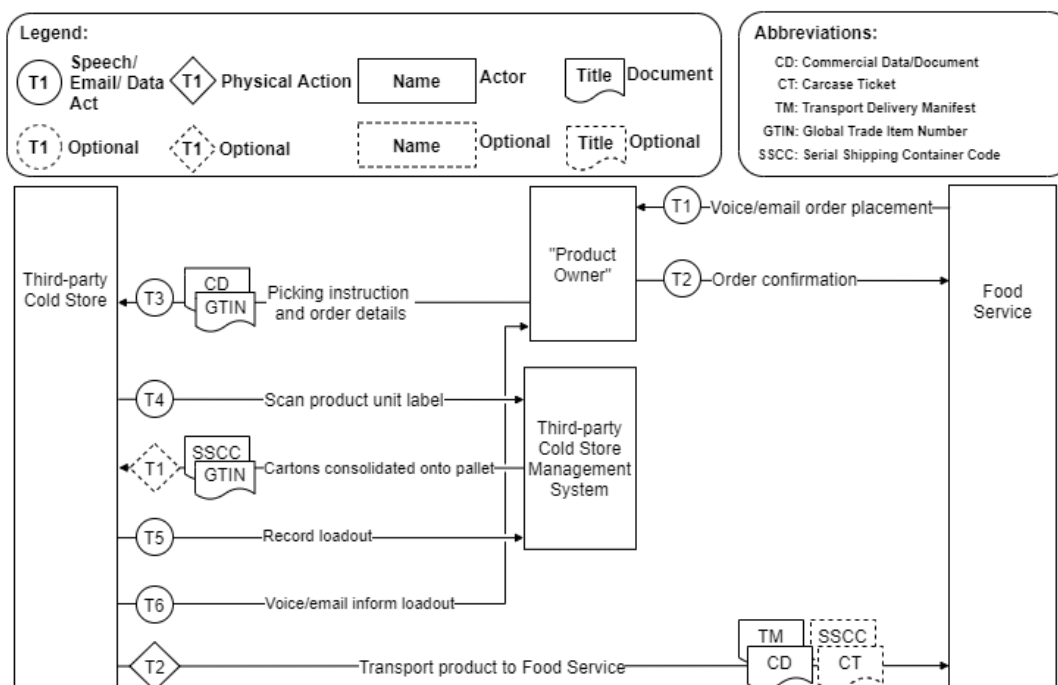
5.2.3.6.7.1 Independent Boning Room to Food Service



Independent Boning Room to Food Service

Figure 131. Data or information flows from the independent boning room to food service systems in the beef supply chain.

5.2.3.6.7.2 Third Party Cold Store to Food Service



Third-party Cold Store to Food Service

Figure 132. Data or information flows from the third party cold store to food service systems in the beef supply chain.

5.2.3.6.7.3 Value Add to Food Service

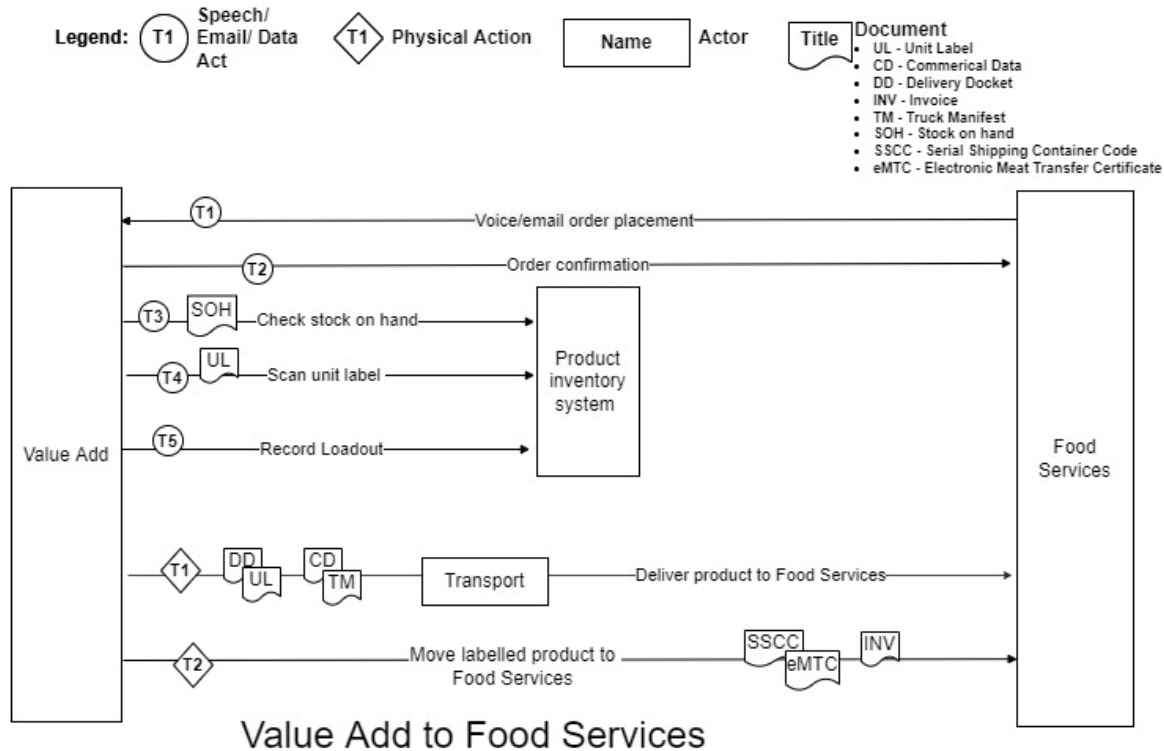


Figure 133. Data or information flows from the value add to food service systems in the beef supply chain.

5.2.3.6.7.4 Cold Store (carcase) to Food Service

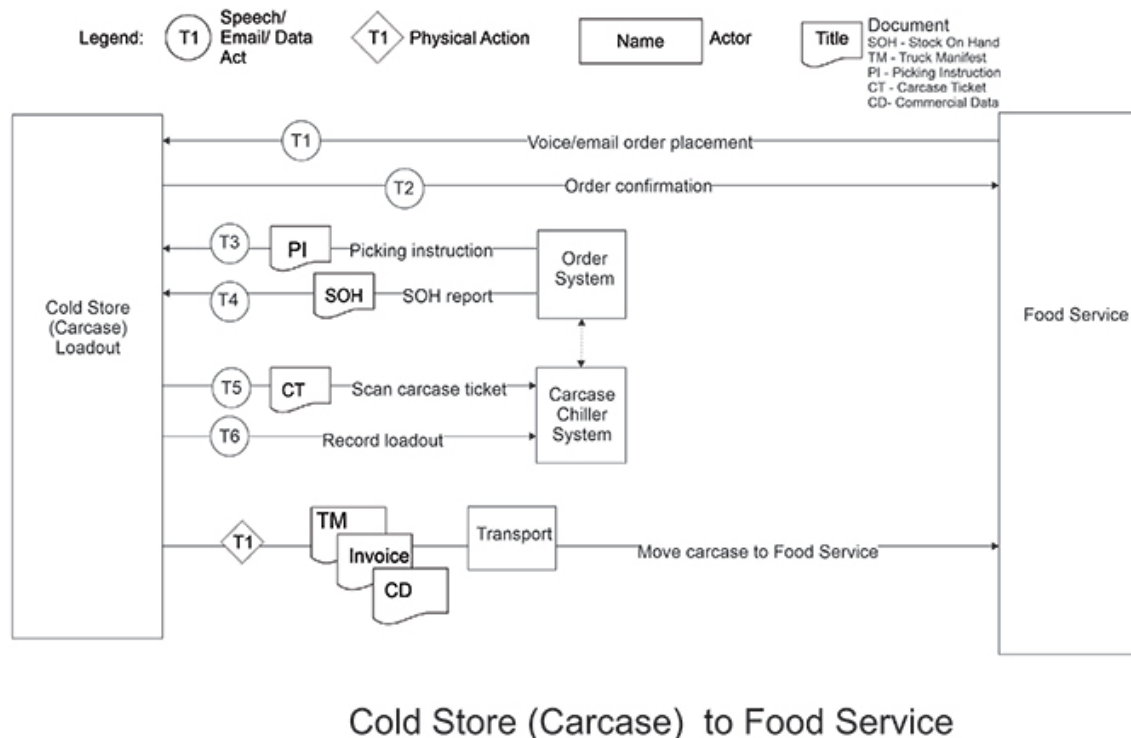
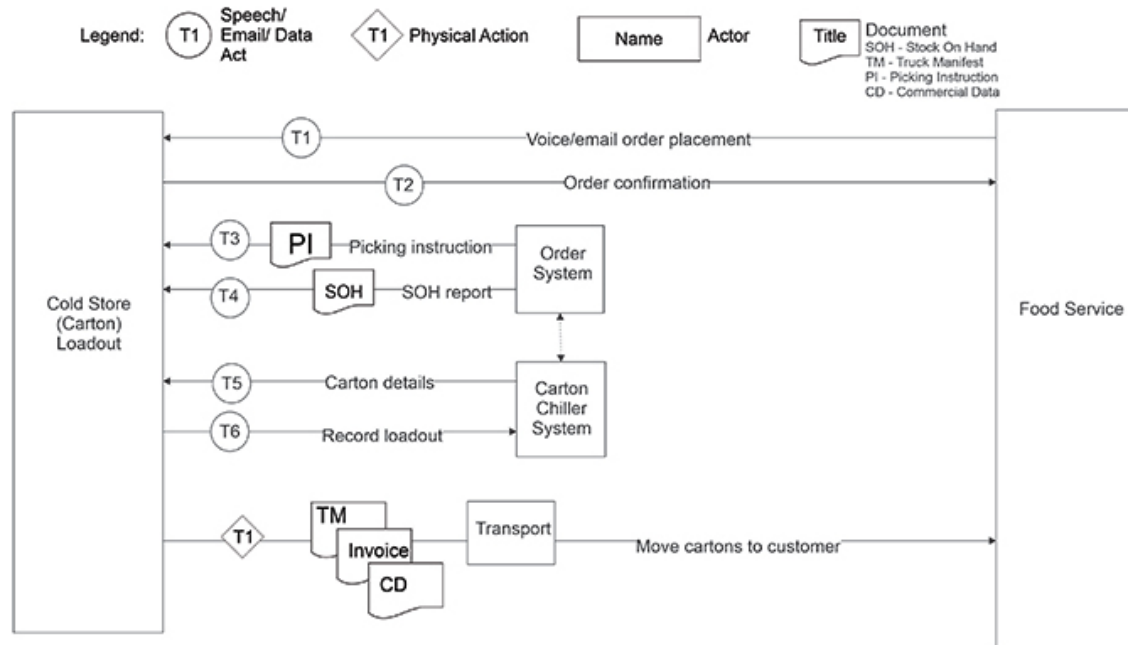


Figure 134. Data or information flows from the cold store (carcase) to food service systems in the beef supply chain.

5.2.3.6.7.5 Cold Store (cartons) to Food Service



Cold Store (Carton) Loadout to Food Service

Figure 135. Data or information flows from the cold store (carton) loadout to food service in the beef supply chain.

5.2.4 Exporting Country - Cross-sector

5.2.4.1 Livestock transport

Livestock transport is the process whereby animals are moved from one property to another by a mode of transport, most commonly truck. This journey requires careful preparation to ensure that animal stress as well as any risks to welfare is minimised. The Australian Animal Welfare Standards and Guidelines, Land Transport and Livestock outline the transportation requirements for livestock movement and are regulated by State legislation. General guidelines state that the livestock should be fit for transport; handled correctly by professionals; that transportation facilities are adequate for the transfer of livestock; that the journey is planned to ensure delivery at the correct time; and that the livestock are cared for, protected, treated for any injury or disease, and supplied adequate feed, water, and shelter for the duration of the transport.

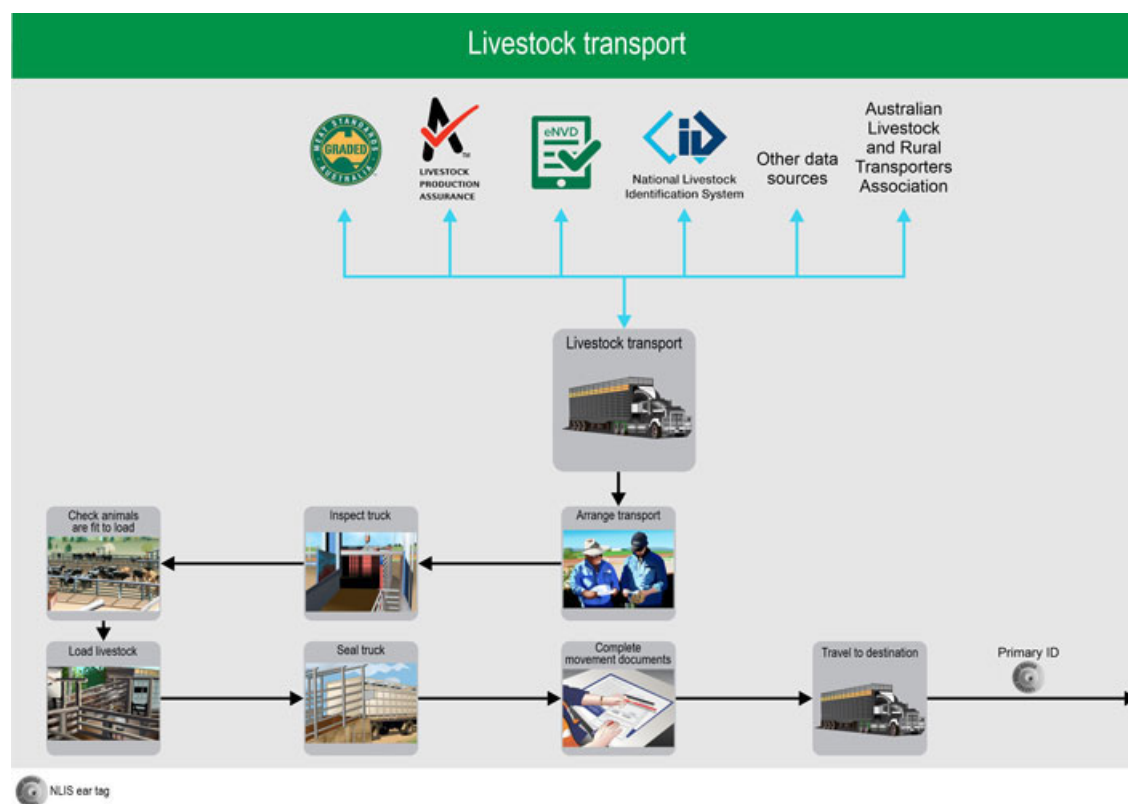


Figure 136. Inputs and outputs of the beef supply chain livestock transport sector.

5.2.4.1.1 Physical Inputs including Critical Tracking Events (CTEs)

There are few physical inputs for the transportation of livestock. Inputs not only include the cattle, but those materials required to ensure that animal welfare standards and guidelines are met whilst livestock are in transit.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with inputs to the livestock transport system include the receipt of:

- * Cattle
- * Feed supplies and supplements
- * NLIS ID tags.

Table 110. Physical inputs and associated Critical Tracking Event related documents for a beef livestock transport system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Cattle	These are bovine livestock and may include any type of cattle e.g., cull cattle, calves etc.	Commercial supply contract, Feed and water record, MSA Declaration, NFAS Agents Declaration, NFAS Delivery Docket or Form B, NLIS Movement Update, NVD, Post Sale Summary, Receipt of purchase/Tax	

		Invoice, State specific movement forms	
Feed supplies and supplements	These are supplementary animal feed products such as hay or silage fodder, or mineral supplements which are provided to ensure the production efficiency and health of livestock are maintained. This may also include clean drinking water e.g., where livestock are in transit or at saleyards.	Commodity Vendor Declaration (CVD), Receipt of purchase/Tax Invoice	
NLIS ID tags	These are animal identification tags with a unique number which must be attached to animal moved off a PIC for traceability purposes.	NLIS Movement Update	

5.2.4.1.2 Information Inputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). Information inputs for the movement of cattle are those related to the CTE documents and ensuring the health and welfare of the livestock themselves.

Table 111. Information inputs, Key Data Elements and Critical Tracking Event related documentation for a beef livestock transport system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Agreement date	This is the date on which an agreement between two parties was made.	Yes	Commercial supply contract	
APVMA approval number	This is a unique number allocated to each label by the APVMA.	Yes	Commodity Vendor Declaration, NVD	For more information visit the Australian Pesticides and Veterinary Medicine Authority.
Batch number	This is a unique number which identifies products sharing certain production characteristics and is used for traceability purposes.	Yes	Commodity Vendor Declaration, NVD	

Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Feed and water record, Receipt of purchase/Tax Invoice	
Contract number	This is a unique number allocated to the contract by the seller.	Yes	Commercial supply contract, Commodity Vendor Declaration	
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Commercial supply contract, Commodity Vendor Declaration, Feed and water record, MSA Declaration, NFAS Agents Declaration, NFAS Delivery Docket or Form B, NVD, Post Sale Summary, Receipt of purchase/Tax Invoice, State specific movement forms	
From PIC	The Property Identification Code from/to where the livestock or product were consigned.	Yes	Commodity Vendor Declaration, MSA Declaration, NFAS Delivery Docket or Form B, NLIS Movement Update, NVD, Post Sale Summary, State specific movement forms	For more information visit the Integrity systems website.
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Commercial supply contract, Commodity Vendor Declaration, MSA Declaration, NFAS Agents Declaration, NFAS Delivery Docket or Form B, NLIS Movement Update, NVD, State specific movement forms	
Movement time	This is the time at which cattle were moved from the property (PIC) of origin. Direct consignments travelling to processors by road must be slaughtered with 48 hours of dispatch.	Yes	MSA Declaration	
MSA Declaration Serial Number	Each MSA Declaration form has a unique serial number.	Yes	MSA Declaration	For more information on MSA visit the MLA website.
MSA Licence Number	Any establishment consigning, supplying, or identifying MSA Certified Product must be	Yes	MSA Declaration, Receipt of purchase/Tax Invoice	For more information on

	registered and have a unique MSA Licence Number.			MSA visit the MLA website.
National Grower Registration Number	A unique number assigned to individuals registered with the National Grower Register, an online business register for Australian growers.	Yes	Commodity Vendor Declaration	
NFAS Accreditation Number	This is a unique number given to accredited feedlots certified under the National Feedlot Accreditation Scheme (NFAS).	Yes	NFAS Delivery Docket or Form B	For more information visit the AUS-MEAT website.
NFAS Delivery Docket Number	Each NFAS document has a unique number or identity code.	Yes	NFAS Agents Declaration	For more information visit the AUS-MEAT website.
NLIS Tag Number/RFID	All animals transported between PICs must have a permanent National Livestock Identification System tag attached. This tag has a unique animal identification number.	Yes	NLIS Movement Update	For more information visit the Integrity systems website.
NVD Serial Number	Each NVD form has a unique serial number.	Yes	NFAS Delivery Docket or Form B, NLIS Movement Update, NVD, Post Sale Summary	For more information visit the Integrity systems website.
Producer/Vendor MSA Registration Number	Producers consigning cattle to MSA markets are required to be registered and have a unique MSA Registration Number.	Yes	MSA Declaration	For more information on MSA visit the MLA website.
Product code/description	This is a unique identifier or description assigned by the seller to each product type marketed or for sale.	Yes	Commodity Vendor Declaration	
Quality Assurance Officer (QAO) Certificate Number	A unique number issued to personnel issued with a Statement of Authority for demonstrating skills for	Yes	NFAS Delivery Docket or Form B	For more information visit the AUS-MEAT website.

	compliance with meeting NFAS Rules and Standards.			
Recipient Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Feed and water record, Receipt of purchase/Tax Invoice	For more information visit the ATO website.
Seller/Supplier Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Feed and water record, Receipt of purchase/Tax Invoice	For more information visit the ATO website.
To PIC	The Property Identification Code from/to where the livestock or product were consigned.	Yes	Commodity Vendor Declaration, NLIS Movement Update, NVD, Post Sale Summary, State specific movement forms	For more information visit the Integrity systems website.
Transport registration number	The registration number of the vehicle in which the animals or product were transported. For shipments of product this will be a shipping container number.	Yes	NVD	
Treatment date	The date on which a treatment or product was applied to a unit e.g., paddock, animal, fodder etc.	Yes	Commodity Vendor Declaration, Feed and water record, NVD	

5.2.4.1.3 Physical Outputs including Critical Tracking Events (CTEs)

Physical outputs for the transportation of cattle are limited to the cattle themselves.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with the outputs of the livestock transport system include the movement of:

* Cattle

off the property, premises, or supply chain sector.

Table 112. Physical inputs and associated Critical Tracking Event related documents for a beef livestock transport system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details

Cattle	These are bovine livestock and may include any type of cattle e.g., cull cattle, calves etc.	Commercial supply contract, Feed and water record, MSA Declaration, NFAS Agents Declaration, NFAS Delivery Docket or Form B, NLIS Movement Update, NVD, Post Sale Summary, Receipt of purchase/Tax Invoice, State specific movement forms	

5.2.4.1.4 Information Outputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). Information outputs related to livestock transport include that pertaining to the livestock themselves such as the NLIS ID tag number and any information to be passed on from feed and water records, as well as all other documents critical to the traceability of livestock movements.

Table 113. Information inputs, Key Data Elements and Critical Tracking Event related documentation for a beef livestock transport system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Agreement date	This is the date on which an agreement between two parties was made.	Yes	Commercial supply contract	
APVMA approval number	This is a unique number allocated to each label by the APVMA.	Yes	NVD	For more information visit the Australian Pesticides and Veterinary Medicine Authority.
Batch number	This is a unique number which identifies products sharing certain production characteristics and is used for traceability purposes.	Yes	NVD	
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Feed and water record, Receipt of purchase/Tax Invoice	
Contract number	This is a unique number allocated to the contract by the seller.	Yes	Commercial supply contract	
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Commercial supply contract, Feed and water record, MSA Declaration, NFAS Agents Declaration, NFAS Delivery Docket or Form B, NVD, Post	

			Sale Summary, Receipt of purchase/Tax Invoice, State specific movement forms	
From PIC	The Property Identification Code from/to where the livestock or product were consigned.	Yes	MSA Declaration, NFAS Delivery Docket or Form B, NLIS Movement Update, NVD, Post Sale Summary, State specific movement forms	For more information visit the Integrity systems website.
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Commercial supply contract, MSA Declaration, NFAS Agents Declaration, NFAS Delivery Docket or Form B, NLIS Movement Update, NVD, State specific movement forms	
Movement time	This is the time at which cattle were moved from the property (PIC) of origin. Direct consignments travelling to processors by road must be slaughtered with 48 hours of dispatch.	Yes	MSA Declaration	
MSA Declaration Serial Number	Each MSA Declaration form has a unique serial number.	Yes	MSA Declaration	For more information on MSA visit the MLA website.
MSA Licence Number	Any establishment consigning, supplying, or identifying MSA Certified Product must be registered and have a unique MSA Licence Number.	Yes	MSA Declaration, Receipt of purchase/Tax Invoice	For more information on MSA visit the MLA website.
NFAS Accreditation Number	This is a unique number given to accredited feedlots certified under the National Feedlot Accreditation Scheme (NFAS).	Yes	NFAS Delivery Docket or Form B	For more information visit the AUS-MEAT website.
NFAS Delivery Docket Number	Each NFAS document has a unique number or identity code.	Yes	NFAS Agents Declaration	For more information visit the AUS-MEAT website.
NLIS Tag Number/RFID	All animals transported between PICs must have a permanent National Livestock Identification System tag	Yes	NLIS Movement Update	For more information visit the Integrity

	attached. This tag has a unique animal identification number.			systems website.
NVD Serial Number	Each NVD form has a unique serial number.	Yes	NFAS Delivery Docket or Form B, NLIS Movement Update, NVD, Post Sale Summary	For more information visit the Integrity systems website.
Producer/Vendor MSA Registration Number	Producers consigning cattle to MSA markets are required to be registered and have a unique MSA Registration Number.	Yes	MSA Declaration	For more information on MSA visit the MLA website.
Quality Assurance Officer (QAO) Certificate Number	A unique number issued to personnel issued with a Statement of Authority for demonstrating skills for compliance with meeting NFAS Rules and Standards.	Yes	NFAS Delivery Docket or Form B	For more information visit the AUS-MEAT website.
Recipient Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Feed and water record, Receipt of purchase/Tax Invoice	For more information visit the ATO website.
Seller/Supplier Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Feed and water record, Receipt of purchase/Tax Invoice	For more information visit the ATO website.
To PIC	The Property Identification Code from/to where the livestock or product were consigned.	Yes	NLIS Movement Update, NVD, Post Sale Summary, State specific movement forms	For more information visit the Integrity systems website.
Transport registration number	The registration number of the vehicle in which the animals or product were transported. For shipments of product this will be a shipping container number.	Yes	NVD	
Treatment date	The date on which a treatment or product was applied to a unit e.g., paddock, animal, fodder etc.	Yes	Feed and water record, NVD	

5.2.4.1.5 Regulatory and Industry Programs

- * Australian Livestock and Rural Transporters Association (ALRTA)
- * eNVD
- * Livestock Production Assurance (LPA)
- * Meat Standards Australia (MSA)
- * National Livestock Identification System (NLIS)
- * Other data sources

5.2.4.1.6 Supply Chain Node Traceability

The National Livestock Identification System (NLIS) is the Australian livestock traceability program which is administered by Integrity Systems Company (ISC). Where stipulated by State legislation and certain export markets, the NLIS system requires all animals bought, sold, and moved along the supply chain to be tagged with an accredited NLIS ID tag. Each tag has an NLIS tag number or Radio Frequency Identifier (RFID) for the traceability of the animal throughout its lifetime. Every property which holds livestock must have a Property Identification Code (PIC) to which the livestock are assigned in the NLIS Database. Each time livestock are transferred between PICs within Australia they must be accompanied by a livestock movement declaration, such as the National Vendor Declaration (NVD) form. This document typically outlines the transporter details, consignment details, compliance with intended market specifications, withholding periods, and the details of the new property PIC. All livestock movements between PICs require an NLIS movement update to be made by either or both the consigner and receiver. Where NLIS ID tags are lost livestock must be issued with a new post-breeder tag if not on the PIC of birth and this reconciled in the NLIS Database.

5.2.4.1.7 Data flow diagrams

Table 114. Data flow diagrams for the inputs and outputs of a beef livestock transport system.

Direction	Description
Input	Details of movement of livestock
Output	Details of movement of livestock

5.2.4.1.7.1 Details of movement of Livestock

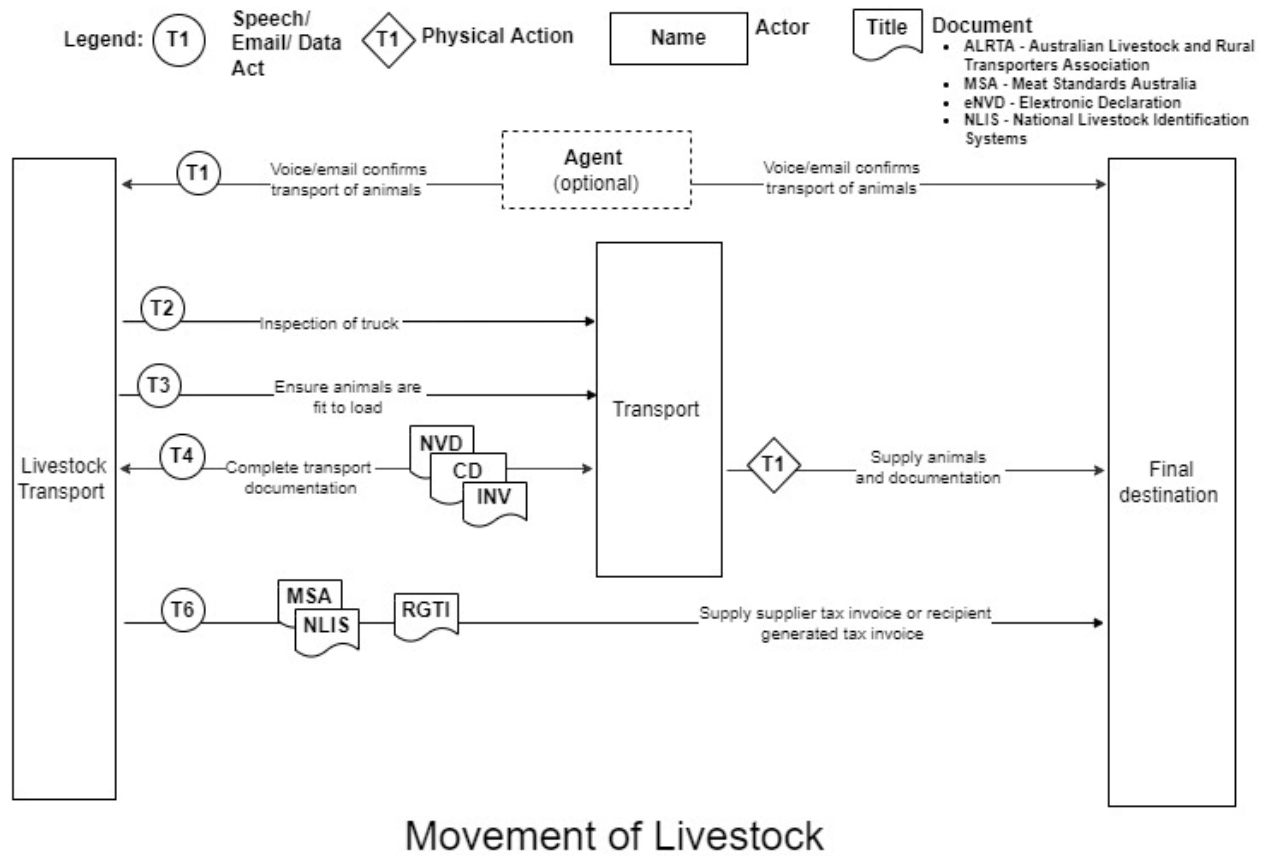


Figure 137. Data or information flows of movements of livestock in the beef supply chain.

5.2.4.1.7.2 Details of movement of Livestock

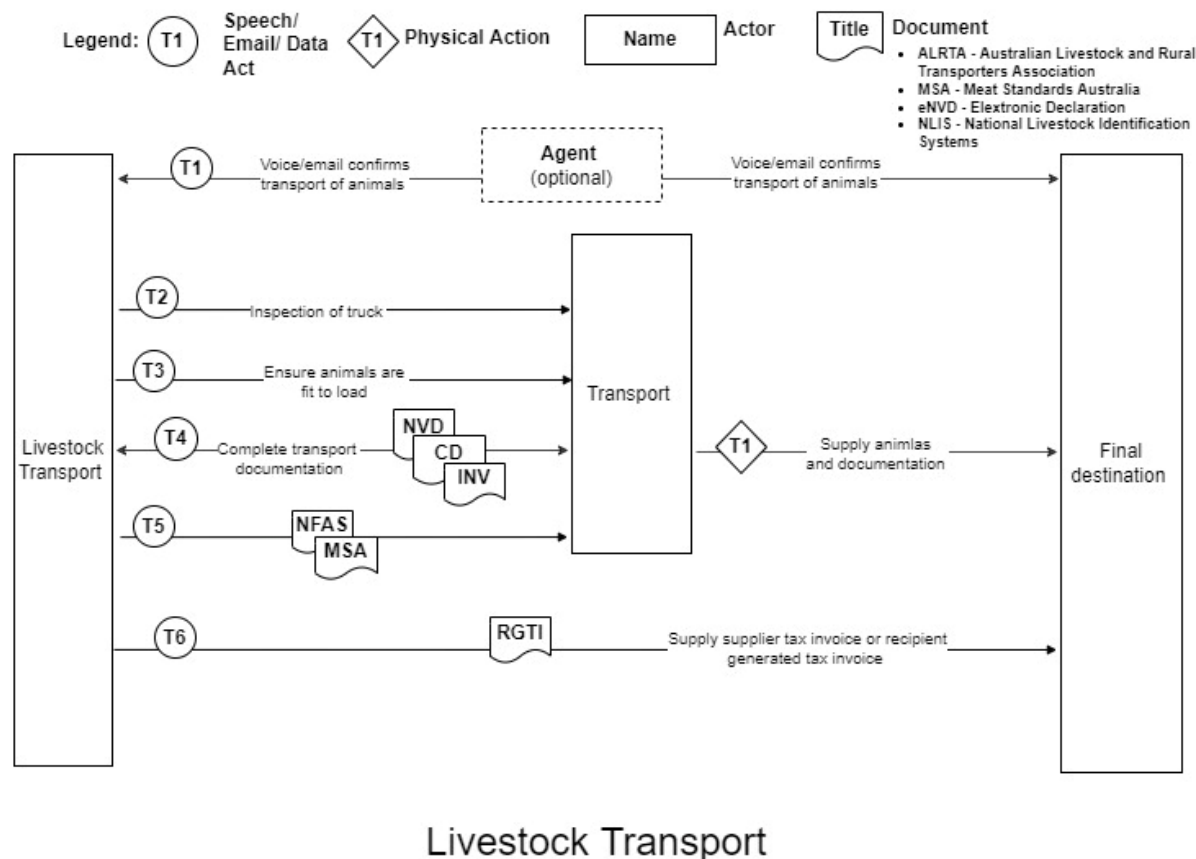


Figure 138. Data or information flows of livestock transport in the beef supply chain.

5.2.4.2 Refrigerated transport

Refrigerated transport involves the movement (including loading and unloading) of meat and meat products from one premises to another under conditions that ensure that product integrity and wholesomeness are maintained. Ensuring that adequate hygiene and temperature controls are complied with is integral to successful refrigerated transport. Product may be in carcase, cartoned, or palletised form and must be accompanied by Critical Tracking Event related documents such as the Meat Transfer Certificate (MTC).

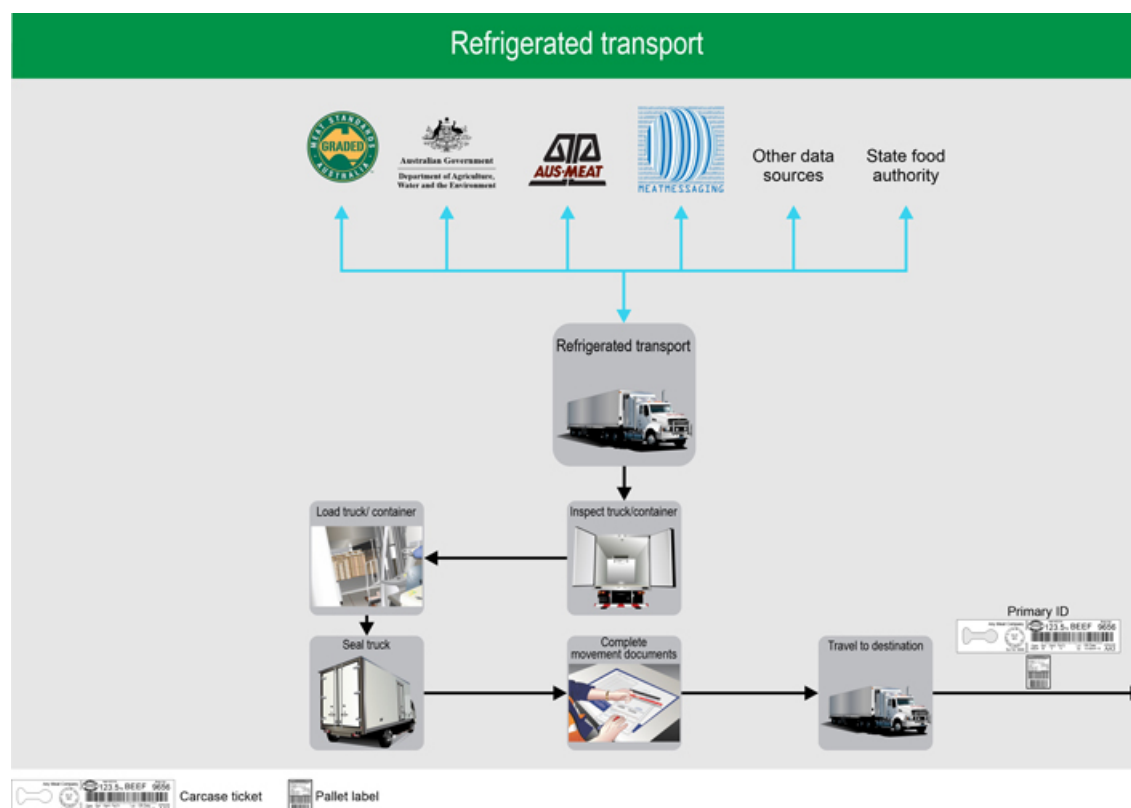


Figure 139. Inputs and outputs of the beef supply chain refrigerated transport sector.

5.2.4.2.1 Physical Inputs including Critical Tracking Events (CTEs)

Meat and meat products may be transported between various establishments such as cold stores, independent boning rooms, value adding facilities and retailing premises, as well as to exporting facilities. Therefore, the physical inputs to the refrigerated transport process may take various forms including product in carcase, carton or palletised form or product packed into shipping containers ready for export.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with inputs to the refrigerated transport system include the receipt of:

- * Carcase
- * Carton
- * Pallet
- * Container System Unit (meat and meat products).

Table 115. Physical inputs and associated Critical Tracking Event related documents for a beef refrigerated transport system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Carcase	The body of a slaughtered animal after bleeding. Becomes a dressed carcase	Carcase Ticket, Delivery Docket/Manifest, Meat Transfer Certificate (MTC), MSA Carcase Ticket, Receipt of purchase/Tax Invoice	

	when hide, head, feet and offal are removed.		
Carton	This is a case, crate, or barrel of product.	Carton label, Delivery Docket/Manifest, Meat Transfer Certificate (MTC), Official seal, Receipt of purchase/Tax Invoice	
Pallet	A logistic unit which includes a number of cartons or goods items packed together for transport or storage purposes.	Bill of lading/Air Waybill, Delivery Docket/Manifest, Export Health Certificate, Export Permit, Meat Transfer Certificate (MTC), Receipt of purchase/Tax Invoice, Certificate of Analysis (COA), SSCC/Pallet label	
Container System Unit (meat and meat products)	A container designed for use as a unit of cargo handling equipment in the transport of goods by aircraft or ship.	Bill of lading/Air Waybill, Delivery Docket/Manifest, Export Health Certificate, Export Permit, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), Official seal, Certificate of Analysis (COA), Receipt of purchase/Tax Invoice	

5.2.4.2.2 Information Inputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). Transport of product between establishments is a Critical Tracking Event. Therefore, the KDEs here can largely be found on transportation documentation such as the Bill of lading/Air Waybill, Meat Transfer Certificate (MTC), Export Health Certificate and Certificate of Analysis. Other documentation such as carcass tickets or carton/pallet labels will also contain KDEs.

Table 116. Information inputs, Key Data Elements and Critical Tracking Event related documentation for a beef refrigerated transport system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Analysis Date	This is the date on which a product sample was analysed.	Yes	Certificate of Analysis (COA)	
Bill of lading/Air Waybill document number	A unique document number issued for traceability purposes.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA)	
Body number	This is a number assigned to each carcass by the processor for identification purposes.	Yes	Carcass Ticket	
Certificate of Analysis number	A unique certificate number issued for traceability purposes.	Yes	Certificate of Analysis (COA)	

COA test lot identifier	This is a unique identifier allocated to all cartons, pallets, and shipping containers for which an analysis sample represents.	Yes	Certificate of Analysis (COA)	
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Bill of lading/Air Waybill, Carton label, Certificate of Analysis (COA), Receipt of purchase/Tax Invoice, SSSC/Pallet label	
Consignment Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., shipment/message that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Bill of lading/Air Waybill, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), SSSC/Pallet label	
Contract number	This is a unique number allocated to the contract by the seller.	Yes	Delivery Docket/Manifest	
Count of Pallets	This is the number of pallets in the logistic unit e.g., container system unit.	Yes	Meat Messaging Consignment Report	
Count of Trade Items	Usually encoded in the GS1 barcode, this is the number of trade items e.g., cartons in the logistic unit.	Yes	Bill of lading/Air Waybill, Delivery Docket/Manifest, Meat Messaging Consignment Report, SSSC/Pallet label	
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA), Delivery Docket/Manifest, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), Receipt of purchase/Tax Invoice	
Delivery Docket/Manifest number	This is a unique number allocated to the docket for identification purposes.	Yes	Delivery Docket/Manifest	
Export Health Certificate Number	A unique number allocated to the health certificate issued for the export consignment for traceability purposes.	Yes	Export Health Certificate, Meat Messaging Consignment Report	For more information visit the Australian Government Federal

				Register of Legislation.
Export Permit Number	A unique permit number is allocated for the export consignment following submission of a correct and validated Request For Permit (RFP) which is then approved by the Secretary.	Yes	Export Permit	For more information visit the Australian Government Federal Register of Legislation.
From Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Carcase Ticket, Carton label, Certificate of Analysis (COA), Delivery Docket/Manifest, Export Health Certificate, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), SSCC/Pallet label	
Global Trade Item Number (GTIN)	Encoded in the GS1 barcode, the GTIN is a globally unique 14-digit number used to identify trade items, products, or services.	Yes	Carcase Ticket, Carton label, Meat Messaging Consignment Report, SSCC/Pallet label	For more information visit the GS1 website.
GTIN of Contained Trade Items	Encoded in the GS1 barcode, the GTIN of the contained trade items is a globally unique 14-digit number used to identify trade items, products, or services in the logistic unit.	Yes	SSCC/Pallet label	For more information visit the GS1 website.
Lot number	A lot is a number assigned by the processor to each group of cattle consigned to slaughter and is usually vendor specific.	Yes	Carcase Ticket	
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA), Delivery Docket/Manifest, Export Health Certificate, Meat Transfer Certificate (MTC)	
MSA eating quality group/grade	This identifies carcasses with similar MSA and eating quality grades, these may align with brands packed by the processor for logistic simplicity. Carcasses are	Yes	MSA Carcase Ticket	For more information on MSA visit the MLA website.

	grouped for boning according to eating quality grades.			
MSA Licence Number	Any establishment consigning, supplying, or identifying MSA Certified Product must be registered and have a unique MSA Licence Number.	Yes	Receipt of purchase/Tax Invoice	For more information on MSA visit the MLA website.
Net Weight (Kilograms)	Usually encoded in the GS1 barcode, the Net Weight is a variable measure of the trade item e.g., carton, pallet or shipment recorded in kilograms.	Yes	Bill of lading/Air Waybill, Carcase Ticket, Carton label, Export Health Certificate, Meat Messaging Consignment Report, SSCC/Pallet label	For more information visit the GS1 website.
Official mark	Any stamp, seal, label, or mark that is declared by the regulations to be an official mark. An official mark signifies that the product has been inspected by and approved as safe for human consumption by an Authorised Officer.	Yes	Carcase Ticket, Carton label, SSCC/Pallet label	For more information visit the Australian Government Federal Register of Legislation.
Order date	This is the date on which the purchase order or contract was raised by the buyer.	Yes	Delivery Docket/Manifest	
Packaging Date	Encoded in the GS1 barcode, the Packaging Date is the date on which the item was packaged and is recorded in the format year, month, day (YYMMDD).	Yes	Carton label, Certificate of Analysis (COA), SSCC/Pallet label	For more information visit the GS1 website.
Trade description	This is a collective set of words that says what the product is and may include information such as species, net weight of product, name and address of establishments, category ciphers, market endorsements, MSA eating quality etc.	Yes	Carcase Ticket, Carton label, Delivery Docket/Manifest, Export Health Certificate, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), SSCC/Pallet label	
Packaging Date Range	This includes the oldest and newest packaging dates for the logistic unit.	Yes	SSCC/Pallet label	For more information visit the GS1 website.

Pallet Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., pallet that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), SSCC/Pallet label	For more information visit the GS1 website.
Production Date (YYMMDD)	Encoded in the GS1 barcode, this is the 'kill' or slaughter' date of the product and is recorded in the format year, month, day (YYMMDD).	Yes	Carcase Ticket, Certificate of Analysis (COA), Meat Transfer Certificate (MTC)	For more information visit the GS1 website.
Recipient Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Receipt of purchase/Tax Invoice	For more information visit the ATO website.
Seal Serial Number	This is a unique serial number printed on any tamper-evident seal issued by the Department.	Yes	Bill of lading/Air Waybill, Meat Transfer Certificate (MTC), Official seal	For more information visit the GS1 website.
Seller/Supplier Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Receipt of purchase/Tax Invoice	For more information visit the ATO website.
Serial Number	Encoded in the GS1 barcode, this is a code, numeric or alphanumeric, assigned to an individual instance of an item for its lifetime.	Yes	Carcase Ticket, Carton label	For more information visit the GS1 website.
Shipping Mark	Also known as a port mark, this is a code comprising of three letters representing the foreign establishment number and the last nine digits of the consignment SSCC.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA), Delivery Docket/Manifest, Export Health Certificate, Meat Messaging Consignment Report, SSCC/Pallet label	
To Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both	Yes	Meat Transfer Certificate (MTC)	

	the dispatching and receiving establishments are recorded.			
Transfer Certificate number	A unique certificate number issued for traceability purposes.	Yes	Meat Messaging Consignment Report, Meat Transfer Certificate (MTC)	For more information visit the Department of Agriculture, Water and the Environment website.
Transport registration number	The registration number of the vehicle in which the animals or product were transported. For shipments of product this will be a shipping container number.	Yes	Bill of lading/Air Waybill, Delivery Docket/Manifest, Export Health Certificate, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC)	

5.2.4.2.3 Physical Outputs including Critical Tracking Events (CTEs)

As the refrigerated transportation process involves the movement of product between establishments, the physical outputs are the same as for the physical inputs. This may include product in carcase, carton or palletised form or product packed into shipping containers ready for export.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with the outputs of the refrigerated transport system include the movement of:

- * Carcase
 - * Carton
 - * Pallet
 - * Container System Unit (meat and meat products)
- off the property, premises, or supply chain sector.

Table 117. Physical outputs and associated Critical Tracking Event related documents for a beef refrigerated transport system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Carcase	The body of a slaughtered animal after bleeding. Becomes a dressed carcase when hide, head, feet and offal are removed.	Carcase Ticket, Delivery Docket/Manifest, Meat Transfer Certificate (MTC), MSA Carcase Ticket, Receipt of purchase/Tax Invoice	

Carton	This is a case, crate, or barrel of product.	Carton label, Delivery Docket/Manifest, Meat Transfer Certificate (MTC), Official seal, Receipt of purchase/Tax Invoice	
Pallet	A logistic unit which includes a number of cartons or goods items packed together for transport or storage purposes.	Bill of lading/Air Waybill, Delivery Docket/Manifest, Export Health Certificate, Export Permit, Meat Transfer Certificate (MTC), Receipt of purchase/Tax Invoice, Certificate of Analysis (COA), SSCC/Pallet label	
Container System Unit (meat and meat products)	A container designed for use as a unit of cargo handling equipment in the transport of goods by aircraft or ship.	Bill of lading/Air Waybill, Delivery Docket/Manifest, Export Health Certificate, Export Permit, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), Official seal, Certificate of Analysis (COA), Receipt of purchase/Tax Invoice	

5.2.4.2.4 Information Outputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). Transport of product between establishments is a Critical Tracking Event. Therefore, the KDEs here can largely be found on transportation documentation such as the Bill of lading/Air Waybill, Meat Transfer Certificate (MTC), Export Health Certificate and Certificate of Analysis. Other documentation such as carcase tickets or carton/pallet labels will also contain KDEs.

Table 118. Information outputs, Key Data Elements and Critical Tracking Event related documentation for a beef refrigerated transport system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Analysis Date	This is the date on which a product sample was analysed.	Yes	Certificate of Analysis (COA)	
Bill of lading/Air Waybill document number	A unique document number issued for traceability purposes.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA)	
Body number	This is a number assigned to each carcase by the processor for identification purposes.	Yes	Carcase Ticket	
Certificate of Analysis number	A unique certificate number issued for traceability purposes.	Yes	Certificate of Analysis (COA)	
COA test lot identifier	This is a unique identifier allocated to all cartons, pallets, and shipping containers for which an analysis sample represents.	Yes	Certificate of Analysis (COA)	

Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Bill of lading/Air Waybill, Carton label, Certificate of Analysis (COA), Receipt of purchase/Tax Invoice, SSCC/Pallet label	
Consignment Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., shipment/message that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Bill of lading/Air Waybill, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), SSCC/Pallet label	For more information visit the GS1 website.
Contract number	This is a unique number allocated to the contract by the seller.	Yes	Delivery Docket/Manifest	
Count of Trade Items	Usually encoded in the GS1 barcode, this is the number of trade items e.g., cartons in the logistic unit.	Yes	Bill of lading/Air Waybill, Delivery Docket/Manifest, Meat Messaging Consignment Report, SSCC/Pallet label	For more information visit the GS1 website.
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA), Delivery Docket/Manifest, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), Receipt of purchase/Tax Invoice	
Delivery Docket/Manifest number	This is a unique number allocated to the docket for identification purposes.	Yes	Delivery Docket/Manifest	
Export Health Certificate Number	A unique number allocated to the health certificate issued for the export consignment for traceability purposes.	Yes	Export Health Certificate, Meat Messaging Consignment Report	For more information visit the Australian Government Federal Register of Legislation.
Export Permit Number	A unique permit number is allocated for the export consignment following submission of a correct and validated Request For Permit (RFP) which is then approved by the Secretary.	Yes	Export Permit	For more information visit the Australian Government Federal

				Register of Legislation.
From Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Carcase Ticket, Carton label, Certificate of Analysis (COA), Delivery Docket/Manifest, Export Health Certificate, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), SSCC/Pallet label	
Global Trade Item Number (GTIN)	Encoded in the GS1 barcode, the GTIN is a globally unique 14-digit number used to identify trade items, products, or services.	Yes	Carcase Ticket, Carton label, Meat Messaging Consignment Report, SSCC/Pallet label	For more information visit the GS1 website.
GTIN of Contained Trade Items	Encoded in the GS1 barcode, the GTIN of the contained trade items is a globally unique 14-digit number used to identify trade items, products, or services in the logistic unit.	Yes	SSCC/Pallet label	For more information visit the GS1 website.
Lot number	A lot is a number assigned by the processor to each group of cattle consigned to slaughter and is usually vendor specific.	Yes	Carcase Ticket	
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA), Delivery Docket/Manifest, Export Health Certificate, Meat Transfer Certificate (MTC)	
MSA eating quality group/grade	This identifies carcasses with similar MSA and eating quality grades, these may align with brands packed by the processor for logistic simplicity. Carcasses are grouped for boning according to eating quality grades.	Yes	MSA Carcase Ticket	For more information on MSA visit the MLA website.
MSA Licence Number	Any establishment consigning, supplying, or identifying MSA Certified Product must be registered and have a unique MSA Licence Number.	Yes	Receipt of purchase/Tax Invoice	For more information on MSA visit the MLA website.

Net Weight (Kilograms)	Usually encoded in the GS1 barcode, the Net Weight is a variable measure of the trade item e.g., carton, pallet or shipment recorded in kilograms.	Yes	Bill of lading/Air Waybill, Carcase Ticket, Carton label, Export Health Certificate, Meat Messaging Consignment Report, SSCC/Pallet label	For more information visit the GS1 website.
Official mark	Any stamp, seal, label, or mark that is declared by the regulations to be an official mark. An official mark signifies that the product has been inspected by and approved as safe for human consumption by an Authorised Officer.	Yes	Carcase Ticket, Carton label, SSCC/Pallet label	For more information visit the Australian Government Federal Register of Legislation.
Order date	This is the date on which the purchase order or contract was raised by the buyer.	Yes	Delivery Docket/Manifest	
Packaging Date	Encoded in the GS1 barcode, the Packaging Date is the date on which the item was packaged and is recorded in the format year, month, day (YYMMDD).	Yes	Carton label, Certificate of Analysis (COA), SSCC/Pallet label	For more information visit the GS1 website.
Packaging Date Range	This includes the oldest and newest packaging dates for the logistic unit.	Yes	SSCC/Pallet label	
Pallet Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., pallet that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), SSCC/Pallet label	For more information visit the GS1 website.
Production Date (YYMMDD)	Encoded in the GS1 barcode, this is the 'kill' or slaughter' date of the product and is recorded in the format year, month, day (YYMMDD).	Yes	Carcase Ticket, Certificate of Analysis (COA), Meat Transfer Certificate (MTC)	For more information visit the GS1 website.
Recipient Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Receipt of purchase/Tax Invoice	For more information visit the ATO website.

Seal Serial Number	This is a unique serial number printed on any tamper-evident seal issued by the Department.	Yes	Bill of lading/Air Waybill, Meat Transfer Certificate (MTC), Official seal	For more information visit the Australian Government Federal Register of Legislation.
Seller/Supplier Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Receipt of purchase/Tax Invoice	For more information visit the ATO website.
Serial Number	Encoded in the GS1 barcode, this is a code, numeric or alphanumeric, assigned to an individual instance of an item for its lifetime.	Yes	Carcase Ticket, Carton label	For more information visit the GS1 website.
Shipping Mark	Also known as a port mark, this is a code comprising of three letters representing the foreign establishment number and the last nine digits of the consignment SSCC.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA), Delivery Docket/Manifest, Export Health Certificate, Meat Messaging Consignment Report, SSCC/Pallet label	
To Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Meat Transfer Certificate (MTC)	
Trade description	This is a collective set of words that says what the product is and may include information such as species, net weight of product, name and address of establishments, category ciphers, market endorsements, MSA eating quality etc.	Yes	Carcase Ticket, Carton label, Delivery Docket/Manifest, Export Health Certificate, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), SSCC/Pallet label	
Transfer Certificate number	A unique certificate number issued for traceability purposes.	Yes	Meat Messaging Consignment Report, Meat Transfer Certificate (MTC)	For more information visit the Department of Agriculture, Water and the

				Environment website.
Transport registration number	The registration number of the vehicle in which the animals or product were transported. For shipments of product this will be a shipping container number.	Yes	Bill of lading/Air Waybill, Delivery Docket/Manifest, Export Health Certificate, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC)	

5.2.4.2.5 Regulatory and Industry Programs

- * AUS-MEAT
- * Department of Agriculture
- * Meat Messaging
- * Meat Standards Australia (MSA)
- * Other data sources
- * State food authority

5.2.4.2.6 Supply Chain Node Traceability

The traceability of product undergoing refrigerated transport back to the live animal and property of origin is dependent on the form in which the product is being transported.

For carcasses, traceability back to the live animal is possible and can be done by the processing establishment where the animal was slaughtered. Here, carcasses are issued a carcass ticket which correlates to the live animal identifier and contains key information, including GS1 meat industry barcode, body number, processing establishment number and production date or 'kill date'. This information is uploaded to the NLIS Database, by the processor, under the processing establishments Property Identification Code (PIC). Thus, there is the potential to trace whole carcasses undergoing refrigerated transport back to the individual live animal and property of origin.

For cartoned and palletised product, each identified by unique serialised carton or product labels respectively, including a GS1 meat industry barcode, traceability is limited to the carcasses that have entered the boning room for the production run of cartons that were created. For example, 200 carcasses (400 sides) individually identified with unique carcass tickets enter the boning room for a specific boning run. These carcass tickets are linked to the specific boning run. From these carcasses, 3 200 cartons of primal cuts and 1 000 cartons of trim and other highly mixed products are created. While all cartons are identified with unique serialised carton labels linked to the boning run (and may be packaged into pallets containing unique serialised pallet labels including a GS1 SSCC barcode), it is not readily possible to identify which carcasses are in which cartons as the cartons will contain meat products from different carcasses. If the carcasses were sourced from several different properties, the resulting carton can only be traced to a number of possible carcasses and source properties. In logistical systems such as transport and cold stores, cartons are typically processed by pallets with only the pallet label being scanned. Therefore, traceability through logistics is often at the pallet level.

All meat product transferred between establishments must be accompanied by a Meat Transfer Certificate (MTC) which details the serialised logistic unit identifiers such as the Serial Shipping Container Code (SSCC). This allows traceability of the unit and its subunits back to either the live animal and property of origin (for carcasses) or the boning room production run (for cartons and pallets).

5.2.4.2.7 Data flow diagrams

Table 119. Data flow diagrams for the inputs and outputs of a beef refrigerated transport system.

Direction	Description
Input	Load Instruction/Run sheet to Transport
Output	Delivery Receipt to Receiving party

5.2.4.2.7.1 Load Instruction/Run Sheet to Transport

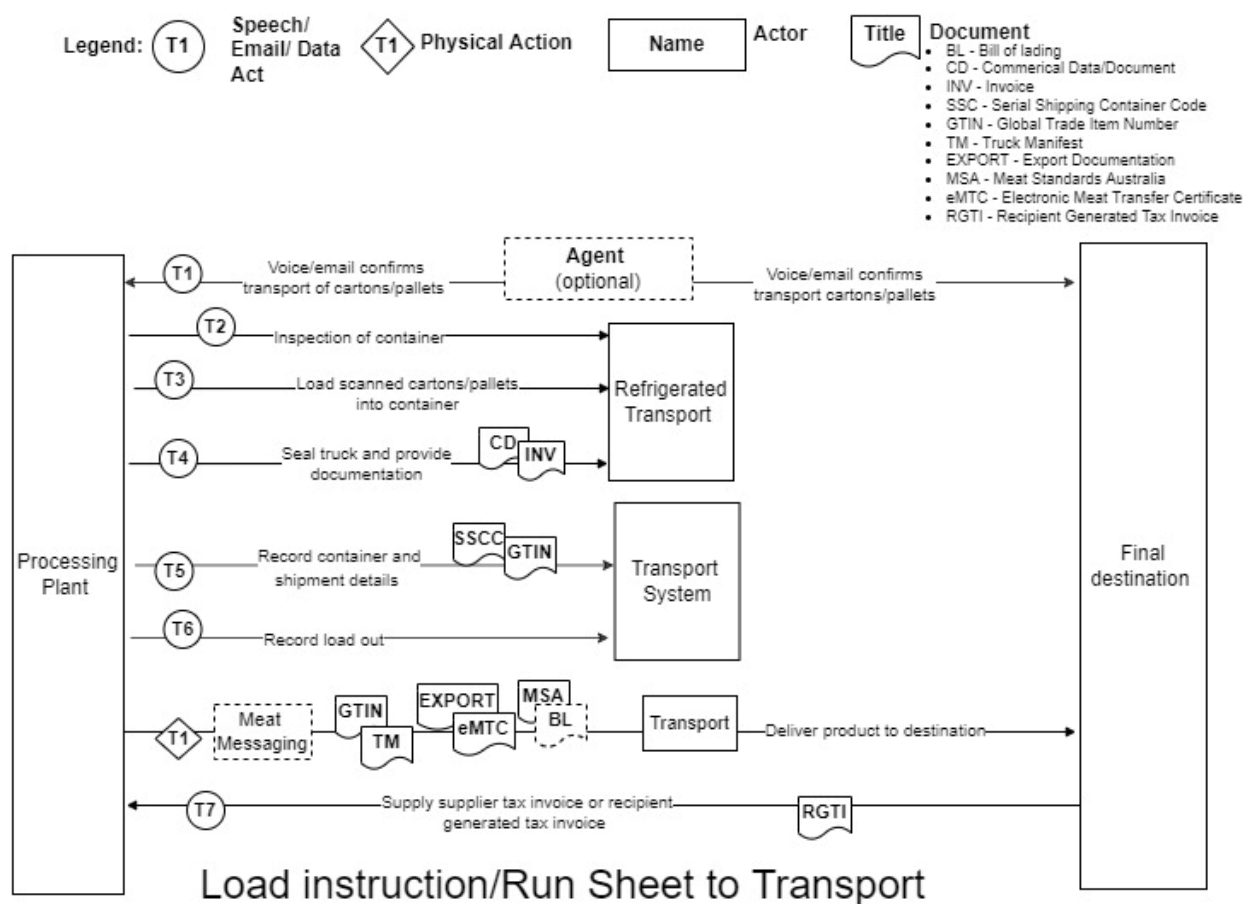


Figure 140. Data or information flows from the load instruction to the transport system in the beef supply chain.

5.2.4.2.7.2 Delivery Receipt to Receiving party

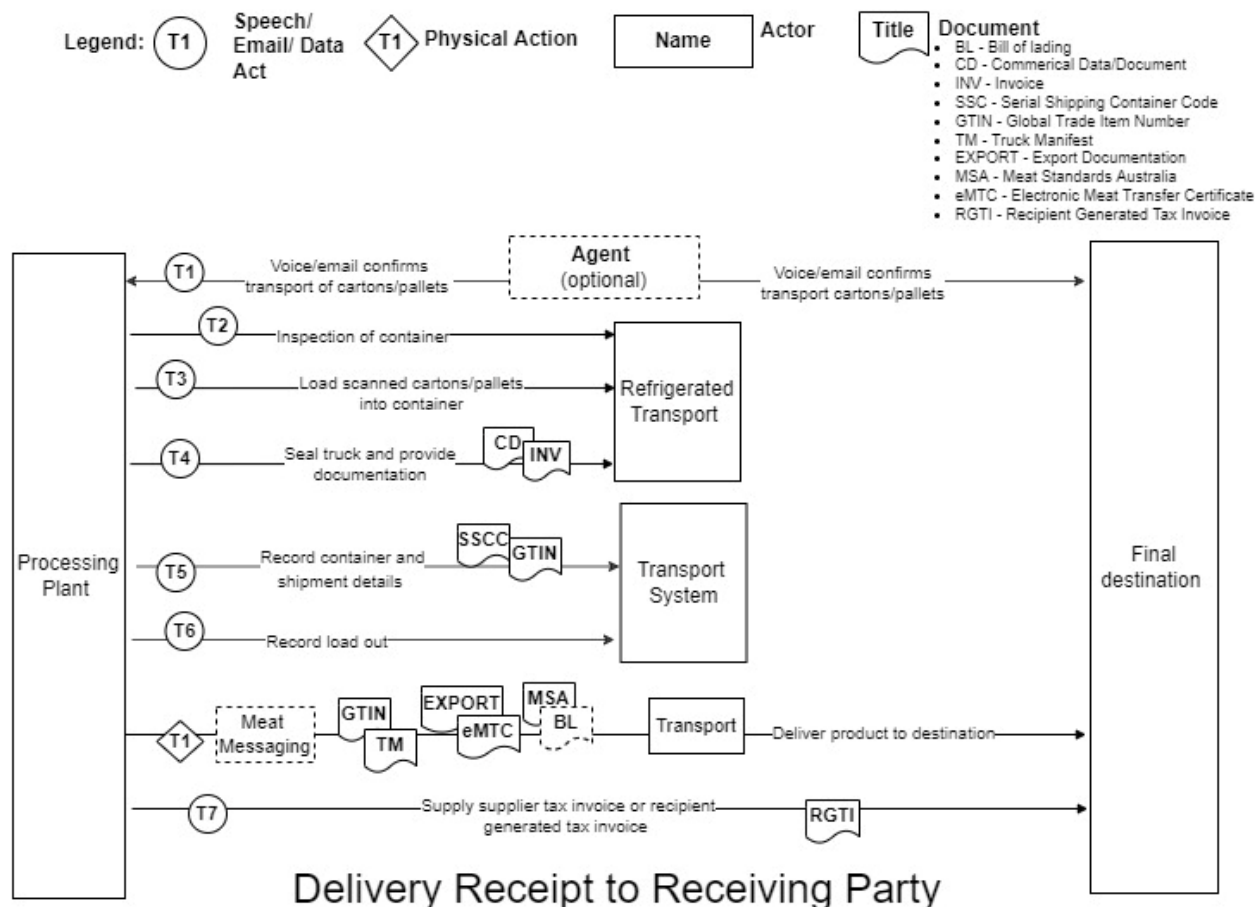


Figure 141. Data or information flows from the delivery of receipt to receiving party within the beef supply chain.

5.2.4.3 Bulk transport

Bulk transport involves the movement (including loading and unloading) of by-products (from render) or hides from one premises to another. These labelled products are typically transported to export ports where they are assembled and loaded for export via ship or airfreight. By-products and hides are subsequently manufactured into leather, feed, fertilizer, and pharmaceutical products for commercial distribution. All bulk transport movements must be accompanied by Critical Tracking Event related documents such as the Animal By Product Transfer Certificate (BPTC).

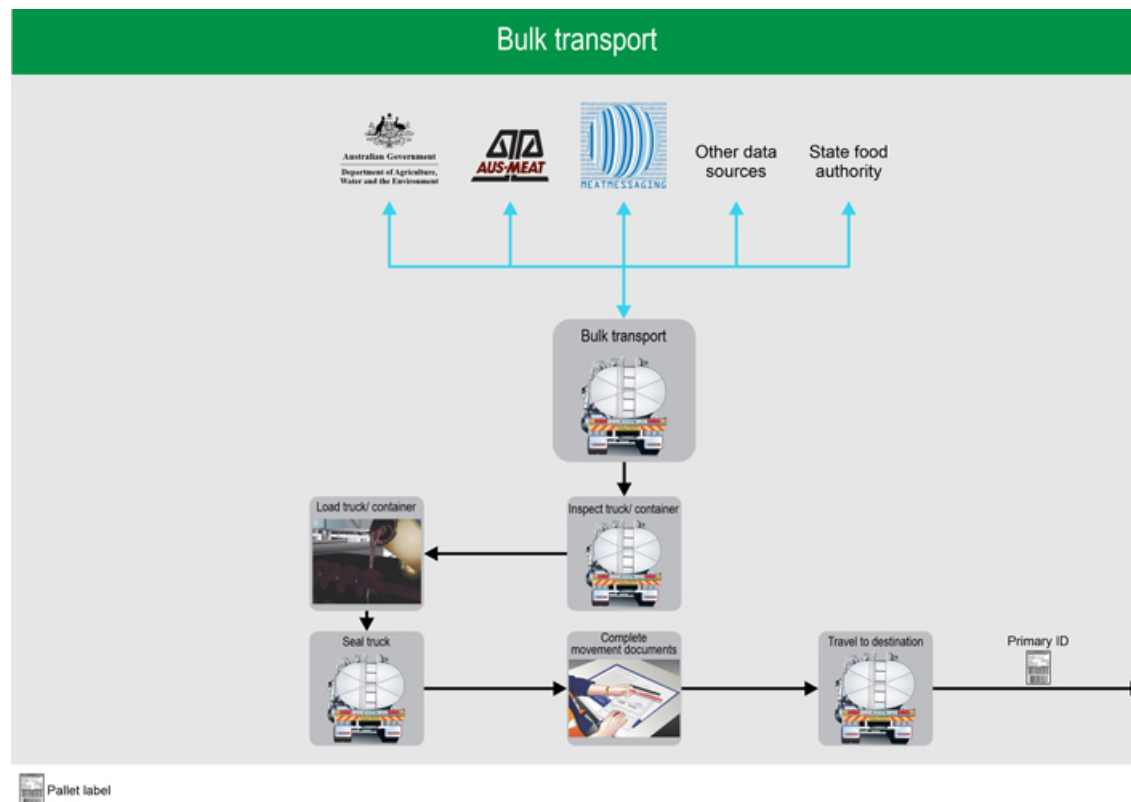


Figure 142. Inputs and outputs of the beef supply chain bulk transport sector.

5.2.4.3.1 Physical Inputs including Critical Tracking Events (CTEs)

Physical inputs into the bulk transport system may include animal by products from rendering or hide processing facilities. Documentation required to accompany such product is largely similar to that of product approved for human consumption. However, documents pertaining explicitly to product consumption i.e., edible/inedible, are replaced here by alternative regulated documentation. For example, as bulk transport product is inedible the Meat Transfer Certificate is replaced by an Animal By Product Transfer Certificate (BPTC) for non-prescribed goods.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with inputs to the bulk transport system include the receipt of:

- * Rendered product store bag
- * Pallet
- * Container System Unit (render and hide product).

Table 120. Physical inputs and associated Critical Tracking Event related documents for a beef bulk transport system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Rendered product store bag	A large storage bag which can temporarily store large quantities of product.	Animal By Product Transfer Certificate (BPTC), Bill of lading/Air Waybill, Certificate of Analysis (COA), Delivery Docket/Manifest, Export clearance documentation, Export Permit, Receipt of purchase/Tax Invoice, SSCC/Store bag label	
Pallet	A logistic unit which includes a number of cartons or goods items packed together for transport or storage purposes.	Animal By Product Transfer Certificate (BPTC), Bill of lading/Air Waybill, Certificate of Analysis (COA), Delivery Docket/Manifest, Export clearance documentation, Export Permit, Receipt of purchase/Tax Invoice, SSCC/Pallet label	
Container System Unit (render and hide product)	A container designed for use as a unit of cargo handling equipment in the transport of goods by aircraft or ship.	Animal By Product Transfer Certificate (BPTC), Bill of lading/Air Waybill, Certificate of Analysis (COA), Delivery Docket/Manifest, Export clearance documentation, Export Permit, Meat Messaging Consignment Report, Receipt of purchase/Tax Invoice	

5.2.4.3.2 Information Inputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). The transport of product between establishments is a Critical Tracking Event. Therefore, the KDEs here can largely be found on transportation documentation such as the Bill of lading/Air Waybill, Animal By Product Transfer Certificate (BPTC), Export clearance documentation and Certificate of Analysis. Other documentation such as Receipts of purchase/Tax Invoices and store bag or pallet labels will also contain KDEs.

Table 121. Information inputs, Key Data Elements and Critical Tracking Event related documentation for a beef bulk transport system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Analysis Date	This is the date on which a product sample was analysed.	Yes	Certificate of Analysis (COA)	
Bill of lading/Air Waybill document number	A unique document number issued for traceability purposes.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA)	
Certificate of Analysis number	A unique certificate number issued for traceability purposes.	Yes	Certificate of Analysis (COA)	

COA test lot identifier	This is a unique identifier allocated to all cartons, pallets, and shipping containers for which an analysis sample represents.	Yes	Certificate of Analysis (COA)	
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA), Receipt of purchase/Tax Invoice, SSCC/Pallet label, SSCC/Store bag label	
Consignment Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., shipment/message that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Animal By Product Transfer Certificate (BPTC), Bill of lading/Air Waybill, Export clearance documentation, Meat Messaging Consignment Report, SSCC/Pallet label, SSCC/Store bag label	For more information visit the GS1 website.
Contract number	This is a unique number allocated to the contract by the seller.	Yes	Delivery Docket/Manifest	
Count of Pallets	This is the number of pallets in the logistic unit e.g., container system unit.	Yes	Meat Messaging Consignment Report	
Count of Trade Items	Usually encoded in the GS1 barcode, this is the number of trade items e.g., cartons in the logistic unit.	Yes	Bill of lading/Air Waybill, Delivery Docket/Manifest, Meat Messaging Consignment Report, SSCC/Pallet label, SSCC/Store bag label	For more information visit the GS1 website.
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Animal By Product Transfer Certificate (BPTC), Bill of lading/Air Waybill, Certificate of Analysis (COA), Delivery Docket/Manifest, Export clearance documentation, Meat Messaging Consignment Report, Receipt of purchase/Tax Invoice	
Delivery Docket/Manifest number	This is a unique number allocated to the docket for identification purposes.	Yes	Delivery Docket/Manifest	

Export Health Certificate Number	A unique number allocated to the health certificate issued for the export consignment for traceability purposes.	Yes	Meat Messaging Consignment Report	For more information visit the Australian Government Federal Register of Legislation.
Export Permit Number	A unique permit number is allocated for the export consignment following submission of a correct and validated Request For Permit (RFP) which is then approved by the Secretary.	Yes	Export Permit	For more information visit the Australian Government Federal Register of Legislation.
From Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Animal By Product Transfer Certificate (BPTC), Certificate of Analysis (COA), Delivery Docket/Manifest, Export clearance documentation, Meat Messaging Consignment Report, SSCC/Pallet label, SSCC/Store bag label	
Global Trade Item Number (GTIN)	Encoded in the GS1 barcode, the GTIN is a globally unique 14-digit number used to identify trade items, products, or services.	Yes	Meat Messaging Consignment Report, SSCC/Pallet label, SSCC/Store bag label	For more information visit the GS1 website.
GTIN of Contained Trade Items	Encoded in the GS1 barcode, the GTIN of the contained trade items is a globally unique 14-digit number used to identify trade items, products, or services in the logistic unit.	Yes	SSCC/Pallet label, SSCC/Store bag label	For more information visit the GS1 website.
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Animal By Product Transfer Certificate (BPTC), Bill of lading/Air Waybill, Certificate of Analysis (COA), Delivery Docket/Manifest, Export clearance documentation	
Net Weight (Kilograms)	Usually encoded in the GS1 barcode, the Net Weight is a variable measure of the trade	Yes	Bill of lading/Air Waybill, Meat Messaging Consignment Report,	For more information

	item e.g., carton, pallet or shipment recorded in kilograms.		SSCC/Pallet label, SSCC/Store bag label	visit the GS1 website.
Official mark	Any stamp, seal, label, or mark that is declared by the regulations to be an official mark. An official mark signifies that the product has been inspected by and approved as safe for human consumption by an Authorised Officer.	Yes	SSCC/Pallet label	For more information visit the Australian Government Federal Register of Legislation.
Order date	This is the date on which the purchase order or contract was raised by the buyer.	Yes	Delivery Docket/Manifest	
Packaging Date	Encoded in the GS1 barcode, the Packaging Date is the date on which the item was packaged and is recorded in the format year, month, day (YYMMDD).	Yes	Certificate of Analysis (COA), SSCC/Pallet label, SSCC/Store bag label	For more information visit the GS1 website.
Packaging Date Range	This includes the oldest and newest packaging dates for the logistic unit.	Yes	Export clearance documentation, SSCC/Pallet label, SSCC/Store bag label	
Pallet Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., pallet that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Animal By Product Transfer Certificate (BPTC), Export clearance documentation, Meat Messaging Consignment Report, SSCC/Pallet label, SSCC/Store bag label	For more information visit the GS1 website.
Production Date (YYMMDD)	Encoded in the GS1 barcode, this is the 'kill' or slaughter' date of the product and is recorded in the format year, month, day (YYMMDD).	Yes	Animal By Product Transfer Certificate (BPTC), Certificate of Analysis (COA)	For more information visit the GS1 website.
Recipient Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Receipt of purchase/Tax Invoice	For more information visit the ATO website.
Seal Serial Number	This is a unique serial number printed on any tamper-evident seal issued by the Department.	Yes	Animal By Product Transfer Certificate (BPTC), Bill of lading/Air Waybill,	For more information visit the GS1 website.

			Export clearance documentation	
Seller/Supplier Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Receipt of purchase/Tax Invoice	For more information visit the ATO website.
Shipping Mark	Also known as a port mark, this is a code comprising of three letters representing the foreign establishment number and the last nine digits of the consignment SSCC.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA), Delivery Docket/Manifest, Meat Messaging Consignment Report, SSCC/Pallet label, SSCC/Store bag label	
To Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Animal By Product Transfer Certificate (BPTC), Export clearance documentation	
Trade description	This is a collective set of words that says what the product is and may include information such as species, net weight of product, name and address of establishments, category ciphers, market endorsements, MSA eating quality etc.	Yes	Animal By Product Transfer Certificate (BPTC), Delivery Docket/Manifest, Export clearance documentation, Meat Messaging Consignment Report, SSCC/Pallet label, SSCC/Store bag label	
Transfer Certificate number	A unique certificate number issued for traceability purposes.	Yes	Animal By Product Transfer Certificate (BPTC), Meat Messaging Consignment Report	For more information visit the Department of Agriculture, Water and the Environment website.
Transport registration number	The registration number of the vehicle in which the animals or product were transported. For shipments of product this will be a shipping container number.	Yes	Animal By Product Transfer Certificate (BPTC), Bill of lading/Air Waybill, Delivery Docket/Manifest, Export clearance documentation, Meat	

			Messaging Consignment Report	

5.2.4.3.3 Physical Outputs including Critical Tracking Events (CTEs)

Physical outputs of the bulk transport system include products (animal by products from rendering or hide processing facilities) which have been loaded into shipping containers ready for export. Documentation required to accompany such product is largely similar to that of product approved for human consumption. However, documents pertaining explicitly to product consumption i.e., edible/inedible, are replaced here by alternative regulated documentation. For example, as bulk transport product is inedible the Meat Transfer Certificate is replaced by an Animal By Product Transfer Certificate (BPTC) for non-prescribed goods.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with the outputs of the bulk transport system include the movement of:

- * Container System Unit (render and hide product)
- off the property, premises, or supply chain sector.

Table 122. Physical outputs and associated Critical Tracking Event related documents for a beef bulk transport system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Container System Unit (render and hide product)	A container designed for use as a unit of cargo handling equipment in the transport of goods by aircraft or ship.	Animal By Product Transfer Certificate (BPTC), Bill of lading/Air Waybill, Certificate of Analysis (COA), Delivery Docket/Manifest, Export clearance documentation, Export Permit, Meat Messaging Consignment Report, Receipt of purchase/Tax Invoice	

5.2.4.3.4 Information Outputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). The transport of product between establishments is a Critical Tracking Event. Therefore, the KDEs here can largely be found on transportation documentation such as the Bill of lading/Air Waybill, Animal By Product Transfer Certificate (BPTC), Export clearance documentation and Certificate of Analysis. Other documentation such as Receipts of purchase/Tax Invoices and store bag or pallet labels and Meat Messaging Consignment Reports will also contain KDEs.

Table 123. Information outputs, Key Data Elements and Critical Tracking Event related documentation for a beef bulk transport system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Analysis Date	This is the date on which a product sample was analysed.	Yes	Certificate of Analysis (COA)	

Bill of lading/Air Waybill document number	A unique document number issued for traceability purposes.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA)	
Certificate of Analysis number	A unique certificate number issued for traceability purposes.	Yes	Certificate of Analysis (COA)	
COA test lot identifier	This is a unique identifier allocated to all cartons, pallets, and shipping containers for which an analysis sample represents.	Yes	Certificate of Analysis (COA)	
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA), Receipt of purchase/Tax Invoice	
Consignment Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., shipment/message that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Animal By Product Transfer Certificate (BPTC), Bill of lading/Air Waybill, Export clearance documentation, Meat Messaging Consignment Report	For more information visit the GS1 website.
Contract number	This is a unique number allocated to the contract by the seller.	Yes	Delivery Docket/Manifest	
Count of Pallets	This is the number of pallets in the logistic unit e.g., container system unit.	Yes	Meat Messaging Consignment Report	
Count of Trade Items	Usually encoded in the GS1 barcode, this is the number of trade items e.g., cartons in the logistic unit.	Yes	Bill of lading/Air Waybill, Delivery Docket/Manifest, Meat Messaging Consignment Report	For more information visit the GS1 website.
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Animal By Product Transfer Certificate (BPTC), Bill of lading/Air Waybill, Certificate of Analysis (COA), Delivery Docket/Manifest, Export clearance documentation, Meat Messaging Consignment Report, Receipt of purchase/Tax Invoice	

Delivery Docket/Manifest number	This is a unique number allocated to the docket for identification purposes.	Yes	Delivery Docket/Manifest	
Export Health Certificate Number	A unique number allocated to the health certificate issued for the export consignment for traceability purposes.	Yes	Meat Messaging Consignment Report	For more information visit the Australian Government Federal Register of Legislation.
Export Permit Number	A unique permit number is allocated for the export consignment following submission of a correct and validated Request For Permit (RFP) which is then approved by the Secretary.	Yes	Export Permit	For more information visit the Australian Government Federal Register of Legislation.
From Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Animal By Product Transfer Certificate (BPTC), Certificate of Analysis (COA), Delivery Docket/Manifest, Export clearance documentation, Meat Messaging Consignment Report	
Global Trade Item Number (GTIN)	Encoded in the GS1 barcode, the GTIN is a globally unique 14-digit number used to identify trade items, products, or services.	Yes	Meat Messaging Consignment Report	For more information visit the GS1 website.
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Animal By Product Transfer Certificate (BPTC), Bill of lading/Air Waybill, Certificate of Analysis (COA), Delivery Docket/Manifest, Export clearance documentation	
Net Weight (Kilograms)	Usually encoded in the GS1 barcode, the Net Weight is a variable measure of the trade item e.g., carton, pallet or shipment recorded in kilograms.	Yes	Bill of lading/Air Waybill, Meat Messaging Consignment Report	For more information visit the GS1 website.

Order date	This is the date on which the purchase order or contract was raised by the buyer.	Yes	Delivery Docket/Manifest	
Packaging Date	Encoded in the GS1 barcode, the Packaging Date is the date on which the item was packaged and is recorded in the format year, month, day (YYMMDD).	Yes	Certificate of Analysis (COA)	For more information visit the GS1 website.
Packaging Date Range	This includes the oldest and newest packaging dates for the logistic unit.	Yes	Export clearance documentation	
Pallet Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., pallet that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Animal By Product Transfer Certificate (BPTC), Export clearance documentation, Meat Messaging Consignment Report	For more information visit the GS1 website.
Production Date (YYMMDD)	Encoded in the GS1 barcode, this is the 'kill' or slaughter' date of the product and is recorded in the format year, month, day (YYMMDD).	Yes	Animal By Product Transfer Certificate (BPTC), Certificate of Analysis (COA)	For more information visit the GS1 website.
Recipient Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Receipt of purchase/Tax Invoice	For more information visit the ATO website.
Seal Serial Number	This is a unique serial number printed on any tamper-evident seal issued by the Department.	Yes	Animal By Product Transfer Certificate (BPTC), Bill of lading/Air Waybill, Export clearance documentation	For more information visit the GS1 website.
Seller/Supplier Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Receipt of purchase/Tax Invoice	For more information visit the ATO website.
Shipping Mark	Also known as a port mark, this is a code comprising of three letters representing the foreign establishment number and the last nine digits of the consignment SSCC.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA), Delivery Docket/Manifest, Meat Messaging Consignment Report	

To Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Animal By Product Transfer Certificate (BPTC), Export clearance documentation	
Trade description	This is a collective set of words that says what the product is and may include information such as species, net weight of product, name and address of establishments, category ciphers, market endorsements, MSA eating quality etc.	Yes	Animal By Product Transfer Certificate (BPTC), Delivery Docket/Manifest, Export clearance documentation, Meat Messaging Consignment Report	
Transfer Certificate number	A unique certificate number issued for traceability purposes.	Yes	Animal By Product Transfer Certificate (BPTC), Meat Messaging Consignment Report	For more information visit the Department of Agriculture, Water and the Environment website.
Transport registration number	The registration number of the vehicle in which the animals or product were transported. For shipments of product this will be a shipping container number.	Yes	Animal By Product Transfer Certificate (BPTC), Bill of lading/Air Waybill, Delivery Docket/Manifest, Export clearance documentation, Meat Messaging Consignment Report	

5.2.4.3.5 Regulatory and Industry Programs

- * State food authority
- * Department of Agriculture
- * AUS-MEAT
- * Meat Messaging
- * Other data sources

5.2.4.3.6 Supply Chain Node Traceability

The traceability of rendered and hide product, that is bulk transported, back to the live animal and property of origin is operationally impractical. This is because rendered and hide products are bulk processed and packaged from any given processing day or number of processing days. While this means that the production date or kill

date of animals from which hides or rendered product is likely to be known, any batch of product being packaged into store bags or pallets with unique serialised labels is only traceable to any number of cattle or source properties.

For example, hides or product for render which make up one batch come from a total of 6 plant kill day combinations. For each processing day 800 animals, sourced from 8 different properties are slaughtered and the unique serialised NLIS ID tag numbers known for each animal as well as that of the corresponding carcase ticket. With render or hide products from these processing days being processed and packaged in one batch, the unique serialised identifiers of output products can be linked only to that batch and the processing dates from which product was obtained. This means that one batch is comprised of any of 4 800 source animals that were supplied by any of 48 source properties.

All bulk transported products must be accompanied by a Meat Messaging Consignment Report and an Animal By Product Transfer Certificate (BPTC). The Consignment Report is issued to the buyer of product and lists all the logistic unit and subunit unique serialised identifiers contained within the Container System Unit to be exported including the Consignment Serial Shipping Container Code (SSCC), Pallet Serial Shipping Container Code, and scanned and verified carton label serial identifiers. Additionally, the Transfer Certificate details the serialised logistic unit identifiers such as the Serial Shipping Container Code (SSCC). These documents allow traceability of the unit and its subunits back to any number of cattle or source properties.

5.2.4.3.7 Data flow diagrams

Table 124. Data flow diagrams for the inputs and outputs of a beef bulk transport system.

Direction	Description
Input	Hides to Bulk loadout
Input	Tallow to Bulk loadout
Input	Meat meal to Bulk loadout

5.2.4.3.7.1 Hides to Bulk loadout

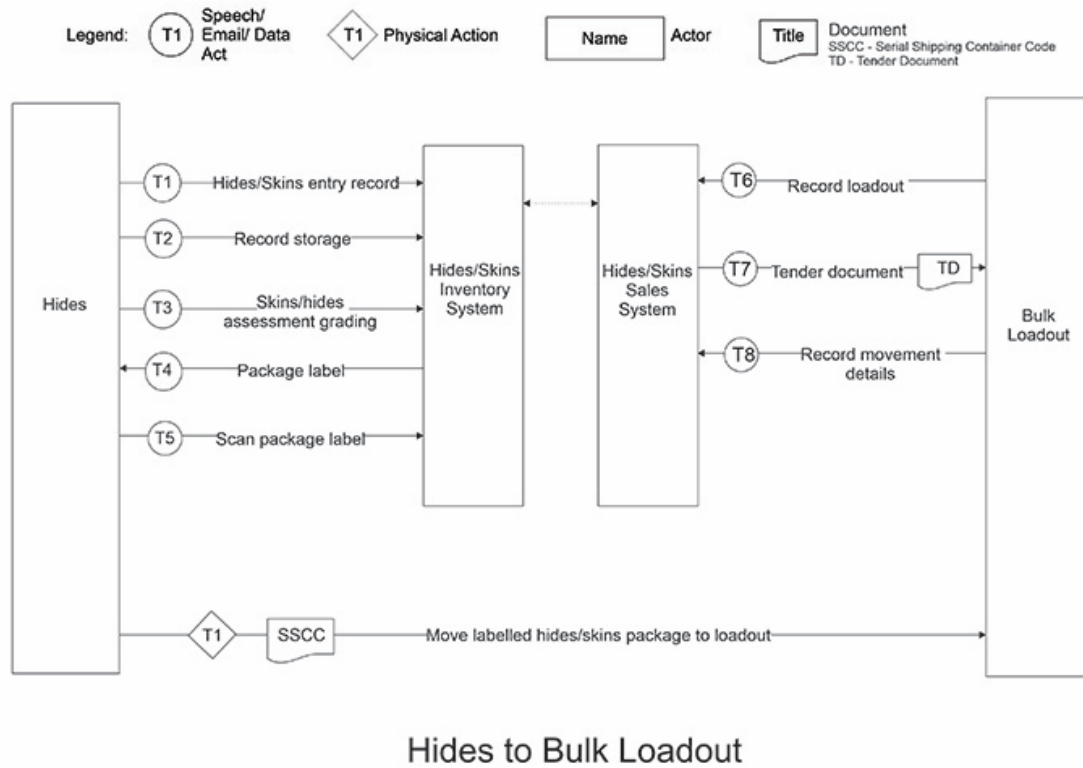
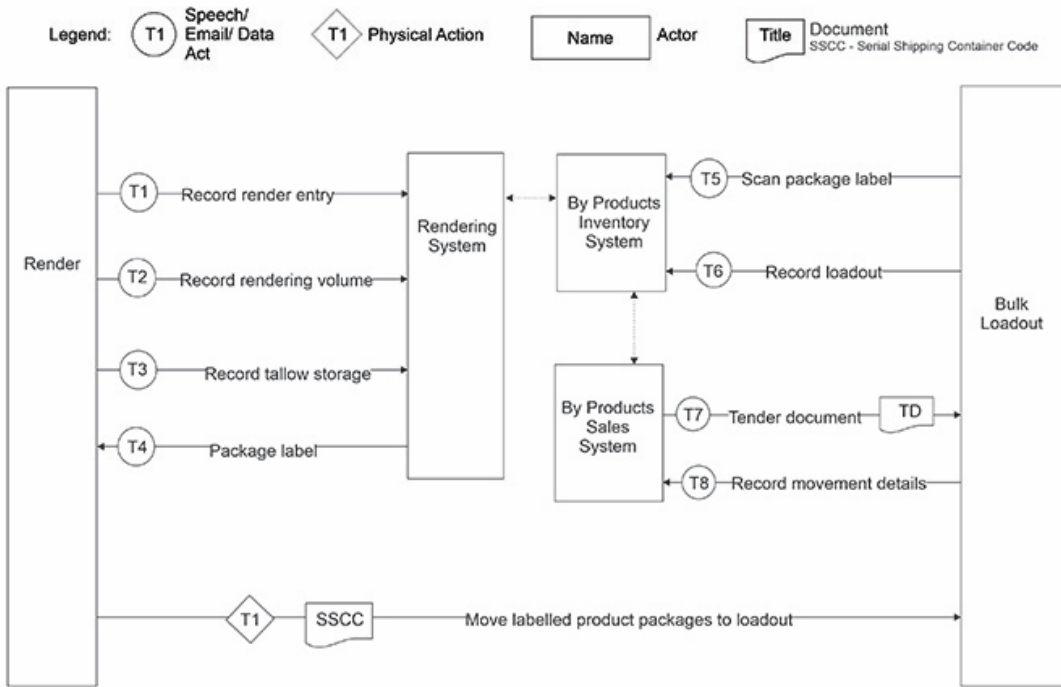


Figure 143. Data or information flows from the hides to bulk loadout systems in the beef supply chain.

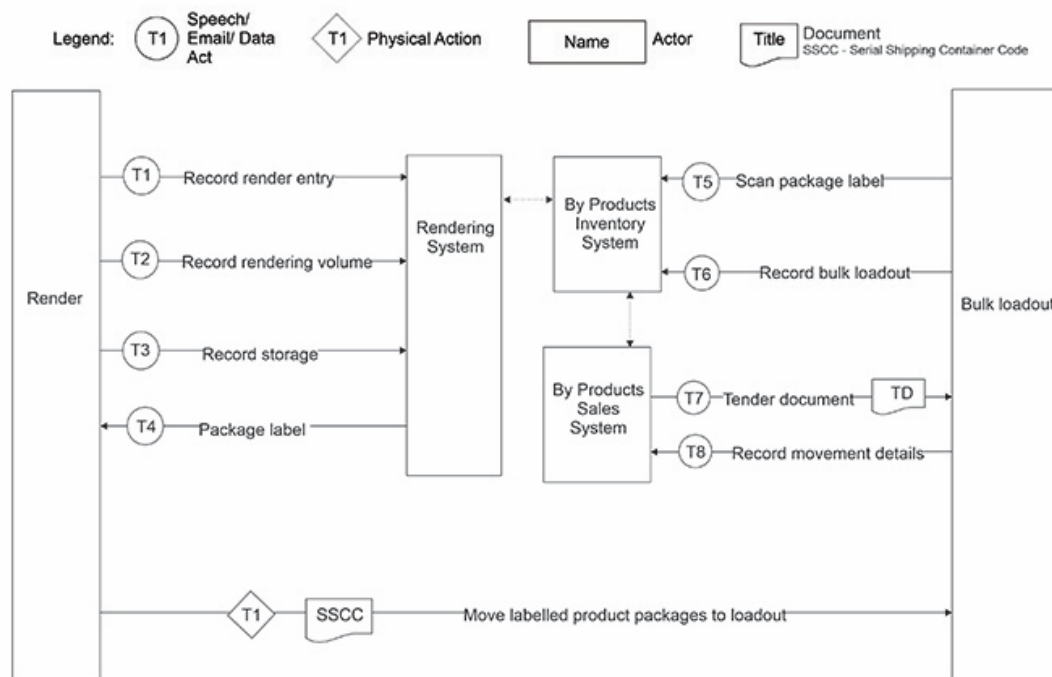
5.2.4.3.7.2 Tallow to Bulk loadout



Tallow to Bulk Loadout

Figure 144. Data or information flows from the tallow to bulk loadout systems in the beef supply chain.

5.2.4.3.7.3 Meat meal to Bulk loadout



Meat Meal to Bulk Loadout

Figure 145. Data or information flows from the meat meal to bulk loadout systems in the beef supply chain.

5.2.5 International Trade

5.2.5.1 Live export

Once livestock have completed feeding regiments, they are either sent to slaughter, with product being distributed domestically or exported or sent overseas by boat or airfreight in a process known as live exporting. Australia is one of the world leaders in animal welfare practices and these are ensured through strict standards and regulations that are applied throughout the live animal value chain, including the live export process. As a result, these standards ensure that animals are delivered to the import destination in as best condition as possible.

The live export process is made up of pre-export planning, export, and discharge of the animals at their final destination. Pre-export planning includes government approval for export to an export destination, an approved loading plan, vendor declarations, inspections of the vessel by AQIS (Australian Quarantine and Inspection Service), licensing, inspection of animals both by veterinarians, AQIS, and a stock inspector, export approval, and meeting the requirements for both stockman and veterinarian onboard. The livestock are prepared for transport, assembled to embark, and loaded into the vessel (either ship or plane) for export. Upon arrival, the animals are inspected and signed off on their health before being unloaded.

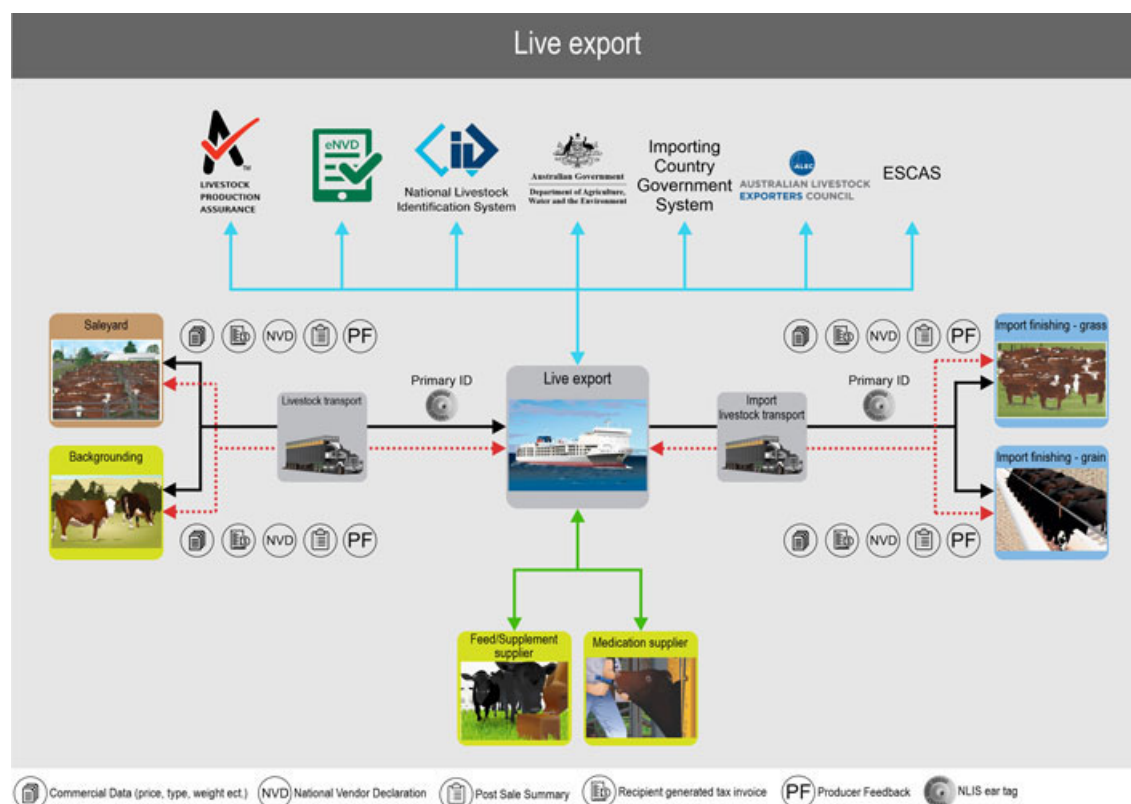


Figure 146. Inputs and outputs of the beef supply chain live export sector.

5.2.5.1.1 Physical Inputs including Critical Tracking Events (CTEs)

Live export is a complicated process requiring a number of considerations and inputs to make everything run efficiently while keeping the cattle's health and wellbeing in mind. Key inputs include the cattle to be exported, veterinary and other expert services, veterinary drugs, and other health treatments as well as feed supplies and supplements including water. There are many documents required for the Critical Tracking of live export Events and this may include the Bill of lading/Air Waybill, Importer/Exporter Agreement, Livestock Export Health Certificate, NVD and Livestock Export Permit.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with inputs to the live export system include the receipt of:

- * Cattle
- * Experts and veterinarians
- * Veterinary drugs or other health treatments
- * Feed supplies and supplements.

Table 125. Physical inputs and associated Critical Tracking Event related documents for a beef live export system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details

Cattle	These are bovine livestock and may include any type of cattle e.g., cull cattle, calves etc.	Bill of lading/Air Waybill, Exporter/Importer Agreement, Feed and water record, Livestock Export Health Certificate, Livestock Export Licence, Livestock Export Permit, MSA Declaration, NFAS Agents Declaration, NFAS Delivery Docket or Form B, NLIS Movement Update, NVD, Post Sale Summary, Pregnancy Test Report, Receipt of purchase/Tax Invoice, State specific movement forms	
Experts and veterinarians	These are professionals who provide services to the breeding enterprise which ensure the safety, wellbeing, and productivity of the livestock.	Receipt of purchase/Tax Invoice, Veterinary prescription	
Veterinary drugs or other health treatments	These may be prescribed, or non-prescribed treatments or medications given to ensure the health and wellbeing of the livestock.	Receipt of purchase/Tax Invoice, Veterinary prescription	
Feed supplies and supplements	These are supplementary animal feed products such as hay or silage fodder, or mineral supplements which are provided to ensure the production efficiency and health of livestock are maintained. This may also include clean drinking water e.g., where livestock are in transit or at saleyards.	Commodity Vendor Declaration (CVD), Receipt of purchase/Tax Invoice	

5.2.5.1.2 Information Inputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). There are many KDEs which can be found on CTE documentation associated with live exports. For example, these may include agreement, movement, and quarantine dates, To and From PICs, To and From Port Codes as well as document identification and licence numbers.

Table 126. Information inputs, Key Data Elements and Critical Tracking Event related documentation for a beef live export system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
APVMA approval number	This is a unique number allocated to each label by the APVMA.	Yes	Commodity Vendor Declaration, Livestock Export Health Certificate, NVD	For more information visit the Australian Pesticides and Veterinary

				Medicine Authority.
Authorised Officer Identity Number	A unique number issued to Australian Government Authorised Officers for identification purposes.	Yes	Livestock Export Permit	For more information visit the Department of Agriculture, Water and the Environment website.
Batch number	This is a unique number which identifies products sharing certain production characteristics and is used for traceability purposes.	Yes	Commodity Vendor Declaration, Livestock Export Health Certificate, NVD	
Bill of lading/Air Waybill document number	A unique document number issued for traceability purposes.	Yes	Bill of lading/Air Waybill	
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Feed and water record, Receipt of purchase/Tax Invoice	
Contract number	This is a unique number allocated to the contract by the seller.	Yes	Commodity Vendor Declaration, Exporter/Importer Agreement	
Count of Trade Items	Usually encoded in the GS1 barcode, this is the number of trade items e.g., cartons in the logistic unit.	Yes	Bill of lading/Air Waybill	
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Bill of lading/Air Waybill, Commodity Vendor Declaration, Exporter/Importer Agreement, Feed and water record, Livestock Export Health Certificate, Livestock Export Permit, MSA Declaration, NFAS Agents Declaration, NFAS Delivery Docket or Form B, NVD, Post Sale Summary, Pregnancy Test Report, Receipt of purchase/Tax Invoice, State specific movement forms	

Export Health Certificate Number	A unique number allocated to the health certificate issued for the export consignment for traceability purposes.	Yes	Livestock Export Health Certificate	For more information visit the Department of Agriculture, Water and the Environment website.
Export Premises Registration number	A unique number issued to Australian Government approved quarantine premises where livestock are prepared for export.	Yes	Livestock Export Health Certificate	For more information visit the Department of Agriculture, Water and the Environment website.
From PIC	The Property Identification Code from/to where the livestock or product were consigned.	Yes	Commodity Vendor Declaration, MSA Declaration, NFAS Delivery Docket or Form B, NLIS Movement Update, NVD, Post Sale Summary, State specific movement forms	For more information visit the Integrity systems website.
From Port Code	Any location used in international trade and transport (e.g., seaport, airports etc.) are issued with an identification code.	Yes	Livestock Export Health Certificate, Livestock Export Permit	For more information visit the Integrity systems website.
Livestock Export Licence Holder number	A unique licence number is allocated to exporters of livestock for a period of one to five years following submission of a correct documentation which is then approved by the Secretary.	Yes	Exporter/Importer Agreement, Livestock Export Health Certificate, Livestock Export Licence, Livestock Export Permit	For more information visit the Integrity systems website.
Livestock Export Permit Number	A unique permit number is allocated for the export of a livestock consignment following submission of a correct and validated Notice of Intention (NOI), Exporter Supply Chain Assurance System (ESCAS) application and other documentation which is then approved by the Secretary.	Yes	Livestock Export Permit	For more information visit the Integrity systems website.

Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Bill of lading/Air Waybill, Commodity Vendor Declaration, Exporter/Importer Agreement, Livestock Export Health Certificate, MSA Declaration, NFAS Agents Declaration, NFAS Delivery Docket or Form B, NLIS Movement Update, NVD, State specific movement forms	
Movement time	This is the time at which cattle were moved from the property (PIC) of origin. Direct consignments travelling to processors by road must be slaughtered with 48 hours of dispatch.	Yes	MSA Declaration	
MSA Declaration Serial Number	Each MSA Declaration form has a unique serial number.	Yes	MSA Declaration	For more information on MSA visit the MLA website.
MSA Licence Number	Any establishment consigning, supplying, or identifying MSA Certified Product must be registered and have a unique MSA Licence Number.	Yes	MSA Declaration, Receipt of purchase/Tax Invoice	For more information on MSA visit the MLA website.
National Grower Registration Number	A unique number assigned to individuals registered with the National Grower Register, an online business register for Australian growers.	Yes	Commodity Vendor Declaration	
Net Weight (Kilograms)	Usually encoded in the GS1 barcode, the Net Weight is a variable measure of the trade item e.g., carton, pallet or shipment recorded in kilograms.	Yes	Bill of lading/Air Waybill	
NFAS Accreditation Number	This is a unique number given to accredited feedlots certified under the National Feedlot Accreditation Scheme (NFAS).	Yes	NFAS Delivery Docket or Form B	For more information visit the AUS-MEAT website.

NFAS Delivery Docket Number	Each NFAS document has a unique number or identity code.	Yes	NFAS Agents Declaration	For more information visit the AUS-MEAT website.
NLIS Tag Number/RFID	All animals transported between PICs must have a permanent National Livestock Identification System tag attached. This tag has a unique animal identification number.	Yes	Bill of lading/Air Waybill, Livestock Export Health Certificate, NLIS Movement Update, Pregnancy Test Report	For more information visit the Integrity systems website.
NVD Serial Number	Each NVD form has a unique serial number.	Yes	NFAS Delivery Docket or Form B, NLIS Movement Update, NVD, Post Sale Summary, Pregnancy Test Report	For more information visit the Integrity systems website.
Official mark	Any stamp, seal, label, or mark that is declared by the regulations to be an official mark. An official mark signifies that the product has been inspected by and approved as safe for human consumption by an Authorised Officer.	Yes	Livestock Export Permit	For more information visit the Department of Agriculture, Water and the Environment website.
Prescription number	A unique certificate number issued for traceability purposes.	Yes	Veterinary prescription	
Producer/Vendor MSA Registration Number	Producers consigning cattle to MSA markets are required to be registered and have a unique MSA Registration Number.	Yes	MSA Declaration	For more information on MSA visit the MLA website.
Product code/description	This is a unique identifier or description assigned by the seller to each product type marketed or for sale.	Yes	Commodity Vendor Declaration	
Quality Assurance Officer (QAO) Certificate Number	A unique number issued to personnel issued with a Statement of Authority for demonstrating skills for compliance with meeting NFAS Rules and Standards.	Yes	NFAS Delivery Docket or Form B	For more information visit the AUS-MEAT website.

Quarantine date range	This is the date range identifying a period in time in which livestock were quarantined directly prior to exportation.	Yes	Livestock Export Health Certificate	For more information visit the Department of Agriculture, Water and the Environment website.
Recipient Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Feed and water record, Receipt of purchase/Tax Invoice	For more information visit the ATO website.
Seller/Supplier Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Feed and water record, Receipt of purchase/Tax Invoice	For more information visit the ATO website.
Shipping Mark	Also known as a port mark, this is a code comprising of three letters representing the foreign establishment number and the last nine digits of the consignment SSCC.	Yes	Bill of lading/Air Waybill	
Supply Chain Number (SCN)	A number allocated to approved applications for the exportation of live animals. These applications have met transportation, handling, slaughter, and other requirements under the Exporter Supply Chain Assurance System (ESCAS) system.	Yes	Livestock Export Permit	For more information visit the Department of Agriculture, Water and the Environment website.
To PIC	The Property Identification Code from/to where the livestock or product were consigned.	Yes	Commodity Vendor Declaration, NLIS Movement Update, NVD, Post Sale Summary, State specific movement forms	For more information visit the Integrity systems website.
To Port Code	Any location used in international trade and transport (e.g., seaport, airports etc.) are issued with an identification code.	Yes	Livestock Export Health Certificate, Livestock Export Permit	For more information visit the Department of Agriculture, Water and the

				Environment website.
Transport registration number	The registration number of the vehicle in which the animals or product were transported. For shipments of product this will be a shipping container number.	Yes	Bill of lading/Air Waybill, Livestock Export Health Certificate, NVD	
Treatment date	The date on which a treatment or product was applied to a unit e.g., paddock, animal, fodder etc.	Yes	Commodity Vendor Declaration, Feed and water record, Livestock Export Health Certificate, NVD	
Veterinary Registration Number	A unique number issued to veterinarians who are registered to practice, under the state legislative requirements, within the state in which they reside.	Yes	Livestock Export Health Certificate, Pregnancy Test Report, Veterinary prescription	

5.2.5.1.3 Physical Outputs including Critical Tracking Events (CTEs)

Key outputs of the live export process are limited to the cattle themselves. There are many documents required for the Critical Tracking of live export Events and this may include the Bill of lading/Air Waybill, Importer/Exporter Agreement, Livestock Export Health Certificate, NVD and Livestock Export Permit. On arrival at the port of the importing country, animals typically undergo inspection by quarantine officers. Here a document such as the Veterinary Services Form/Import release is signed off before animals are released to the importer.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with the outputs of the live export system include the movement of:

* Cattle

off the property, premises, or supply chain sector.

5.2.5.1.4 Information Outputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). There are many KDEs which can be found on CTE documentation associated with live exports. For example, these may include agreement, movement, and quarantine dates, To and From PICs, To and From Port Codes as well as document identification and licence numbers.

Table 127. Information outputs, Key Data Elements and Critical Tracking Event related documentation for a beef live export system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details

APVMA approval number	This is a unique number allocated to each label by the APVMA.	Yes	Livestock Export Health Certificate, NVD	For more information visit the Australian Pesticides and Veterinary Medicine Authority.
Authorised Officer Identity Number	A unique number issued to Australian Government Authorised Officers for identification purposes.	Yes	Livestock Export Permit	For more information visit the Department of Agriculture, Water and the Environment website.
Batch number	This is a unique number which identifies products sharing certain production characteristics and is used for traceability purposes.	Yes	Livestock Export Health Certificate, NVD	
Bill of lading/Air Waybill document number	A unique document number issued for traceability purposes.	Yes	Bill of lading/Air Waybill	
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Feed and water record, Receipt of purchase/Tax Invoice	
Contract number	This is a unique number allocated to the contract by the seller.	Yes	Exporter/Importer Agreement	
Count of Trade Items	Usually encoded in the GS1 barcode, this is the number of trade items e.g., cartons in the logistic unit.	Yes	Bill of lading/Air Waybill	
Customs Entry number	A unique number assigned to an entry document and issued to importation shipments by customs for identification purposes.	Yes	Veterinary Services Form/Import release	
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Bill of lading/Air Waybill, Exporter/Importer Agreement, Feed and water record, Livestock Export Health Certificate,	

			Livestock Export Permit, MSA Declaration, NFAS Agents Declaration, NFAS Delivery Docket or Form B, NVD, Post Sale Summary, Pregnancy Test Report, Receipt of purchase/Tax Invoice, State specific movement forms, Veterinary Services Form/Import release	
Export Health Certificate Number	A unique number allocated to the health certificate issued for the export consignment for traceability purposes.	Yes	Livestock Export Health Certificate	For more information visit the Department of Agriculture, Water and the Environment website.
Export Premises Registration number	A unique number issued to Australian Government approved quarantine premises where livestock are prepared for export.	Yes	Livestock Export Health Certificate	For more information visit the Department of Agriculture, Water and the Environment website.
From PIC	The Property Identification Code from/to where the livestock or product were consigned.	Yes	MSA Declaration, NFAS Delivery Docket or Form B, NLIS Movement Update, NVD, Post Sale Summary, State specific movement forms	For more information visit the Integrity systems website.
From Port Code	Any location used in international trade and transport (e.g., seaport, airports etc.) are issued with an identification code.	Yes	Livestock Export Health Certificate, Livestock Export Permit	For more information visit the Department of Agriculture, Water and the Environment website.
Import Permit Number	A unique permit number is allocated for the import consignment following submission of correct and validated documentation approved by the importing country.	Yes	Import Permit, Veterinary Services Form/Import release	For more information visit the Department of Agriculture, Water and the Environment website.

Livestock Export Licence Holder number	A unique licence number is allocated to exporters of livestock for a period of one to five years following submission of a correct documentation which is then approved by the Secretary.	Yes	Exporter/Importer Agreement, Livestock Export Health Certificate, Livestock Export Licence, Livestock Export Permit	For more information visit the Department of Agriculture, Water and the Environment website.
Livestock Export Permit Number	A unique permit number is allocated for the export of a livestock consignment following submission of a correct and validated Notice of Intention (NOI), Exporter Supply Chain Assurance System (ESCAS) application and other documentation which is then approved by the Secretary.	Yes	Livestock Export Permit	For more information visit the Department of Agriculture, Water and the Environment website.
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Bill of lading/Air Waybill, Exporter/Importer Agreement, Livestock Export Health Certificate, MSA Declaration, NFAS Agents Declaration, NFAS Delivery Docket or Form B, NLIS Movement Update, NVD, State specific movement forms, Veterinary Services Form/Import release	
Movement time	This is the time at which cattle were moved from the property (PIC) of origin. Direct consignments travelling to processors by road must be slaughtered with 48 hours of dispatch.	Yes	MSA Declaration	
MSA Declaration Serial Number	Each MSA Declaration form has a unique serial number.	Yes	MSA Declaration	For more information on MSA visit the MLA website.
MSA Licence Number	Any establishment consigning, supplying, or identifying MSA Certified Product must be registered and have a	Yes	MSA Declaration, Receipt of purchase/Tax Invoice	For more information on MSA visit

	unique MSA Licence Number.			the MLA website.
Net Weight (Kilograms)	Usually encoded in the GS1 barcode, the Net Weight is a variable measure of the trade item e.g., carton, pallet or shipment recorded in kilograms.	Yes	Bill of lading/Air Waybill	
NFAS Accreditation Number	This is a unique number given to accredited feedlots certified under the National Feedlot Accreditation Scheme (NFAS).	Yes	NFAS Delivery Docket or Form B	For more information visit the AUS-MEAT website.
NFAS Delivery Docket Number	Each NFAS document has a unique number or identity code.	Yes	NFAS Agents Declaration	For more information visit the AUS-MEAT website.
NLIS Tag Number/RFID	All animals transported between PICs must have a permanent National Livestock Identification System tag attached. This tag has a unique animal identification number.	Yes	Bill of lading/Air Waybill, Livestock Export Health Certificate, NLIS Movement Update, Pregnancy Test Report	For more information visit the Integrity systems website.
NVD Serial Number	Each NVD form has a unique serial number.	Yes	NFAS Delivery Docket or Form B, NLIS Movement Update, NVD, Post Sale Summary, Pregnancy Test Report	For more information visit the Integrity systems website.
Official mark	Any stamp, seal, label, or mark that is declared by the regulations to be an official mark. An official mark signifies that the product has been inspected by and approved as safe for human consumption by an Authorised Officer.	Yes	Livestock Export Permit	For more information visit the Department of Agriculture, Water and the Environment website.

Producer/Vendor MSA Registration Number	Producers consigning cattle to MSA markets are required to be registered and have a unique MSA Registration Number.	Yes	MSA Declaration	For more information on MSA visit the MLA website.
Quality Assurance Officer (QAO) Certificate Number	A unique number issued to personnel issued with a Statement of Authority for demonstrating skills for compliance with meeting NFAS Rules and Standards.	Yes	NFAS Delivery Docket or Form B	For more information visit the AUS-MEAT website.
Quarantine date range	This is the date range identifying a period in time in which livestock were quarantined directly prior to exportation.	Yes	Livestock Export Health Certificate	For more information visit the Department of Agriculture, Water and the Environment website.
Recipient Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Feed and water record, Receipt of purchase/Tax Invoice	For more information visit the ATO website.
Seller/Supplier Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Feed and water record, Receipt of purchase/Tax Invoice	For more information visit the ATO website.
Shipping Mark	Also known as a port mark, this is a code comprising of three letters representing the foreign establishment number and the last nine digits of the consignment SSCC.	Yes	Bill of lading/Air Waybill	
Supply Chain Number (SCN)	A number allocated to approved applications for the exportation of live animals. These applications have met transportation, handling, slaughter, and other requirements under the Exporter Supply Chain	Yes	Livestock Export Permit	For more information visit the Department of Agriculture, Water and the Environment website.

	Assurance System (ESCAS) system.			
To PIC	The Property Identification Code from/to where the livestock or product were consigned.	Yes	NLIS Movement Update, NVD, Post Sale Summary, State specific movement forms	For more information visit the Integrity systems website.
To Port Code	Any location used in international trade and transport (e.g., seaport, airports etc.) are issued with an identification code.	Yes	Livestock Export Health Certificate, Livestock Export Permit, Veterinary Services Form/Import release	For more information visit the Department of Agriculture, Water and the Environment website.
Transport registration number	The registration number of the vehicle in which the animals or product were transported. For shipments of product this will be a shipping container number.	Yes	Bill of lading/Air Waybill, Livestock Export Health Certificate, NVD, Veterinary Services Form/Import release	
Treatment date	The date on which a treatment or product was applied to a unit e.g., paddock, animal, fodder etc.	Yes	Feed and water record, Livestock Export Health Certificate, NVD	
Veterinary Registration Number	A unique number issued to veterinarians who are registered to practice, under the state legislative requirements, within the state in which they reside.	Yes	Livestock Export Health Certificate, Pregnancy Test Report	

5.2.5.1.5 Regulatory and Industry Programs

- * Australian Live Exporters Council (ALEC)
- * Department of Agriculture
- * eNVD
- * Exporter Supply Chain Assurance System (ESCAS)
- * Importing Country Government System
- * Livestock Production Assurance (LPA)
- * National Livestock Identification System (NLIS)

5.2.5.1.6 Supply Chain Node Traceability

The National Livestock Identification System (NLIS) is the Australian livestock traceability program which is administered by Integrity Systems Company (ISC). Where stipulated by State legislation and certain export markets, the NLIS system requires all animals bought, sold, and moved along the supply chain to be tagged with an accredited NLIS ID tag. Each tag has an NLIS tag number or Radio Frequency Identifier (RFID) for the traceability of the animal throughout its lifetime. Every property which holds livestock must have a Property Identification Code (PIC) to which the livestock are assigned in the NLIS Database. Each time livestock are transferred between PICs within Australia they must be accompanied by a livestock movement declaration, such as the National Vendor Declaration (NVD) form. This document typically outlines the transporter details, consignment details, compliance with intended market specifications, withholding periods, and the details of the new property PIC. All livestock movements between PICs require an NLIS movement update to be made by either or both the consigner and receiver. Where NLIS ID tags are lost livestock must be issued with a new post-breeder tag if not on the PIC of birth and this reconciled in the NLIS Database. For animals loaded for live export, it is the exporters responsibility to ensure that all livestock are transferred from the port PIC to EEEEEEEE (8Es) which signifies that livestock have been exported. The importer of exported livestock must demonstrate that these livestock remain traceable throughout the supply chain up to the point of slaughter. Livestock must be effectively identified, and all movements recorded to allow traceability back to the property of birth in the exporting country i.e., Australia.

5.2.5.1.7 Data flow diagrams

Table 128. Data flow diagrams for the input and outputs of beef live export system

Direction	Description
Input	Saleyard to Live Export
Input	Backgrounding to Live Export
Output	Live Export to Import Finishing (Grass)
Output	Live Export to Import Finishing (Grain)

5.2.5.1.7.1 Saleyard to Live Export

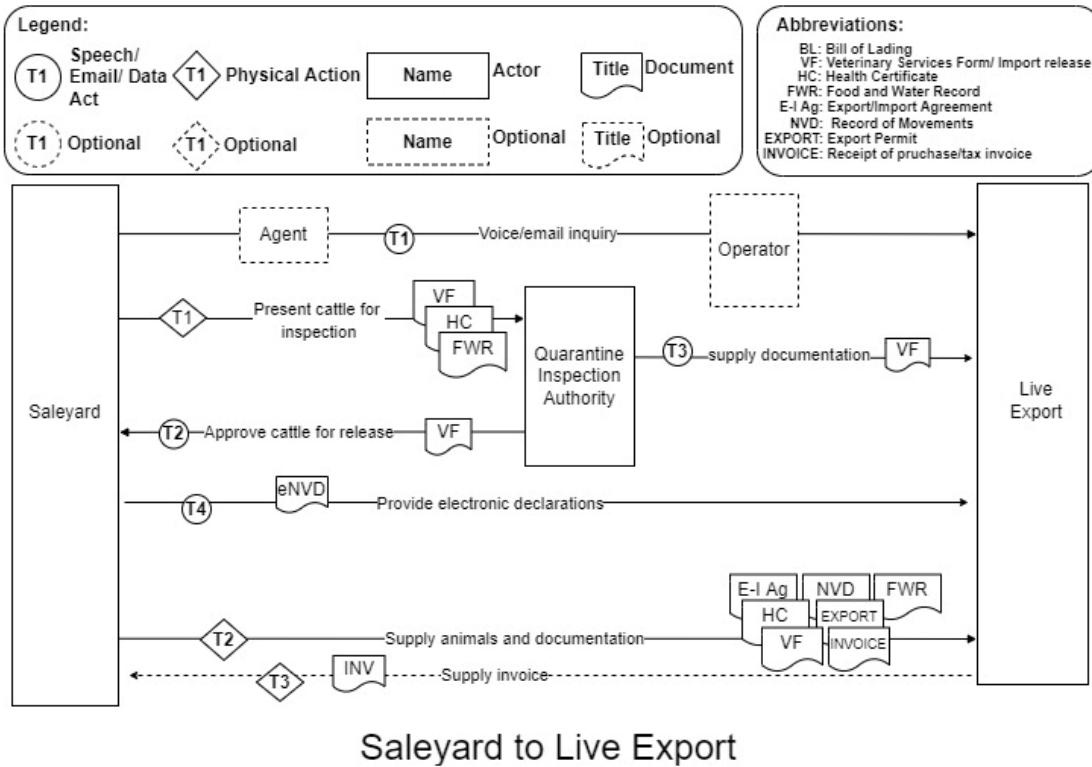


Figure 147. Dat

a or information flows from saleyards to live export systems in the beef supply chain.

5.2.5.1.7.2 Backgrounding to Live Export

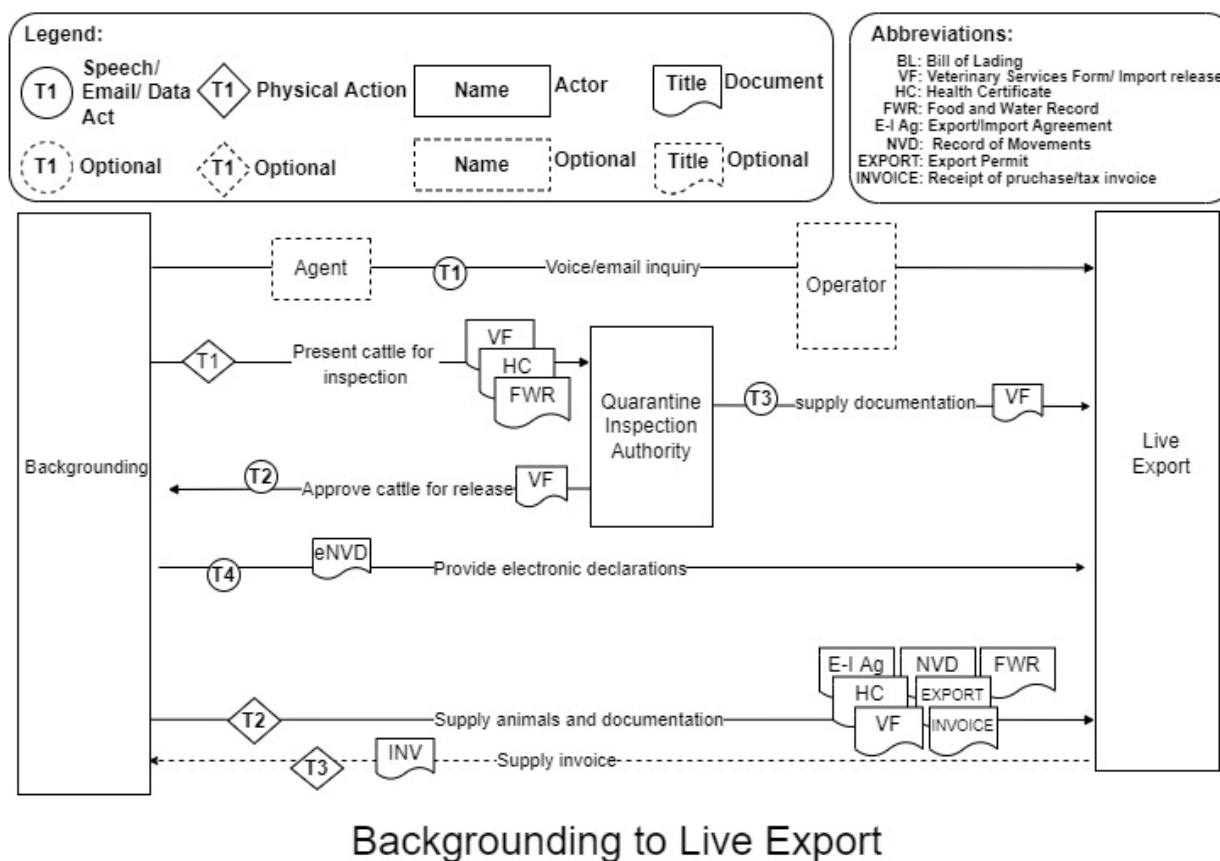
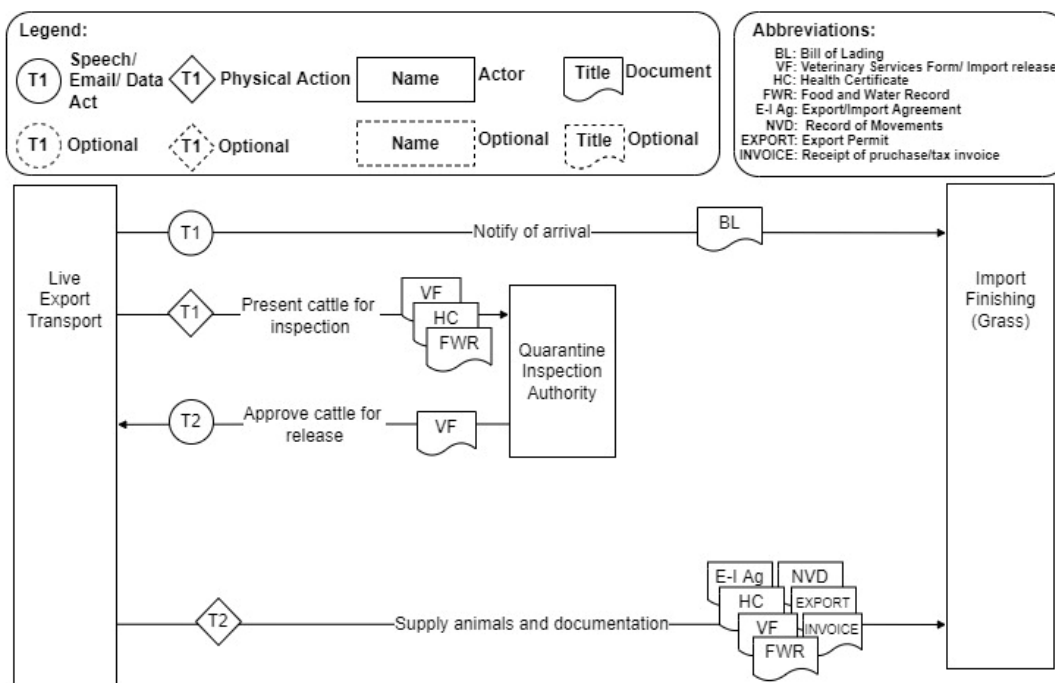


Figure 148. Data or information flows from backgrounding to live export systems in the beef supply chain.

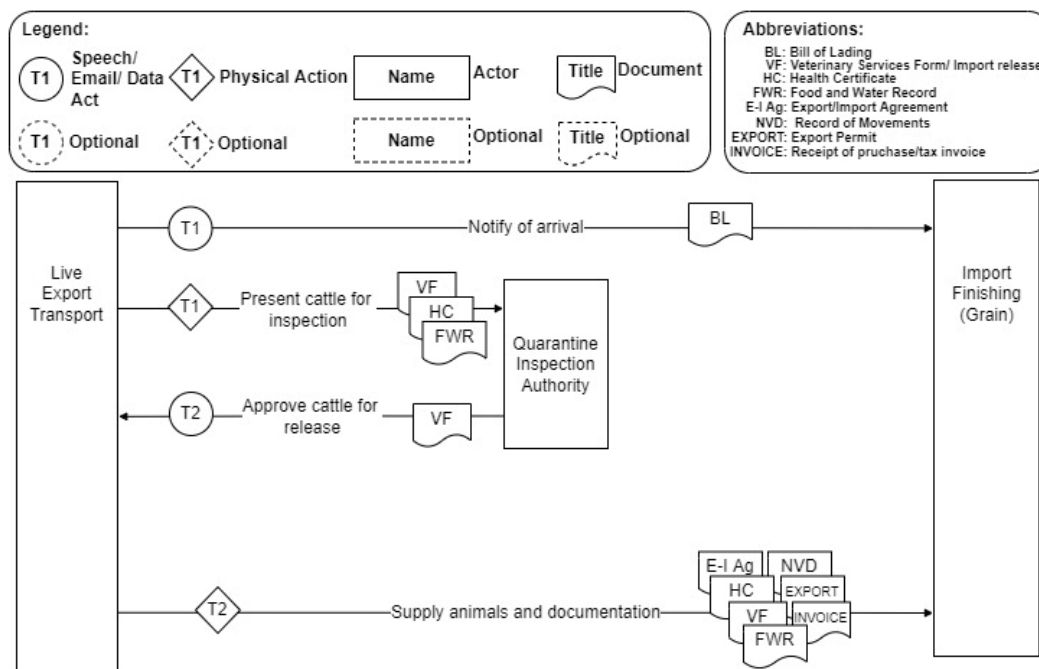
5.2.5.1.7.3 Live Export to Import Finishing (Grass)



Live Export to Import Finishing (grass)

Figure 149. Data or information flows from the live export to import finishing (grass) systems in the beef supply chain.

5.2.5.1.7.4 Live Export to Import Finishing (Grain)



Live Export to Import Finishing (grain)

Figure 150. Data or information flows from the live export to import finishing (grain) systems in the beef supply chain.

5.2.5.2 Non packer exporter

Australia is one of the largest exporters of beef in the world by volume and value of meat and this is largely due to strict animal welfare practices and quality control standards. This has allowed consumer demand for Australian beef to remain strong in a competitive global market against other large exporters such as Brazil and India. Australia principally exports meat to North America, the Middle East, Russia, China, South East Asia, Korea and Japan. Non Packer Exporters (NPEs) are holders of a Meat Export Licence who do not operate a premises for the purpose of packaging meat for export registered under the Australian Government Department for Agriculture. NPEs are unable to verify information pertaining to the product but instead work with the packing establishment to ensure product is eligible for export and that all the necessary documentation is organised and approved.

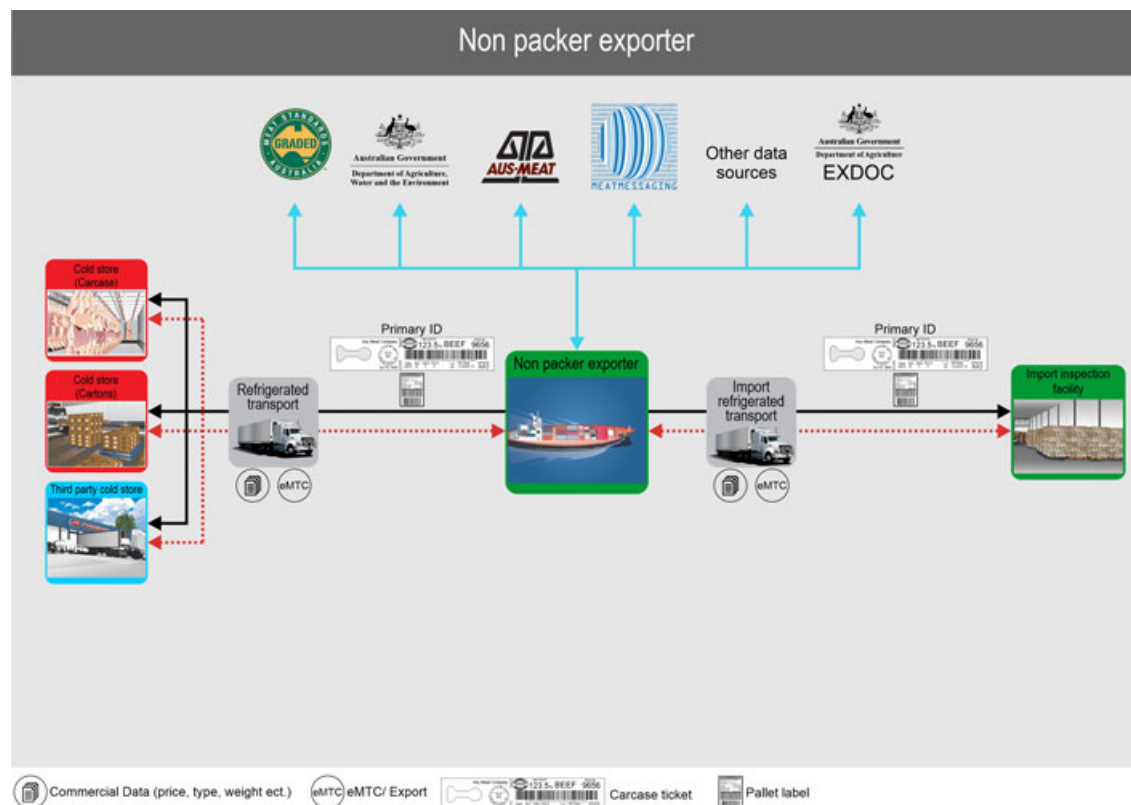


Figure 151. Inputs and outputs of the beef supply chain non packer exporter sector.

5.2.5.2.1 Physical Inputs including Critical Tracking Events (CTEs)

NPEs are often buyers and resellers of meat and meat product, organising the documentation associated with the sale and exportation of product. They typically do not see the product; therefore, the inputs into the NPE system are the Critical Tracking Event related documentation. These may include documents such as the Bill of lading/Air Waybill, Export Health Certificate and Certificate of Analysis.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with inputs to the Non Packer Exporter system include the receipt of:

- * Information/ Documentation (meat and meat products Container System Unit).

Table 129. Physical inputs and associated Critical Tracking Event related documents for a beef non packer exporter system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Information/ Documentation (meat and meat products Container System Unit)	As NPEs typically do not see the product, information/documentation includes the Critical Tracking Event related documentation and information required for product movement.	Bill of lading/Air Waybill, Delivery Docket/Manifest, Export Health Certificate, Export Permit, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), Official seal, Certificate of Analysis (COA), Receipt of purchase/Tax Invoice	

5.2.5.2.2 Information Inputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). Information inputs into the NPE system are those KDEs which can be drawn from CTE documentation. These may include document numbers for documents such as the Bill of lading/Air Waybill, Meat Transfer Certificate and Certificate of Analysis as well as other product specific information.

Table 130. Information inputs, Key Data Elements and Critical Tracking Event related documentation for a beef non packer exporter system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Analysis Date	This is the date on which a product sample was analysed.	Yes	Certificate of Analysis (COA)	
Bill of lading/Air Waybill document number	A unique document number issued for traceability purposes.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA)	
Certificate of Analysis number	A unique certificate number issued for traceability purposes.	Yes	Certificate of Analysis (COA)	
COA test lot identifier	This is a unique identifier allocated to all cartons, pallets, and shipping containers for which an analysis sample represents.	Yes	Certificate of Analysis (COA)	
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA),	

			Receipt of purchase/Tax Invoice	
Consignment Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., shipment/message that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Bill of lading/Air Waybill, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC)	For more information visit the GS1 website.
Count of Pallets	This is the number of pallets in the logistic unit e.g., container system unit.	Yes	Meat Messaging Consignment Report	
Count of Trade Items	Usually encoded in the GS1 barcode, this is the number of trade items e.g., cartons in the logistic unit.	Yes	Bill of lading/Air Waybill, Meat Messaging Consignment Report	For more information visit the GS1 website.
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA), Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), Receipt of purchase/Tax Invoice	
Export Health Certificate Number	A unique number allocated to the health certificate issued for the export consignment for traceability purposes.	Yes	Export Health Certificate, Meat Messaging Consignment Report	For more information visit the Department of Agriculture, Water and the Environment website.
Export Permit Number	A unique permit number is allocated for the export consignment following submission of a correct and validated Request For Permit (RFP) which is then approved by the Secretary.	Yes	Export Permit	For more information visit the Department of Agriculture, Water and the Environment website.
From Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For	Yes	Certificate of Analysis (COA), Export Health Certificate, Meat Messaging Consignment Report,	

	transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.		Meat Transfer Certificate (MTC)	
Global Trade Item Number (GTIN)	Encoded in the GS1 barcode, the GTIN is a globally unique 14-digit number used to identify trade items, products, or services.	Yes	Meat Messaging Consignment Report	For more information visit the GS1 website.
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA), Export Health Certificate, Meat Transfer Certificate (MTC)	
MSA Licence Number	Any establishment consigning, supplying, or identifying MSA Certified Product must be registered and have a unique MSA Licence Number.	Yes	Receipt of purchase/Tax Invoice	For more information on MSA visit the MLA website.
Net Weight (Kilograms)	Usually encoded in the GS1 barcode, the Net Weight is a variable measure of the trade item e.g., carton, pallet or shipment recorded in kilograms.	Yes	Bill of lading/Air Waybill, Export Health Certificate, Meat Messaging Consignment Report	For more information visit the GS1 website.
Packaging Date	Encoded in the GS1 barcode, the Packaging Date is the date on which the item was packaged and is recorded in the format year, month, day (YYMMDD).	Yes	Certificate of Analysis (COA)	For more information visit the GS1 website.
Pallet Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., pallet that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Meat Messaging Consignment Report, Meat Transfer Certificate (MTC)	For more information visit the GS1 website.
Production Date (YYMMDD)	Encoded in the GS1 barcode, this is the 'kill' or slaughter date of the product and is recorded in the format year, month, day (YYMMDD).	Yes	Certificate of Analysis (COA), Meat Transfer Certificate (MTC)	For more information visit the GS1 website.

Recipient Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Receipt of purchase/Tax Invoice	For more information visit the ATO website.
Seal Serial Number	This is a unique serial number printed on any tamper-evident seal issued by the Department.	Yes	Bill of lading/Air Waybill, Meat Transfer Certificate (MTC), Official seal	For more information visit the GS1 website.
Seller/Supplier Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Receipt of purchase/Tax Invoice	For more information visit the ATO website.
Shipping Mark	Also known as a port mark, this is a code comprising of three letters representing the foreign establishment number and the last nine digits of the consignment SSCC.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA), Export Health Certificate, Meat Messaging Consignment Report	
To Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Meat Transfer Certificate (MTC)	
Trade description	This is a collective set of words that says what the product is and may include information such as species, net weight of product, name and address of establishments, category ciphers, market endorsements, MSA eating quality etc.	Yes	Export Health Certificate, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC)	
Transfer Certificate number	A unique certificate number issued for traceability purposes.	Yes	Meat Messaging Consignment Report, Meat Transfer Certificate (MTC)	For more information visit the Department of Agriculture, Water and the Environment website.
Transport registration number	The registration number of the vehicle in which the animals or product were transported. For	Yes	Bill of lading/Air Waybill, Export Health Certificate,	

	shipments of product this will be a shipping container number.		Meat Messaging Consignment Report, Meat Transfer Certificate (MTC)	

5.2.5.2.3 Physical Outputs including Critical Tracking Events (CTEs)

NPEs are often buyers and resellers of meat and meat product, organising the documentation associated with the sale and exportation of product. They typically do not see the product; therefore, the outputs of the NPE system are the Critical Tracking Event related documentation. These may include documents such as the Bill of lading/Air Waybill, Export Health Certificate and Certificate of Analysis.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with the outputs of the Non Packer Exporter system include the movement of:

* Information/ Documentation (meat and meat products Container System Unit)
off the property, premises, or supply chain sector.

Table 131. Physical outputs and associated Critical Tracking Event related documents for a beef non packer exporter system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Information/ Documentation (meat and meat products Container System Unit)	As NPEs typically do not see the product, information/documentation includes the Critical Tracking Event related documentation and information required for product movement.	Bill of lading/Air Waybill, Delivery Docket/Manifest, Export Health Certificate, Export Permit, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), Official seal, Certificate of Analysis (COA), Receipt of purchase/Tax Invoice	

5.2.5.2.4 Information Outputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). Information outputs of the NPE system are those KDEs which can be drawn from CTE documentation. These may include document numbers for documents such as the Bill of lading/Air Waybill, Meat Transfer Certificate and Certificate of Analysis as well as other product specific information.

Table 132. Information outputs, Key Data Elements and Critical Tracking Event related documentation for a beef non packer exporter system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details

Analysis Date	This is the date on which a product sample was analysed.	Yes	Certificate of Analysis (COA)	
Bill of lading/Air Waybill document number	A unique document number issued for traceability purposes.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA)	
Certificate of Analysis number	A unique certificate number issued for traceability purposes.	Yes	Certificate of Analysis (COA)	
COA test lot identifier	This is a unique identifier allocated to all cartons, pallets, and shipping containers for which an analysis sample represents.	Yes	Certificate of Analysis (COA)	
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA), Receipt of purchase/Tax Invoice	
Consignment Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., shipment/message that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Bill of lading/Air Waybill, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC)	For more information visit the GS1 website.
Count of Pallets	This is the number of pallets in the logistic unit e.g., container system unit.	Yes	Meat Messaging Consignment Report	
Count of Trade Items	Usually encoded in the GS1 barcode, this is the number of trade items e.g., cartons in the logistic unit.	Yes	Bill of lading/Air Waybill, Meat Messaging Consignment Report	For more information visit the GS1 website.
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA), Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), Receipt of purchase/Tax Invoice	
Export Health Certificate Number	A unique number allocated to the health certificate issued for the	Yes	Export Health Certificate, Meat	For more information visit the Department of Agriculture,

	export consignment for traceability purposes.		Messaging Consignment Report	Water and the Environment website.
Export Permit Number	A unique permit number is allocated for the export consignment following submission of a correct and validated Request For Permit (RFP) which is then approved by the Secretary.	Yes	Export Permit	For more information visit the Department of Agriculture, Water and the Environment website.
From Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Certificate of Analysis (COA), Export Health Certificate, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC)	
Global Trade Item Number (GTIN)	Encoded in the GS1 barcode, the GTIN is a globally unique 14-digit number used to identify trade items, products, or services.	Yes	Meat Messaging Consignment Report	For more information visit the GS1 website.
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA), Export Health Certificate, Meat Transfer Certificate (MTC)	
MSA Licence Number	Any establishment consigning, supplying, or identifying MSA Certified Product must be registered and have a unique MSA Licence Number.	Yes	Receipt of purchase/Tax Invoice	For more information on MSA visit the MLA website.
Net Weight (Kilograms)	Usually encoded in the GS1 barcode, the Net Weight is a variable measure of the trade item e.g., carton, pallet or shipment recorded in kilograms.	Yes	Bill of lading/Air Waybill, Export Health Certificate, Meat Messaging Consignment Report	For more information visit the GS1 website.
Packaging Date	Encoded in the GS1 barcode, the Packaging Date is the date on which the item was packaged and is recorded in the format year, month, day (YYMMDD).	Yes	Certificate of Analysis (COA)	For more information visit the GS1 website.

Pallet Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., pallet that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Meat Messaging Consignment Report, Meat Transfer Certificate (MTC)	For more information visit the GS1 website.
Production Date (YYMMDD)	Encoded in the GS1 barcode, this is the 'kill' or slaughter' date of the product and is recorded in the format year, month, day (YYMMDD).	Yes	Certificate of Analysis (COA), Meat Transfer Certificate (MTC)	For more information visit the GS1 website.
Recipient Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Receipt of purchase/Tax Invoice	For more information visit the ATO website.
Seal Serial Number	This is a unique serial number printed on any tamper-evident seal issued by the Department.	Yes	Bill of lading/Air Waybill, Meat Transfer Certificate (MTC), Official seal	For more information visit the GS1 website.
Seller/Supplier Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Receipt of purchase/Tax Invoice	For more information visit the ATO website.
Shipping Mark	Also known as a port mark, this is a code comprising of three letters representing the foreign establishment number and the last nine digits of the consignment SSCC.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA), Export Health Certificate, Meat Messaging Consignment Report	
To Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Meat Transfer Certificate (MTC)	
Trade description	This is a collective set of words that says what the product is and may include information such as species, net weight of product, name and address of establishments, category	Yes	Export Health Certificate, Meat Messaging Consignment Report,	

	ciphers, market endorsements, MSA eating quality etc.		Meat Transfer Certificate (MTC)	
Transfer Certificate number	A unique certificate number issued for traceability purposes.	Yes	Meat Messaging Consignment Report, Meat Transfer Certificate (MTC)	For more information visit the Department of Agriculture, Water and the Environment website.
Transport registration number	The registration number of the vehicle in which the animals or product were transported. For shipments of product this will be a shipping container number.	Yes	Bill of lading/Air Waybill, Export Health Certificate, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC)	

5.2.5.2.5 Regulatory and Industry Programs

- * Meat Standards Australia (MSA)
- * AUS-MEAT
- * Department of Agriculture
- * Export Documentation System (EXDOC)
- * Meat Messaging
- * Other data sources

5.2.5.2.6 Supply Chain Node Traceability

Non Packer Exporters (NPEs) are holders of a Meat Export Licence who do not operate a premises for the purpose of packaging meat for export registered under the Australian Government Department for Agriculture. Instead, NPEs are often buyers and resellers of product and organise the documentation associated with the sale and exportation of product.

Like exporters, the traceability of product which is traded by NPEs back to the live animal and property of origin is dependent on the form (carcase, carton) in which the product is being exported. All container system units undergoing export must be accompanied by a Meat Messaging Consignment Report and Meat Transfer Certificate (MTC) or Animal By Product Transfer Certificate (BPTC). While the NPE does not touch the product, they are involved in the preparation and handling of this documentation. The Consignment Report is issued to the buyer of product and lists all the logistic unit and subunit unique serialised identifiers contained within the Container System Unit including the Consignment Serial Shipping Container Code (SSCC), Pallet Serial Shipping Container Code, and scanned and verified carton label serial identifiers. Additionally, the Transfer Certificate details the serialised logistic unit identifiers such as the Serial Shipping Container Code (SSCC). These documents allow traceability of the unit and its subunits back to either the live animal and property of origin (for carcasses) or processor production run (for cartons and palletised meat and meat products).

For traceability information pertaining to carton and carcase products please refer to Boning Room and Carcase Chiller 'Supply Chain Node Traceability' respectively.

5.2.5.2.7 Data flow diagrams

Table 133. Data flow diagrams for the inputs and outputs of a beef non-packer exporter system

Direction	Description
Input	Cold Store (carcase) to Non packer Exporter
Input	Cold Store (cartons) to Non Packer Exporter
Output	Third Party Cold Store to Non packer Exporter
Output	Non packer Exporter to Import Inspection Facility

5.2.5.2.7.1 Cold Store (carcase) to Non packer Exporter

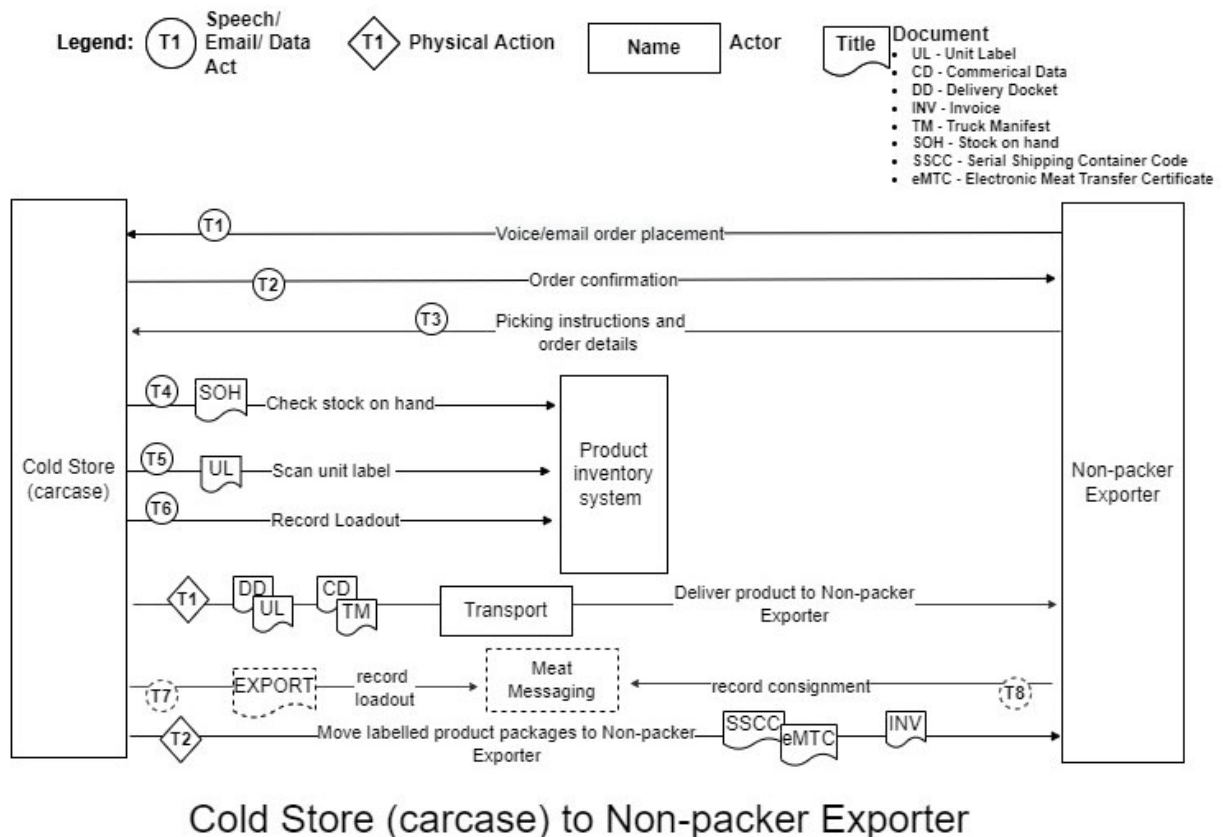
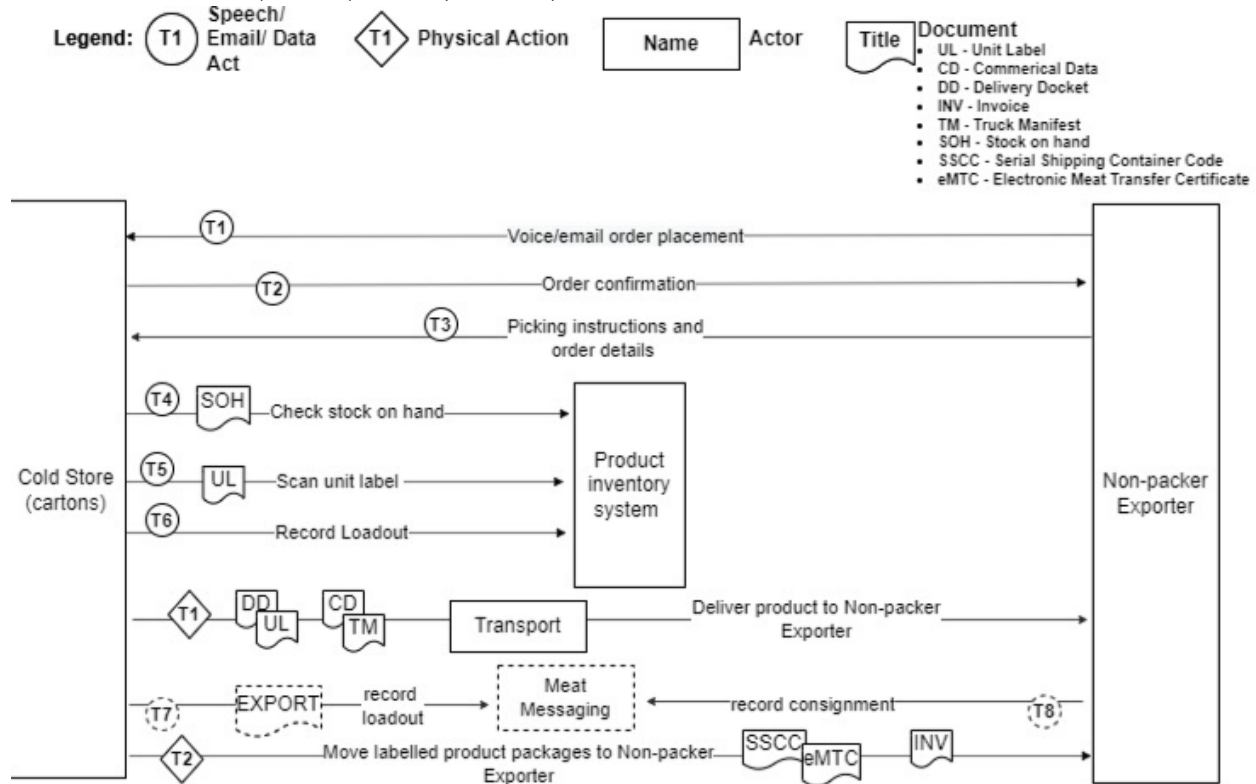


Figure 152. Data or information flows from the cold store (carcase) to non-packer exporter system in the beef supply chain.

5.2.5.2.7.2 Cold Store (cartons) to Non packer Exporter



Cold Store (cartons) to Non-packer Exporter

Figure 153. Data or information flows from the cold store (carton) to non-packer exporter systems in the beef supply chain.

5.2.5.2.7.3 Third Party Cold Store to Non packer Exporter

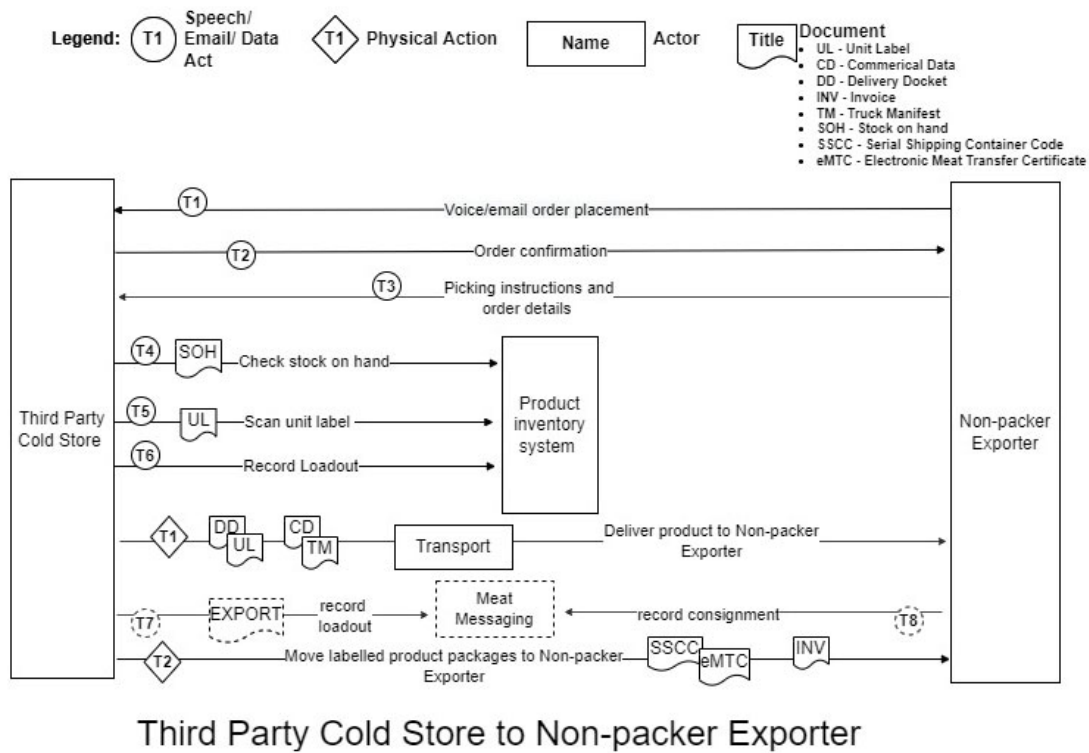


Figure 154. Data or information flows from the third party cold store to non-packer exporter systems in the beef supply chain.

5.2.5.2.7.4 Non packer Exporter to Import Inspection Facility

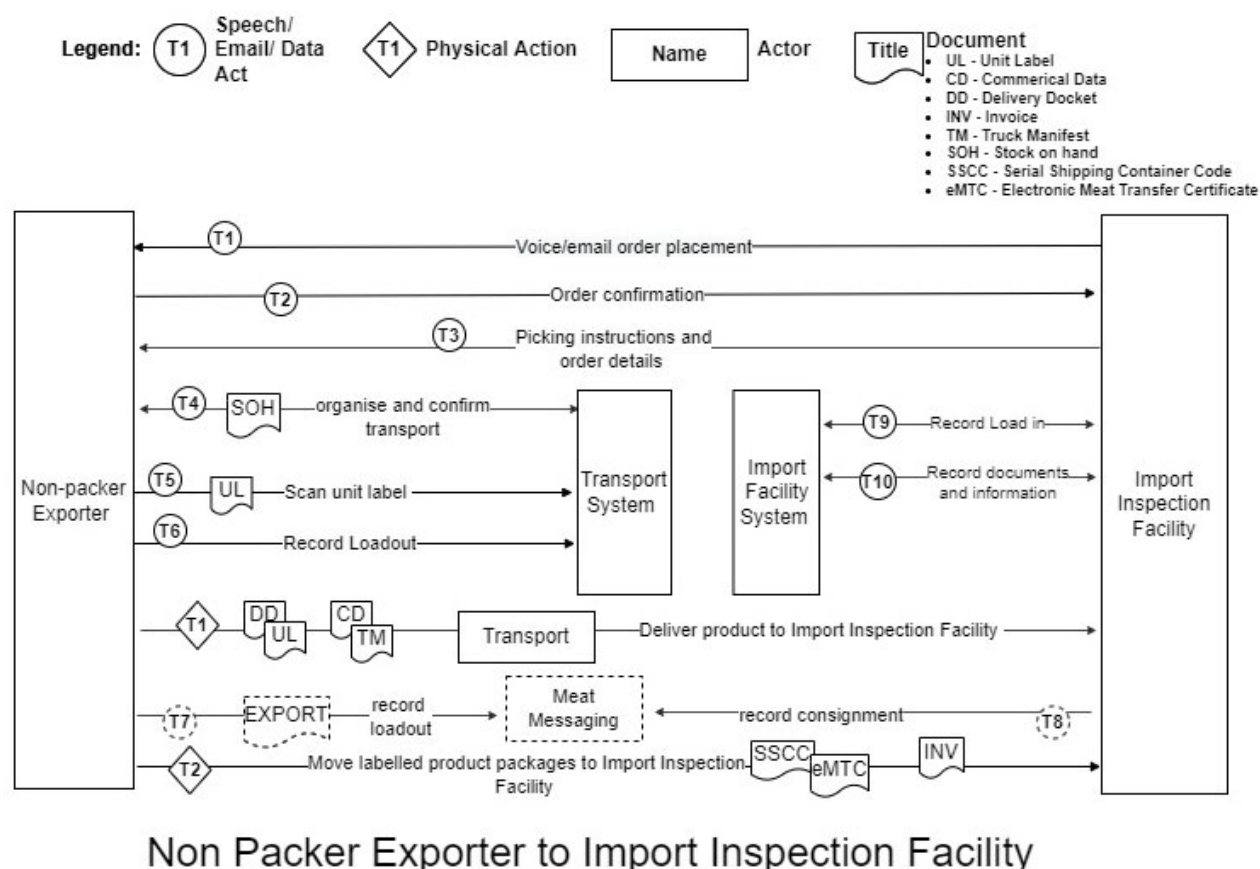


Figure 155. Data or information flows from the non-packer exporter to import inspection facility systems in the beef supply chain.

5.2.5.3 Export

Australia is one of the largest exporters of beef in the world by volume and value of meat and this is largely due to strict animal welfare practices and quality control standards. This has allowed consumer demand for Australian beef to remain strong in a competitive global market against other large exporters such as Brazil and India. Australia principally exports meat to North America, the Middle East, Russia, China, South East Asia, Korea, and Japan. Simply, the export process involves the licensing of export premises, inspection of meat and meat products, process auditing, loading, and movement of product. Meat and meat products or meat by-products (packaged into container system units) are typically delivered to the port of export, via refrigerated or bulk transport respectively, for loading into the export vessel.

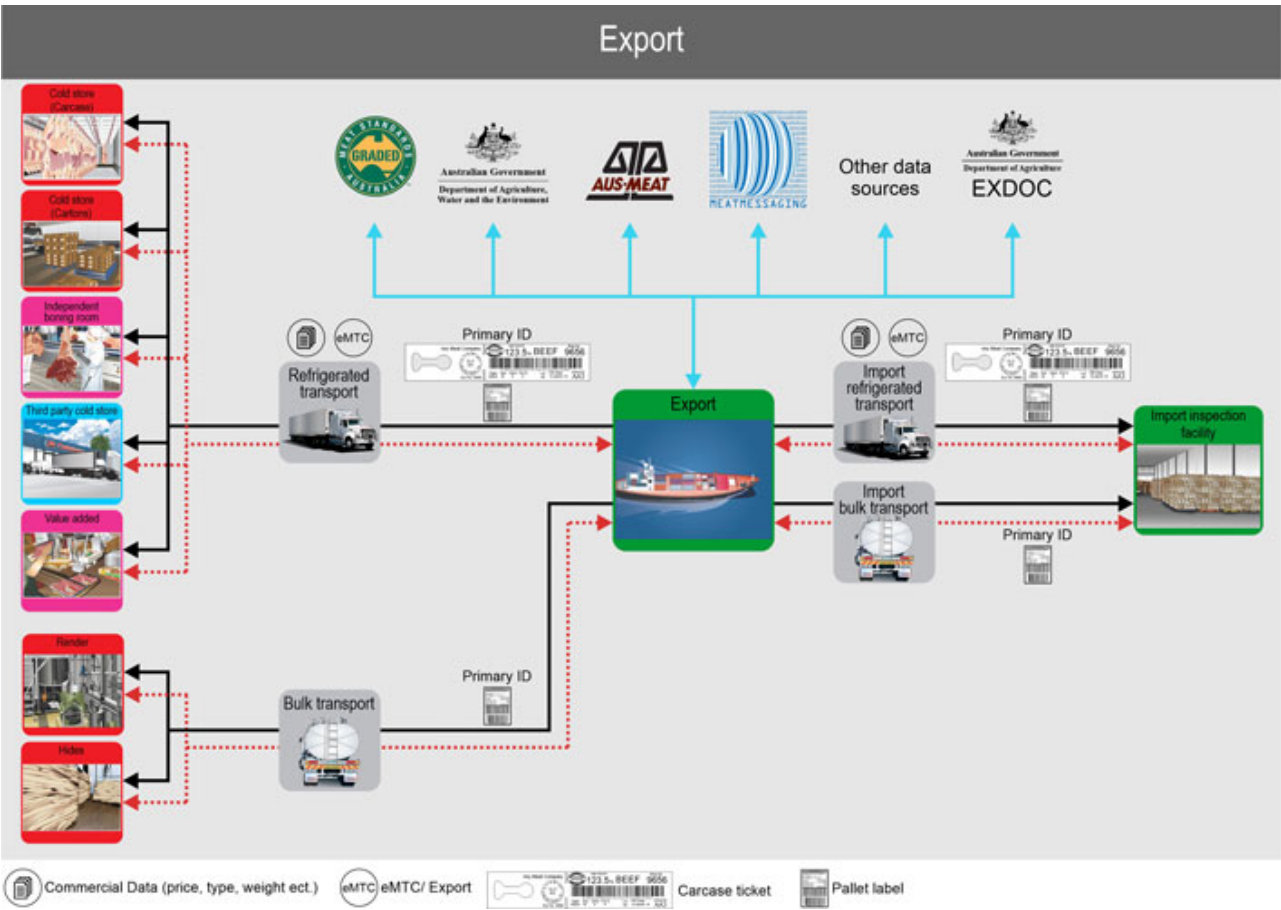


Figure 156. Inputs and outputs of the beef supply chain export sector.

5.2.5.3.1 Physical Inputs including Critical Tracking Events (CTEs)

Prior to export, packaged product is loaded into refrigerated shipping containers and transported to the export port to be loaded into ships or airfreight. Therefore, container system units, which contain packaged meat product, are the physical inputs to the export system. Critical Tracking Event related documentation such as the Bill of lading/Air Waybill, as well as Export Health Certificate and Certificate of Analysis, must accompany the movement of product to an importing country.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with inputs to the export system include the receipt of:

- * Container System Unit (meat and meat products)
- * Container System Unit (render and hide product).

Table 134. Physical inputs and associated Critical Tracking Event related documents for a beef export system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details

Container System Unit (meat and meat products)	A container designed for use as a unit of cargo handling equipment in the transport of goods by aircraft or ship.	Bill of lading/Air Waybill, Delivery Docket/Manifest, Export Health Certificate, Export Permit, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), Official seal, Receipt of purchase/Tax Invoice, Certificate of Analysis (COA)	
Container System Unit (render and hide product)	A container designed for use as a unit of cargo handling equipment in the transport of goods by aircraft or ship.	Animal By Product Transfer Certificate (BPTC), Bill of lading/Air Waybill, Delivery Docket/Manifest, Export clearance documentation, Export Permit, Meat Messaging Consignment Report, Certificate of Analysis (COA), Receipt of purchase/Tax Invoice	

5.2.5.3.2 Information Inputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). Information inputs into the export system are those KDEs which can be drawn from CTE documentation. These may include document numbers for documents such as the Bill of lading/Air Waybill, Meat Transfer Certificate and Certificate of Analysis as well as other product specific information.

Table 135. Information inputs, Key Data Elements and Critical Tracking Event related documentation for a beef export system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Analysis Date	This is the date on which a product sample was analysed.	Yes	Certificate of Analysis (COA)	
Bill of lading/Air Waybill document number	A unique document number issued for traceability purposes.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA)	
Certificate of Analysis number	A unique certificate number issued for traceability purposes.	Yes	Certificate of Analysis (COA)	
COA test lot identifier	This is a unique identifier allocated to all cartons, pallets, and shipping containers for which an analysis sample represents.	Yes	Certificate of Analysis (COA)	
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA), Receipt of purchase/Tax Invoice	

Consignment Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., shipment/message that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Animal By Product Transfer Certificate (BPTC), Bill of lading/Air Waybill, Export clearance documentation, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC)	For more information visit the GS1 website.
Contract number	This is a unique number allocated to the contract by the seller.	Yes	Delivery Docket/Manifest	
Count of Pallets	This is the number of pallets in the logistic unit e.g., container system unit.	Yes	Meat Messaging Consignment Report	
Count of Trade Items	Usually encoded in the GS1 barcode, this is the number of trade items e.g., cartons in the logistic unit.	Yes	Bill of lading/Air Waybill, Delivery Docket/Manifest, Meat Messaging Consignment Report	For more information visit the GS1 website.
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Animal By Product Transfer Certificate (BPTC), Bill of lading/Air Waybill, Certificate of Analysis (COA), Delivery Docket/Manifest, Export clearance documentation, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), Receipt of purchase/Tax Invoice	
Delivery Docket/Manifest number	This is a unique number allocated to the docket for identification purposes.	Yes	Delivery Docket/Manifest	
Export Health Certificate Number	A unique number allocated to the health certificate issued for the export consignment for traceability purposes.	Yes	Export Health Certificate, Meat Messaging Consignment Report	For more information visit the Department of Agriculture, Water and the Environment website.
Export Permit Number	A unique permit number is allocated for the export consignment following submission of a correct and	Yes	Export Permit	For more information visit the Department of

	validated Request For Permit (RFP) which is then approved by the Secretary.			Agriculture, Water and the Environment website.
From Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Animal By Product Transfer Certificate (BPTC), Certificate of Analysis (COA), Delivery Docket/Manifest, Export clearance documentation, Export Health Certificate, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC)	
Global Trade Item Number (GTIN)	Encoded in the GS1 barcode, the GTIN is a globally unique 14-digit number used to identify trade items, products, or services.	Yes	Meat Messaging Consignment Report	For more information visit the GS1 website.
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Animal By Product Transfer Certificate (BPTC), Bill of lading/Air Waybill, Certificate of Analysis (COA), Delivery Docket/Manifest, Export clearance documentation, Export Health Certificate, Meat Transfer Certificate (MTC)	
MSA Licence Number	Any establishment consigning, supplying, or identifying MSA Certified Product must be registered and have a unique MSA Licence Number.	Yes	Receipt of purchase/Tax Invoice	For more information on MSA visit the MLA website.
Net Weight (Kilograms)	Usually encoded in the GS1 barcode, the Net Weight is a variable measure of the trade item e.g., carton, pallet or shipment recorded in kilograms.	Yes	Bill of lading/Air Waybill, Export Health Certificate, Meat Messaging Consignment Report	For more information visit the GS1 website.
Order date	This is the date on which the purchase order or contract was raised by the buyer.	Yes	Delivery Docket/Manifest	
Packaging Date	Encoded in the GS1 barcode, the Packaging Date is the date on which the item was	Yes	Certificate of Analysis (COA)	For more information

	packaged and is recorded in the format year, month, day (YYMMDD).			visit the GS1 website.
Packaging Date Range	This includes the oldest and newest packaging dates for the logistic unit.	Yes	Export clearance documentation	
Pallet Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., pallet that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Animal By Product Transfer Certificate (BPTC), Export clearance documentation, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC)	For more information visit the GS1 website.
Production Date (YYMMDD)	Encoded in the GS1 barcode, this is the 'kill' or slaughter' date of the product and is recorded in the format year, month, day (YYMMDD).	Yes	Animal By Product Transfer Certificate (BPTC), Certificate of Analysis (COA), Meat Transfer Certificate (MTC)	For more information visit the GS1 website.
Recipient Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Receipt of purchase/Tax Invoice	For more information visit the ATO website.
Seal Serial Number	This is a unique serial number printed on any tamper-evident seal issued by the Department.	Yes	Animal By Product Transfer Certificate (BPTC), Bill of lading/Air Waybill, Export clearance documentation, Meat Transfer Certificate (MTC), Official seal	For more information visit the GS1 website.
Seller/Supplier Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Receipt of purchase/Tax Invoice	For more information visit the ATO website.
Shipping Mark	Also known as a port mark, this is a code comprising of three letters representing the foreign establishment number and the last nine digits of the consignment SSCC.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA), Delivery Docket/Manifest, Export Health Certificate, Meat Messaging Consignment Report	
To Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were	Yes	Animal By Product Transfer Certificate (BPTC), Export clearance documentation,	

	distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.		Meat Transfer Certificate (MTC)	
Trade description	This is a collective set of words that says what the product is and may include information such as species, net weight of product, name and address of establishments, category ciphers, market endorsements, MSA eating quality etc.	Yes	Animal By Product Transfer Certificate (BPTC), Delivery Docket/Manifest, Export clearance documentation, Export Health Certificate, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC)	
Transfer Certificate number	A unique certificate number issued for traceability purposes.	Yes	Animal By Product Transfer Certificate (BPTC), Meat Messaging Consignment Report, Meat Transfer Certificate (MTC)	
Transport registration number	The registration number of the vehicle in which the animals or product were transported. For shipments of product this will be a shipping container number.	Yes	Animal By Product Transfer Certificate (BPTC), Bill of lading/Air Waybill, Delivery Docket/Manifest, Export clearance documentation, Export Health Certificate, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC)	

5.2.5.3.3 Physical Outputs including Critical Tracking Events (CTEs)

Container system units, which contain packaged meat product, are the physical outputs of the export system. Critical Tracking Event related documentation such as the Bill of lading/Air Waybill, as well as Export Health Certificate and Certificate of Analysis, must accompany the movement of product to an importing country.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with the outputs of the export system include the movement of:

- * Container System Unit (meat and meat products)
 - * Container System Unit (render and hide product)
- off the property, premises, or supply chain sector.

Table 136. Physical outputs and associated Critical Tracking Event related documents for a beef export system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Container System Unit (meat and meat products)	A container designed for use as a unit of cargo handling equipment in the transport of goods by aircraft or ship.	Bill of lading/Air Waybill, Delivery Docket/Manifest, Export Health Certificate, Export Permit, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), Official seal, Receipt of purchase/Tax Invoice, Certificate of Analysis (COA)	
Container System Unit (render and hide product)	A container designed for use as a unit of cargo handling equipment in the transport of goods by aircraft or ship.	Animal By Product Transfer Certificate (BPTC), Bill of lading/Air Waybill, Delivery Docket/Manifest, Export clearance documentation, Export Permit, Meat Messaging Consignment Report, Certificate of Analysis (COA), Receipt of purchase/Tax Invoice	

5.2.5.3.4 Information Outputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). Information outputs from the export system are those KDEs which can be drawn from CTE documentation. These may include document numbers for documents such as the Bill of lading/Air Waybill, Meat Transfer Certificate and Certificate of Analysis as well as other product specific information.

Table 137. Information outputs, Key Data Elements and Critical Tracking Event related documentation for a beef export system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Analysis Date	This is the date on which a product sample was analysed.	Yes	Certificate of Analysis (COA)	
Bill of lading/Air Waybill document number	A unique document number issued for traceability purposes.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA)	
Certificate of Analysis number	A unique certificate number issued for traceability purposes.	Yes	Certificate of Analysis (COA)	
COA test lot identifier	This is a unique identifier allocated to all cartons, pallets, and shipping containers for which an analysis sample represents.	Yes	Certificate of Analysis (COA)	

Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA), Receipt of purchase/Tax Invoice	
Consignment Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., shipment/message that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Animal By Product Transfer Certificate (BPTC), Bill of lading/Air Waybill, Export clearance documentation, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC)	For more information visit the GS1 website.
Contract number	This is a unique number allocated to the contract by the seller.	Yes	Delivery Docket/Manifest	
Count of Pallets	This is the number of pallets in the logistic unit e.g., container system unit.	Yes	Meat Messaging Consignment Report	
Count of Trade Items	Usually encoded in the GS1 barcode, this is the number of trade items e.g., cartons in the logistic unit.	Yes	Bill of lading/Air Waybill, Delivery Docket/Manifest, Meat Messaging Consignment Report	For more information visit the GS1 website.
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Animal By Product Transfer Certificate (BPTC), Bill of lading/Air Waybill, Certificate of Analysis (COA), Delivery Docket/Manifest, Export clearance documentation, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), Receipt of purchase/Tax Invoice	
Delivery Docket/Manifest number	This is a unique number allocated to the docket for identification purposes.	Yes	Delivery Docket/Manifest	
Export Health Certificate Number	A unique number allocated to the health certificate issued for the export consignment for traceability purposes.	Yes	Export Health Certificate, Meat Messaging Consignment Report	For more information visit the Department of Agriculture, Water and the

				Environment website.
Export Permit Number	A unique permit number is allocated for the export consignment following submission of a correct and validated Request For Permit (RFP) which is then approved by the Secretary.	Yes	Export Permit	For more information visit the Department of Agriculture, Water and the Environment website.
From Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Animal By Product Transfer Certificate (BPTC), Certificate of Analysis (COA), Delivery Docket/Manifest, Export clearance documentation, Export Health Certificate, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC)	
Global Trade Item Number (GTIN)	Encoded in the GS1 barcode, the GTIN is a globally unique 14-digit number used to identify trade items, products, or services.	Yes	Meat Messaging Consignment Report	For more information visit the GS1 website.
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Animal By Product Transfer Certificate (BPTC), Bill of lading/Air Waybill, Certificate of Analysis (COA), Delivery Docket/Manifest, Export clearance documentation, Export Health Certificate, Meat Transfer Certificate (MTC)	
MSA Licence Number	Any establishment consigning, supplying, or identifying MSA Certified Product must be registered and have a unique MSA Licence Number.	Yes	Receipt of purchase/Tax Invoice	For more information on MSA visit the MLA website.
Net Weight (Kilograms)	Usually encoded in the GS1 barcode, the Net Weight is a variable measure of the trade item e.g., carton, pallet or shipment recorded in kilograms.	Yes	Bill of lading/Air Waybill, Export Health Certificate, Meat Messaging Consignment Report	For more information visit the GS1 website.

Order date	This is the date on which the purchase order or contract was raised by the buyer.	Yes	Delivery Docket/Manifest	
Packaging Date	Encoded in the GS1 barcode, the Packaging Date is the date on which the item was packaged and is recorded in the format year, month, day (YYMMDD).	Yes	Certificate of Analysis (COA)	For more information visit the GS1 website.
Packaging Date Range	This includes the oldest and newest packaging dates for the logistic unit.	Yes	Export clearance documentation	
Pallet Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., pallet that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Animal By Product Transfer Certificate (BPTC), Export clearance documentation, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC)	For more information visit the GS1 website.
Production Date (YYMMDD)	Encoded in the GS1 barcode, this is the 'kill' or slaughter' date of the product and is recorded in the format year, month, day (YYMMDD).	Yes	Animal By Product Transfer Certificate (BPTC), Certificate of Analysis (COA), Meat Transfer Certificate (MTC)	For more information visit the GS1 website.
Recipient Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Receipt of purchase/Tax Invoice	For more information visit the ATO website.
Seal Serial Number	This is a unique serial number printed on any tamper-evident seal issued by the Department.	Yes	Animal By Product Transfer Certificate (BPTC), Bill of lading/Air Waybill, Export clearance documentation, Meat Transfer Certificate (MTC), Official seal	For more information visit the GS1 website.
Seller/Supplier Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Receipt of purchase/Tax Invoice	For more information visit the ATO website.
Shipping Mark	Also known as a port mark, this is a code comprising of three letters representing the foreign establishment number and the	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA), Delivery Docket/Manifest, Export Health Certificate, Meat	

	last nine digits of the consignment SSCC.		Messaging Consignment Report	
To Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Animal By Product Transfer Certificate (BPTC), Export clearance documentation, Meat Transfer Certificate (MTC)	
Trade description	This is a collective set of words that says what the product is and may include information such as species, net weight of product, name and address of establishments, category ciphers, market endorsements, MSA eating quality etc.	Yes	Animal By Product Transfer Certificate (BPTC), Delivery Docket/Manifest, Export clearance documentation, Export Health Certificate, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC)	
Transfer Certificate number	A unique certificate number issued for traceability purposes.	Yes	Animal By Product Transfer Certificate (BPTC), Meat Messaging Consignment Report, Meat Transfer Certificate (MTC)	For more information visit the Department of Agriculture, Water and the Environment website.
Transport registration number	The registration number of the vehicle in which the animals or product were transported. For shipments of product this will be a shipping container number.	Yes	Animal By Product Transfer Certificate (BPTC), Bill of lading/Air Waybill, Delivery Docket/Manifest, Export clearance documentation, Export Health Certificate, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC)	

5.2.5.3.5 Regulatory and Industry Programs

- * Meat Standards Australia (MSA)
- * AUS-MEAT
- * Department of Agriculture
- * Export Documentation System (EXDOC)
- * Meat Messaging
- * Other data sources

5.2.5.3.6 Supply Chain Node Traceability

The traceability of product undergoing export/importation back to the live animal and property of origin is dependent on the form (carcase, carton, pallet or render store bag subunits) in which the product is being exported/imported. All container system units undergoing export must be accompanied by a Meat Messaging Consignment Report and a Meat Transfer Certificate (MTC) or Animal By Product Transfer Certificate (BPTC). The Consignment Report is issued to the buyer of product and lists all the logistic unit and subunit unique serialised identifiers contained within the Container System Unit including the Consignment Serial Shipping Container Code (SSCC), Pallet Serial Shipping Container Code, and scanned and verified carton label serial identifiers. Additionally, the Transfer Certificate details the serialised logistic unit identifiers such as the Serial Shipping Container Code (SSCC). These documents allow traceability of the unit and its subunits back to either the live animal and property of origin (for carcasses) or processor production run (for cartons and palletised meat and meat products).

For traceability information pertaining to render and hide products please refer to 'Supply Chain Node Traceability' under each of these nodes. For carton and carcase products please refer to Boning Room and Carcase Chiller 'Supply Chain Node Traceability' respectively.

5.2.5.3.7 Data flow diagrams

Table 138. Data flow diagrams for the inputs and outputs of a beef export system.

Direction	Description
Input	Cold Store (Carcase) to Export
Input	Cold Store (Carton) to Export
Input	Third Party Cold Store to Export
Input	Value Added to Export
Input	Render to Export
Input	Hides to Export
Output	Export to Import Inspection Facility

5.2.5.3.7.1 Cold Store (Carcase) to Export

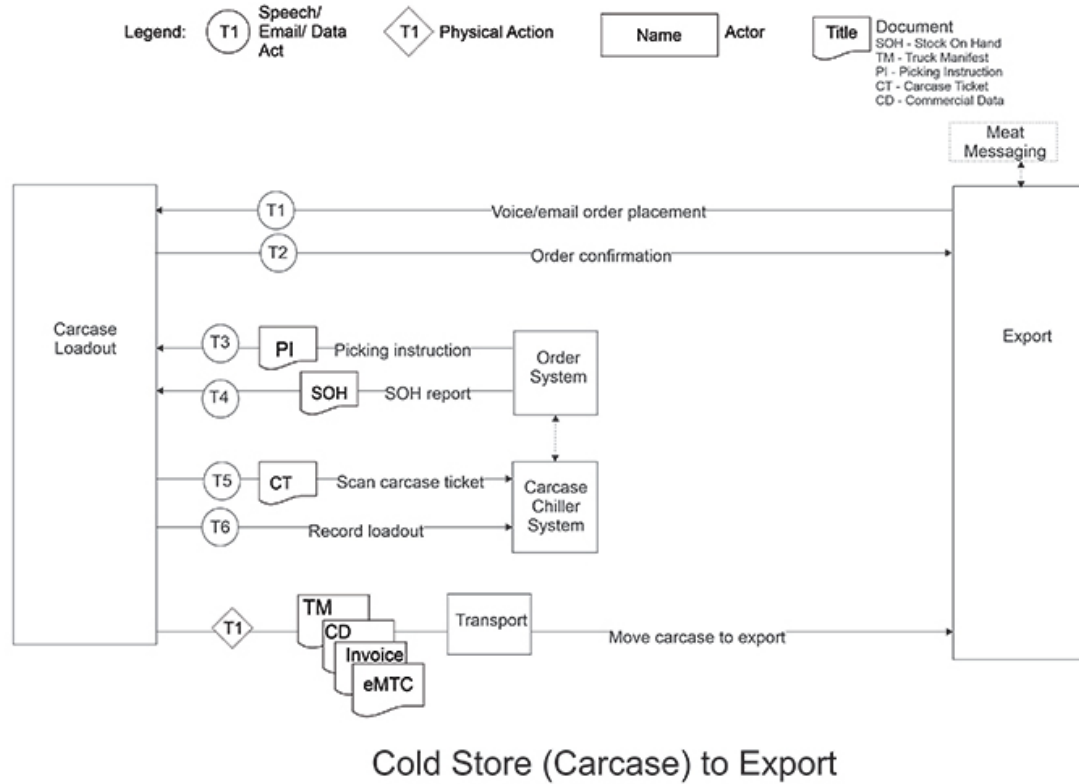


Figure 157. Data or information flows from the cold store (carcase) to export systems in the beef supply chain.

5.2.5.3.7.2 Cold Store (Carton) to Export

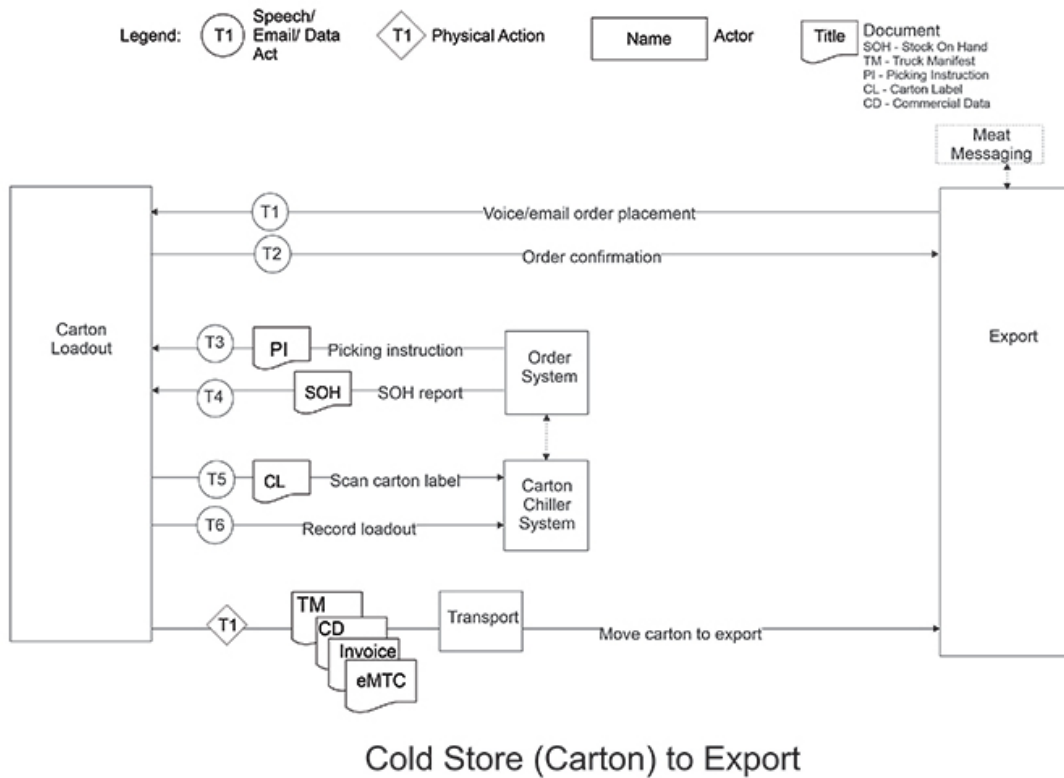
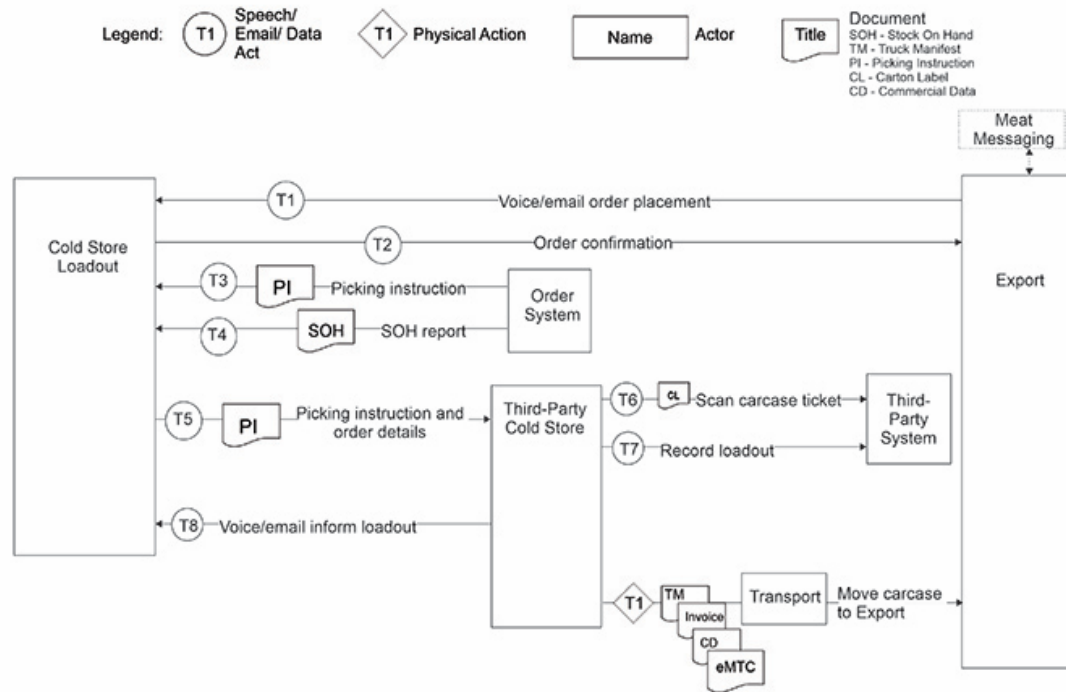


Figure 158. Data or information flows from the cold store (carton) to export systems in the beef supply chain.

5.2.5.3.7.3 Third Party Cold Store to Export



Third-Party Cold Store to Export

Figure 159. Data or information flows from the third-party cold store to export systems in the beef supply chain.

5.2.5.3.7.4 Value Added to Export

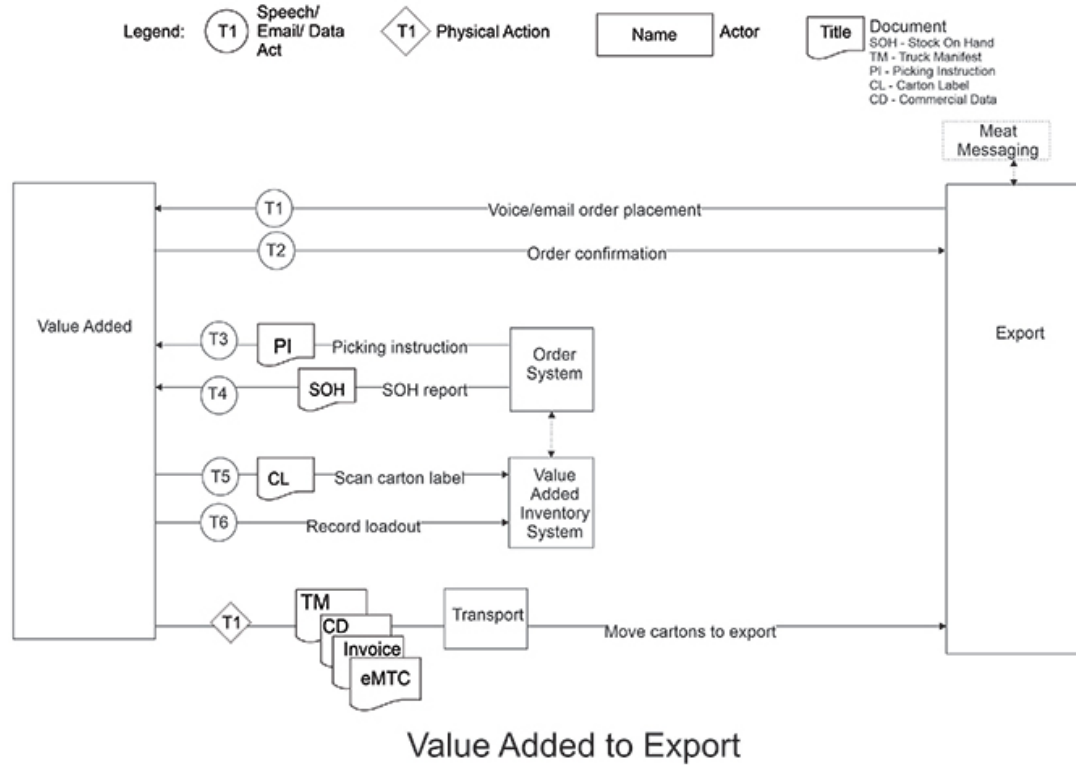


Figure 160. Data or information flows from the value-added to export systems in the beef supply chain.

5.2.5.3.7.5 Render to Export

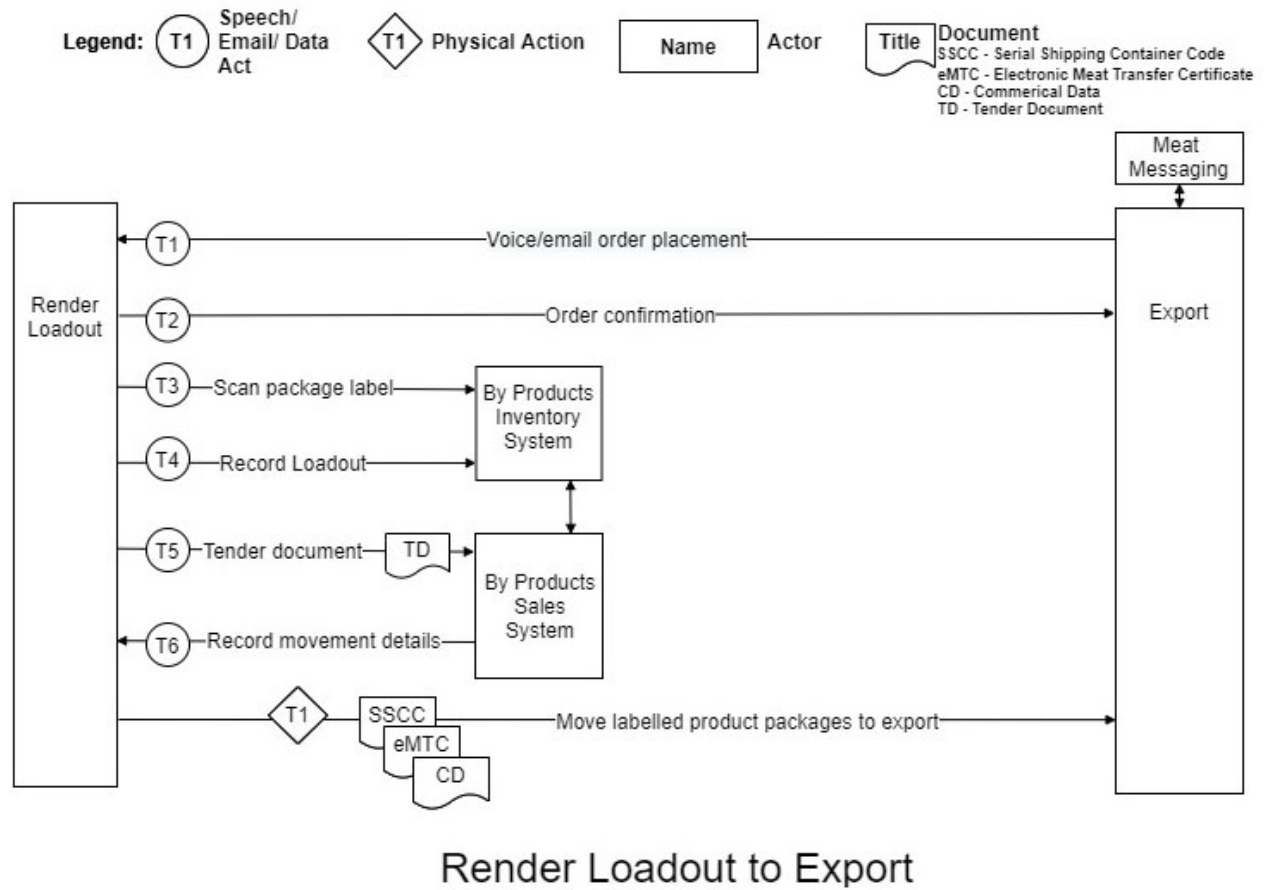


Figure 161. Data or information flows from the render loadout to export systems in the beef supply chain.

5.2.5.3.7.6 Hides to Export

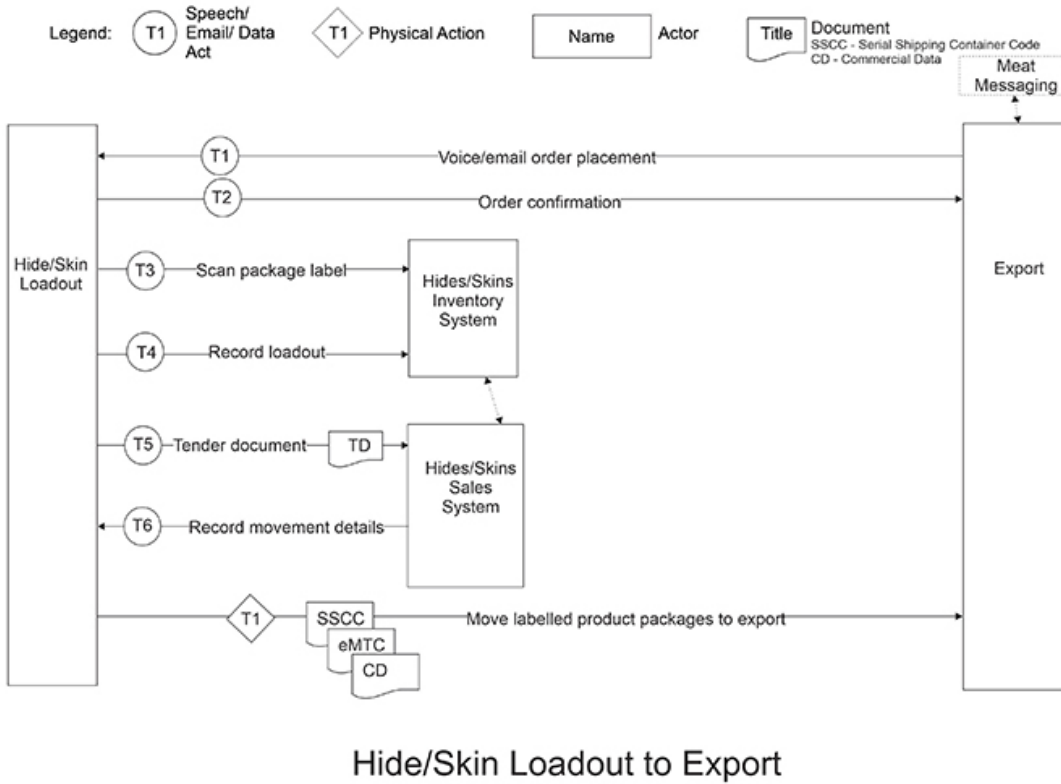


Figure 162. Data or information flows from the hide/skin loadout to export systems in the beef supply chain.

5.2.5.3.7.7 Export to Import Inspection Facility

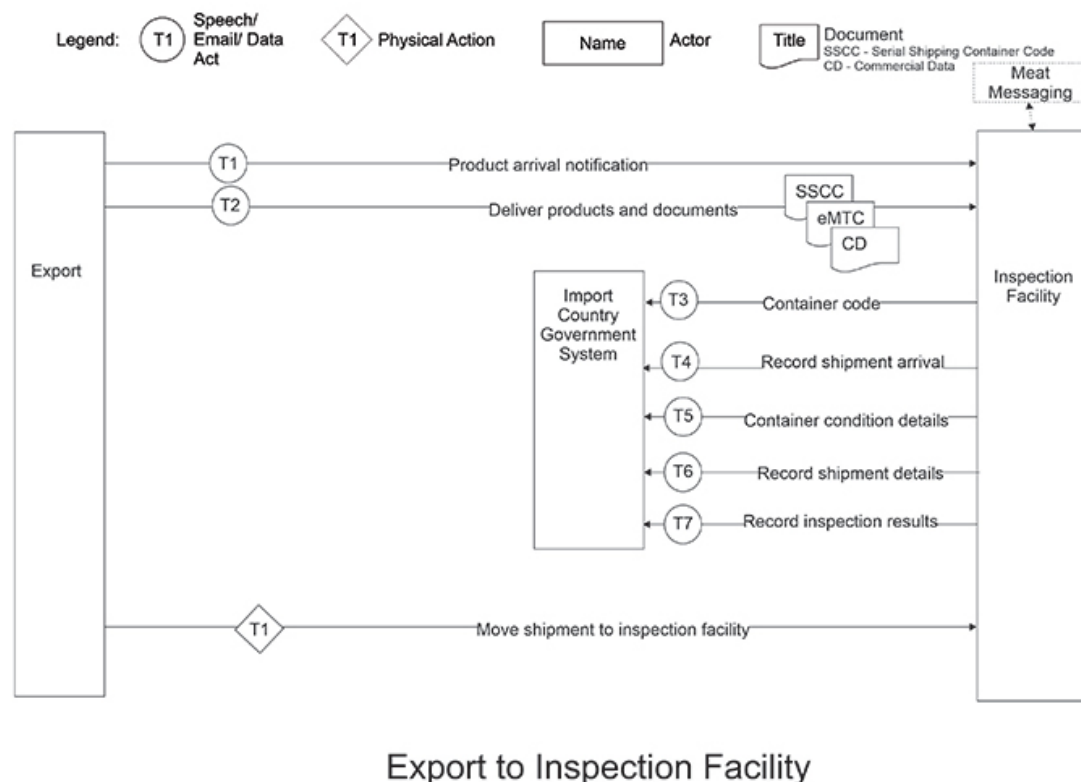


Figure 163. Data or information flows from the export to import inspection facility systems in the beef supply chain.

5.2.6 Importing Country - National distribution

5.2.6.1 Import finishing – grass

Grass-finished animals are those which are typically fed entirely on grass-derived forage such as annual or perennial grasses, crops in the vegetative stage, hay, or silage. These animals are not fed a grain-based diet such as that provided in a feedlot system. The requirements of a grass-finishing system are usually determined by the target market. Grass finishing systems may also require feeding supplements for nutritional, efficiency, and production purposes to be provided to livestock.

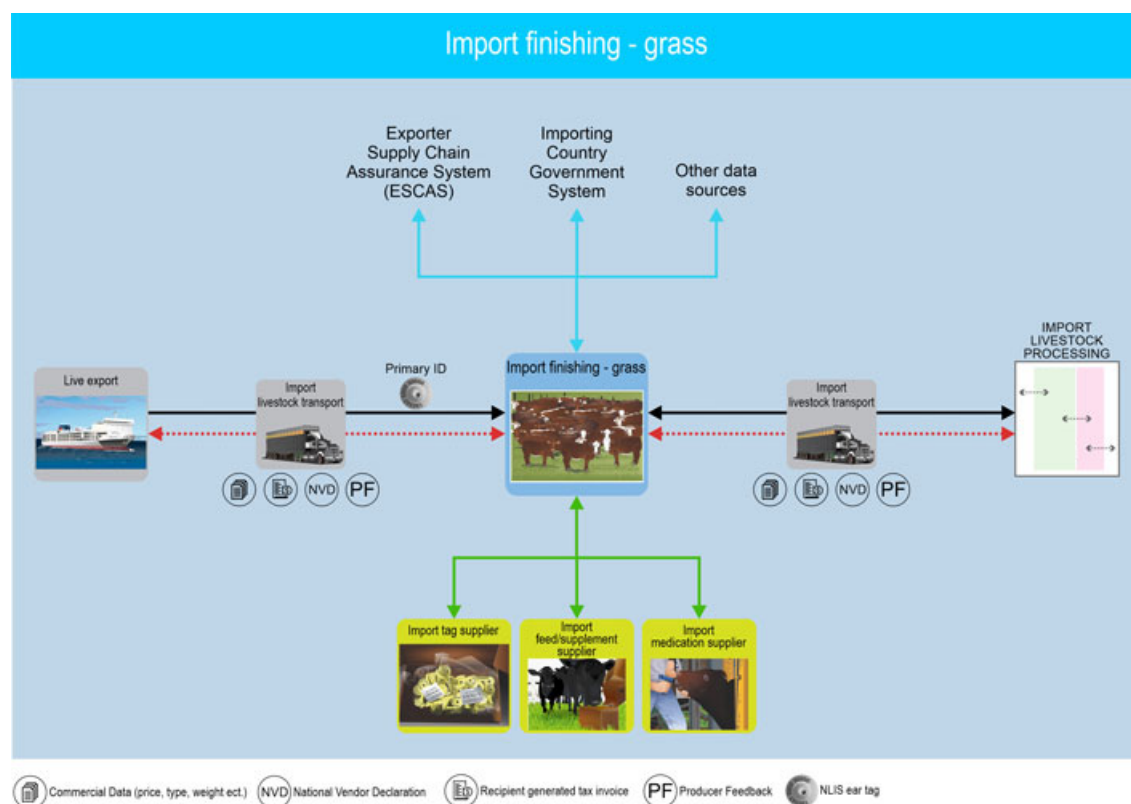


Figure 164. Inputs and outputs of the beef supply chain import finishing (grass/pasture) sector.

5.2.6.1.1 Physical Inputs including Critical Tracking Events (CTEs)

Inputs for the grass finishing component of the beef cattle supply chain are largely the same as for the breeding and backgrounding sectors and include the cattle, any veterinary input or commercial services, veterinary drugs and health treatments, crop and pasture treatments and any feed supplements.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with inputs to the import grass finishing system include the receipt of:

- * Cattle
- * Crop and pasture treatments
- * Experts and veterinarians
- * Feed supplies and supplements
- * Veterinary drugs or other health treatments.

Table 139. Physical inputs and associated Critical Tracking Event related documents for a beef import finishing (grass/pasture) system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Cattle	These are bovine livestock and may include any type of cattle e.g., cull cattle, calves etc.	Exporter/Importer Agreement, Import feed and water record, Import Permit, Livestock Export Health Certificate, Veterinary Services Form/Import release, Import Receipt	

		of purchase/Tax Invoice, Import specific livestock movement forms	
Crop and pasture treatments	These are agricultural chemicals applied to crops, pastures and/or paddocks (inclusive of spot spraying) which livestock may come into contact with or consume.	Import Receipt of purchase/Tax Invoice	
Experts and veterinarians	These are professionals who provide services to the breeding enterprise which ensure the safety, wellbeing, and productivity of the livestock.	Import Receipt of purchase/Tax Invoice, Veterinary prescription	
Feed supplies and supplements	These are supplementary animal feed products such as hay or silage fodder, or mineral supplements which are provided to ensure the production efficiency and health of livestock are maintained. This may also include clean drinking water e.g., where livestock are in transit or at saleyards.	Import specific commodity movement forms, Import Receipt of purchase/Tax Invoice	
Veterinary drugs or other health treatments	These may be prescribed, or non-prescribed treatments or medications given to ensure the health and wellbeing of the livestock.	Import Receipt of purchase/Tax Invoice, Veterinary prescription	

5.2.6.1.2 Information Inputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). There are a range of measurements that are related to the inputs of a finishing system. These include the source of the cattle, transport details, and any vaccinations or other treatments that the cattle have undergone. The importer of exported livestock must demonstrate that these livestock remain traceable throughout the supply chain up to the point of slaughter. Livestock must therefore be effectively identified, and all movements recorded to allow traceability back to the property of birth in the exporting country i.e., Australia. This requires import specific livestock movement forms to be completed and kept for traceability records.

Table 140. Information inputs, Key Data Elements and Critical Tracking Event related documentation for a beef import finishing (grass/pasture) system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
APVMA approval number	This is a unique number allocated to each label by the APVMA.	Yes	Livestock Export Health Certificate	For more information visit the Australian Pesticides and Veterinary Medicine Authority.
Batch number	This is a unique number which identifies products sharing certain production characteristics and is used for traceability purposes.	Yes	Livestock Export Health Certificate	
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Import feed and water record, Import Receipt of purchase/Tax Invoice	

Contract number	This is a unique number allocated to the contract by the seller.	Yes	Exporter/Importer Agreement, Import specific commodity movement forms	
Customs Entry number	A unique number assigned to an entry document and issued to importation shipments by customs for identification purposes.	Yes	Veterinary Services Form/Import release	
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Exporter/Importer Agreement, Import feed and water record, Import Receipt of purchase/Tax Invoice, Import specific commodity movement forms, Import specific livestock movement forms, Livestock Export Health Certificate	
Export Health Certificate Number	A unique number allocated to the health certificate issued for the export consignment for traceability purposes.	Yes	Livestock Export Health Certificate	For more information visit the Department of Agriculture, Water and the Environment website.
Export Premises Registration number	A unique number issued to Australian Government approved quarantine premises where livestock are prepared for export.	Yes	Livestock Export Health Certificate	For more information visit the Department of Agriculture, Water and the Environment website.
From Port Code	Any location used in international trade and transport (e.g., seaport, airports etc.) are issued with an identification code.	Yes	Livestock Export Health Certificate	For more information visit the Department of Agriculture, Water and the Environment website.
From property identifier	The identification of the property (may be a PIC) from/to where the livestock or product were consigned.	Yes	Import specific commodity movement forms, Import specific livestock movement forms	
Import Permit Number	A unique permit number is allocated for the import consignment following submission of correct and validated documentation approved by the importing country.	Yes	Import Permit, Veterinary Services Form/Import release	
Livestock Export Licence Holder number	A unique licence number is allocated to exporters of livestock for a period of one to five years following submission of a correct documentation which is then approved by the Secretary.	Yes	Exporter/Importer Agreement, Livestock Export Health Certificate	For more information visit the Department of Agriculture, Water and the Environment website.

Livestock Identifier	The importer of exported livestock must demonstrate that these livestock remain traceable throughout the supply chain up to the point of slaughter. Livestock must be effectively identified, and all movements recorded to allow traceability back to the property of birth in the exporting country.	Yes	Import specific livestock movement forms	
Livestock movement form serial number	A unique certificate number issued for traceability purposes.	Yes	Import specific livestock movement forms	
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Exporter/Importer Agreement, Import specific commodity movement forms, Import specific livestock movement forms, Livestock Export Health Certificate, Veterinary Services Form/Import release	
NLIS Tag Number/Rfid	All animals transported between PICs must have a permanent National Livestock Identification System tag attached. This tag has a unique animal identification number.	Yes	Livestock Export Health Certificate	For more information visit the Integrity systems website.
Prescription number	A unique certificate number issued for traceability purposes.	Yes	Veterinary prescription	
Product code/description	This is a unique identifier or description assigned by the seller to each product type marketed or for sale.	Yes	Import specific commodity movement forms	
Quarantine date range	This is the date range identifying a period in time in which livestock were quarantined directly prior to exportation.	Yes	Livestock Export Health Certificate	For more information visit the Department of Agriculture, Water and the Environment website.
Recipient Business Number	This is a unique registration number, used to identify businesses.	Yes	Import feed and water record Import, Receipt of purchase/Tax Invoice	
Seller/Supplier Business Number	This is a unique registration number, used to identify businesses.	Yes	Import feed and water record Import, Receipt of purchase/Tax Invoice	
To Port Code	Any location used in international trade and transport (e.g., seaport, airports etc.) are issued with an identification code.	Yes	Livestock Export Health Certificate, Veterinary Services Form/Import release	For more information visit the Department of Agriculture, Water and the Environment website.
To property identifier	The identification of the property (may be a PIC) from/to where the	Yes	Import specific commodity movement	

	livestock or product were consigned.		forms, Import specific livestock movement forms	
Transport registration number	The registration number of the vehicle in which the animals or product were transported.	Yes	Import specific livestock movement forms, Livestock Export Health Certificate, Veterinary Services Form/Import release	
Treatment date	The date on which a treatment or product was applied to a unit e.g., paddock, animal, fodder etc.	Yes	Import feed and water record, Livestock Export Health Certificate	
Veterinary Registration Number	A unique number issued to veterinarians who are registered to practice, under the state legislative requirements, within the state in which they reside.	Yes	Livestock Export Health Certificate, Veterinary prescription	

5.2.6.1.3 Physical Outputs including Critical Tracking Events (CTEs)

The outputs from a grass finishing system are cattle that have been prepared for slaughter and are moved directly to a processor. There is information about each animal that should be made available to this next link in the supply chain. This information is normally passed forward on import specific livestock movement documents.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with the outputs of the import grass finishing system include the movement of:

* Cattle

off the property, premises, or supply chain sector.

Table 141. Physical outputs and associated Critical Tracking Event related documents for a beef import finishing (grass/pasture) system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Cattle	These are bovine livestock and may include any type of cattle e.g., cull cattle, calves etc.	Commercial supply contract, Import feed and water record, Import specific livestock movement forms, Import Receipt of purchase/Tax Invoice	

5.2.6.1.4 Information Outputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). Information passed forward to the next link in the supply chain from a grass finishing system is derived from regulated documents such as import specific livestock movement forms or other records such as feed and water records or commercial supply contracts.

Table 142. Information outputs, Key Data Elements and Critical Tracking Event related documentation for a beef import finishing (grass/pasture) system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Agreement date	This is the date on which an agreement between two parties was made.	Yes	Commercial supply contract	
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Import feed and water record Import, Receipt of purchase/Tax Invoice	
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Commercial supply contract, Import feed and water record, Import Receipt of purchase/Tax Invoice, Import specific livestock movement forms	
From property identifier	The identification of the property (may be a PIC) from/to where the livestock or product were consigned.	Yes	Import specific livestock movement forms	
Livestock Identifier	The importer of exported livestock must demonstrate that these livestock remain traceable throughout the supply chain up to the point of slaughter. Livestock must be effectively identified, and all movements recorded to allow traceability back to the property of birth in the exporting country.	Yes	Import specific livestock movement forms	
Livestock movement form serial number	A unique certificate number issued for traceability purposes.	Yes	Import specific livestock movement forms	
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Commercial supply contract, Import specific livestock movement forms	
Recipient Business Number	This is a unique registration number, used to identify businesses.	Yes	Import feed and water record Import, Receipt of purchase/Tax Invoice	
Seller/Supplier Business Number	This is a unique registration number, used to identify businesses.	Yes	Import feed and water record Import, Receipt of purchase/Tax Invoice	
To property identifier	The identification of the property (may be a PIC) from/to where the livestock or product were consigned.	Yes	Import specific livestock movement forms	

Transport registration number	The registration number of the vehicle in which the animals or product were transported.	Yes	Import specific livestock movement forms	
Treatment date	The date on which a treatment or product was applied to a unit e.g., paddock, animal, fodder etc.	Yes	Import feed and water record	

5.2.6.1.5 Regulatory and Industry Programs

- * Exporter Supply Chain Assurance System (ESCAS)
- * Importing Country Government System
- * Other data sources

5.2.6.1.6 Supply Chain Node Traceability

The National Livestock Identification System (NLIS) is the Australian livestock traceability program which is administered by Integrity Systems Company (ISC). Where stipulated by State legislation and certain export markets, the NLIS system requires all animals bought, sold, and moved along the supply chain to be tagged with an accredited NLIS ID tag. Each tag has an NLIS tag number or Radio Frequency Identifier (RFID) for the traceability of the animal throughout its lifetime. Every property which holds livestock must have a Property Identification Code (PIC) to which the livestock are assigned in the NLIS Database. Each time livestock are transferred between PICs within Australia they must be accompanied by a livestock movement declaration, such as the National Vendor Declaration (NVD) form. This document typically outlines the transporter details, consignment details, compliance with intended market specifications, withholding periods, and the details of the new property PIC. All livestock movements between PICs require an NLIS movement update to be made by either or both the consigner and receiver. Where NLIS ID tags are lost livestock must be issued with a new post-breeder tag if not on the PIC of birth and this reconciled in the NLIS Database. For animals loaded for live export, it is the exporters responsibility to ensure that all livestock are transferred from the port PIC to EEEEEEEE (8Es) which signifies that livestock have been exported. The importer of exported livestock must demonstrate that these livestock remain traceable throughout the supply chain up to the point of slaughter. Livestock must be effectively identified, and all movements recorded to allow traceability back to the property of birth in the exporting country i.e., Australia.

5.2.6.1.7 Data flow diagrams

Table 143. Data flow diagrams for the inputs and outputs of beef importing finishing system

Direction	Description
Input	Live export to Import Finishing (grass)
Input	Import Finishing (grass) to Import Livestock Processing

5.2.6.1.7.1 Live Export to Import Finishing (grass)

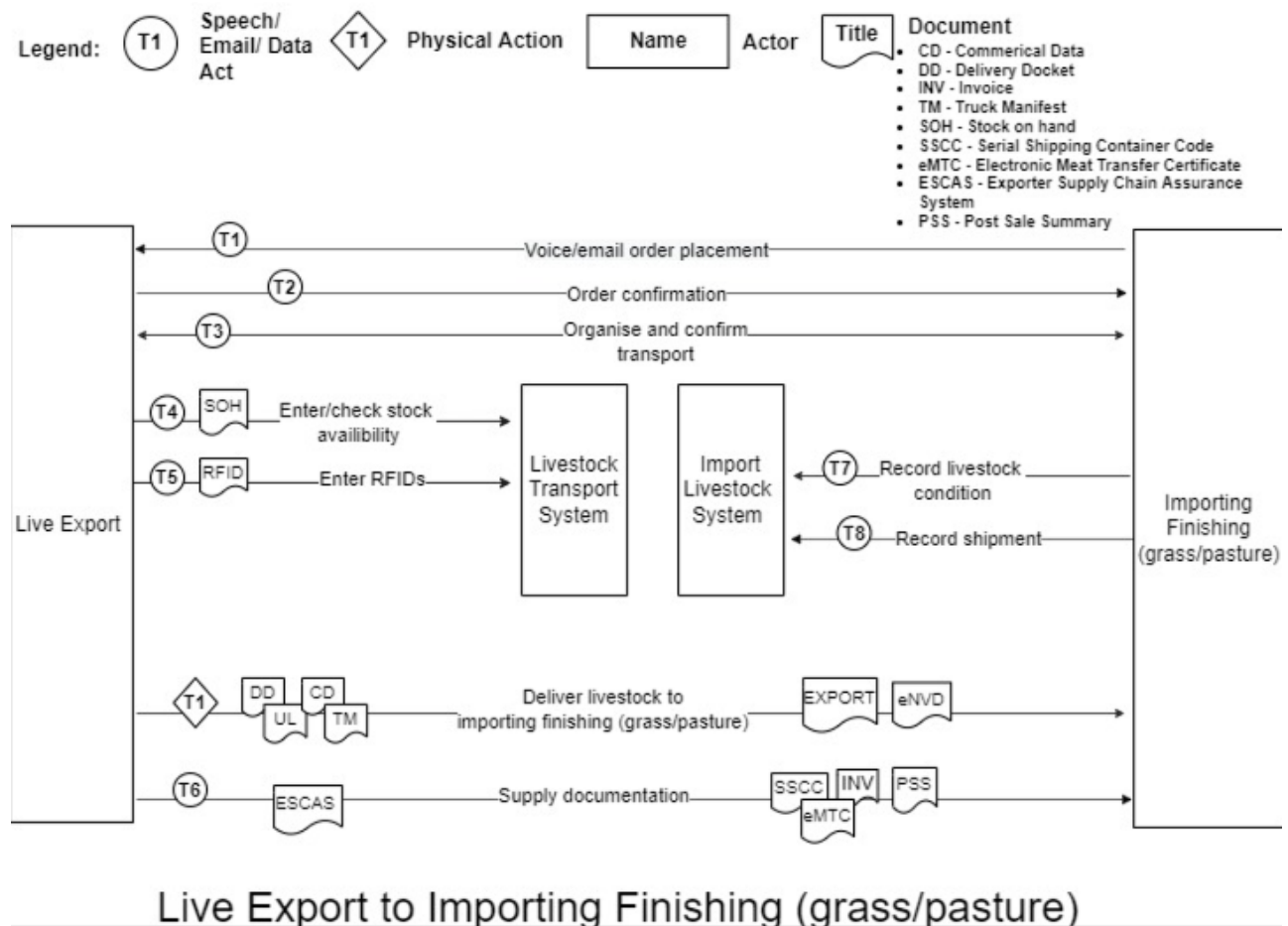


Figure 165. Data or information flows from live export to import finishing (grass/pasture) systems in the beef supply chain

5.2.6.1.7.2 Import Finishing (grass) to Import Livestock Processing

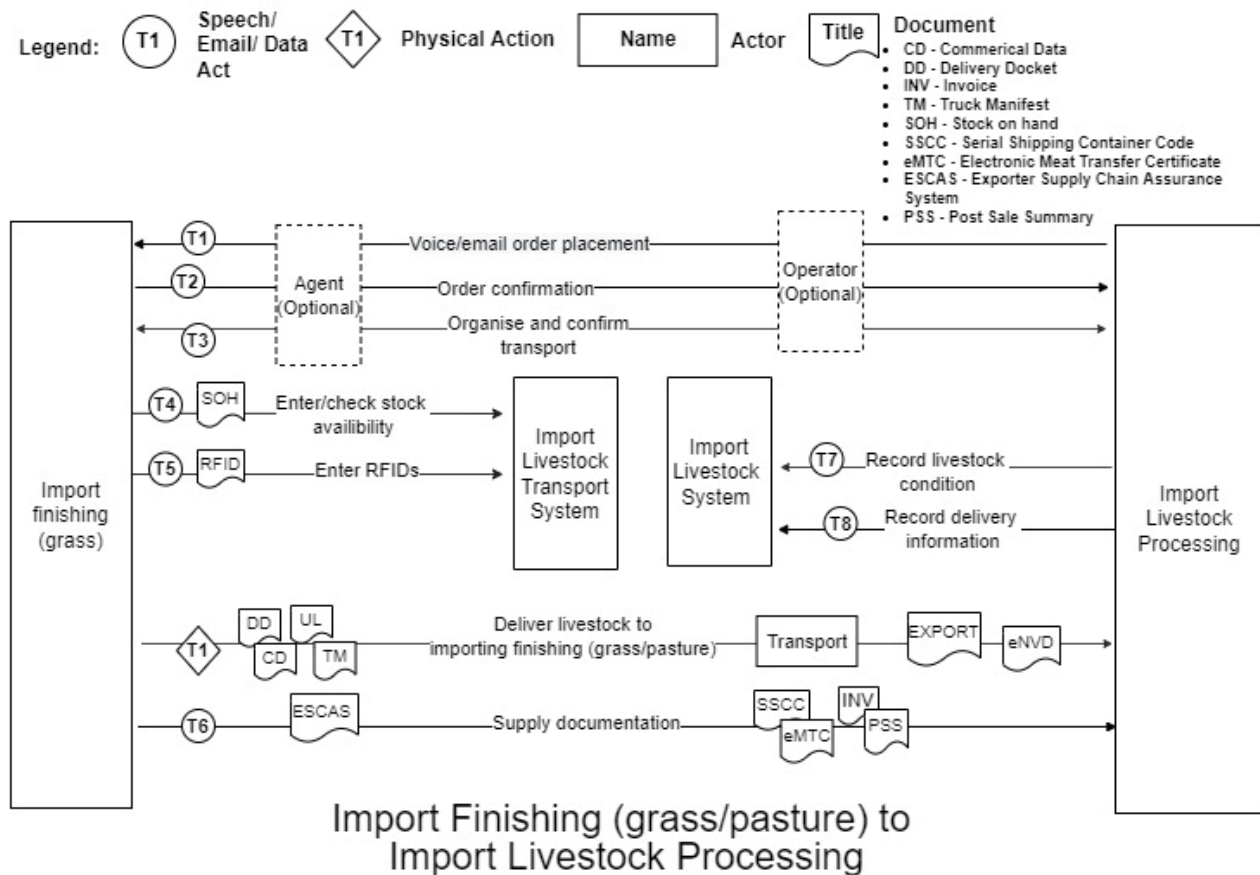


Figure 166. Data or information flows from the import finishing (grass/pasture) to import livestock processing systems in the beef supply chain.

5.2.6.2 Import finishing – grain

Grain-finished animals are those which have been fed on a grain-based ration in a feedlot system. This system is typically comprised of several confined yard areas, with watering and feeding facilities, in which livestock are held. Grain rations are typically of higher quality than grass pasture and therefore improve the live weight gain of animals. Grain feeding systems typically produce product with greater eating quality, enable the specific needs of niche markets to be met, and allow for a more consistent supply of fodder to meet the energy demands of the growing animal.

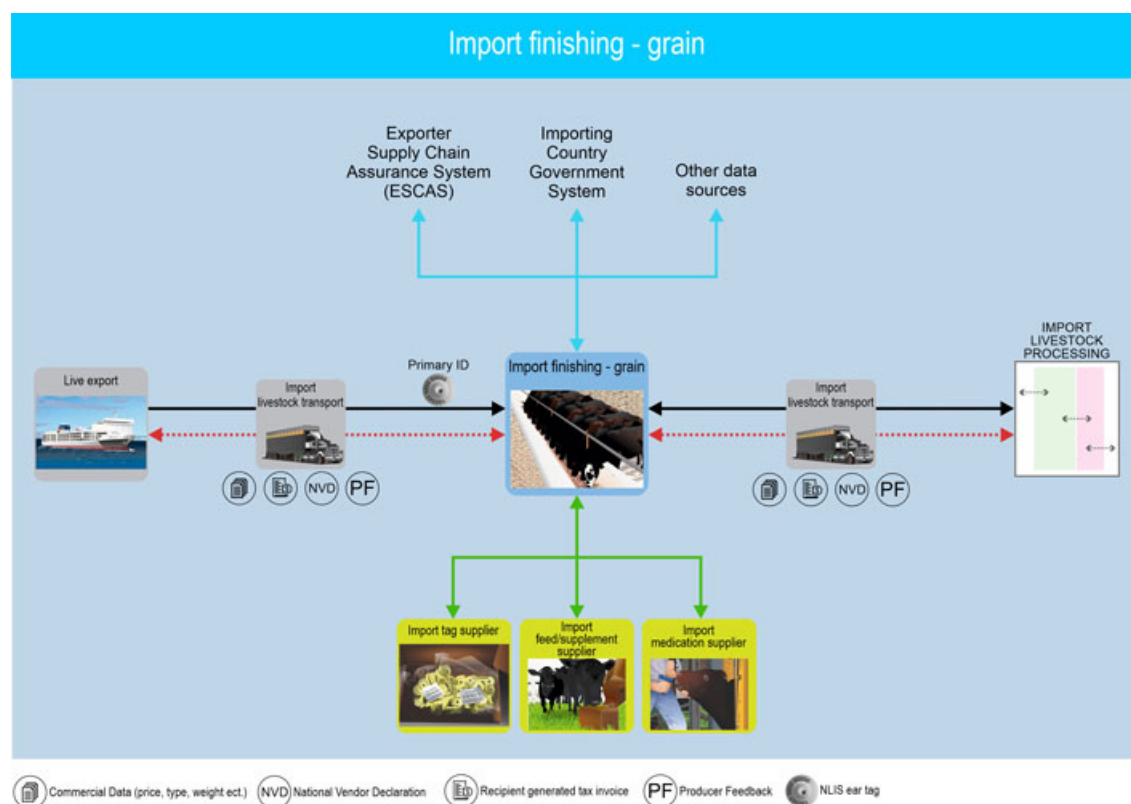


Figure 167. Inputs and outputs of the beef supply chain import finishing (grain) sector.

5.2.6.2.1 Physical Inputs including Critical Tracking Events (CTEs)

The physical inputs to a grain finishing system are similar as for that of a pasture finishing system. However, those inputs related to crop and pasture treatments are not required.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with inputs to the import grain finishing system include the receipt of:

- * Cattle
- * Experts and veterinarians
- * Feed supplies and supplements
- * Veterinary drugs or other health treatments.

Table 144. Physical inputs and associated Critical Tracking Event related documents for a beef import finishing (grain) system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Cattle	These are bovine livestock and may include any type of cattle e.g., cull cattle, calves etc.	Exporter/Importer Agreement, Import feed and water record, Import Permit, Livestock Export Health Certificate, Veterinary Services Form/Import release, Import Receipt of purchase/Tax	

		Invoice, Import specific livestock movement forms	
Experts and veterinarians	These are professionals who provide services to the breeding enterprise which ensure the safety, wellbeing, and productivity of the livestock.	Import Receipt of purchase/Tax Invoice, Veterinary prescription	
Feed supplies and supplements	These are supplementary animal feed products such as hay or silage fodder, or mineral supplements which are provided to ensure the production efficiency and health of livestock are maintained. This may also include clean drinking water e.g., where livestock are in transit or at saleyards.	Import specific commodity movement forms, Import Receipt of purchase/Tax Invoice	
Veterinary drugs or other health treatments	These may be prescribed, or non-prescribed treatments or medications given to ensure the health and wellbeing of the livestock.	Import Receipt of purchase/Tax Invoice, Veterinary prescription	

5.2.6.2.2 Information Inputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). There are a range of measurements that are related to the inputs of a finishing system. These include the source of the cattle, transport details, and any vaccinations or other treatments that the cattle have undergone. The importer of exported livestock must demonstrate that these livestock remain traceable throughout the supply chain up to the point of slaughter. Livestock must therefore be effectively identified, and all movements recorded to allow traceability back to the property of birth in the exporting country i.e., Australia. This requires import specific livestock movement forms to be completed and kept for traceability records.

Table 145. Information inputs, Key Data Elements and Critical Tracking Event related documentation for a beef import finishing (grain) system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
APVMA approval number	This is a unique number allocated to each label by the APVMA.	Yes	Livestock Export Health Certificate	For more information visit the Australian Pesticides and Veterinary Medicine Authority.
Batch number	This is a unique number which identifies products sharing certain production characteristics and is used for traceability purposes.	Yes	Livestock Export Health Certificate	
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Import feed and water record, Import Receipt of purchase/Tax Invoice	
Contract number	This is a unique number allocated to the contract by the seller.	Yes	Exporter/Importer Agreement, Import specific commodity movement forms	

Customs Entry number	A unique number assigned to an entry document and issued to importation shipments by customs for identification purposes.	Yes	Veterinary Services Form/Import release	
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Exporter/Importer Agreement, Import feed and water record, Import Receipt of purchase/Tax Invoice, Import specific commodity movement forms, Import specific livestock movement forms, Livestock Export Health Certificate	
Export Health Certificate Number	A unique number allocated to the health certificate issued for the export consignment for traceability purposes.	Yes	Livestock Export Health Certificate	For more information visit the Department of Agriculture, Water and the Environment website.
Export Premises Registration number	A unique number issued to Australian Government approved quarantine premises where livestock are prepared for export.	Yes	Livestock Export Health Certificate	For more information visit the Department of Agriculture, Water and the Environment website.
From Port Code	Any location used in international trade and transport (e.g., seaport, airports etc.) are issued with an identification code.	Yes	Livestock Export Health Certificate	For more information visit the Department of Agriculture, Water and the Environment website.
From property identifier	The identification of the property (may be a PIC) from/to where the livestock or product were consigned.	Yes	Import specific commodity movement forms, Import specific livestock movement forms	
Import Permit Number	A unique permit number is allocated for the import consignment following submission of correct and validated documentation approved by the importing country.	Yes	Import Permit, Veterinary Services Form/Import release	
Livestock Export Licence Holder number	A unique licence number is allocated to exporters of livestock for a period of one to five years following submission of a correct documentation which is then approved by the Secretary.	Yes	Exporter/Importer Agreement, Livestock Export Health Certificate	For more information visit the Department of Agriculture, Water and the Environment website.
Livestock Identifier	The importer of exported livestock must demonstrate that these livestock remain traceable throughout the supply chain up to	Yes	Import specific livestock movement forms	

	the point of slaughter. Livestock must be effectively identified, and all movements recorded to allow traceability back to the property of birth in the exporting country.			
Livestock movement form serial number	A unique certificate number issued for traceability purposes.	Yes	Import specific livestock movement forms	
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Exporter/Importer Agreement, Import specific commodity movement forms, Import specific livestock movement forms, Livestock Export Health Certificate, Veterinary Services Form/Import release	
NLIS Tag Number/RFID	All animals transported between PICs must have a permanent National Livestock Identification System tag attached. This tag has a unique animal identification number.	Yes	Livestock Export Health Certificate	For more information visit the Integrity systems website.
Prescription number	A unique certificate number issued for traceability purposes.	Yes	Veterinary prescription	
Product code/description	This is a unique identifier or description assigned by the seller to each product type marketed or for sale.	Yes	Import specific commodity movement forms	
Quarantine date range	This is the date range identifying a period in time in which livestock were quarantined directly prior to exportation.	Yes	Livestock Export Health Certificate	For more information visit the Department of Agriculture, Water and the Environment website.
Recipient Business Number	This is a unique registration number, used to identify businesses.	Yes	Import feed and water record, Import Receipt of purchase/Tax Invoice	
Seller/Supplier Business Number	This is a unique registration number, used to identify businesses.	Yes	Import feed and water record, Import Receipt of purchase/Tax Invoice	
To Port Code	Any location used in international trade and transport (e.g., seaport, airports etc.) are issued with an identification code.	Yes	Livestock Export Health Certificate, Veterinary Services Form/Import release	For more information visit the Department of Agriculture, Water and the Environment website.
To property identifier	The identification of the property (may be a PIC) from/to where the livestock or product were consigned.	Yes	Import specific commodity movement forms, Import specific livestock movement forms	

Transport registration number	The registration number of the vehicle in which the animals or product were transported.	Yes	Import specific livestock movement forms, Livestock Export Health Certificate, Veterinary Services Form/Import release	
Treatment date	The date on which a treatment or product was applied to a unit e.g., paddock, animal, fodder etc.	Yes	Import feed and water record, Livestock Export Health Certificate	
Veterinary Registration Number	A unique number issued to veterinarians who are registered to practice, under the state legislative requirements, within the state in which they reside.	Yes	Livestock Export Health Certificate, Veterinary prescription	

5.2.6.2.3 Physical Outputs including Critical Tracking Events (CTEs)

The outputs from a grain finishing system are cattle that have been prepared for slaughter and are moved directly to a processor. There is information about each animal that should be made available to this next link in the supply chain. This information is normally passed forward on import specific livestock movement documents.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with the outputs of the import grain finishing system include the movement of:

* Cattle

off the property, premises, or supply chain sector.

Table 146. Physical outputs and associated Critical Tracking Event related documents for a beef import finishing (grain) system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Cattle	These are bovine livestock and may include any type of cattle e.g., cull cattle, calves etc.	Commercial supply contract, Import feed and water record, Import specific livestock movement forms, Import Receipt of purchase/Tax Invoice	

5.2.6.2.4 Information Outputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). Information passed forward to the next link in the supply chain from a grain finishing system is derived from regulated documents such as import specific livestock movement forms or other records such as feed and water records or commercial supply contracts.

Table 147. Information outputs, Key Data Elements and Critical Tracking Event related documentation for a beef import finishing (grain) system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents	More details

			(including electronic)	
Agreement date	This is the date on which an agreement between two parties was made.	Yes	Commercial supply contract	
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Import feed and water record Import, Receipt of purchase/Tax Invoice	
Contract number	This is a unique number allocated to the contract by the seller.	Yes	Commercial supply contract	
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Commercial supply contract, Import feed and water record, Import Receipt of purchase/Tax Invoice, Import specific livestock movement forms	
From property identifier	The identification of the property (may be a PIC) from/to where the livestock or product were consigned.	Yes	Import specific livestock movement forms	
Livestock Identifier	The importer of exported livestock must demonstrate that these livestock remain traceable throughout the supply chain up to the point of slaughter. Livestock must be effectively identified, and all movements recorded to allow traceability back to the property of birth in the exporting country.	Yes	Import specific livestock movement forms	
Livestock movement form serial number	A unique certificate number issued for traceability purposes.	Yes	Import specific livestock movement forms	
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Commercial supply contract, Import specific livestock movement forms	
Recipient Business Number	This is a unique registration number, used to identify businesses.	Yes	Import feed and water record, Import Receipt of purchase/Tax Invoice	
Seller/Supplier Business Number	This is a unique registration number, used to identify businesses.	Yes	Import feed and water record, Import Receipt of purchase/Tax Invoice	
To property identifier	The identification of the property (may be a PIC) from/to where the livestock or product were consigned.	Yes	Import specific livestock movement forms	
Transport registration number	The registration number of the vehicle in which the animals or product were transported.	Yes	Import specific livestock movement forms	

Treatment date	The date on which a treatment or product was applied to a unit e.g., paddock, animal, fodder etc.	Yes	Import feed and water record	

5.2.6.2.5 Regulatory and Industry Programs

- * Exporter Supply Chain Assurance System (ESCAS)
- * Importing Country Government System
- * Other data sources

5.2.6.2.6 Supply Chain Node Traceability

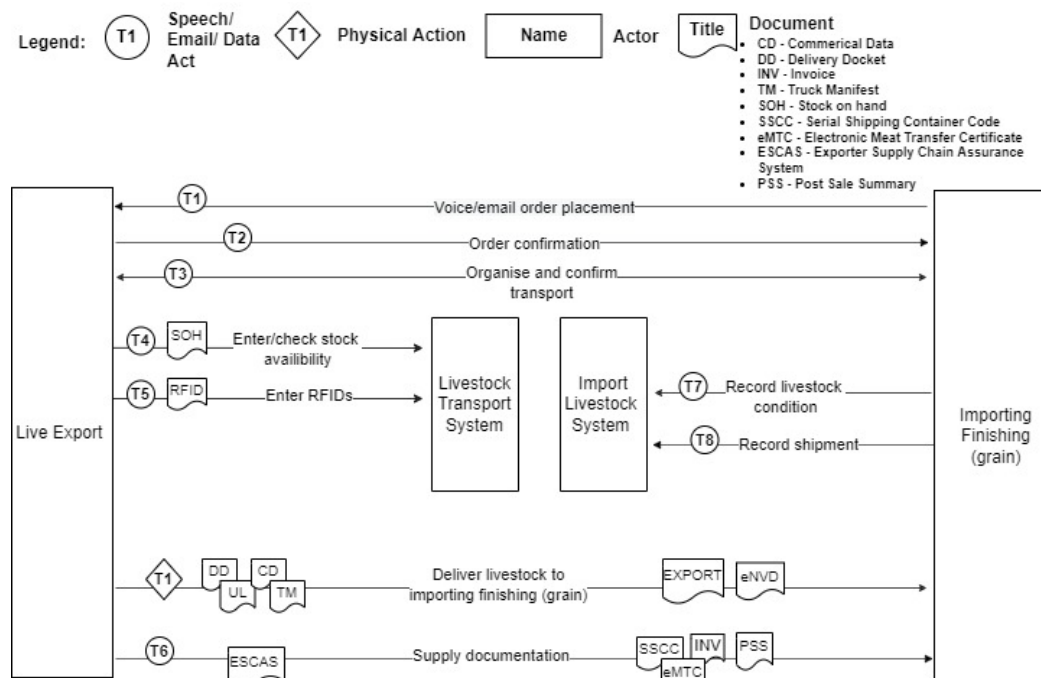
The National Livestock Identification System (NLIS) is the Australian livestock traceability program which is administered by Integrity Systems Company (ISC). Where stipulated by State legislation and certain export markets, the NLIS system requires all animals bought, sold, and moved along the supply chain to be tagged with an accredited NLIS ID tag. Each tag has an NLIS tag number or Radio Frequency Identifier (RFID) for the traceability of the animal throughout its lifetime. Every property which holds livestock must have a Property Identification Code (PIC) to which the livestock are assigned in the NLIS Database. Each time livestock are transferred between PICs within Australia they must be accompanied by a livestock movement declaration, such as the National Vendor Declaration (NVD) form. This document typically outlines the transporter details, consignment details, compliance with intended market specifications, withholding periods, and the details of the new property PIC. All livestock movements between PICs require an NLIS movement update to be made by either or both the consigner and receiver. Where NLIS ID tags are lost livestock must be issued with a new post-breeder tag if not on the PIC of birth and this reconciled in the NLIS Database. For animals loaded for live export, it is the exporters responsibility to ensure that all livestock are transferred from the port PIC to EEEEEEEE (8Es) which signifies that livestock have been exported. The importer of exported livestock must demonstrate that these livestock remain traceable throughout the supply chain up to the point of slaughter. Livestock must be effectively identified, and all movements recorded to allow traceability back to the property of birth in the exporting country i.e., Australia.

5.2.6.2.7 Data flow diagrams

Table 148. Data flow diagrams for the inputs and outputs of a beef import finishing system

Direction	Description
Input	Live export to Import Finishing (grain)
Input	Import Finishing (grain) to Import Livestock Processing

5.2.6.2.7.1 Live Export to Importing Finishing (grain)



Live Export to Importing Finishing (grain)

Figure 168. Data or information flows from the live export to import finishing (grain) systems in the beef supply chain.

5.2.6.2.7.2 Importing Finishing (grain) to Import Livestock Processing

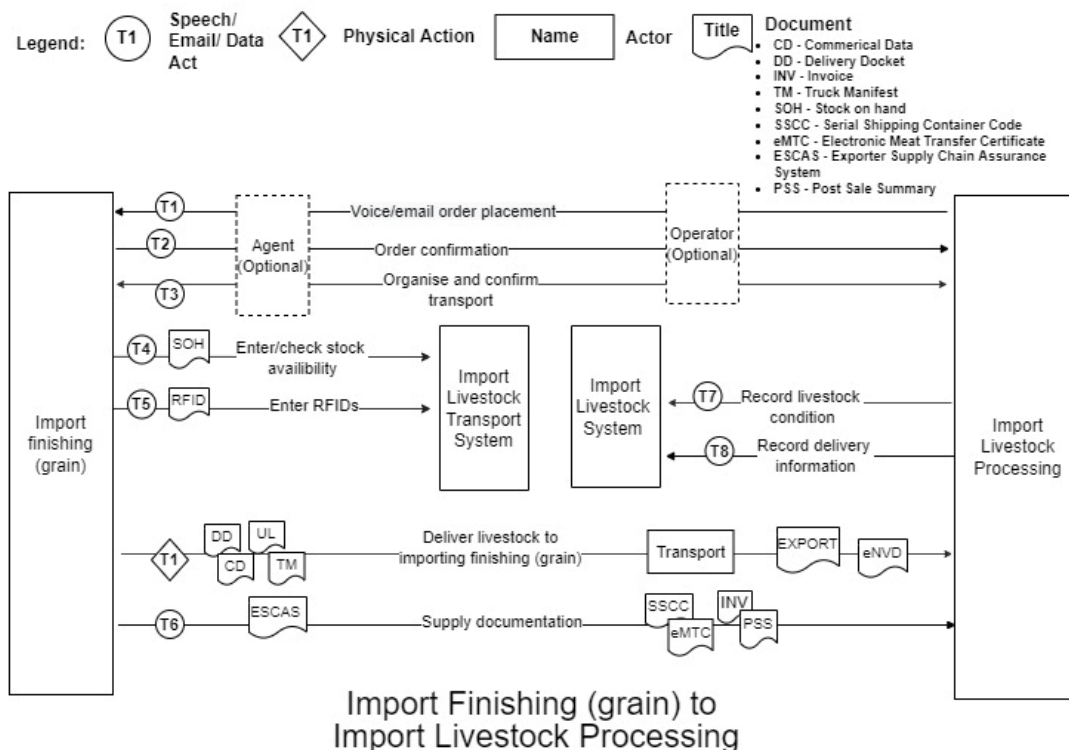


Figure 169. Data or information flows from import finishing (grain) to import livestock processing systems in the beef supply chain.

5.2.6.3 Import inspection facility

After being exported from the country of origin, product first arrives at the import inspection facility. This is generally the port of entry where product and transportation documentation is checked for compliance with the importing country's requirements and biosecurity standards. This may include product inspection and sample analysis before being cleared for release into the importers domestic market.

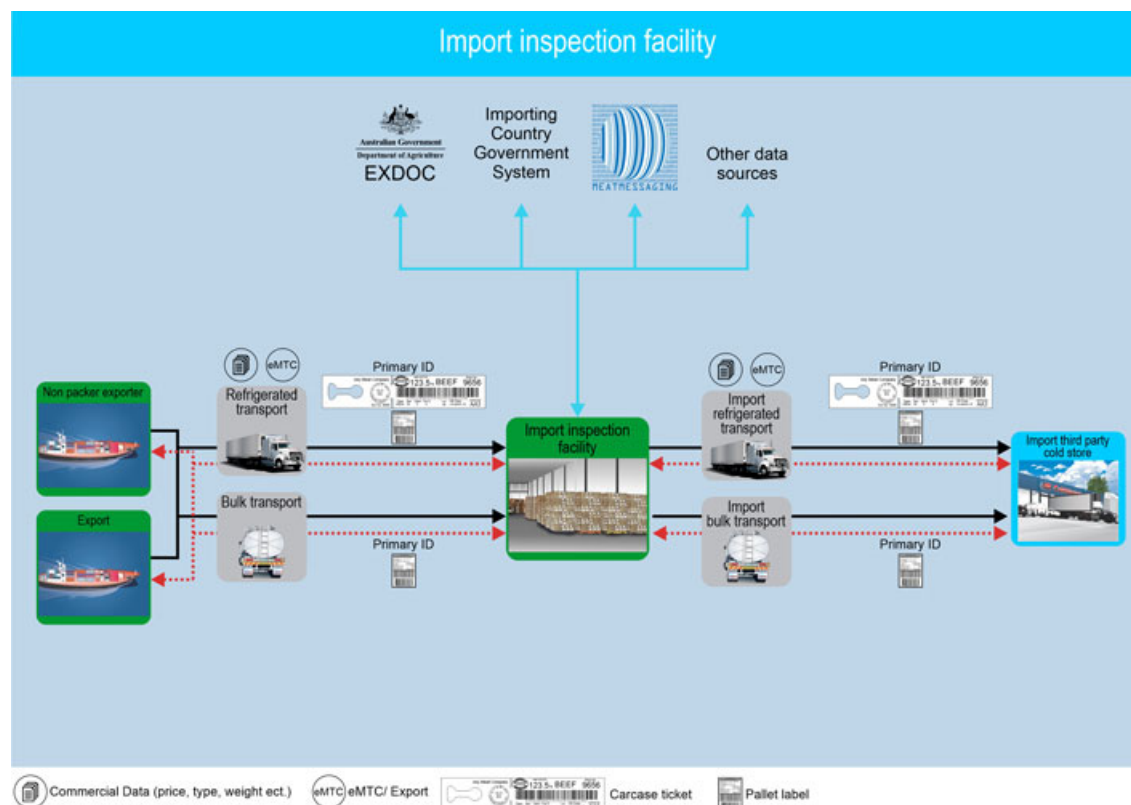


Figure 170. Inputs and outputs of the beef supply chain import inspection facility sector.

5.2.6.3.1 Physical Inputs including Critical Tracking Events (CTEs)

Container system units, which contain packaged meat product, are the physical inputs into the importers inspection facility. Critical Tracking Event related documentation such as the Bill of lading/Air Waybill, as well as Export Health Certificate and Certificate of Analysis, must accompany the movement of product to an importing country. In addition, the importer may require an import permit and Food Control Certificate for edible product or other Import clearance documentation for non-prescribed goods.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with inputs to the import inspection facility system include the receipt of:

- * Container System Unit (meat and meat products)
- * Container System Unit (render and hide product).

Table 149. Physical inputs and associated Critical Tracking Event related documents for a beef import inspection facility system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Container System Unit (meat and meat products)	A container designed for use as a unit of cargo handling equipment in the transport of goods by aircraft or ship.	Bill of lading/Air Waybill, Delivery Docket/Manifest, Export Health Certificate, Export Permit, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), Official seal, Receipt of purchase/Tax Invoice, Certificate of Analysis (COA)	
Container System Unit (render and hide product)	A container designed for use as a unit of cargo handling equipment in the transport of goods by aircraft or ship.	Animal By Product Transfer Certificate (BPTC), Bill of lading/Air Waybill, Delivery Docket/Manifest, Export clearance documentation, Export Permit, Meat Messaging Consignment Report, Certificate of Analysis (COA), Receipt of purchase/Tax Invoice	

5.2.6.3.2 Information Inputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). Information inputs into the import inspection facility are those KDEs which can be drawn from CTE documentation. These may include document numbers for documents such as the Bill of lading/Air Waybill, Meat Transfer Certificate and Certificate of Analysis and Import clearance documentation as well as other product specific information.

Table 150. Information inputs, Key Data Elements and Critical Tracking Event related documentation for a beef import inspection facility system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Analysis Date	This is the date on which a product sample was analysed.	Yes	Certificate of Analysis (COA)	
Bill of lading/Air Waybill document number	A unique document number issued for traceability purposes.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA)	
Certificate of Analysis number	A unique certificate number issued for traceability purposes.	Yes	Certificate of Analysis (COA)	
COA test lot identifier	This is a unique identifier allocated to all cartons, pallets, and shipping containers for which an analysis sample represents.	Yes	Certificate of Analysis (COA)	
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA), Receipt of purchase/Tax Invoice	
Consignment Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., shipment/message that is assigned by the establishment constructing the unit. The SSCC	Yes	Animal By Product Transfer Certificate (BPTC), Bill of lading/Air Waybill, Export clearance documentation, Meat Messaging	For more information visit the GS1 website.

	remains the same for the life of the logistic unit.		Consignment Report, Meat Transfer Certificate (MTC)	
Contract number	This is a unique number allocated to the contract by the seller.	Yes	Delivery Docket/Manifest	
Count of Pallets	This is the number of pallets in the logistic unit e.g., container system unit.	Yes	Meat Messaging Consignment Report	
Count of Trade Items	Usually encoded in the GS1 barcode, this is the number of trade items e.g., cartons in the logistic unit.	Yes	Bill of lading/Air Waybill, Delivery Docket/Manifest, Meat Messaging Consignment Report	For more information visit the GS1 website.
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Animal By Product Transfer Certificate (BPTC), Bill of lading/Air Waybill, Certificate of Analysis (COA), Delivery Docket/Manifest, Export clearance documentation, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), Receipt of purchase/Tax Invoice	
Delivery Docket/Manifest number	This is a unique number allocated to the docket for identification purposes.	Yes	Delivery Docket/Manifest	
Export Health Certificate Number	A unique number allocated to the health certificate issued for the export consignment for traceability purposes.	Yes	Export Health Certificate, Meat Messaging Consignment Report	For more information visit the Department of Agriculture, Water and the Environment website.
Export Permit Number	A unique permit number is allocated for the export consignment following submission of a correct and validated Request For Permit (RFP) which is then approved by the Secretary.	Yes	Export Permit	For more information visit the Department of Agriculture, Water, and the Environment website.
From Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Animal By Product Transfer Certificate (BPTC), Certificate of Analysis (COA), Delivery Docket/Manifest, Export clearance documentation, Export Health Certificate, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC)	
Global Trade Item Number (GTIN)	Encoded in the GS1 barcode, the GTIN is a globally unique 14-digit number used to identify trade items, products, or services.	Yes	Meat Messaging Consignment Report	For more information visit the GS1 website.

Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Animal By Product Transfer Certificate (BPTC), Bill of lading/Air Waybill, Certificate of Analysis (COA), Delivery Docket/Manifest, Export clearance documentation, Export Health Certificate, Meat Transfer Certificate (MTC)	
MSA Licence Number	Any establishment consigning, supplying, or identifying MSA Certified Product must be registered and have a unique MSA Licence Number.	Yes	Receipt of purchase/Tax Invoice	For more information on MSA visit the MLA website.
Net Weight (Kilograms)	Usually encoded in the GS1 barcode, the Net Weight is a variable measure of the trade item e.g., carton, pallet or shipment recorded in kilograms.	Yes	Bill of lading/Air Waybill, Export Health Certificate, Meat Messaging Consignment Report	For more information visit the GS1 website.
Order date	This is the date on which the purchase order or contract was raised by the buyer.	Yes	Delivery Docket/Manifest	
Packaging Date	Encoded in the GS1 barcode, the Packaging Date is the date on which the item was packaged and is recorded in the format year, month, day (YYMMDD).	Yes	Certificate of Analysis (COA)	For more information visit the GS1 website.
Packaging Date Range	This includes the oldest and newest packaging dates for the logistic unit.	Yes	Export clearance documentation	
Pallet Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., pallet that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Animal By Product Transfer Certificate (BPTC), Export clearance documentation, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC)	For more information visit the GS1 website.
Production Date (YYMMDD)	Encoded in the GS1 barcode, this is the 'kill' or slaughter' date of the product and is recorded in the format year, month, day (YYMMDD).	Yes	Animal By Product Transfer Certificate (BPTC), Certificate of Analysis (COA), Meat Transfer Certificate (MTC)	For more information visit the GS1 website.
Recipient Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Receipt of purchase/Tax Invoice	For more information visit the ATO website.
Seal Serial Number	This is a unique serial number printed on any tamper-evident seal issued by the Department.	Yes	Animal By Product Transfer Certificate (BPTC), Bill of lading/Air Waybill, Export clearance documentation, Meat Transfer Certificate (MTC), Official seal	For more information visit the GS1 website.

Seller/Supplier Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Receipt of purchase/Tax Invoice	For more information visit the ATO website.
Shipping Mark	Also known as a port mark, this is a code comprising of three letters representing the foreign establishment number and the last nine digits of the consignment SSCC.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA), Delivery Docket/Manifest, Export Health Certificate, Meat Messaging Consignment Report	
To Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Animal By Product Transfer Certificate (BPTC), Export clearance documentation, Meat Transfer Certificate (MTC)	
Trade description	This is a collective set of words that says what the product is and may include information such as species, net weight of product, name and address of establishments, category ciphers, market endorsements, MSA eating quality etc.	Yes	Animal By Product Transfer Certificate (BPTC), Delivery Docket/Manifest, Export clearance documentation, Export Health Certificate, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC)	
Transfer Certificate number	A unique certificate number issued for traceability purposes.	Yes	Animal By Product Transfer Certificate (BPTC), Meat Messaging Consignment Report, Meat Transfer Certificate (MTC)	For more information visit the Department of Agriculture, Water and the Environment website.
Transport registration number	The registration number of the vehicle in which the animals or product were transported. For shipments of product this will be a shipping container number.	Yes	Animal By Product Transfer Certificate (BPTC), Bill of lading/Air Waybill, Delivery Docket/Manifest, Export clearance documentation, Export Health Certificate, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC)	

5.2.6.3.3 Physical Outputs including Critical Tracking Events (CTEs)

Container system units, which contain packaged meat product, are the physical outputs of the importers inspection facility. Critical Tracking Event related documentation such as the Bill of lading/Air Waybill, as well as Export Health Certificate and Certificate of Analysis, must accompany the movement of product to an importing country. In addition, the importer may require an import permit and Food Control Certificate for edible product or other Import clearance documentation for non-prescribed goods.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with the outputs of the import inspection facility system include the movement of:

* Container System Unit (meat and meat products)

* Container System Unit (render and hide product)

off the property, premises, or supply chain sector.

Table 151. Physical outputs and associated Critical Tracking Event related documents for a beef import inspection facility system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Container System Unit (meat and meat products)	A container designed for use as a unit of cargo handling equipment in the transport of goods by aircraft or ship.	Bill of lading/Air Waybill, Certificate of Analysis (COA), Delivery Docket/Manifest, Export Health Certificate, Export Permit, Food Control Certificate, Import Permit, Imported Food Inspection Advice, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), Official seal, Receipt of purchase/Tax Invoice	
Container System Unit (render and hide product)	A container designed for use as a unit of cargo handling equipment in the transport of goods by aircraft or ship.	Animal By Product Transfer Certificate (BPTC), Bill of lading/Air Waybill, Certificate of Analysis (COA), Delivery Docket/Manifest, Export clearance documentation, Export Permit, Import clearance documentation, Import Permit, Meat Messaging Consignment Report, Receipt of purchase/Tax Invoice	

5.2.6.3.4 Information Outputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). Information outputs from the import inspection facility are those KDEs which can be drawn from CTE documentation. These may include document numbers for documents such as the Bill of lading/Air Waybill, Meat Transfer Certificate and Certificate of Analysis and Import clearance documentation as well as other product specific information.

Table 152. Information outputs, Key Data Elements and Critical Tracking Event related documentation for a beef import inspection facility system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Analysis Date	This is the date on which a product sample was analysed.	Yes	Certificate of Analysis (COA), Imported Food Inspection Advice	
Bill of lading/Air Waybill document number	A unique document number issued for traceability purposes.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA)	
Certificate of Analysis number	A unique certificate number issued for traceability purposes.	Yes	Certificate of Analysis (COA), Imported Food Inspection Advice	

COA test lot identifier	This is a unique identifier allocated to all cartons, pallets, and shipping containers for which an analysis sample represents.	Yes	Certificate of Analysis (COA), Imported Food Inspection Advice	
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA), Imported Food Inspection Advice, Receipt of purchase/Tax Invoice	
Consignment Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., shipment/message that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Food Control Certificate, Import clearance documentation, Imported Food Inspection Advice, Animal By Product Transfer Certificate (BPTC), Bill of lading/Air Waybill, Export clearance documentation, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC)	For more information visit the GS1 website.
Contract number	This is a unique number allocated to the contract by the seller.	Yes	Delivery Docket/Manifest	
Count of Pallets	This is the number of pallets in the logistic unit e.g., container system unit.	Yes	Meat Messaging Consignment Report	
Count of Trade Items	Usually encoded in the GS1 barcode, this is the number of trade items e.g., cartons in the logistic unit.	Yes	Bill of lading/Air Waybill, Delivery Docket/Manifest, Food Control Certificate, Imported Food Inspection Advice, Meat Messaging Consignment Report	For more information visit the GS1 website.
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Animal By Product Transfer Certificate (BPTC), Bill of lading/Air Waybill, Certificate of Analysis (COA), Delivery Docket/Manifest, Export clearance documentation, Food Control Certificate, Import clearance documentation, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC), Receipt of purchase/Tax Invoice	
Delivery Docket/Manifest number	This is a unique number allocated to the docket for identification purposes.	Yes	Delivery Docket/Manifest	
Export Health Certificate Number	A unique number allocated to the health certificate issued for the export consignment for traceability purposes.	Yes	Export Health Certificate, Meat Messaging Consignment Report	For more information visit the Department of Agriculture, Water and the Environment website.

Export Permit Number	A unique permit number is allocated for the export consignment following submission of a correct and validated Request For Permit (RFP) which is then approved by the Secretary.	Yes	Export Permit	For more information visit the Department of Agriculture, Water and the Environment website.
Food Control Certificate entry number	This is a number assigned to the entry of a shipment of goods imported by the same owner at the same time which can be described by one import entry.	Yes	Food Control Certificate, Imported Food Inspection Advice	For more information visit the Department of Agriculture, Water and the Environment website.
From Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Animal By Product Transfer Certificate (BPTC), Certificate of Analysis (COA), Delivery Docket/Manifest, Export clearance documentation, Export Health Certificate, Import clearance documentation, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC)	
Global Trade Item Number (GTIN)	Encoded in the GS1 barcode, the GTIN is a globally unique 14-digit number used to identify trade items, products, or services.	Yes	Meat Messaging Consignment Report	For more information visit the GS1 website.
Import Permit Number	A unique permit number is allocated for the import consignment following submission of correct and validated documentation approved by the importing country.	Yes	Import Permit	For more information visit the Department of Agriculture, Water and the Environment website.
Imported Food Inspection Advice certificate number	A unique certificate number issued for traceability purposes.	Yes	Imported Food Inspection Advice	For more information visit the Department of Agriculture, Water and the Environment website.
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Animal By Product Transfer Certificate (BPTC), Bill of lading/Air Waybill, Certificate of Analysis (COA), Delivery Docket/Manifest, Export clearance documentation, Export Health Certificate, Food Control Certificate, Import clearance documentation, Meat Transfer Certificate (MTC)	

MSA Licence Number	Any establishment consigning, supplying, or identifying MSA Certified Product must be registered and have a unique MSA Licence Number.	Yes	Receipt of purchase/Tax Invoice	For more information on MSA visit the MLA website.
Net Weight (Kilograms)	Usually encoded in the GS1 barcode, the Net Weight is a variable measure of the trade item e.g., carton, pallet or shipment recorded in kilograms.	Yes	Bill of lading/Air Waybill, Export Health Certificate, Meat Messaging Consignment Report	For more information visit the GS1 website.
Order date	This is the date on which the purchase order or contract was raised by the buyer.	Yes	Delivery Docket/Manifest	
Packaging Date	Encoded in the GS1 barcode, the Packaging Date is the date on which the item was packaged and is recorded in the format year, month, day (YYMMDD).	Yes	Certificate of Analysis (COA)	For more information visit the GS1 website.
Packaging Date Range	This includes the oldest and newest packaging dates for the logistic unit.	Yes	Export clearance documentation, Import clearance documentation	For more information visit the GS1 website.
Pallet Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., pallet that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Animal By Product Transfer Certificate (BPTC), Export clearance documentation, Import clearance documentation, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC)	For more information visit the GS1 website.
Production Date (YYMMDD)	Encoded in the GS1 barcode, this is the 'kill' or slaughter date of the product and is recorded in the format year, month, day (YYMMDD).	Yes	Animal By Product Transfer Certificate (BPTC), Certificate of Analysis (COA), Meat Transfer Certificate (MTC)	For more information visit the GS1 website.
Recipient Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Receipt of purchase/Tax Invoice	For more information visit the ATO website.
Seal Serial Number	This is a unique serial number printed on any tamper-evident seal issued by the Department.	Yes	Animal By Product Transfer Certificate (BPTC), Bill of lading/Air Waybill, Export clearance documentation, Import clearance documentation, Meat Transfer Certificate (MTC), Official seal	For more information visit the GS1 website.
Seller/Supplier Australian Business Number (ABN)	This is an 11-digit registration number, issued by the Australian Tax Office, used to identify businesses.	Yes	Receipt of purchase/Tax Invoice	For more information visit the ATO website.
Shipping Mark	Also known as a port mark, this is a code comprising of	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA),	

	three letters representing the foreign establishment number and the last nine digits of the consignment SSCC.		Delivery Docket/Manifest, Export Health Certificate, Meat Messaging Consignment Report	
To Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Animal By Product Transfer Certificate (BPTC), Export clearance documentation, Import clearance documentation, Meat Transfer Certificate (MTC)	
Trade description	This is a collective set of words that says what the product is and may include information such as species, net weight of product, name and address of establishments, category ciphers, market endorsements, MSA eating quality etc.	Yes	Animal By Product Transfer Certificate (BPTC), Delivery Docket/Manifest, Export clearance documentation, Export Health Certificate, Food Control Certificate, Import clearance documentation, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC)	
Transfer Certificate number	A unique certificate number issued for traceability purposes.	Yes	Animal By Product Transfer Certificate (BPTC), Meat Messaging Consignment Report, Meat Transfer Certificate (MTC)	For more information visit the Department of Agriculture, Water and the Environment website.
Transport registration number	The registration number of the vehicle in which the animals or product were transported. For shipments of product this will be a shipping container number.	Yes	Animal By Product Transfer Certificate (BPTC), Bill of lading/Air Waybill, Delivery Docket/Manifest, Export clearance documentation, Export Health Certificate, Food Control Certificate, Import clearance documentation, Meat Messaging Consignment Report, Meat Transfer Certificate (MTC)	

5.2.6.3.5 Regulatory and Industry Programs

- * Export Documentation System (EXDOC)
- * Importing Country Government System
- * Meat Messaging
- * Other data sources

5.2.6.3.6 Supply Chain Node Traceability

The traceability of product undergoing export/importation back to the live animal and property of origin is dependent on the form (carcase, carton, pallet or render store bag subunits) in which the product is being exported/imported. All container system units undergoing export must be accompanied by a Meat Messaging Consignment Report and a Meat Transfer Certificate (MTC) or Animal By Product Transfer Certificate (BPTC). The Consignment Report is issued to the buyer of product and lists all the logistic unit and subunit unique serialised identifiers contained within the Container System Unit including the Consignment Serial Shipping Container Code (SSCC), Pallet Serial Shipping Container Code, and scanned and verified carton label serial identifiers. Additionally, the Transfer Certificate details the serialised logistic unit identifiers such as the Serial Shipping Container Code (SSCC). These documents allow traceability of the unit and its subunits back to either the live animal and property of origin (for carcasses) or processor production run (for cartons and palletised meat and meat products).

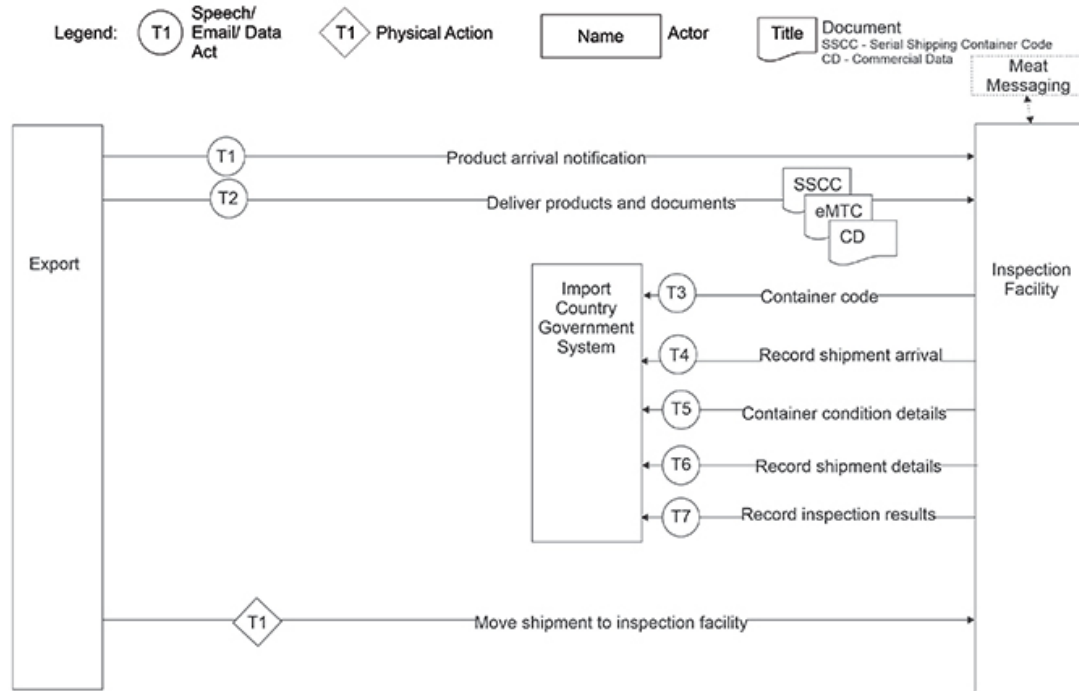
For traceability information pertaining to render and hide products please refer to 'Supply Chain Node Traceability' under each of these nodes. For carton and carcase products please refer to Boning Room and Carcase Chiller 'Supply Chain Node Traceability' respectively.

5.2.6.3.7 Data flow diagrams

Table 153. Data flow diagrams for the inputs and outputs of a beef import inspection facility system.

Direction	Description
Input	Export to Import Inspection Facility
Output	Import Inspection Facility to Third Party Cold Store

5.2.6.3.7.1 Export to Import Inspection Facility



Export to Inspection Facility

Figure 171. Data or information flows from the export to import inspection facility systems in the beef supply chain.

5.2.6.3.7.2 Import Inspection Facility to Third Party Cold Store

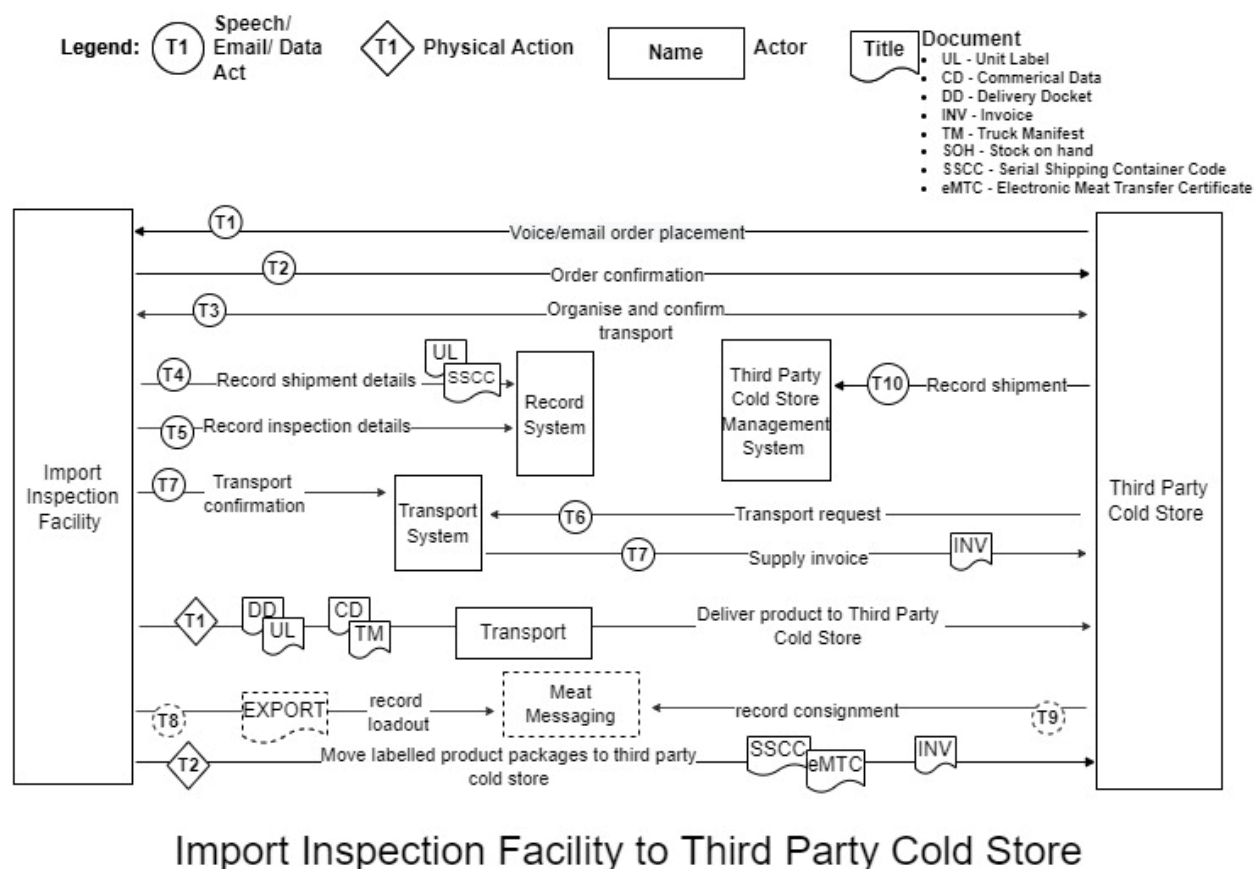


Figure 172. Data or information flows from the import inspection facility to third party cold store systems in the beef supply chain.

5.2.6.4 Import livestock processing

See **Exporting Country - Processing** Section for more information.

5.2.6.5 Import value-added

Value-adding includes any process or service in the supply chain that adds to or enhances the value of products to consumers and typically the profitability of raw meat products. This may be simply providing a new variety of cuts, changing the presentation of products, or adding additional ingredients to create new products or enhance the profitability of raw products. Value-adding may also include the processing of offal and raw products for sale. Typically, value adders receive carcase or cartoned product from processor cold stores, or third-party cold store facilities via refrigerated transport.

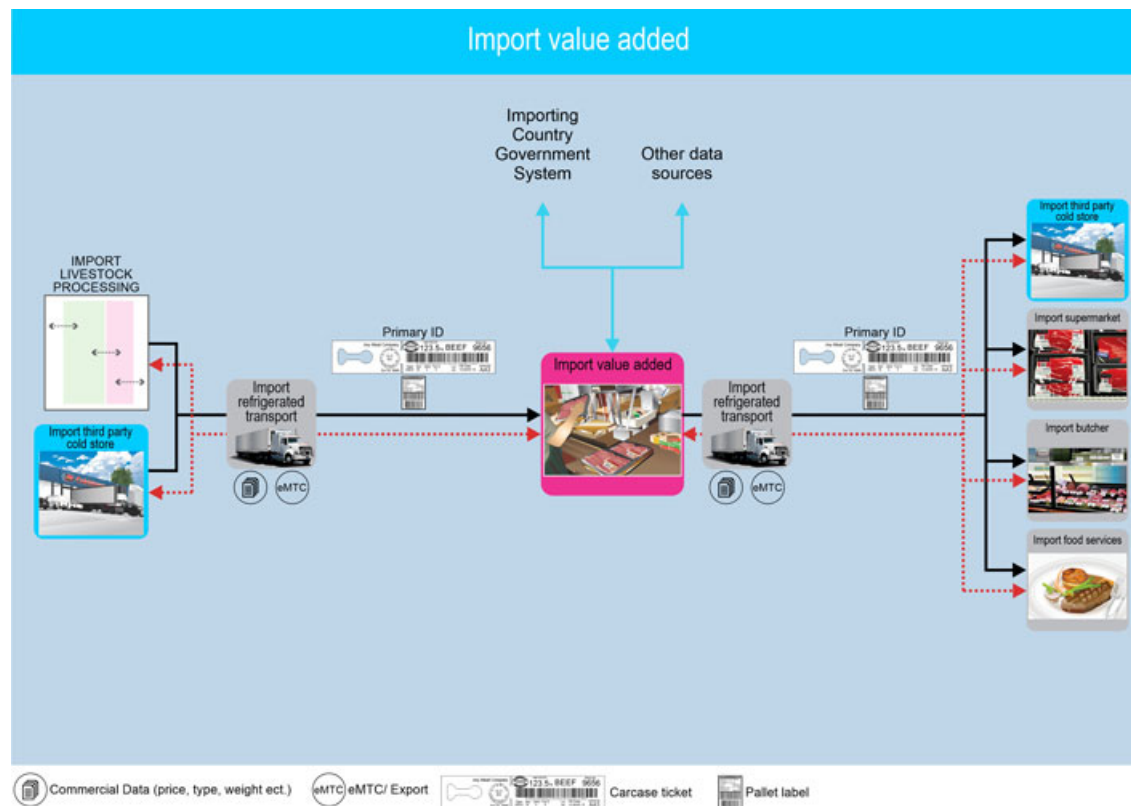


Figure 173. Inputs and outputs of the beef supply chain import value-added sector.

5.2.6.5.1 Physical Inputs including Critical Tracking Events (CTEs)

Inputs into the value-added system include raw beef products such as carcasses, carton, and palletised items. Where additional ingredients are added to the product such as those used for marinade, these are also inputs to the system. Documentation associated with the movement of product into the value-added system may include Delivery Dockets, import specific meat/meat product movement forms, Import Receipt of purchase/Tax Invoice etc.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with inputs to the import value added system include the receipt of:

- * Carcase
- * Carton
- * Pallet
- * Product additives.

Table 154. Physical inputs and associated Critical Tracking Event related documents for a beef import value-added system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Carcase	The body of a slaughtered animal after bleeding. Becomes a dressed carcass when hide, head, feet and offal are removed.	Carcass Ticket, Delivery Docket/Manifest, Import specific meat/meat product movement forms, Value Added production management system, Import Receipt of purchase/Tax Invoice	
Carton	This is a case, crate, or barrel of product.	Carton label, Delivery Docket/Manifest, Import specific meat/meat product movement forms, Value Added production management system, Import Receipt of purchase/Tax Invoice	
Pallet	A logistic unit which includes a number of cartons or goods items packed together for transport or storage purposes.	Delivery Docket/Manifest, Import specific meat/meat product movement forms, Value Added production management system, Import Receipt of purchase/Tax Invoice, SSCC/Pallet label	
Product additives	These are ingredients or additives used to enhance the value of raw beef product.	Import Receipt of purchase/Tax Invoice, Value Added production management system	

5.2.6.5.2 Information Inputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). Key Data Elements drawn from Critical Tracking Event documentation range from carcass body numbers to delivery docket numbers to application identifiers included in the GS1 barcode on the carton or pallet label. This information may be recorded in the value adder's production management system for product traceability purposes.

Table 155. Information inputs, Key Data Elements and Critical Tracking Event related documentation for a beef import value-added system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Batch number	This is a unique number which identifies products sharing certain production characteristics and is used for traceability purposes.	Yes	Carcass Ticket, Value Added production management system	
Body number	This is a number assigned to each carcass by the processor for identification purposes.	Yes	Carcass Ticket, Value Added production management system	
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Carton label, Import Receipt of purchase/Tax Invoice, SSCC/Pallet label, Value Added production management system	
Consignment Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., shipment/message that is assigned by	Yes	Import specific meat/meat product movement forms, SSCC/Pallet label,	For more information visit the GS1 website.

	the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.		Value Added production management system	
Contract number	This is a unique number allocated to the contract by the seller.	Yes	Delivery Docket/Manifest, Value Added production management system	
Count of Trade Items	Usually encoded in the GS1 barcode, this is the number of trade items e.g., cartons in the logistic unit.	Yes	Delivery Docket/Manifest, SSCC/Pallet label, Value Added production management system	For more information visit the GS1 website.
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Delivery Docket/Manifest, Import Receipt of purchase/Tax Invoice, Import specific meat/meat product movement forms, Value Added production management system	
Delivery Docket/Manifest number	This is a unique number allocated to the docket for identification purposes.	Yes	Delivery Docket/Manifest, Value Added production management system	
From Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Carcase Ticket, Carton label, Delivery Docket/Manifest, SSCC/Pallet label, Value Added production management system	For more information visit the Department of Agriculture, Water and the Environment website.
From property identifier	The identification of the property (may be a PIC) from/to where the livestock or product were consigned.	Yes	Import specific meat/meat product movement forms, Value Added production management system	
Global Trade Item Number (GTIN)	Encoded in the GS1 barcode, the GTIN is a globally unique 14-digit number used to identify trade items, products, or services.	Yes	Carcase Ticket, Carton label, SSCC/Pallet label, Value Added production management system	For more information visit the GS1 website.
GTIN of Contained Trade Items	Encoded in the GS1 barcode, the GTIN of the contained trade items is a globally unique 14-digit number used to identify trade items, products, or services in the logistic unit.	Yes	SSCC/Pallet label, Value Added production management system	For more information visit the GS1 website.

Lot number	A lot is a number assigned by the processor to each group of cattle consigned to slaughter and is usually vendor specific.	Yes	Carcase Ticket, Value Added production management system	
Meat/meat product movement form number	A unique certificate number issued for traceability purposes.	Yes	Import specific meat/meat product movement forms, Value Added production management system	
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Delivery Docket/Manifest, Import specific meat/meat product movement forms, Value Added production management system	
Net Weight (Kilograms)	Usually encoded in the GS1 barcode, the Net Weight is a variable measure of the trade item e.g., carton, pallet or shipment recorded in kilograms.	Yes	Carcase Ticket, Carton label, SSCC/Pallet label, Value Added production management system	For more information visit the GS1 website.
Official mark	Any stamp, seal, label, or mark that is declared by the regulations to be an official mark. An official mark signifies that the product has been inspected by and approved as safe for human consumption by an Authorised Officer.	Yes	Carcase Ticket, Carton label, SSCC/Pallet label, Value Added production management system	For more information visit the Department of Agriculture, Water and the Environment website.
Order date	This is the date on which the purchase order or contract was raised by the buyer.	Yes	Delivery Docket/Manifest, Value Added production management system	
Packaging Date	Encoded in the GS1 barcode, the Packaging Date is the date on which the item was packaged and is recorded in the format year, month, day (YYMMDD).	Yes	Carton label, SSCC/Pallet label, Value Added production management system	For more information visit the GS1 website.
Packaging Date Range	This includes the oldest and newest packaging dates for the logistic unit.	Yes	SSCC/Pallet label, Value Added production management system	
Pallet Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., pallet that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Import specific meat/meat product movement forms, SSCC/Pallet label, Value Added production management system	For more information visit the GS1 website.
Production Date (YYMMDD)	Encoded in the GS1 barcode, this is the 'kill' or slaughter' date of the product	Yes	Carcase Ticket, Import specific meat/meat product movement	For more information visit the GS1 website.

	and is recorded in the format year, month, day (YYMMDD).		forms, Value Added production management system	
Recipient Business Number	This is a unique registration number, used to identify businesses.	Yes	Import Receipt of purchase/Tax Invoice, Value Added production management system	
Seller/Supplier Business Number	This is a unique registration number, used to identify businesses.	Yes	Import Receipt of purchase/Tax Invoice, Value Added production management system	
Serial Number	Encoded in the GS1 barcode, this is a code, numeric or alphanumeric, assigned to an individual instance of an item for its lifetime.	Yes	Carcase Ticket, Carton label, Value Added production management system	For more information visit the GS1 website.
Shipping Mark	Also known as a port mark, this is a code comprising of three letters representing the foreign establishment number and the last nine digits of the consignment SSCC.	Yes	Delivery Docket/Manifest, SSCC/Pallet label, Value Added production management system	
To property identifier	The identification of the property (may be a PIC) from/to where the livestock or product were consigned.	Yes	Import specific meat/meat product movement forms, Value Added production management system	
Trade description	This is a collective set of words that says what the product is and may include information such as species, net weight of product, name and address of establishments, category ciphers, market endorsements, MSA eating quality etc.	Yes	Carcase Ticket, Carton label, Delivery Docket/Manifest, SSCC/Pallet label, Value Added production management system	
Transport registration number	The registration number of the vehicle in which the animals or product were transported. For shipments of product this will be a shipping container number.	Yes	Delivery Docket/Manifest, Import specific meat/meat product movement forms, Value Added production management system	

5.2.6.5.3 Physical Outputs including Critical Tracking Events (CTEs)

The outputs of the value-added system included altered meat product, with increased value, that is packed into cartons or pallets for distribution. Critical Tracking Event related documentation required for the movement of product may include Delivery Dockets, Import specific meat/meat product movement forms, Import Receipt of purchase/Tax Invoice etc.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with the outputs of the import value added system include the movement of:

* Carton

* Pallet

off the property, premises, or supply chain sector.

Table 156. Physical outputs and associated Critical Tracking Event related documents for a beef import value-added system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Carton	This is a case, crate, or barrel of product.	Carton label Delivery Docket/Manifest, Import specific meat/meat product movement forms, Value Added production management system, Import Receipt of purchase/Tax Invoice	
Pallet	A logistic unit which includes a number of cartons or goods items packed together for transport or storage purposes.	Delivery Docket/Manifest, Import specific meat/meat product movement forms, Value Added production management system, Import Receipt of purchase/Tax Invoice, SSCC/Pallet label	

5.2.6.5.4 Information Outputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). Key Data Elements from value added Critical Tracking Event related documentation may be stored in the value adder's production management system. Such information may include, but not be limited to, GS1 barcode application identifiers, movement dates, product net weight and import specific meat/meat product movement certificate numbers.

Table 157. Information outputs, Key Data Elements and Critical Tracking Event related documentation for a beef import value-added system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Carton label, Import Receipt of purchase/Tax Invoice, SSCC/Pallet label, Value Added production management system	
Consignment Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., shipment/message that is assigned by the establishment constructing the unit.	Yes	Import specific meat/meat product movement forms, SSCC/Pallet label, Value Added	For more information visit the GS1 website.

	The SSCC remains the same for the life of the logistic unit.		production management system	
Contract number	This is a unique number allocated to the contract by the seller.	Yes	Delivery Docket/Manifest, Value Added production management system	
Count of Trade Items	Usually encoded in the GS1 barcode, this is the number of trade items e.g., cartons in the logistic unit.	Yes	Delivery Docket/Manifest, SSCC/Pallet label, Value Added production management system	For more information visit the GS1 website.
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Delivery Docket/Manifest, Import Receipt of purchase/Tax Invoice, Import specific meat/meat product movement forms, Value Added production management system	
Delivery Docket/Manifest number	This is a unique number allocated to the docket for identification purposes.	Yes	Delivery Docket/Manifest, Value Added production management system	
From Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Carton label, Delivery Docket/Manifest, SSCC/Pallet label, Value Added production management system	
From property identifier	The identification of the property (may be a PIC) from/to where the livestock or product were consigned.	Yes	Import specific meat/meat product movement forms, Value Added production management system	
Global Trade Item Number (GTIN)	Encoded in the GS1 barcode, the GTIN is a globally unique 14-digit number used to identify trade items, products, or services.	Yes	Carton label, SSCC/Pallet label, Value Added production management system	For more information visit the GS1 website.
GTIN of Contained Trade Items	Encoded in the GS1 barcode, the GTIN of the contained trade items is a globally unique 14-digit number used to identify trade items, products, or services in the logistic unit.	Yes	SSCC/Pallet label, Value Added production management system	For more information visit the GS1 website.

Meat/meat product movement form number	A unique certificate number issued for traceability purposes.	Yes	Import specific meat/meat product movement forms, Value Added production management system	
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Delivery Docket/Manifest, Import specific meat/meat product movement forms, Value Added production management system	
Net Weight (Kilograms)	Usually encoded in the GS1 barcode, the Net Weight is a variable measure of the trade item e.g., carton, pallet or shipment recorded in kilograms.	Yes	Carton label, SSCC/Pallet label, Value Added production management system	For more information visit the GS1 website.
Official mark	Any stamp, seal, label, or mark that is declared by the regulations to be an official mark. An official mark signifies that the product has been inspected by and approved as safe for human consumption by an Authorised Officer.	Yes	Carton label, SSCC/Pallet label, Value Added production management system	For more information visit the Australian Government Federal Register of Legislation.
Order date	This is the date on which the purchase order or contract was raised by the buyer.	Yes	Delivery Docket/Manifest, Value Added production management system	
Packaging Date	Encoded in the GS1 barcode, the Packaging Date is the date on which the item was packaged and is recorded in the format year, month, day (YYMMDD).	Yes	Carton label, SSCC/Pallet label, Value Added production management system	For more information visit the GS1 website.
Packaging Date Range	This includes the oldest and newest packaging dates for the logistic unit.	Yes	SSCC/Pallet label, Value Added production management system	For more information visit the GS1 website.
Pallet Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., pallet that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Import specific meat/meat product movement forms, SSCC/Pallet label, Value Added production management system	For more information visit the GS1 website.
Production Date (YYMMDD)	Encoded in the GS1 barcode, this is the 'kill' or slaughter' date of the product and is recorded in the format year, month, day (YYMMDD).	Yes	Import specific meat/meat product movement forms, Value Added production management system	For more information visit the GS1 website.

Recipient Business Number	This is a unique registration number, used to identify businesses.	Yes	Import Receipt of purchase/Tax Invoice, Value Added production management system	
Seller/Supplier Business Number	This is a unique registration number, used to identify businesses.	Yes	Import Receipt of purchase/Tax Invoice, Value Added production management system	
Serial Number	Encoded in the GS1 barcode, this is a code, numeric or alphanumeric, assigned to an individual instance of an item for its lifetime.	Yes	Carton label, Value Added production management system	For more information visit the GS1 website.
Shipping Mark	Also known as a port mark, this is a code comprising of three letters representing the foreign establishment number and the last nine digits of the consignment SCCC.	Yes	Delivery Docket/Manifest, SCCC/Pallet label, Value Added production management system	
To property identifier	The identification of the property (may be a PIC) from/to where the livestock or product were consigned.	Yes	Import specific meat/meat product movement forms, Value Added production management system	
Trade description	This is a collective set of words that says what the product is and may include information such as species, net weight of product, name and address of establishments, category ciphers, market endorsements, MSA eating quality etc.	Yes	Carton label, Delivery Docket/Manifest, SCCC/Pallet label, Value Added production management system	
Transport registration number	The registration number of the vehicle in which the animals or product were transported. For shipments of product this will be a shipping container number.	Yes	Delivery Docket/Manifest, Import specific meat/meat product movement forms, Value Added production management system	

5.2.6.5.5 Regulatory and Industry Programs

* Importing Country Government System

* Other data sources

5.2.6.5.6 Supply Chain Node Traceability

For Value Added operations the ability to trace product forward and track product backwards is defined by food safety regulations. In practice, this means that any prepared meat retail ready or food service products are managed as a batch (with unique serialised carton labels or retail ready product labels) with the inputs to the

batch being all the carcase or carton identification units (carcase tickets/carton labels) that went into the batch. Should a recall occur related to any of the input material the whole value-added batch(s) would be recalled.

Tracing a single meat retail ready or food service product (e.g., a portion prepared steak) back to a single animal or source property is operationally impractical. The example below shows the complexity of such a trace back.

Retail ready product traceability example:

1. The volume of retail ready or food service product made in a batch would likely be in the order of 1 000 kg (50 x 20 kg primal cut cartons) which equates to 100 x 10 kg of finished retail ready/food service cartons or approximately 5 000 x 200 g portioned steaks. This is managed as a production batch and as such, any one steak in any carton may have come from any of the 50 x 20 kg primal cut cartons.
2. The cartons from which this retail ready product (50 x 20 kg cartons) was produced may have been comprised of 1 000 kg of cube roll primal cut cartons. These cartons might typically be sourced from 2 processing establishments and over 3 production days for each processing establishment, this is a total of 6 plant kill days.
3. The average weight of the cube rolls in each carton is 3.3 kg. This means that each carton has 6 cube rolls. With each carcase having 2 cube rolls, the 50 cartons may have been produced from 150 head of cattle.
4. Each processing plant might kill 500 head per day, and these might come from an average of 20 source properties. Traceability of cartoned boning room product is limited to the carcasses that have entered the boning room for the production run of cartons that are created. This means that the primal cut e.g., cube roll in any carton may have come from any of the 500 carcasses for that boning run production day.
5. As the cube roll primal cut cartons came from a total of 6 plant kill day combinations, this equates to any primal cut coming from any one of a possible 3 000 head of cattle or 120 possible source properties.

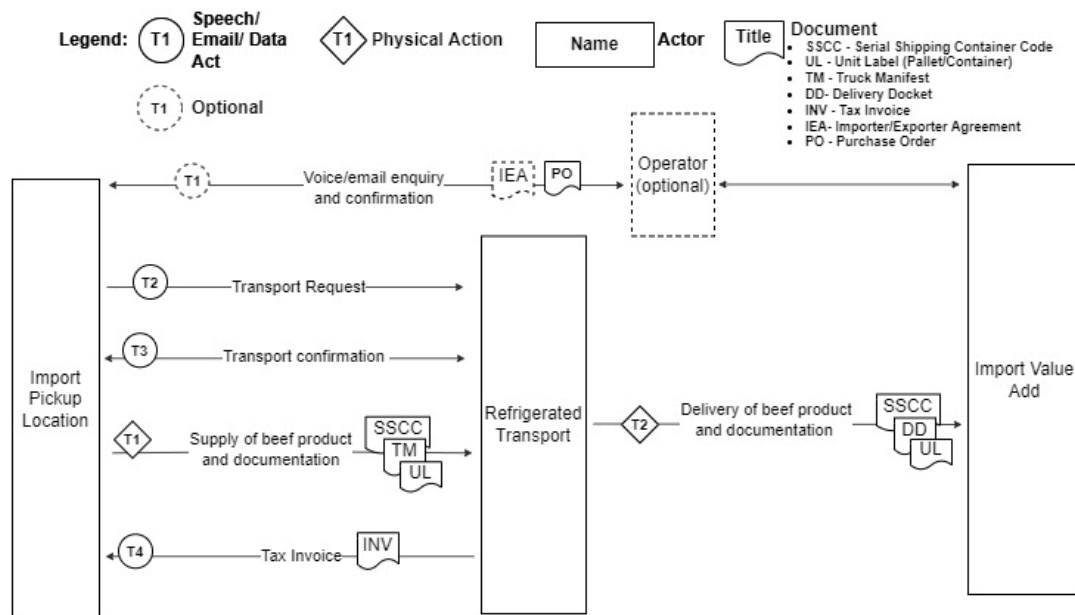
In summary, for this example any individual 200 g portion cut steak may have come from any one of 3 000 head of cattle from any one of 120 source properties. It is possible in some very small scale and very high value commercial operations to manage single body boning and tracking the cuts to retail ready packaging. However, this would represent less than a fraction of a percent of the total meat industry production volume.

5.2.6.5.7 Data flow diagrams

Table 158. Data flow diagrams for the inputs and outputs of a beef import value added system

Direction	Description
Input	Import Refrigerated Transport
Input	Import Third Party Cold Store to Import Value Added
Output	Import Value Added to Import Third Party Cold Store
Output	Import Value Added to Import Supermarket
Output	Import Value Added to Import Butcher
Output	Import Value Added to Import Food Services

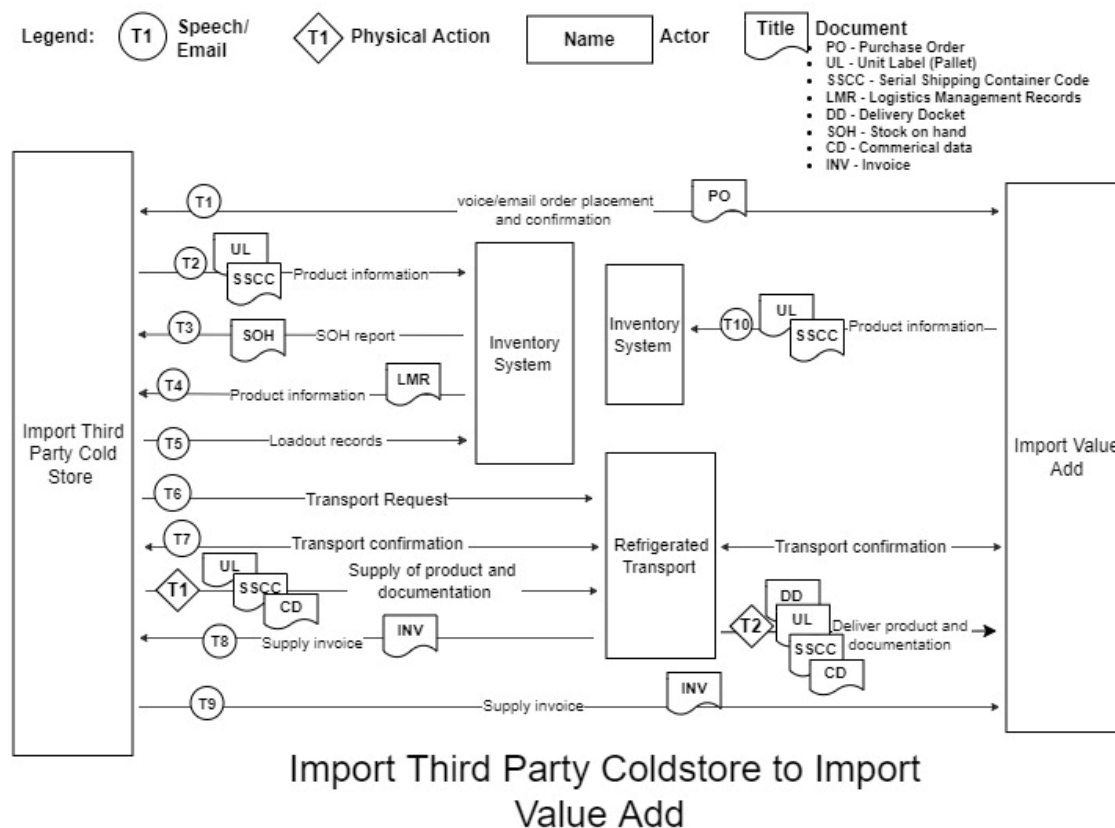
5.2.6.5.7.1 Import Livestock Processing to Import Value Added



Import Refrigerated Transport

Figure 174. Data or information flows from the import refrigerated transport systems in the beef supply chain.

5.2.6.5.7.2 Import Third Party Cold Store to Import Value Added



Import Third Party Coldstore to Import Value Add

Figure 175. Data or information flows from import third party cold store to import value add systems in the beef supply chain.

5.2.6.5.7.3 Import Value Added to Import Third Party Cold Store

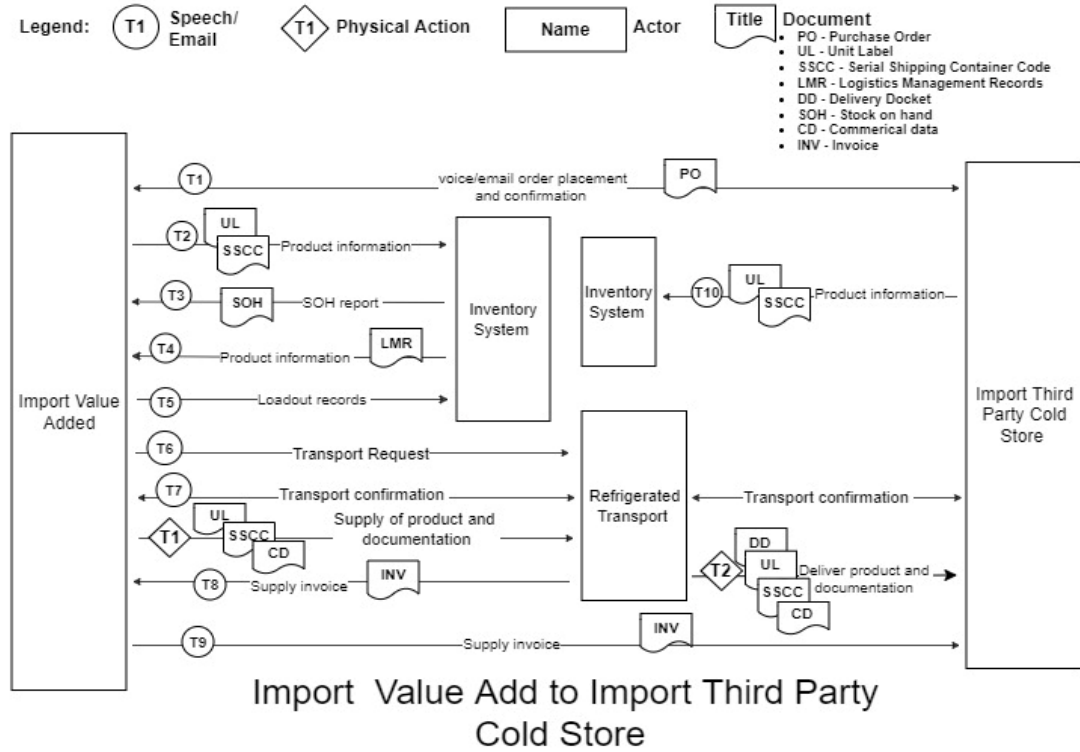


Figure 176. Data or information flows from import value add to import third party cold store systems in the beef supply chain.

5.2.6.5.7.4 Import Value Added to Import Supermarket

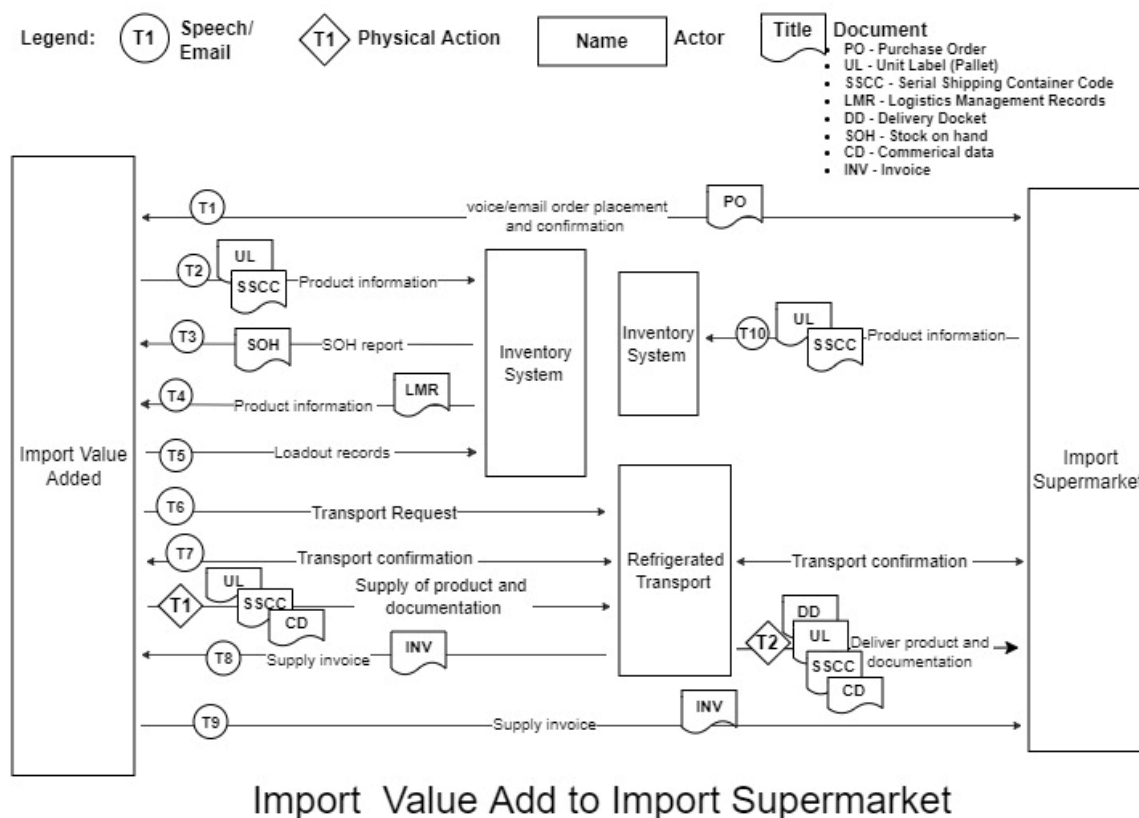


Figure 177. Data or information flows from the import value add to import supermarket the beef supply chain.

5.2.6.5.7.5 Import Value added to Import Food Services

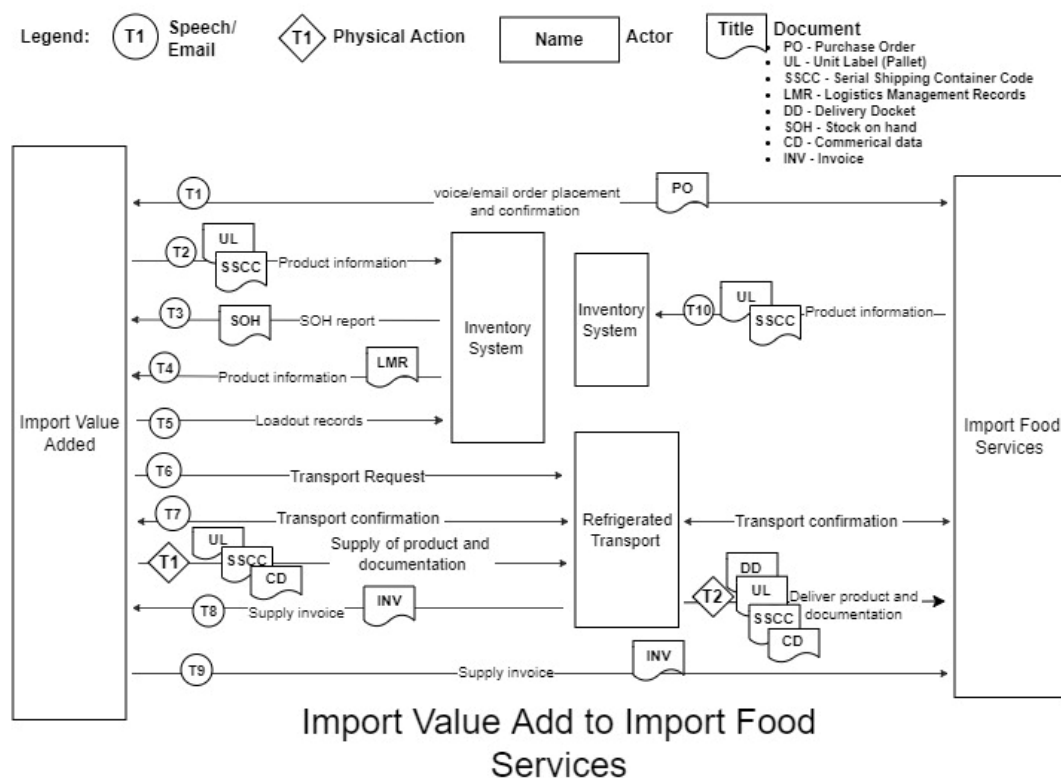


Figure 178. Data or information flows from the import value add to import food services systems in the beef supply chain.

5.2.6.6 Import third party cold store

Storing chilled carcasses or carcase products (e.g., cartons) typically provides a stock buffer between production and dispatch of product intended for domestic or export markets. A third-party cold storage system is an establishment, separate from a processing establishment, which performs activities the same as that for a cold storage facility integrated into a processing plant. However, product from multiple suppliers may be stored and/or combined for dispatch. A cold storage facility involves refrigerated chambers that can chill or freeze any perishable product for a period of time before dispatch. During this process, the ageing of meat also occurs, progressively increasing tenderness and flavour. Storage rooms must take into account the storage requirements for different products as well as rules for loading, maintenance and hygiene of storage equipment.

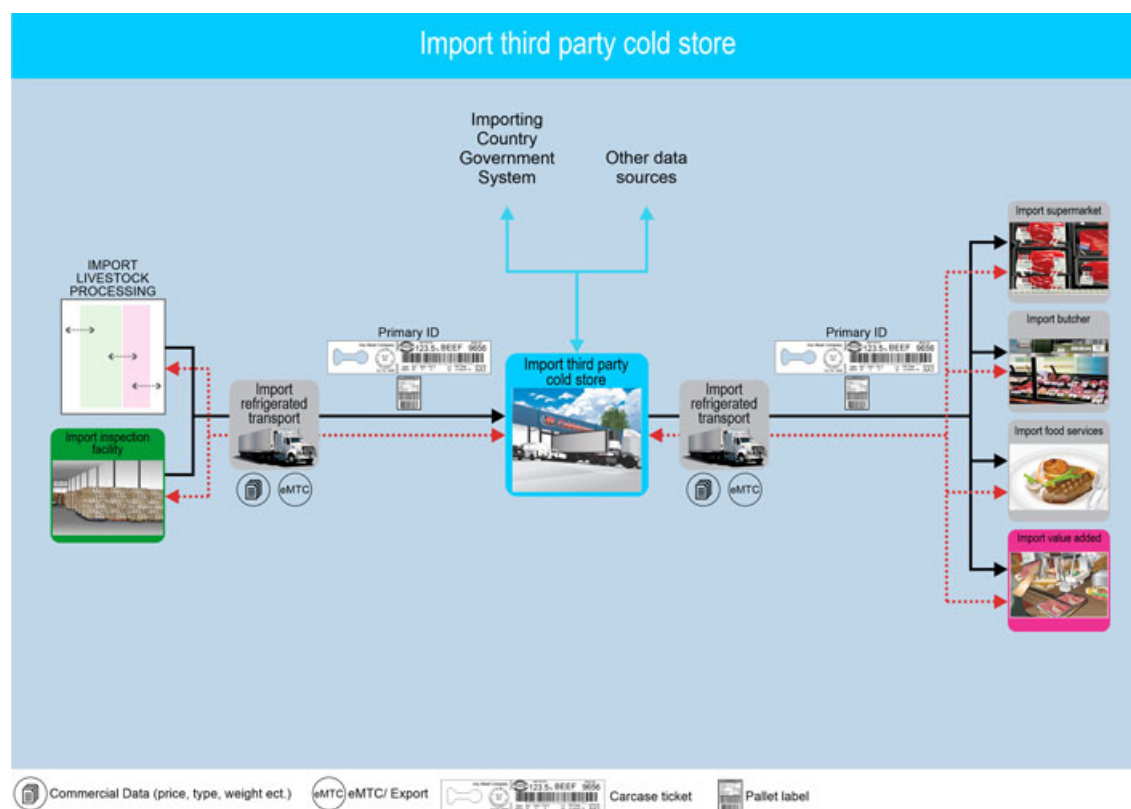


Figure 179. Inputs and outputs of the beef supply chain import third party cold store sector.

5.2.6.6.1 Physical Inputs including Critical Tracking Events (CTEs)

Cold stores generally offer their clients a range of services involving stock rotation, logistics, maintenance, and systems of identification. Product moved into cold stores ranges from carcasses to pallets of product. These are accompanied by documentation such as Import specific movement documents and Delivery Dockets.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with inputs to the import third party cold store system include the receipt of:

- * Carcase
- * Carton

- * Pallet
- * Container System Unit (meat and meat products).

Table 159. Physical inputs and associated Critical Tracking Event related documents for a beef import third party cold store system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Carcase	The body of a slaughtered animal after bleeding. Becomes a dressed carcase when hide, head, feet and offal are removed.	Carcase Ticket, Delivery Docket/Manifest, Import specific meat/meat product movement forms, Third Party Cold Store production management system, Import Receipt of purchase/Tax Invoice	
Carton	This is a case, crate, or barrel of product.	Carton label, Delivery Docket/Manifest, Import specific meat/meat product movement forms, Third Party Cold Store production management system, Import Receipt of purchase/Tax Invoice	
Pallet	A logistic unit which includes a number of cartons or goods items packed together for transport or storage purposes.	Delivery Docket/Manifest, Import specific meat/meat product movement forms, Third Party Cold Store production management system, Import Receipt of purchase/Tax Invoice, SSCC/Pallet label	
Container System Unit (meat and meat products)	A container designed for use as a unit of cargo handling equipment in the transport of goods by aircraft or ship.	Bill of lading/Air Waybill, Certificate of Analysis (COA), Delivery Docket/Manifest, Import Permit, Import specific meat/meat product movement forms, Imported Food Inspection Advice, Import Receipt of purchase/Tax Invoice, Third Party Cold Store production management system	

5.2.6.6.2 Information Inputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). Key Data Elements found on CTE documentation accompanying the movement of product into cold stores ranges from carcase body numbers (found on the Carcase Ticket) to establishment numbers, official marks, and seal serial numbers.

Table 160. Information inputs, Key Data Elements and Critical Tracking Event related documentation for a beef import third party cold store system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Analysis Date	This is the date on which a product sample was analysed.	Yes	Certificate of Analysis (COA), Imported Food Inspection Advice, Third Party Cold Store production management system	

Batch number	This is a unique number which identifies products sharing certain production characteristics and is used for traceability purposes.	Yes	Carcase Ticket, Third Party Cold Store production management system	
Bill of lading/Air Waybill document number	A unique document number issued for traceability purposes.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA), Third Party Cold Store production management system	
Body number	This is a number assigned to each carcase by the processor for identification purposes.	Yes	Carcase Ticket, Third Party Cold Store production management system	
Certificate of Analysis number	A unique certificate number issued for traceability purposes.	Yes	Certificate of Analysis (COA), Imported Food Inspection Advice, Third Party Cold Store production management system	
COA test lot identifier	This is a unique identifier allocated to all cartons, pallets, and shipping containers for which an analysis sample represents.	Yes	Certificate of Analysis (COA), Imported Food Inspection Advice, Third Party Cold Store production management system	
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Bill of lading/Air Waybill, Carton label, Certificate of Analysis (COA), Import Receipt of purchase/Tax Invoice, Imported Food Inspection Advice, SSCC/Pallet label, Third Party Cold Store production management system	
Consignment Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., shipment/message that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Bill of lading/Air Waybill, Import specific meat/meat product movement forms, Imported Food Inspection Advice, SSCC/Pallet label, Third Party Cold Store production management system	For more information visit the GS1 website.
Contract number	This is a unique number allocated to the contract by the seller.	Yes	Delivery Docket/Manifest, Third Party Cold Store production management system	
Count of Trade Items	Usually encoded in the GS1 barcode, this is the number of trade items e.g., cartons in the logistic unit.	Yes	Bill of lading/Air Waybill, Delivery Docket/Manifest, Imported Food Inspection Advice, SSCC/Pallet label, Third Party Cold Store production management system	For more information visit the GS1 website.

Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA), Delivery Docket/Manifest, Import Receipt of purchase/Tax Invoice, Import specific meat/meat product movement forms, Third Party Cold Store production management system	
Delivery Docket/Manifest number	This is a unique number allocated to the docket for identification purposes.	Yes	Delivery Docket/Manifest, Third Party Cold Store production management system	
Food Control Certificate entry number	This is a number assigned to the entry of a shipment of goods imported by the same owner at the same time which can be described by one import entry.	Yes	Imported Food Inspection Advice, Third Party Cold Store production management system	
From Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Carcase Ticket, Carton label, Certificate of Analysis (COA), Delivery Docket/Manifest, SSCC/Pallet label, Third Party Cold Store production management system	
From property identifier	The identification of the property (may be a PIC) from/to where the livestock or product were consigned.	Yes	Import specific meat/meat product movement forms, Third Party Cold Store production management system	
Global Trade Item Number (GTIN)	Encoded in the GS1 barcode, the GTIN is a globally unique 14-digit number used to identify trade items, products, or services.	Yes	Carcase Ticket, Carton label, SSCC/Pallet label, Third Party Cold Store production management system	For more information visit the GS1 website.
GTIN of Contained Trade Items	Encoded in the GS1 barcode, the GTIN of the contained trade items is a globally unique 14-digit number used to identify trade items, products, or services in the logistic unit.	Yes	SSCC/Pallet label, Third Party Cold Store production management system	For more information visit the GS1 website.
Import Permit Number	A unique permit number is allocated for the import consignment following submission of correct and validated documentation approved by the importing country.	Yes	Import Permit	

Imported Food Inspection Advice certificate number	A unique certificate number issued for traceability purposes.	Yes	Imported Food Inspection Advice, Third Party Cold Store production management system	
Lot number	A lot is a number assigned by the processor to each group of cattle consigned to slaughter and is usually vendor specific.	Yes	Carcase Ticket, Third Party Cold Store production management system	
Meat/meat product movement form number	A unique certificate number issued for traceability purposes.	Yes	Import specific meat/meat product movement forms, Third Party Cold Store production management system	
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA), Delivery Docket/Manifest, Import specific meat/meat product movement forms, Third Party Cold Store production management system	
Net Weight (Kilograms)	Usually encoded in the GS1 barcode, the Net Weight is a variable measure of the trade item e.g., carton, pallet or shipment recorded in kilograms.	Yes	Bill of lading/Air Waybill, Carcase Ticket, Carton label, SSCC/Pallet label, Third Party Cold Store production management system	For more information visit the GS1 website.
Official mark	Any stamp, seal, label, or mark that is declared by the regulations to be an official mark. An official mark signifies that the product has been inspected by and approved as safe for human consumption by an Authorised Officer.	Yes	Carcase Ticket, Carton label, SSCC/Pallet label, Third Party Cold Store production management system	
Order date	This is the date on which the purchase order or contract was raised by the buyer.	Yes	Delivery Docket/Manifest, Third Party Cold Store production management system	
Packaging Date	Encoded in the GS1 barcode, the Packaging Date is the date on which the item was packaged and is recorded in the format year, month, day (YYMMDD).	Yes	Carton label, Certificate of Analysis (COA), SSCC/Pallet label, Third Party Cold Store production management system	For more information visit the GS1 website.
Packaging Date Range	This includes the oldest and newest packaging dates for the logistic unit.	Yes	SSCC/Pallet label, Third Party Cold Store production management system	For more information visit the GS1 website.
Pallet Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., pallet that is assigned by the establishment constructing the	Yes	Import specific meat/meat product movement forms, SSCC/Pallet label, Third Party Cold Store	For more information visit the GS1 website.

	unit. The SSCC remains the same for the life of the logistic unit.		production management system	
Production Date (YYMMDD)	Encoded in the GS1 barcode, this is the 'kill' or slaughter' date of the product and is recorded in the format year, month, day (YYMMDD).	Yes	Carcase Ticket, Certificate of Analysis (COA), Import specific meat/meat product movement forms, Third Party Cold Store production management system	For more information visit the GS1 website.
Recipient Business Number	This is a unique registration number, used to identify businesses.	Yes	Import Receipt of purchase/Tax Invoice, Third Party Cold Store production management system	
Seal Serial Number	This is a unique serial number printed on any tamper-evident seal issued by the Department.	Yes	Bill of lading/Air Waybill, Third Party Cold Store production management system	For more information visit the Australian Government Federal Register of Legislation.
Seller/Supplier Business Number	This is a unique registration number, used to identify businesses.	Yes	Import Receipt of purchase/Tax Invoice, Third Party Cold Store production management system	
Serial Number	Encoded in the GS1 barcode, this is a code, numeric or alphanumeric, assigned to an individual instance of an item for its lifetime.	Yes	Carcase Ticket, Carton label, Third Party Cold Store production management system	For more information visit the GS1 website.
Shipping Mark	Also known as a port mark, this is a code comprising of three letters representing the foreign establishment number and the last nine digits of the consignment SSCC.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA), Delivery Docket/Manifest, SSCC/Pallet label, Third Party Cold Store production management system	
To property identifier	The identification of the property (may be a PIC) from/to where the livestock or product were consigned.	Yes	Import specific meat/meat product movement forms, Third Party Cold Store production management system	
Trade description	This is a collective set of words that says what the product is and may include information such as species, net weight of product, name and address of establishments, category ciphers, market endorsements, MSA eating quality etc.	Yes	Carcase Ticket, Carton label, Delivery Docket/Manifest, SSCC/Pallet label, Third Party Cold Store production management system	
Transport registration number	The registration number of the vehicle in which the animals or product were transported. For	Yes	Bill of lading/Air Waybill, Delivery Docket/Manifest, Import specific meat/meat	

	shipments of product this will be a shipping container number.		product movement forms, Third Party Cold Store production management system	

5.2.6.6.3 Physical Outputs including Critical Tracking Events (CTEs)

Product exiting cold stores which is transferred along the supply chain ranges from carcasses to pallets of meat/meat products. Critical Tracking Event Documentation required here may include labels such as the Carcase Ticket or Pallet Label, Import specific meat/meat product movement forms and Delivery Dockets.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with the outputs of the import third party cold store system include the movement of:

- * Carcase
- * Carton
- * Pallet

off the property, premises, or supply chain sector.

Table 161. Physical outputs and associated Critical Tracking Event related documents for a beef import third party inspection system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Carcase	The body of a slaughtered animal after bleeding. Becomes a dressed carcase when hide, head, feet and offal are removed.	Carcase Ticket, Delivery Docket/Manifest, Import specific meat/meat product movement forms, Third Party Cold Store production management system, Import Receipt of purchase/Tax Invoice	
Carton	This is a case, crate, or barrel of product.	Carton label, Delivery Docket/Manifest, Import specific meat/meat product movement forms, Third Party Cold Store production management system, Import Receipt of purchase/Tax Invoice	
Pallet	A logistic unit which includes a number of cartons or goods items packed together for transport or storage purposes.	Delivery Docket/Manifest, Import specific meat/meat product movement forms, Third Party Cold Store production management system, Import Receipt of purchase/Tax Invoice, SSCC/Pallet label	

5.2.6.6.4 Information Outputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). Key Data Elements from cold store CTE related documentation will be stored in the production management system. Such information may include, but not be limited to, GS1 barcode application identifiers, movement dates, product net weight, seal serial numbers and import specific meat/meat product movement certificate numbers.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Batch number	This is a unique number which identifies products sharing certain production characteristics and is used for traceability purposes.	Yes	Carcase Ticket, Third Party Cold Store production management system	
Body number	This is a number assigned to each carcase by the processor for identification purposes.	Yes	Carcase Ticket, Third Party Cold Store production management system	
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Carton label, Import Receipt of purchase/Tax Invoice, SSCC/Pallet label, Third Party Cold Store production management system	
Consignment Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., shipment/message that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Import specific meat/meat product movement forms, SSCC/Pallet label, Third Party Cold Store production management system	For more information visit the GS1 website.
Contract number	This is a unique number allocated to the contract by the seller.	Yes	Delivery Docket/Manifest, Third Party Cold Store production management system	
Count of Trade Items	Usually encoded in the GS1 barcode, this is the number of trade items e.g., cartons in the logistic unit.	Yes	Delivery Docket/Manifest, SSCC/Pallet label, Third Party Cold Store production management system	For more information visit the GS1 website.
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Delivery Docket/Manifest, Import Receipt of purchase/Tax Invoice, Import specific meat/meat product movement forms, Third Party Cold Store production management system	
Delivery Docket/Manifest number	This is a unique number allocated to the docket for identification purposes.	Yes	Delivery Docket/Manifest, Third Party Cold Store production management system	
From Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Carcase Ticket, Carton label, Delivery Docket/Manifest, SSCC/Pallet label, Third Party Cold Store production management system	

From property identifier	The identification of the property (may be a PIC) from/to where the livestock or product were consigned.	Yes	Import specific meat/meat product movement forms, Third Party Cold Store production management system	
Global Trade Item Number (GTIN)	Encoded in the GS1 barcode, the GTIN is a globally unique 14-digit number used to identify trade items, products, or services.	Yes	Carcase Ticket, Carton label, SSCC/Pallet label, Third Party Cold Store production management system	For more information visit the GS1 website.
GTIN of Contained Trade Items	Encoded in the GS1 barcode, the GTIN of the contained trade items is a globally unique 14-digit number used to identify trade items, products, or services in the logistic unit.	Yes	SSCC/Pallet label, Third Party Cold Store production management system	For more information visit the GS1 website.
Lot number	A lot is a number assigned by the processor to each group of cattle consigned to slaughter and is usually vendor specific.	Yes	Carcase Ticket, Third Party Cold Store production management system	
Meat/meat product movement form number	A unique certificate number issued for traceability purposes.	Yes	Import specific meat/meat product movement forms, Third Party Cold Store production management system	
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Delivery Docket/Manifest, Import specific meat/meat product movement forms, Third Party Cold Store production management system	
Net Weight (Kilograms)	Usually encoded in the GS1 barcode, the Net Weight is a variable measure of the trade item e.g., carton, pallet or shipment recorded in kilograms.	Yes	Carcase Ticket, Carton label, SSCC/Pallet label, Third Party Cold Store production management system	For more information visit the GS1 website.
Official mark	Any stamp, seal, label, or mark that is declared by the regulations to be an official mark. An official mark signifies that the product has been inspected by and approved as safe for human consumption by an Authorised Officer.	Yes	Carcase Ticket, Carton label, SSCC/Pallet label, Third Party Cold Store production management system	
Order date	This is the date on which the purchase order or contract was raised by the buyer.	Yes	Delivery Docket/Manifest, Third Party Cold Store production management system	
Packaging Date	Encoded in the GS1 barcode, the Packaging Date is the date on which the item was packaged and is recorded in the format year, month, day (YYMMDD).	Yes	Carton label, SSCC/Pallet label, Third Party Cold Store production management system	For more information visit the GS1 website.

Packaging Date Range	This includes the oldest and newest packaging dates for the logistic unit.	Yes	SSCC/Pallet label, Third Party Cold Store production management system	For more information visit the GS1 website.
Pallet Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., pallet that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Import specific meat/meat product movement forms, SSCC/Pallet label, Third Party Cold Store production management system	For more information visit the GS1 website.
Production Date (YYMMDD)	Encoded in the GS1 barcode, this is the 'kill' or slaughter' date of the product and is recorded in the format year, month, day (YYMMDD).	Yes	Carcase Ticket, Import specific meat/meat product movement forms, Third Party Cold Store production management system	For more information visit the GS1 website.
Recipient Business Number	This is a unique registration number, used to identify businesses.	Yes	Import Receipt of purchase/Tax Invoice, Third Party Cold Store production management system	
Seller/Supplier Business Number	This is a unique registration number, used to identify businesses.	Yes	Import Receipt of purchase/Tax Invoice, Third Party Cold Store production management system	
Serial Number	Encoded in the GS1 barcode, this is a code, numeric or alphanumeric, assigned to an individual instance of an item for its lifetime.	Yes	Carcase Ticket, Carton label, Third Party Cold Store production management system	For more information visit the GS1 website.
Shipping Mark	Also known as a port mark, this is a code comprising of three letters representing the foreign establishment number and the last nine digits of the consignment SSCC.	Yes	Delivery Docket/Manifest, SSCC/Pallet label, Third Party Cold Store production management system	
To property identifier	The identification of the property (may be a PIC) from/to where the livestock or product were consigned.	Yes	Import specific meat/meat product movement forms, Third Party Cold Store production management system	
Trade description	This is a collective set of words that says what the product is and may include information such as species, net weight of product, name and address of establishments, category ciphers, market endorsements, MSA eating quality etc.	Yes	Carcase Ticket, Carton label, Delivery Docket/Manifest, SSCC/Pallet label, Third Party Cold Store production management system	
Transport registration number	The registration number of the vehicle in which the animals or product were transported. For shipments of product this will be a shipping container number.	Yes	Delivery Docket/Manifest, Import specific meat/meat product movement forms, Third	

			Party Cold Store production management system	

5.2.6.6.5 Regulatory and Industry Programs

* Importing Country Government System

* Other data sources

5.2.6.6.6 Supply Chain Node Traceability

The traceability of product in an importing country third-party cold store back to the live animal and property of origin is dependent on the form in which product enters the storage premises. This may include whole carcase, cartoned or palletised form.

Traceability of whole carcasses back to the live animal is possible and can be done by the processing establishment where the animal was slaughtered as importers of livestock are required to demonstrate that animals remain traceable throughout the supply chain up to the point of slaughter. Here, carcasses are issued a carcase ticket which correlates to the live animal identifier and contains key information, including GS1 meat industry barcode, body number, processing establishment number and production date or 'kill date'. Thus, whole carcasses (identified with a unique serialised carcase ticket) within a processing facility, chiller, cold store, or other premises (e.g., retail) are fully traceable back to the individual live animal and property of origin.

Traceability for cartoned and palletised product is limited to the carcasses that have entered the boning room for the production run of cartons that are created. For example, 200 carcasses (400 sides) individually identified with unique carcase tickets enter the boning room for a specific boning run. These carcase tickets are linked to the specific boning run. From these carcasses, 3 200 cartons of primal cuts and 1 000 cartons of trim and other highly mixed products are created. While all cartons are identified with unique serialised carton labels, including a GS1 meat industry barcode, linked to the boning run (and may be packaged into pallets containing unique serialised pallet labels including a GS1 SSCC barcode), it is not readily possible to identify which carcasses are in which cartons as the cartons will contain meat products from different carcasses. If the carcasses were sourced from several different properties, the resulting carton can only be traced to a number of possible carcasses and source properties. In logistical systems such as transport and cold stores, cartons are typically processed by pallets with only the pallet label being scanned. Therefore, traceability through logistics is often at the pallet level.

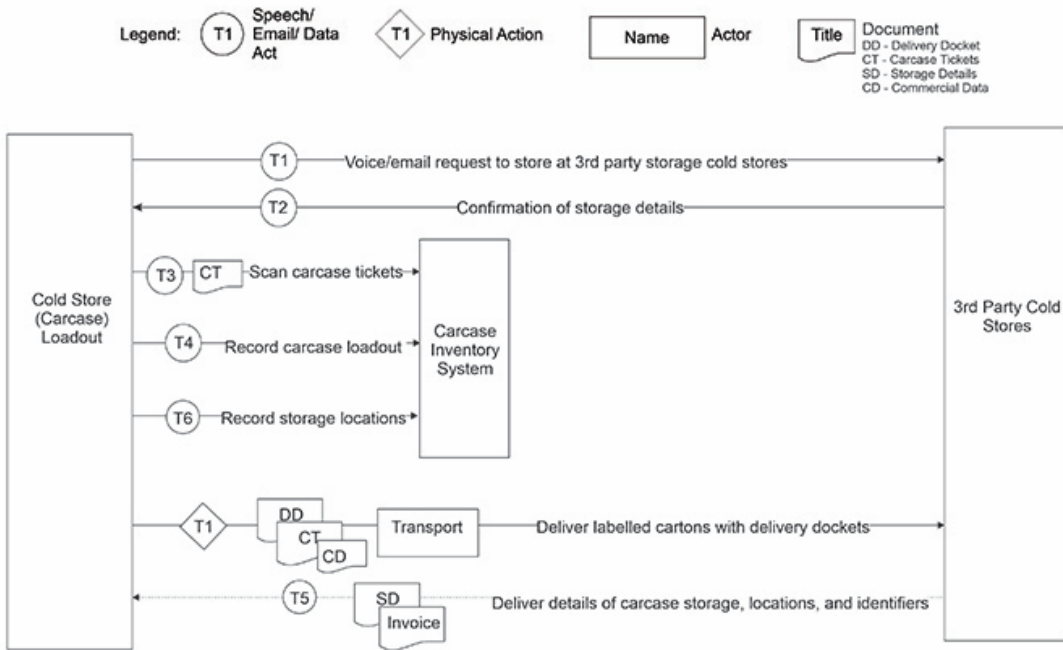
5.2.6.6.7 Data flow diagrams

Table 162. Data flow diagrams for the inputs and outputs of a beef third party cold store system

Direction	Description
Input	Cold Store (Carcase) to Third party cold store
Input	Cold Store (Carton) to Third party cold store
Output	Third party cold store to Supermarket
Output	Third party cold store to Butcher

Output	Third party cold store to Food Service
Output	Third party cold store to Value Added
Output	Third party cold store to Export

5.2.6.6.7.1 Cold Store (Carcase) to Third party cold store



Carcase Loadout to 3rd Party Storage Cold Stores

Figure 180. Data or information flows from the import carcase loadout to import third party cold store systems in the beef supply chain.

5.2.6.6.7.2 Cold Store (Carton) to Third party cold store

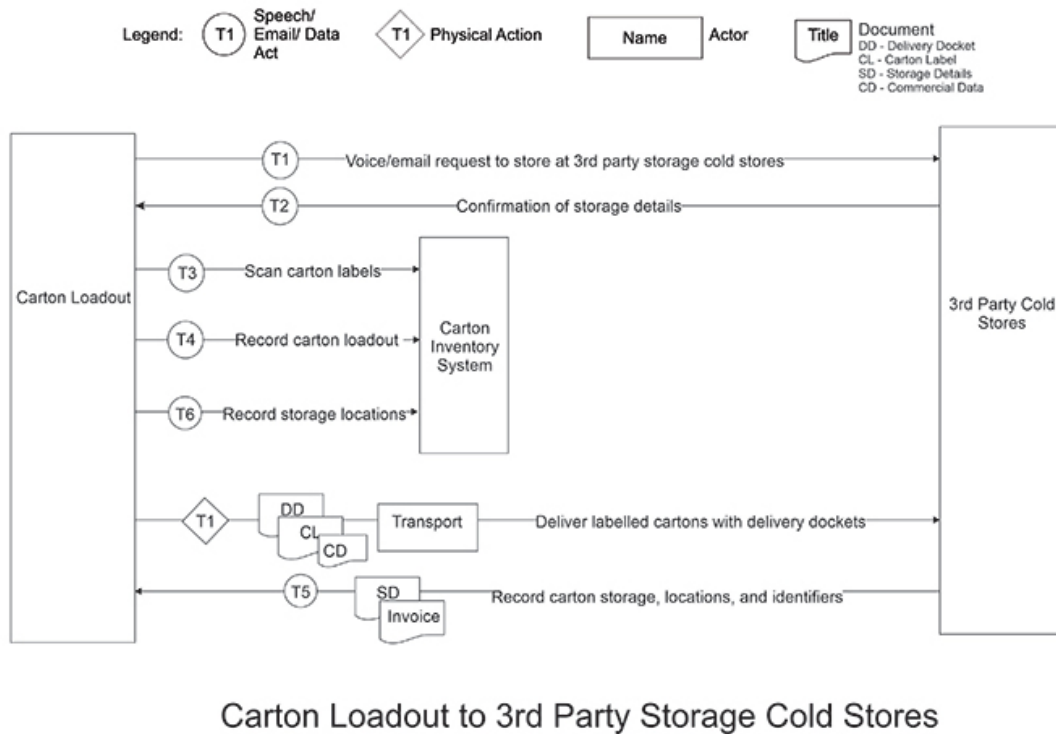
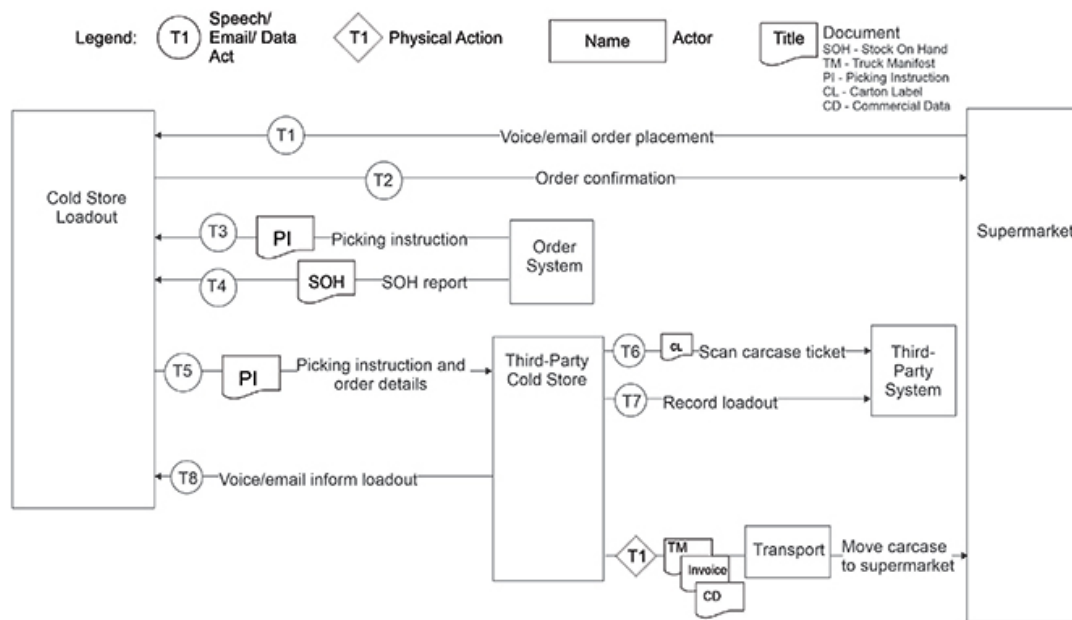


Figure 181. Data or information flows from the import carton loadout to import third party cold store systems in the beef supply chain.

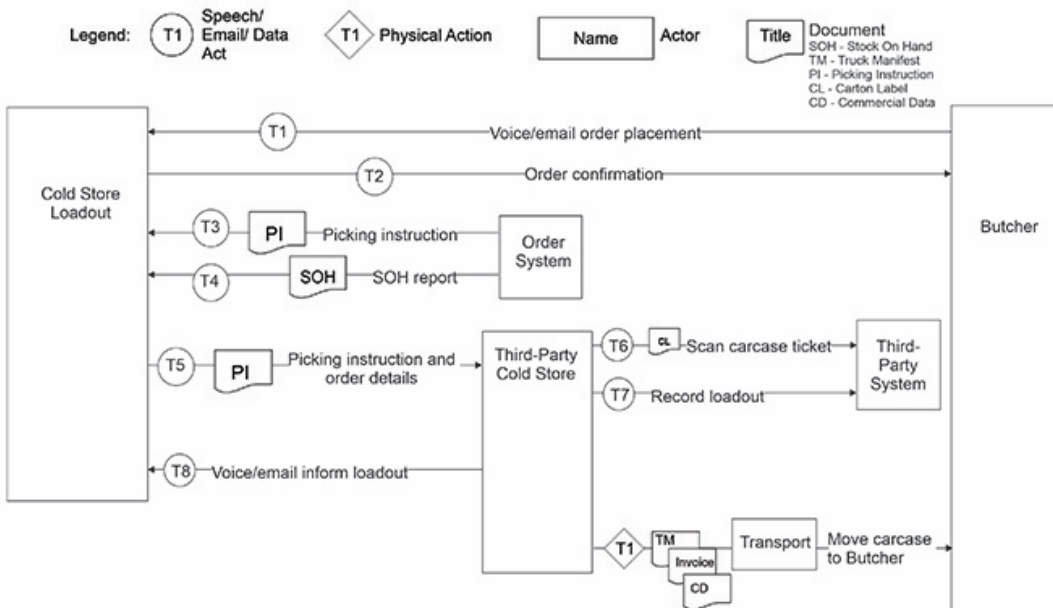
5.2.6.6.7.3 Third party cold store to Supermarket



Third-Party Cold Store to Supermarket

Figure 182. Data or information flows from the import third party cold store to import supermarket systems in the beef supply chain.

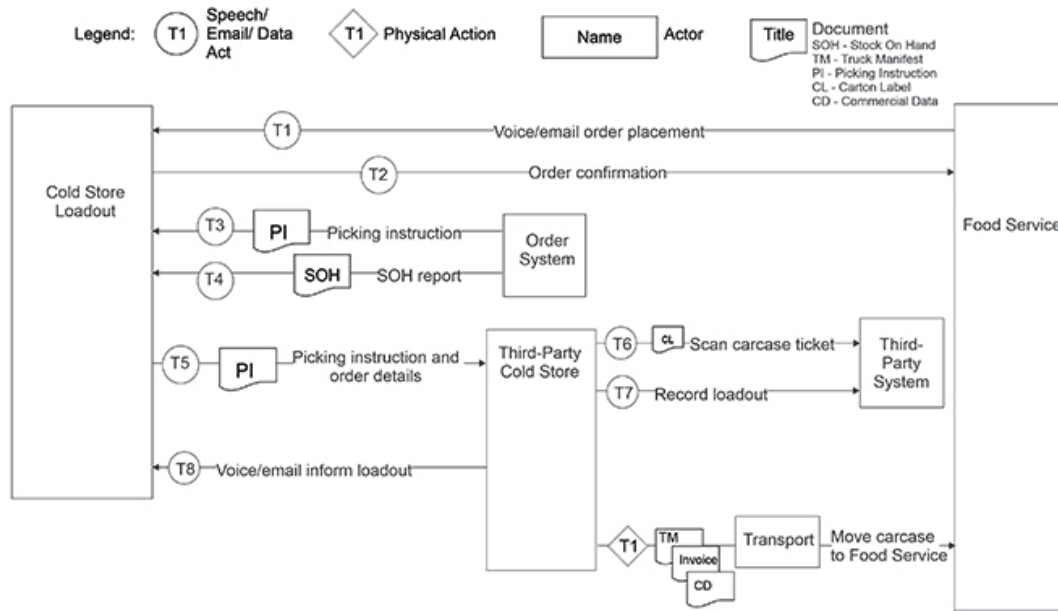
5.2.6.6.7.4 Third party cold store to Butcher



Third-Party Cold Store to Butcher

Figure 183. Data or information flows from the import third party cold store to import butcher systems in the beef supply chain.

5.2.6.6.7.5 Third party cold store to Food Service



Third-Party Cold Store to Food Service

Figure 184. Data or information flows from the import third party cold store to import food service systems in the beef supply chain.

5.2.6.6.7.6 Third party cold store to Value Added

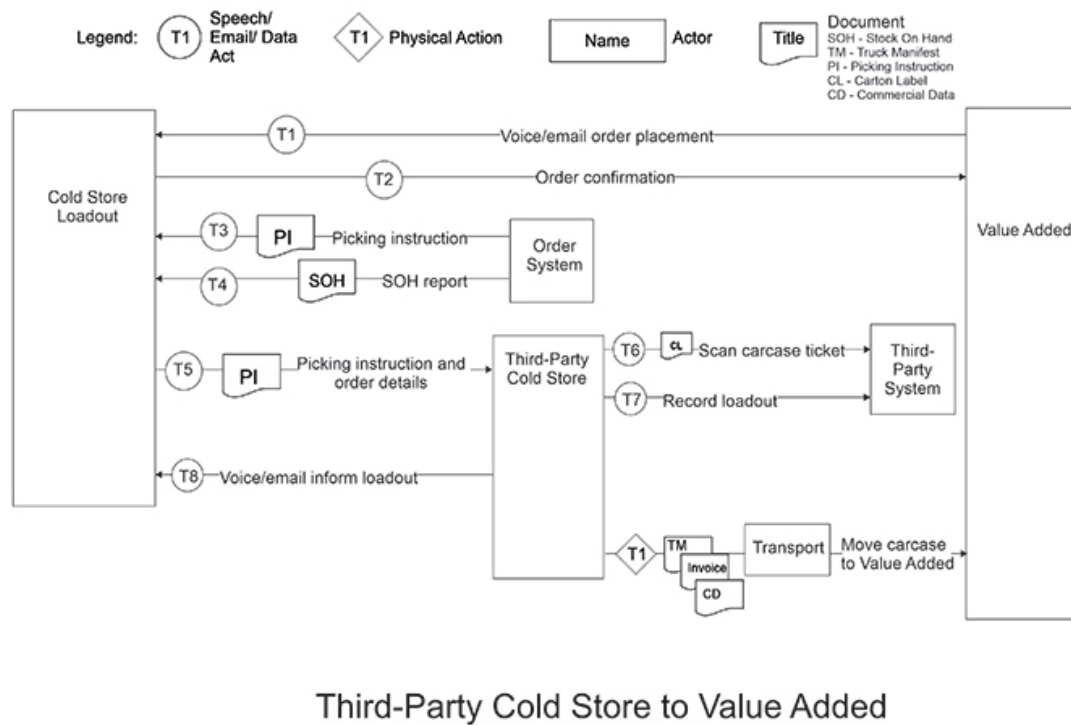
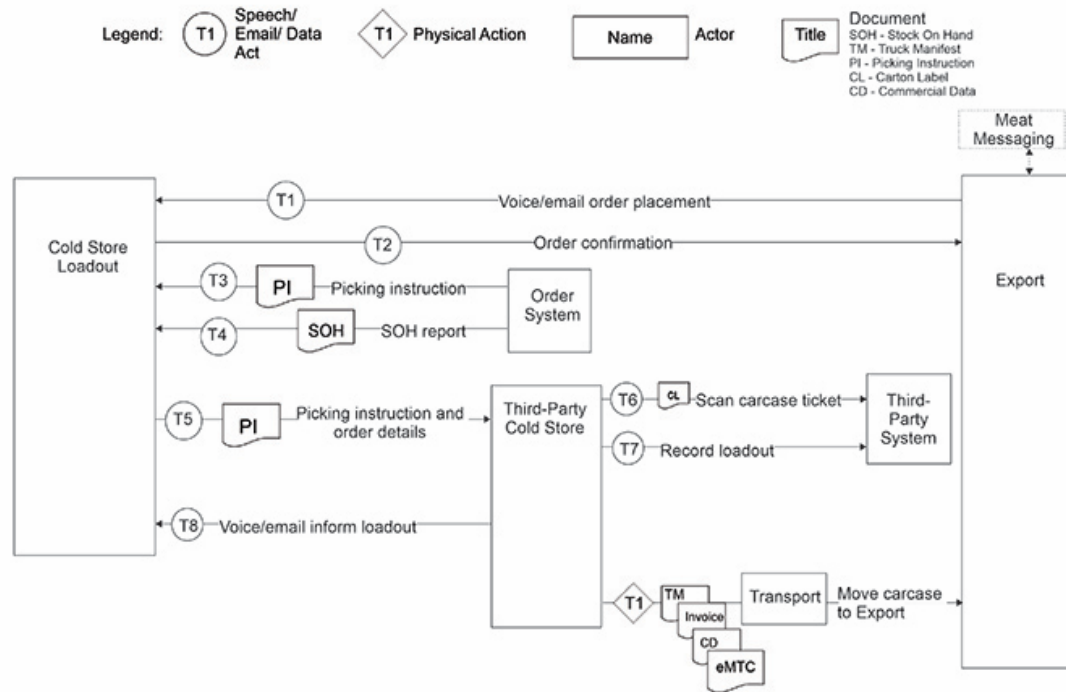


Figure 185. Data or information flows from the import third party cold store to import value added systems in the beef supply chain.

5.2.6.6.7.7 Third party cold store to Export



Third-Party Cold Store to Export

Figure 186. Data or information flows from the import third party cold store to export systems in the beef supply chain.

5.2.6.7 Import supermarket

Supermarkets are product distribution centres whereby retail-ready product is sourced from suppliers (processors or third-party cold store) or product is prepared on-site from carcase or cartoned product. These distribution centres may be chain or retail stores which assemble these goods, sourced from individual suppliers, for purchase by consumers. Product may be pre-packaged and branded by the supplier or by the supermarket and each item identified with a retail-ready product label.

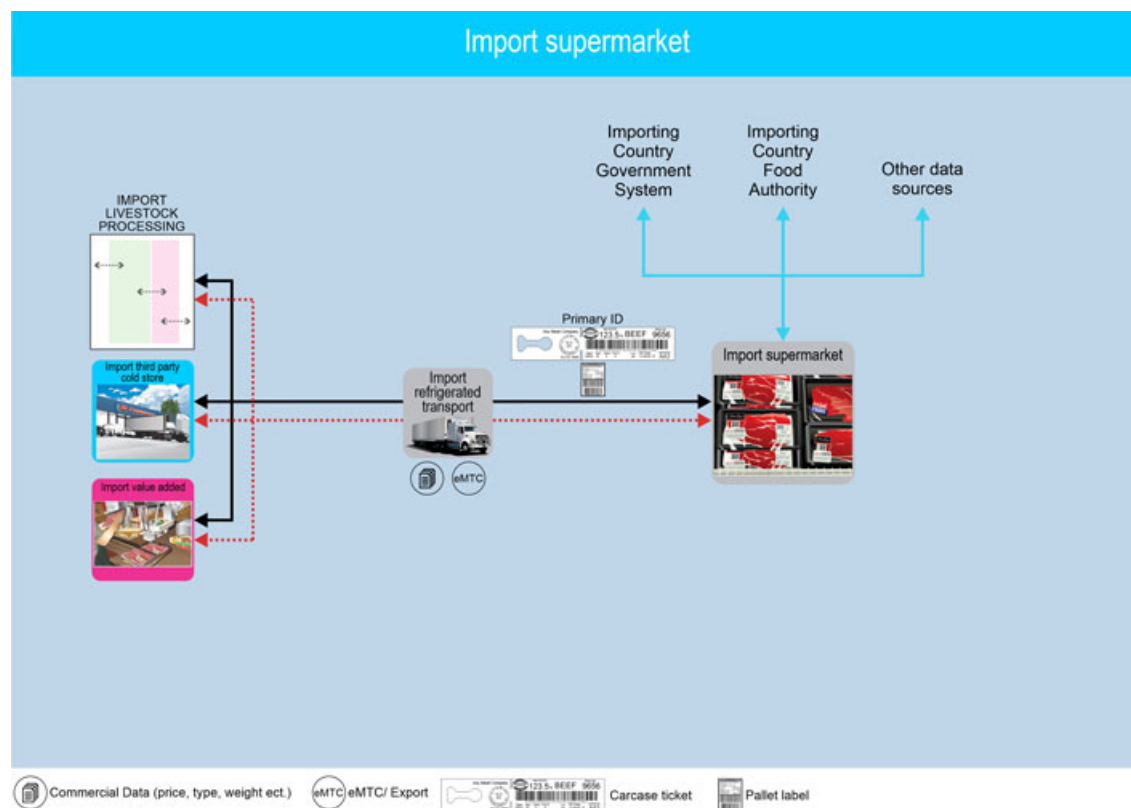


Figure 187. Inputs and outputs of the beef supply chain import supermarket sector.

5.2.6.7.1 Physical Inputs including Critical Tracking Events (CTEs)

The inputs for import supermarkets include meat product in carcase form for onsite butchering as well as pre-packaged product from processors and value adding facilities. Critical Tracking Event related documentation for the movement of product into supermarkets includes standard movement documentation such as the Delivery Docket/Manifest, import specific meat/meat product movement forms, carton, and pallet labels.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with inputs to the import supermarket system include the receipt of:

- * Carcase
- * Carton
- * Pallet.

Table 163. Physical inputs and associated Critical Tracking Event related documents for a beef import supermarket system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Carcase	The body of a slaughtered animal after bleeding. Becomes a dressed carcass when hide, head, feet and offal are removed.	Carcass Ticket, Delivery Docket/Manifest, Import specific meat/meat product movement forms, Retail production management system, Import Receipt of purchase/Tax Invoice	
Carton	This is a case, crate, or barrel of product.	Carton label, Delivery Docket/Manifest, Import specific meat/meat product movement forms, Retail production management system, Import Receipt of purchase/Tax Invoice	
Pallet	A logistic unit which includes a number of cartons or goods items packed together for transport or storage purposes.	Delivery Docket/Manifest, Import specific meat/meat product movement forms, Retail production management system, Import Receipt of purchase/Tax Invoice, SSCC/Pallet label	

5.2.6.7.2 Information Inputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). Information inputs or KDEs for the movement of meat product into the supermarket can be found on Critical Tracking Event related documentation and may be stored in the retailer's production management system.

Table 164. Information inputs, Key Data Elements and Critical Tracking Event related documentation for a beef import supermarket system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Batch number	This is a unique number which identifies products sharing certain production characteristics and is used for traceability purposes.	Yes	Carcass Ticket, Retail production management system	
Body number	This is a number assigned to each carcass by the processor for identification purposes.	Yes	Carcass Ticket, Retail production management system	
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Carton label, Import Receipt of purchase/Tax Invoice, Retail production management system, SSCC/Pallet label	
Consignment Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., shipment/message that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Import specific meat/meat product movement forms, Retail production management system, SSCC/Pallet label	For more information visit the GS1 website.

Contract number	This is a unique number allocated to the contract by the seller.	Yes	Delivery Docket/Manifest, Retail production management system	
Count of Trade Items	Usually encoded in the GS1 barcode, this is the number of trade items e.g., cartons in the logistic unit.	Yes	Delivery Docket/Manifest, Retail production management system, SSCC/Pallet label	For more information visit the GS1 website.
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Delivery Docket/Manifest, Import Receipt of purchase/Tax Invoice, Import specific meat/meat product movement forms, Retail production management system	
Delivery Docket/Manifest number	This is a unique number allocated to the docket for identification purposes.	Yes	Delivery Docket/Manifest, Retail production management system	
From Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Carcase Ticket, Carton label, Delivery Docket/Manifest, Retail production management system, SSCC/Pallet label	
From property identifier	The identification of the property (may be a PIC) from/to where the livestock or product were consigned.	Yes	Import specific meat/meat product movement forms, Retail production management system	
Global Trade Item Number (GTIN)	Encoded in the GS1 barcode, the GTIN is a globally unique 14-digit number used to identify trade items, products, or services.	Yes	Carcase Ticket, Carton label, Retail production management system, SSCC/Pallet label	For more information visit the GS1 website.
GTIN of Contained Trade Items	Encoded in the GS1 barcode, the GTIN of the contained trade items is a globally unique 14-digit number used to identify trade items, products, or services in the logistic unit.	Yes	Retail production management system, SSCC/Pallet label	For more information visit the GS1 website.
Lot number	A lot is a number assigned by the processor to each group of cattle consigned to slaughter and is usually vendor specific.	Yes	Carcase Ticket, Retail production management system	
Meat/meat product movement form number	A unique certificate number issued for traceability purposes.	Yes	Import specific meat/meat product movement forms,	

			Retail production management system	
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Delivery Docket/Manifest, Import specific meat/meat product movement forms, Retail production management system	
Net Weight (Kilograms)	Usually encoded in the GS1 barcode, the Net Weight is a variable measure of the trade item e.g., carton, pallet or shipment recorded in kilograms.	Yes	Carcase Ticket, Carton label, Retail production management system, SSCC/Pallet label	For more information visit the GS1 website.
Official mark	Any stamp, seal, label, or mark that is declared by the regulations to be an official mark. An official mark signifies that the product has been inspected by and approved as safe for human consumption by an Authorised Officer.	Yes	Carcase Ticket, Carton label, Retail production management system, SSCC/Pallet label	
Order date	This is the date on which the purchase order or contract was raised by the buyer.	Yes	Delivery Docket/Manifest, Retail production management system	
Packaging Date	Encoded in the GS1 barcode, the Packaging Date is the date on which the item was packaged and is recorded in the format year, month, day (YYMMDD).	Yes	Carton label, Retail production management system, SSCC/Pallet label	For more information visit the GS1 website.
Packaging Date Range	This includes the oldest and newest packaging dates for the logistic unit.	Yes	Retail production management system, SSCC/Pallet label	For more information visit the GS1 website.
Pallet Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., pallet that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Import specific meat/meat product movement forms, Retail production management system, SSCC/Pallet label	For more information visit the GS1 website.
Production Date (YYMMDD)	Encoded in the GS1 barcode, this is the 'kill' or slaughter' date of the product and is recorded in the format year, month, day (YYMMDD).	Yes	Carcase Ticket, Import specific meat/meat product movement forms, Retail production management system	For more information visit the GS1 website.
Recipient Business Number	This is a unique registration number, used to identify businesses.	Yes	Import Receipt of purchase/Tax Invoice, Retail production management system	
Seller/Supplier Business Number	This is a unique registration number, used to identify businesses.	Yes	Import Receipt of purchase/Tax Invoice, Retail production management system	
Serial Number	Encoded in the GS1 barcode, this is a code, numeric or alphanumeric, assigned	Yes	Carcase Ticket, Carton label, Retail	For more information

	to an individual instance of an item for its lifetime.		production management system	visit the GS1 website.
Shipping Mark	Also known as a port mark, this is a code comprising of three letters representing the foreign establishment number and the last nine digits of the consignment SSCC.	Yes	Delivery Docket/Manifest, Retail production management system, SSCC/Pallet label	
To property identifier	The identification of the property (may be a PIC) from/to where the livestock or product were consigned.	Yes	Import specific meat/meat product movement forms, Retail production management system	
Trade description	This is a collective set of words that says what the product is and may include information such as species, net weight of product, name and address of establishments, category ciphers, market endorsements, MSA eating quality etc.	Yes	Carcase Ticket, Carton label, Delivery Docket/Manifest, Retail production management system, SSCC/Pallet label	
Transport registration number	The registration number of the vehicle in which the animals or product were transported. For shipments of product this will be a shipping container number.	Yes	Delivery Docket/Manifest, Import specific meat/meat product movement forms, Retail production management system	

5.2.6.7.3 Physical Outputs including Critical Tracking Events (CTEs)

Retail ready meat products are the outputs of the supermarket system. Being purchased by consumers, CTE documentation includes the product label and receipt of purchase. Product exiting the system may be recorded in the retailer's production management system.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with the outputs of the import supermarket system include the movement of:

* Retail Ready Product

off the property, premises, or supply chain sector.

Table 165. Physical outputs and associated Critical Tracking Event related documents for a beef import supermarket system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Retail Ready Product	These are packaged meat products that are ready to be retailed and purchased by consumers.	Import Receipt of purchase/Tax Invoice, Retail product label, Retail production management system	

5.2.6.7.4 Information Outputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). Information outputs from the supermarket system include KDEs which can be drawn from

CTE documentation such as the product label and receipt of purchase. This may include purchase date, product code and application identifiers on the GS1 barcode.

Table 166. Information outputs, Key Data Elements and Critical Tracking Event related documentation for a beef import supermarket system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Import Receipt of purchase/Tax Invoice, Retail production management system	
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Import Receipt of purchase/Tax Invoice, Retail production management system	
GS1 compliant numbering and barcode	Numbering and barcode compliant to the GS1 standards and as specified by the contract between the seller and the recipient i.e., retailer.	Yes	Retail product label, Retail production management system	
Recipient Business Number	This is a unique registration number, used to identify businesses.	Yes	Import Receipt of purchase/Tax Invoice, Retail production management system	
Seller/Supplier Business Number	This is a unique registration number, used to identify businesses.	Yes	Import Receipt of purchase/Tax Invoice, Retail production management system	

5.2.6.7.5 Regulatory and Industry Programs

- * Importing Country Government System
- * Importing Country Food Authority
- * Other data sources

5.2.6.7.6 Supply Chain Node Traceability

The traceability of imported retail ready product back to the live animal and property of origin is dependent on the form in which product enters the retail premises. This may include whole carcass, cartoned or palletised form. Further, the level of traceability for each input form is dependent on the packaging processes of the retailer and the traceability requirements of the importing country. For example, whole carcass product may or may not be fully traceable back to the live animal. Where this is true, carcasses are broken down into retail cuts on site and may be packaged individually and labelled with a unique, serialised retail label. For this product, traceability back to the live animal is possible and can be done by the processing establishment where the animal was slaughtered as importers of livestock are required to demonstrate that animals remain traceable throughout the supply chain up to the point of slaughter. Here, carcasses are issued a carcass ticket which correlates to the live animal identifier and contains key information, including GS1 meat industry barcode, body number, processing establishment number and production date or 'kill date'. Thus, there is the potential to trace whole carcasses entering retail premises back to the individual live animal and property of origin. Where carcass retail cuts are not individually packaged or are derived from palletised or cartoned product, imported retail ready product may have

the same batch traceability limitations as per boning room and value-added product. Please refer to Boning room and Value Added 'Supply Chain Node Traceability' for more detailed information.

5.2.6.7.7 Data flow diagrams

Table 167. Data flow diagrams for the inputs and outputs of a beef import system

Direction	Description
Input	Import Refrigerated Transport
Input	Import Third Party Cold Store to Import Supermarket
Input	Import Value to Import Supermarket

5.2.6.7.7.1 Import Livestock Processing to Import Supermarket

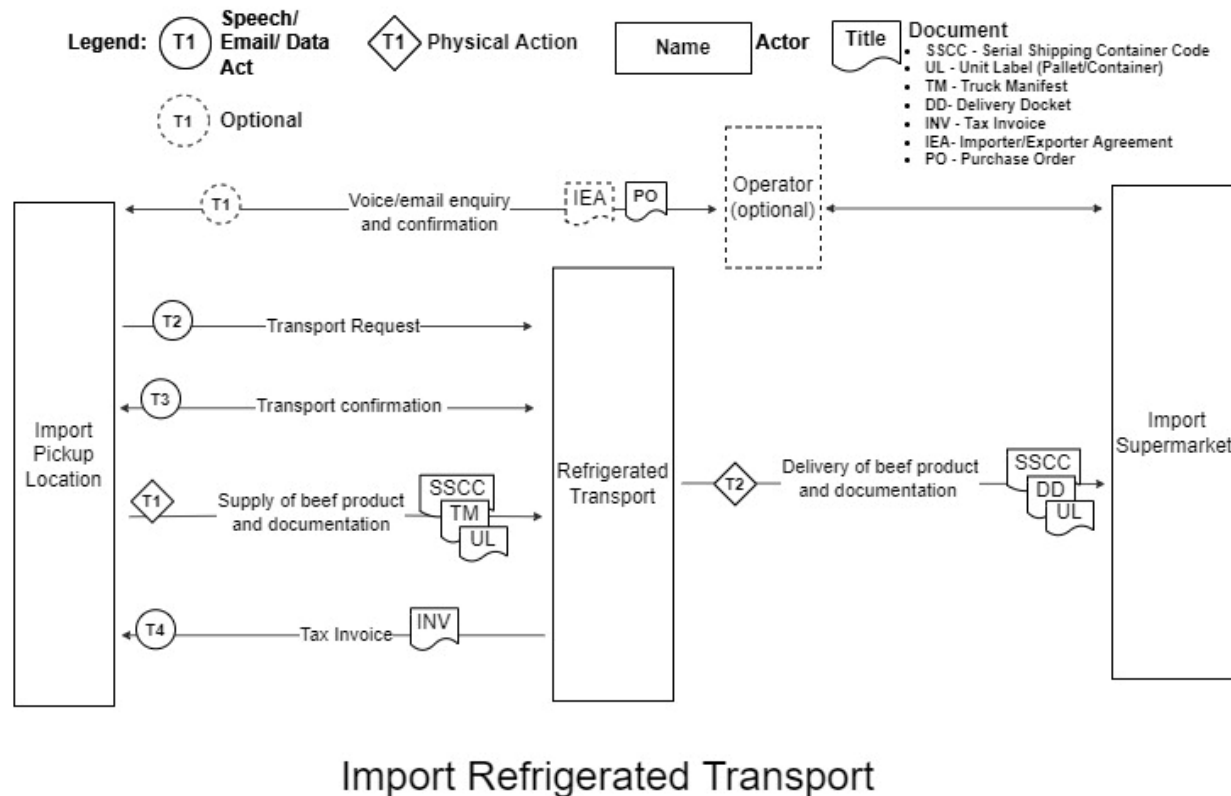


Figure 188. Data or information flows from import refrigerated transport systems in the beef supply chain.

5.2.6.7.7.2 Import Third Party Cold Store to Import Supermarket

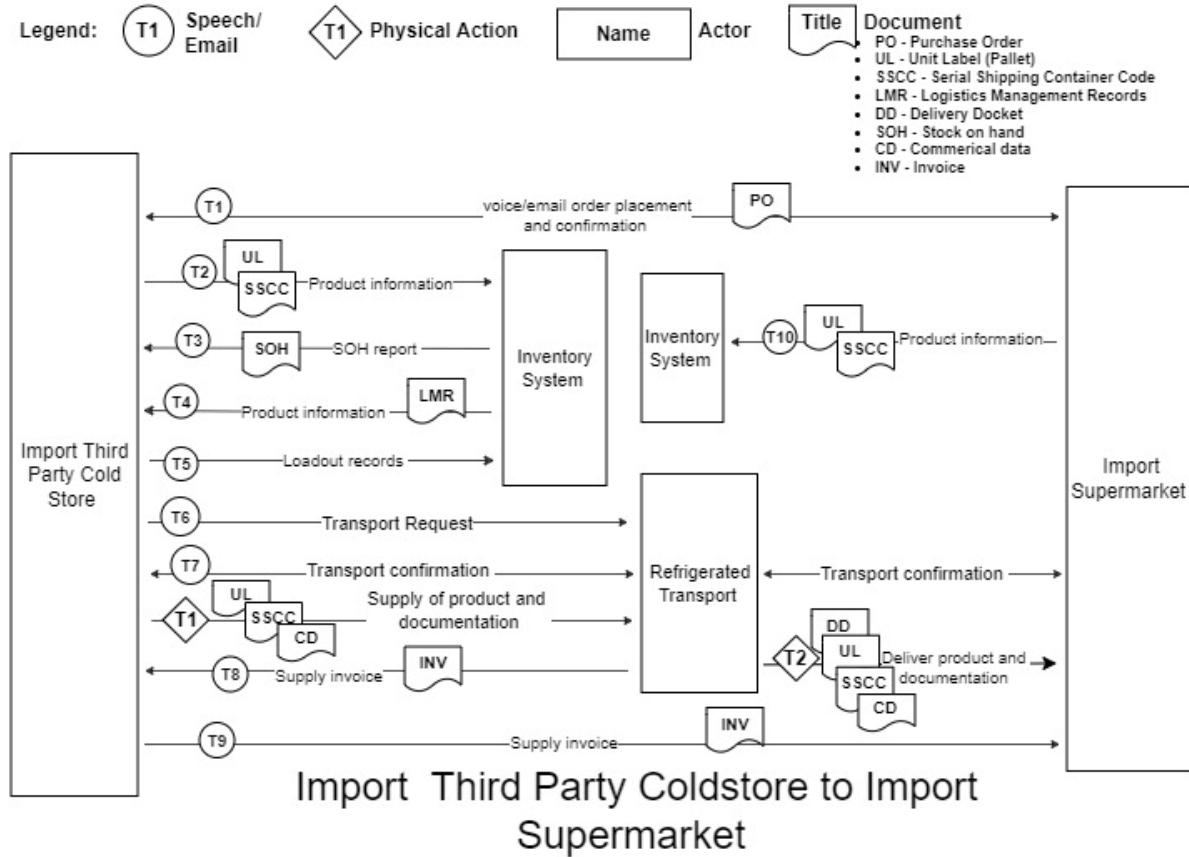


Figure 189. Data or information flows from the import third party cold store to import supermarket the beef supply chain.

5.2.6.7.3 Import Value to Import Supermarket

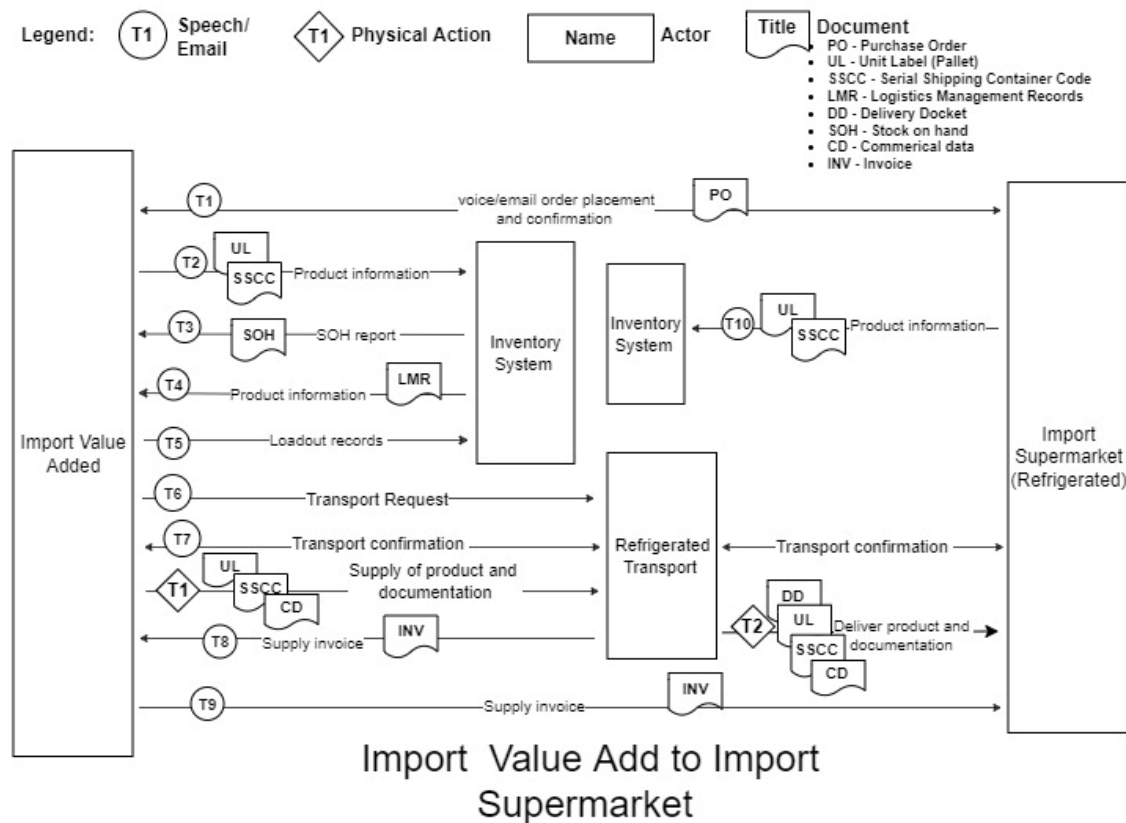


Figure 190. Data or information flows from the import value add to import supermarket systems in the beef supply chain.

5.2.6.8 Import butcher

Butchers are meat and meat product retail stores whereby carcase or cartoned product is sourced from processors, third-party cold stores, or value adders, and is prepared for sale to the consumer. This preparation may include value-adding processes whereby a new variety of cuts is provided, the presentation of products is altered, or additional ingredients are added to create new products or enhance the profitability of raw products. For example, cutting primal products into steaks, roasts, or diced products, marinating meat to save time for the consumer, as well as making specialty goods such as mixed sausages and offal.

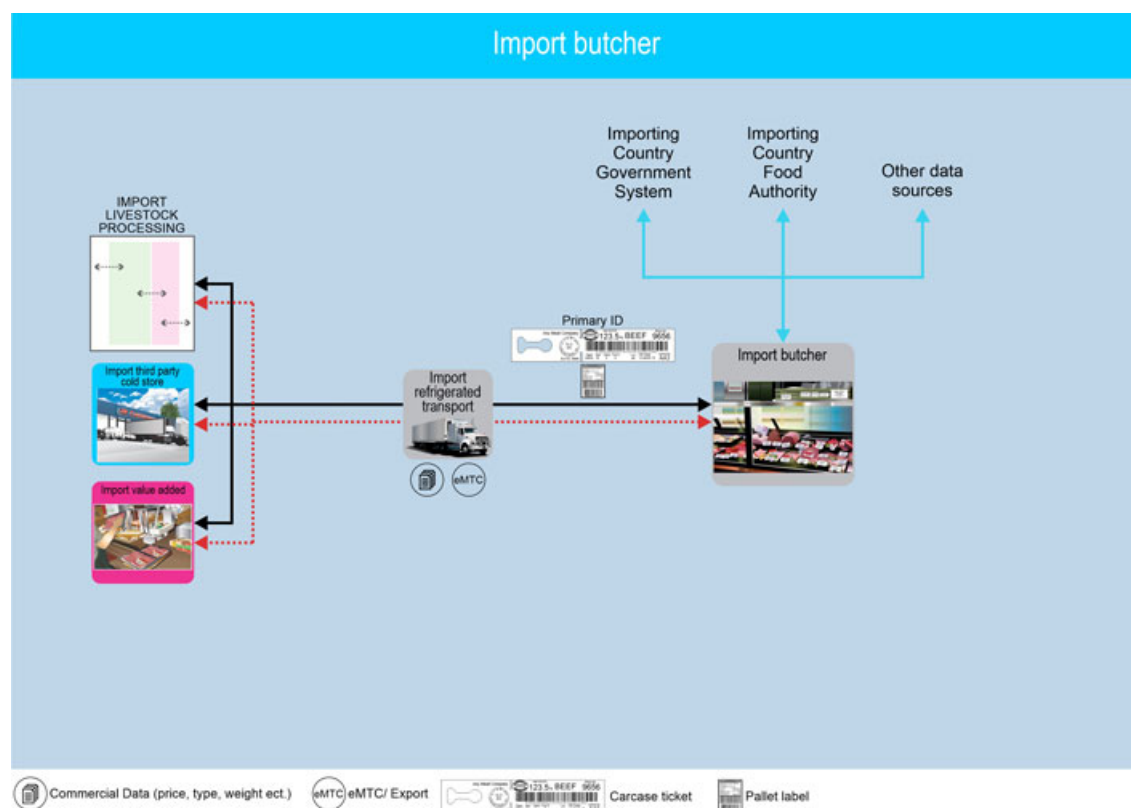


Figure 191. Inputs and outputs of the beef supply chain import butcher sector.

5.2.6.8.1 Physical Inputs including Critical Tracking Events (CTEs)

The inputs to the butcher system include meat product in carcase form for onsite butchering as well primal or value-added product from boning room and value adding facilities. Critical Tracking Event related documentation for the movement of product into butchers includes standard movement documentation such as the Delivery Docket/Manifest, import specific meat/meat product movement forms, carton, and pallet labels.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with inputs to the import butcher system include the receipt of:

- * Carcase
- * Carton
- * Pallet.

Table 168. Physical inputs and associated Critical Tracking Event related documents for a beef import butcher system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Carcase	The body of a slaughtered animal after bleeding. Becomes a dressed	Carcase Ticket, Delivery Docket/Manifest, Import specific meat/meat product movement forms,	

	carcase when hide, head, feet and offal are removed.	Retail production management system, Import Receipt of purchase/Tax Invoice	
Carton	This is a case, crate, or barrel of product.	Carton label, Delivery Docket/Manifest, Import specific meat/meat product movement forms, Retail production management system, Import Receipt of purchase/Tax Invoice	
Pallet	A logistic unit which includes a number of cartons or goods items packed together for transport or storage purposes.	Delivery Docket/Manifest, Import specific meat/meat product movement forms, Retail production management system, Import Receipt of purchase/Tax Invoice, SSCC/Pallet label	

5.2.6.8.2 Information Inputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). Information inputs or KDEs for the movement of meat product into the butcher system can be found on Critical Tracking Event related documentation and may be stored in the retailer's production management system.

Table 169. Information inputs, Key Data Elements and Critical Tracking Event related documentation for a beef import butcher system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Batch number	This is a unique number which identifies products sharing certain production characteristics and is used for traceability purposes.	Yes	Carcase Ticket, Retail production management system	
Body number	This is a number assigned to each carcase by the processor for identification purposes.	Yes	Carcase Ticket, Retail production management system	
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Carton label, Import Receipt of purchase/Tax Invoice, Retail production management system, SSCC/Pallet label	
Consignment Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., shipment/message that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Import specific meat/meat product movement forms, Retail production management system, SSCC/Pallet label	For more information visit the GS1 website.
Contract number	This is a unique number allocated to the contract by the seller.	Yes	Delivery Docket/Manifest, Retail production management system	
Count of Trade Items	Usually encoded in the GS1 barcode, this is the number of trade items e.g., cartons in the logistic unit.	Yes	Delivery Docket/Manifest, Retail production	For more information visit the GS1 website.

			management system, SSCC/Pallet label	
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Delivery Docket/Manifest, Import Receipt of purchase/Tax Invoice, Import specific meat/meat product movement forms, Retail production management system	
Delivery Docket/Manifest number	This is a unique number allocated to the docket for identification purposes.	Yes	Delivery Docket/Manifest, Retail production management system	
From Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Carcase Ticket, Carton label, Delivery Docket/Manifest, Retail production management system, SSCC/Pallet label	
From property identifier	The identification of the property (may be a PIC) from/to where the livestock or product were consigned.	Yes	Import specific meat/meat product movement forms, Retail production management system	
Global Trade Item Number (GTIN)	Encoded in the GS1 barcode, the GTIN is a globally unique 14-digit number used to identify trade items, products, or services.	Yes	Carcase Ticket, Carton label, Retail production management system, SSCC/Pallet label	For more information visit the GS1 website.
GTIN of Contained Trade Items	Encoded in the GS1 barcode, the GTIN of the contained trade items is a globally unique 14-digit number used to identify trade items, products, or services in the logistic unit.	Yes	Retail production management system, SSCC/Pallet label	For more information visit the GS1 website.
Lot number	A lot is a number assigned by the processor to each group of cattle consigned to slaughter and is usually vendor specific.	Yes	Carcase Ticket, Retail production management system	
Meat/meat product movement form number	A unique certificate number issued for traceability purposes.	Yes	Import specific meat/meat product movement forms, Retail production management system	
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Delivery Docket/Manifest, Import specific meat/meat product movement forms,	

			Retail production management system	
Net Weight (Kilograms)	Usually encoded in the GS1 barcode, the Net Weight is a variable measure of the trade item e.g., carton, pallet or shipment recorded in kilograms.	Yes	Carcase Ticket, Carton label, Retail production management system, SSCC/Pallet label	For more information visit the GS1 website.
Official mark	Any stamp, seal, label, or mark that is declared by the regulations to be an official mark. An official mark signifies that the product has been inspected by and approved as safe for human consumption by an Authorised Officer.	Yes	Carcase Ticket, Carton label, Retail production management system, SSCC/Pallet label	
Order date	This is the date on which the purchase order or contract was raised by the buyer.	Yes	Delivery Docket/Manifest, Retail production management system	
Packaging Date	Encoded in the GS1 barcode, the Packaging Date is the date on which the item was packaged and is recorded in the format year, month, day (YYMMDD).	Yes	Carton label, Retail production management system, SSCC/Pallet label	For more information visit the GS1 website.
Packaging Date Range	This includes the oldest and newest packaging dates for the logistic unit.	Yes	Retail production management system, SSCC/Pallet label	For more information visit the GS1 website.
Pallet Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., pallet that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Import specific meat/meat product movement forms, Retail production management system, SSCC/Pallet label	For more information visit the GS1 website.
Production Date (YYMMDD)	Encoded in the GS1 barcode, this is the 'kill' or slaughter' date of the product and is recorded in the format year, month, day (YYMMDD).	Yes	Carcase Ticket, Import specific meat/meat product movement forms, Retail production management system	For more information visit the GS1 website.
Recipient Business Number	This is a unique registration number, used to identify businesses.	Yes	Import Receipt of purchase/Tax Invoice, Retail production management system	
Seller/Supplier Business Number	This is a unique registration number, used to identify businesses.	Yes	Import Receipt of purchase/Tax Invoice, Retail production management system	
Serial Number	Encoded in the GS1 barcode, this is a code, numeric or alphanumeric, assigned to an individual instance of an item for its lifetime.	Yes	Carcase Ticket, Carton label, Retail production management system	For more information visit the GS1 website.
Shipping Mark	Also known as a port mark, this is a code comprising of three letters representing the foreign establishment number and the last nine digits of the consignment SSCC.	Yes	Delivery Docket/Manifest, Retail production management system, SSCC/Pallet label	

To property identifier	The identification of the property (may be a PIC) from/to where the livestock or product were consigned.	Yes	Import specific meat/meat product movement forms, Retail production management system	
Trade description	This is a collective set of words that says what the product is and may include information such as species, net weight of product, name and address of establishments, category ciphers, market endorsements, MSA eating quality etc.	Yes	Carcase Ticket, Carton label, Delivery Docket/Manifest, Retail production management system, SSCC/Pallet label	
Transport registration number	The registration number of the vehicle in which the animals or product were transported. For shipments of product this will be a shipping container number.	Yes	Delivery Docket/Manifest, Import specific meat/meat product movement forms, Retail production management system	

5.2.6.8.3 Physical Outputs including Critical Tracking Events (CTEs)

Retail ready meat products are the outputs of the butcher system. Being purchased by consumers, CTE documentation includes the product label and receipt of purchase. Product exiting the system may be recorded in the retailer's production management system.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with the outputs of the import butcher system include the movement of:

* Retail Ready Product

off the property, premises, or supply chain sector.

Table 170. Physical outputs and associated Critical Tracking Event related documents for a beef import butcher system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Retail Ready Product	These are packaged meat products that are ready to be retailed and purchased by consumers.	Import Receipt of purchase/Tax Invoice, Retail product label, Retail production management system	

5.2.6.8.4 Information Outputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). Information outputs from the butcher system include KDEs which can be drawn from CTE documentation such as the product label and receipt of purchase. This may include purchase date, product code and application identifiers on the GS1 barcode.

Table 171. Information outputs, Key Data Elements and Critical Tracking Event related documentation for a beef import butcher system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Import Receipt of purchase/Tax Invoice, Retail production management system	
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Import Receipt of purchase/Tax Invoice, Retail production management system	
GS1 compliant numbering and barcode	Numbering and barcode compliant to the GS1 standards and as specified by the contract between the seller and the recipient i.e., retailer.	Yes	Retail product label, Retail production management system	
Recipient Business Number	This is a unique registration number, used to identify businesses.	Yes	Import Receipt of purchase/Tax Invoice, Retail production management system	
Seller/Supplier Business Number	This is a unique registration number, used to identify businesses.	Yes	Import Receipt of purchase/Tax Invoice, Retail production management system	

5.2.6.8.5 Regulatory and Industry Programs

* Importing Country Government System

* Importing Country Food Authority

* Other data sources

5.2.6.8.6 Supply Chain Node Traceability

The traceability of imported retail ready product back to the live animal and property of origin is dependent on the form in which product enters the retail premises. This may include whole carcass, cartoned or palletised form. Further, the level of traceability for each input form is dependent on the packaging processes of the retailer and the traceability requirements of the importing country. For example, whole carcass product may or may not be fully traceable back to the live animal. Where this is true, carcasses are broken down into retail cuts on site and may be packaged individually and labelled with a unique, serialised retail label. For this product, traceability back to the live animal is possible and can be done by the processing establishment where the animal was slaughtered as importers of livestock are required to demonstrate that animals remain traceable throughout the supply chain up to the point of slaughter. Here, carcasses are issued a carcass ticket which correlates to the live animal identifier and contains key information, including GS1 meat industry barcode, body number, processing establishment number and production date or 'kill date'. Thus, there is the potential to trace whole carcasses entering retail premises back to the individual live animal and property of origin. Where carcass retail cuts are not individually packaged or are derived from palletised or cartoned product, imported retail ready product may have the same batch traceability limitations as per boning room and value-added product. Please refer to Boning room and Value Added 'Supply Chain Node Traceability' for more detailed information.

5.2.6.8.7 Data flow diagrams

Table 172. Data flow diagrams for the inputs and outputs of a beef import butcher system

Direction	Description
Input	Import Refrigerated Transport
Input	Import Third Party Cold Store to Import Butcher
Input	Import Value Added to Import Butcher

5.2.6.8.7.1 Import Refrigerated Transport

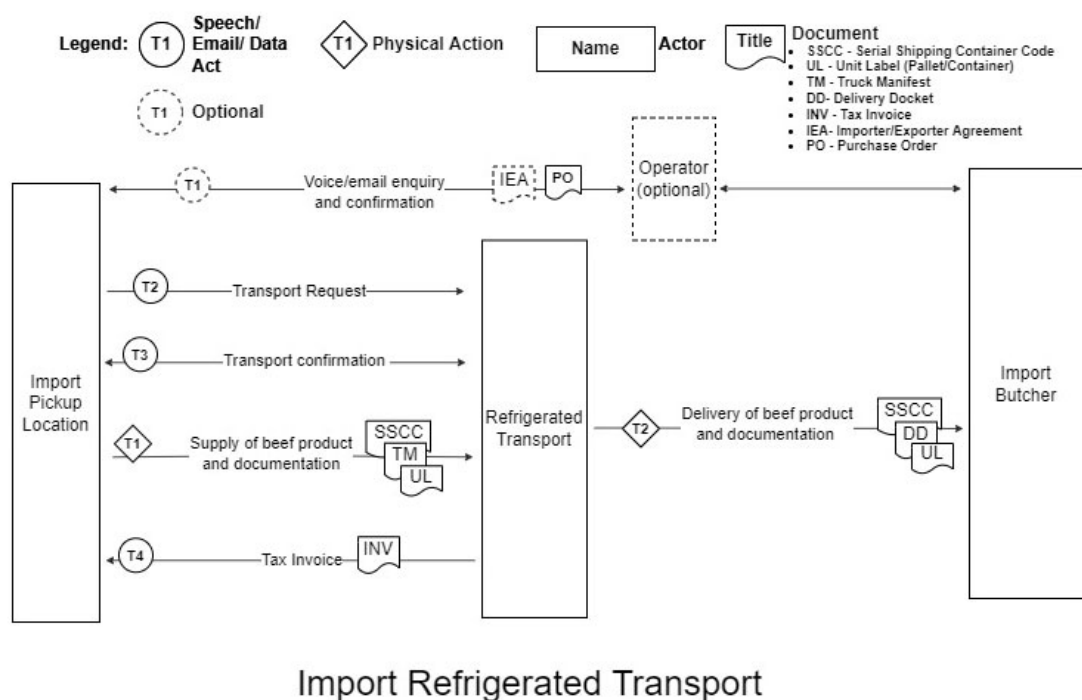


Figure 192. Data or information flow from import refrigerated transport systems in the beef supply chain.

5.2.6.8.7.2 Import Third Party Cold Store to Import Butcher

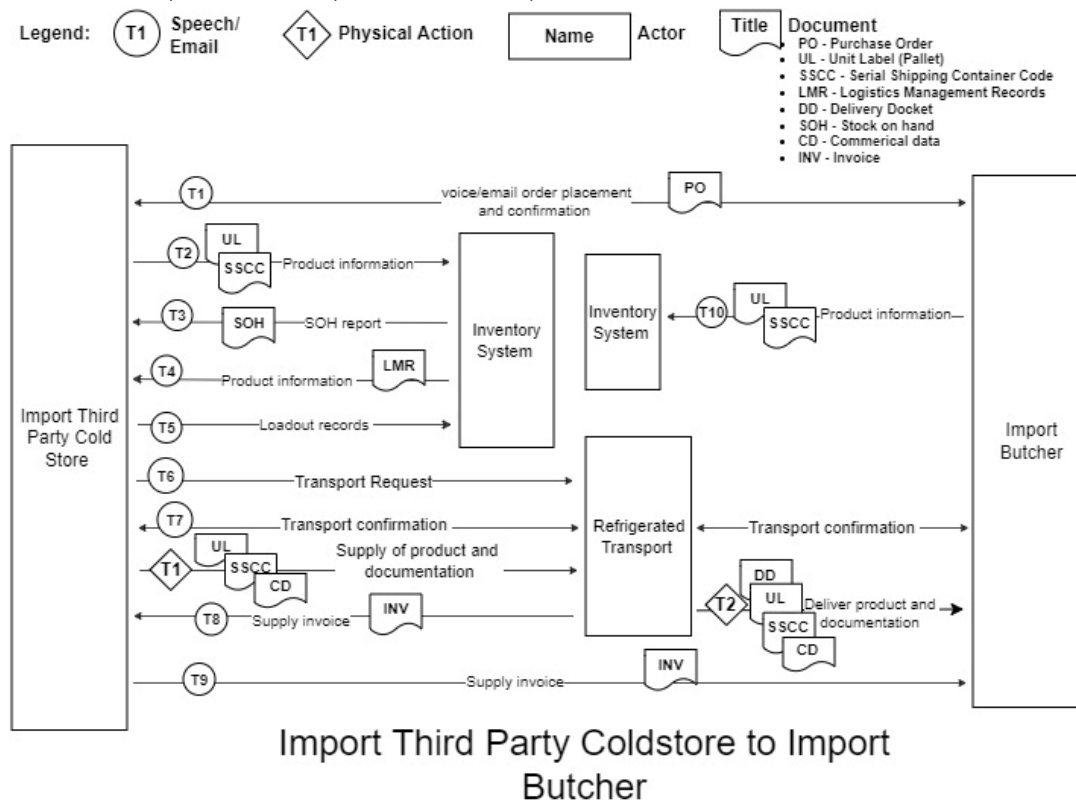


Figure 193. Data or information flows from the import third party cold store to import butcher

5.2.6.8.7.3 Import Value Added to Import Butcher

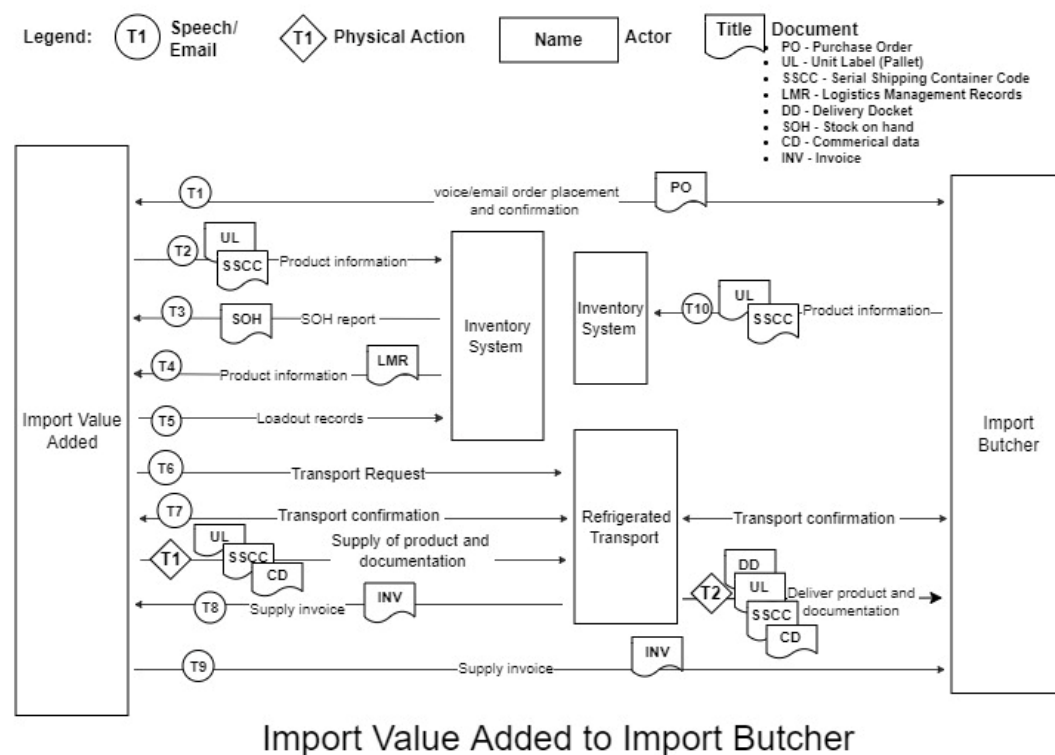


Figure 194. Data or information flows from the import value added to import butcher systems in the beef supply chain.

5.2.6.9 Import supermarket

Supermarkets are product distribution centres whereby retail-ready product is sourced from suppliers (processors or third-party cold store) or product is prepared on-site from carcase or cartoned product. These distribution centres may be chain or retail stores which assemble these goods, sourced from individual suppliers, for purchase by consumers. Product may be pre-packaged and branded by the supplier or by the supermarket and each item identified with a retail-ready product label.

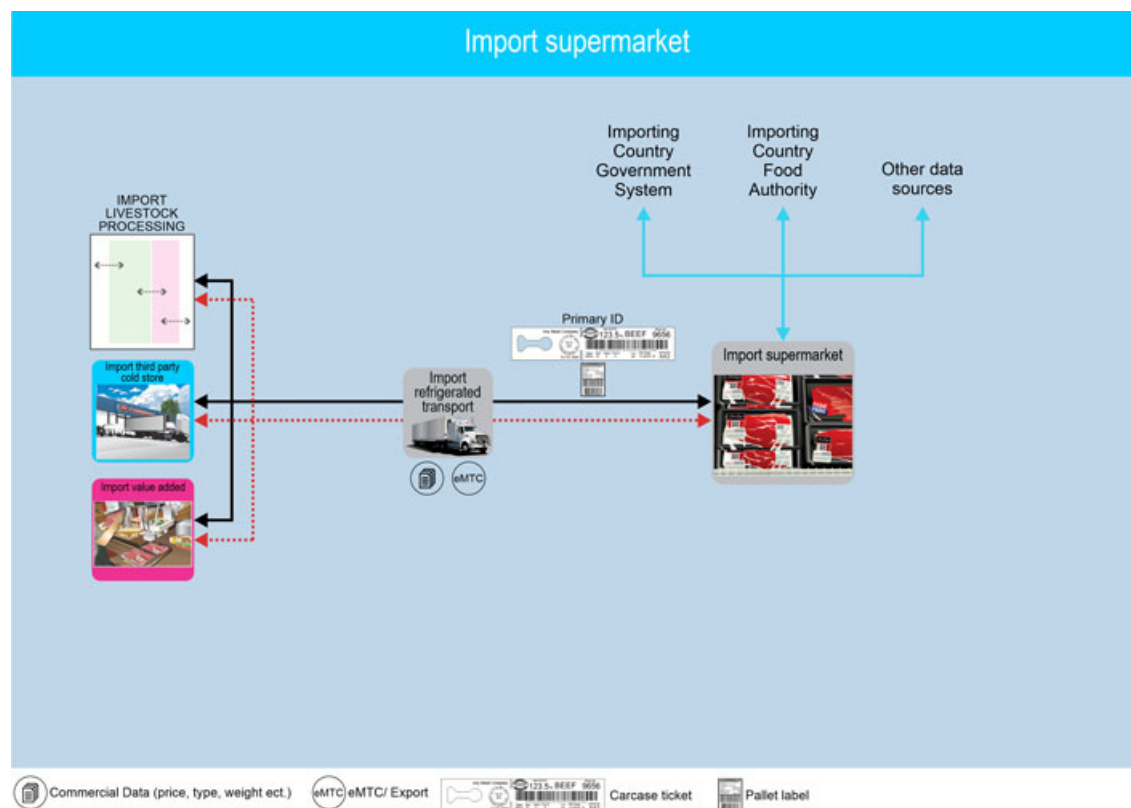


Figure 195. Inputs and outputs of the beef supply chain import supermarket sector.

5.2.6.9.1 Physical Inputs including Critical Tracking Events (CTEs)

The inputs for import supermarkets include meat product in carcase form for onsite butchering as well as pre-packaged product from processors and value adding facilities. Critical Tracking Event related documentation for the movement of product into supermarkets includes standard movement documentation such as the Delivery Docket/Manifest, import specific meat/meat product movement forms, carton, and pallet labels.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with inputs to the import supermarket system include the receipt of:

- * Carcase
- * Carton
- * Pallet.

Table 173. Physical inputs and associated Critical Tracking Event related documents for a beef import supermarket system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Carcase	The body of a slaughtered animal after bleeding. Becomes a dressed carcass when hide, head, feet and offal are removed.	Carcass Ticket, Delivery Docket/Manifest, Import specific meat/meat product movement forms, Retail production management system, Import Receipt of purchase/Tax Invoice	
Carton	This is a case, crate, or barrel of product.	Carton label, Delivery Docket/Manifest, Import specific meat/meat product movement forms, Retail production management system, Import Receipt of purchase/Tax Invoice	
Pallet	A logistic unit which includes a number of cartons or goods items packed together for transport or storage purposes.	Delivery Docket/Manifest, Import specific meat/meat product movement forms, Retail production management system, Import Receipt of purchase/Tax Invoice, SSCC/Pallet label	

5.2.6.9.2 Information Inputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). Information inputs or KDEs for the movement of meat product into the supermarket can be found on Critical Tracking Event related documentation and may be stored in the retailer's production management system.

Table 174. Information inputs, Key Data Elements and Critical Tracking Event related documentation for a beef import supermarket system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Batch number	This is a unique number which identifies products sharing certain production characteristics and is used for traceability purposes.	Yes	Carcass Ticket, Retail production management system	
Body number	This is a number assigned to each carcass by the processor for identification purposes.	Yes	Carcass Ticket, Retail production management system	
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Carton label, Import Receipt of purchase/Tax Invoice, Retail production management system, SSCC/Pallet label	
Consignment Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., shipment/message that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Import specific meat/meat product movement forms, Retail production management system, SSCC/Pallet label	For more information visit the GS1 website.

Contract number	This is a unique number allocated to the contract by the seller.	Yes	Delivery Docket/Manifest, Retail production management system	
Count of Trade Items	Usually encoded in the GS1 barcode, this is the number of trade items e.g., cartons in the logistic unit.	Yes	Delivery Docket/Manifest, Retail production management system, SSCC/Pallet label	For more information visit the GS1 website.
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Delivery Docket/Manifest, Import Receipt of purchase/Tax Invoice, Import specific meat/meat product movement forms, Retail production management system	
Delivery Docket/Manifest number	This is a unique number allocated to the docket for identification purposes.	Yes	Delivery Docket/Manifest, Retail production management system	
From Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Carcase Ticket, Carton label, Delivery Docket/Manifest, Retail production management system, SSCC/Pallet label	
From property identifier	The identification of the property (may be a PIC) from/to where the livestock or product were consigned.	Yes	Import specific meat/meat product movement forms, Retail production management system	
Global Trade Item Number (GTIN)	Encoded in the GS1 barcode, the GTIN is a globally unique 14-digit number used to identify trade items, products, or services.	Yes	Carcase Ticket, Carton label, Retail production management system, SSCC/Pallet label	For more information visit the GS1 website.
GTIN of Contained Trade Items	Encoded in the GS1 barcode, the GTIN of the contained trade items is a globally unique 14-digit number used to identify trade items, products, or services in the logistic unit.	Yes	Retail production management system, SSCC/Pallet label	For more information visit the GS1 website.
Lot number	A lot is a number assigned by the processor to each group of cattle consigned to slaughter and is usually vendor specific.	Yes	Carcase Ticket, Retail production management system	
Meat/meat product movement form number	A unique certificate number issued for traceability purposes.	Yes	Import specific meat/meat product movement forms,	

			Retail production management system	
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Delivery Docket/Manifest, Import specific meat/meat product movement forms, Retail production management system	
Net Weight (Kilograms)	Usually encoded in the GS1 barcode, the Net Weight is a variable measure of the trade item e.g., carton, pallet or shipment recorded in kilograms.	Yes	Carcase Ticket, Carton label, Retail production management system, SSCC/Pallet label	For more information visit the GS1 website.
Official mark	Any stamp, seal, label, or mark that is declared by the regulations to be an official mark. An official mark signifies that the product has been inspected by and approved as safe for human consumption by an Authorised Officer.	Yes	Carcase Ticket, Carton label, Retail production management system, SSCC/Pallet label	
Order date	This is the date on which the purchase order or contract was raised by the buyer.	Yes	Delivery Docket/Manifest, Retail production management system	
Packaging Date	Encoded in the GS1 barcode, the Packaging Date is the date on which the item was packaged and is recorded in the format year, month, day (YYMMDD).	Yes	Carton label, Retail production management system, SSCC/Pallet label	For more information visit the GS1 website.
Packaging Date Range	This includes the oldest and newest packaging dates for the logistic unit.	Yes	Retail production management system, SSCC/Pallet label	For more information visit the GS1 website.
Pallet Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., pallet that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Import specific meat/meat product movement forms, Retail production management system, SSCC/Pallet label	For more information visit the GS1 website.
Production Date (YYMMDD)	Encoded in the GS1 barcode, this is the 'kill' or slaughter' date of the product and is recorded in the format year, month, day (YYMMDD).	Yes	Carcase Ticket, Import specific meat/meat product movement forms, Retail production management system	For more information visit the GS1 website.
Recipient Business Number	This is a unique registration number, used to identify businesses.	Yes	Import Receipt of purchase/Tax Invoice, Retail production management system	
Seller/Supplier Business Number	This is a unique registration number, used to identify businesses.	Yes	Import Receipt of purchase/Tax Invoice, Retail production management system	
Serial Number	Encoded in the GS1 barcode, this is a code, numeric or alphanumeric, assigned	Yes	Carcase Ticket, Carton label, Retail	For more information

	to an individual instance of an item for its lifetime.		production management system	visit the GS1 website.
Shipping Mark	Also known as a port mark, this is a code comprising of three letters representing the foreign establishment number and the last nine digits of the consignment SSCC.	Yes	Delivery Docket/Manifest, Retail production management system, SSCC/Pallet label	
To property identifier	The identification of the property (may be a PIC) from/to where the livestock or product were consigned.	Yes	Import specific meat/meat product movement forms, Retail production management system	
Trade description	This is a collective set of words that says what the product is and may include information such as species, net weight of product, name and address of establishments, category ciphers, market endorsements, MSA eating quality etc.	Yes	Carcase Ticket, Carton label, Delivery Docket/Manifest, Retail production management system, SSCC/Pallet label	
Transport registration number	The registration number of the vehicle in which the animals or product were transported. For shipments of product this will be a shipping container number.	Yes	Delivery Docket/Manifest, Import specific meat/meat product movement forms, Retail production management system	

5.2.6.9.3 Physical Outputs including Critical Tracking Events (CTEs)

Retail ready meat products are the outputs of the supermarket system. Being purchased by consumers, CTE documentation includes the product label and receipt of purchase. Product exiting the system may be recorded in the retailer's production management system.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with the outputs of the import supermarket system include the movement of:

* Retail Ready Product

off the property, premises, or supply chain sector.

Table 175. Physical outputs and associated Critical Tracking Event related documents for a beef import supermarket system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Retail Ready Product	These are packaged meat products that are ready to be retailed and purchased by consumers.	Import Receipt of purchase/Tax Invoice, Retail product label, Retail production management system	

5.2.6.9.4 Information Outputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). Information outputs from the supermarket system include KDEs which can be drawn from

CTE documentation such as the product label and receipt of purchase. This may include purchase date, product code and application identifiers on the GS1 barcode.

Table 176. Information outputs, Key Data Elements and Critical Tracking Event related documentation for a beef import supermarket system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Import Receipt of purchase/Tax Invoice, Retail production management system	
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Import Receipt of purchase/Tax Invoice, Retail production management system	
GS1 compliant numbering and barcode	Numbering and barcode compliant to the GS1 standards and as specified by the contract between the seller and the recipient i.e., retailer.	Yes	Retail product label, Retail production management system	
Recipient Business Number	This is a unique registration number, used to identify businesses.	Yes	Import Receipt of purchase/Tax Invoice, Retail production management system	
Seller/Supplier Business Number	This is a unique registration number, used to identify businesses.	Yes	Import Receipt of purchase/Tax Invoice, Retail production management system	

5.2.6.9.5 Regulatory and Industry Programs

- * Importing Country Government System
- * Importing Country Food Authority
- * Other data sources

5.2.6.9.6 Supply Chain Node Traceability

The traceability of imported retail ready product back to the live animal and property of origin is dependent on the form in which product enters the retail premises. This may include whole carcass, cartoned or palletised form. Further, the level of traceability for each input form is dependent on the packaging processes of the retailer and the traceability requirements of the importing country. For example, whole carcass product may or may not be fully traceable back to the live animal. Where this is true, carcasses are broken down into retail cuts on site and may be packaged individually and labelled with a unique, serialised retail label. For this product, traceability back to the live animal is possible and can be done by the processing establishment where the animal was slaughtered as importers of livestock are required to demonstrate that animals remain traceable throughout the supply chain up to the point of slaughter. Here, carcasses are issued a carcass ticket which correlates to the live animal identifier and contains key information, including GS1 meat industry barcode, body number, processing establishment number and production date or 'kill date'. Thus, there is the potential to trace whole carcasses entering retail premises back to the individual live animal and property of origin. Where carcass retail cuts are not

individually packaged or are derived from palletised or cartoned product, imported retail ready product may have the same batch traceability limitations as per boning room and value-added product. Please refer to Boning room and Value Added 'Supply Chain Node Traceability' for more detailed information.

5.2.6.9.7 Data flow diagrams

Table 177. Data flow diagrams for the inputs and outputs of a beef import supermarket system

Direction	Description
Input	Import Refrigerated Transport
Input	Import Third Party Cold Store to Import Supermarket
Input	Import Value Added to Import Supermarket

5.2.6.9.7.1 Import Refrigerated Transport

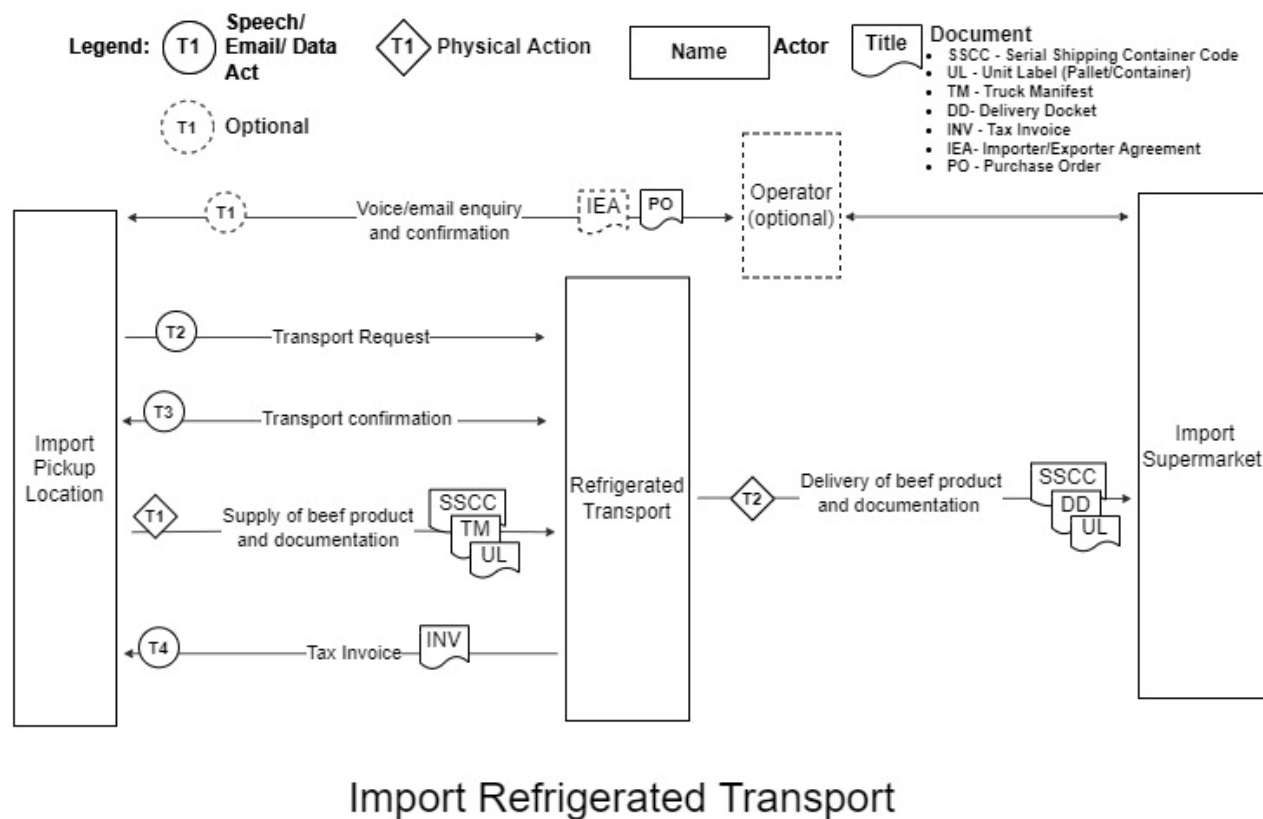


Figure 196. Data or information flows from import refrigerated transport systems in the beef supply chain

5.2.6.9.7.2 Import Third Party Cold Stores to Import Supermarkets

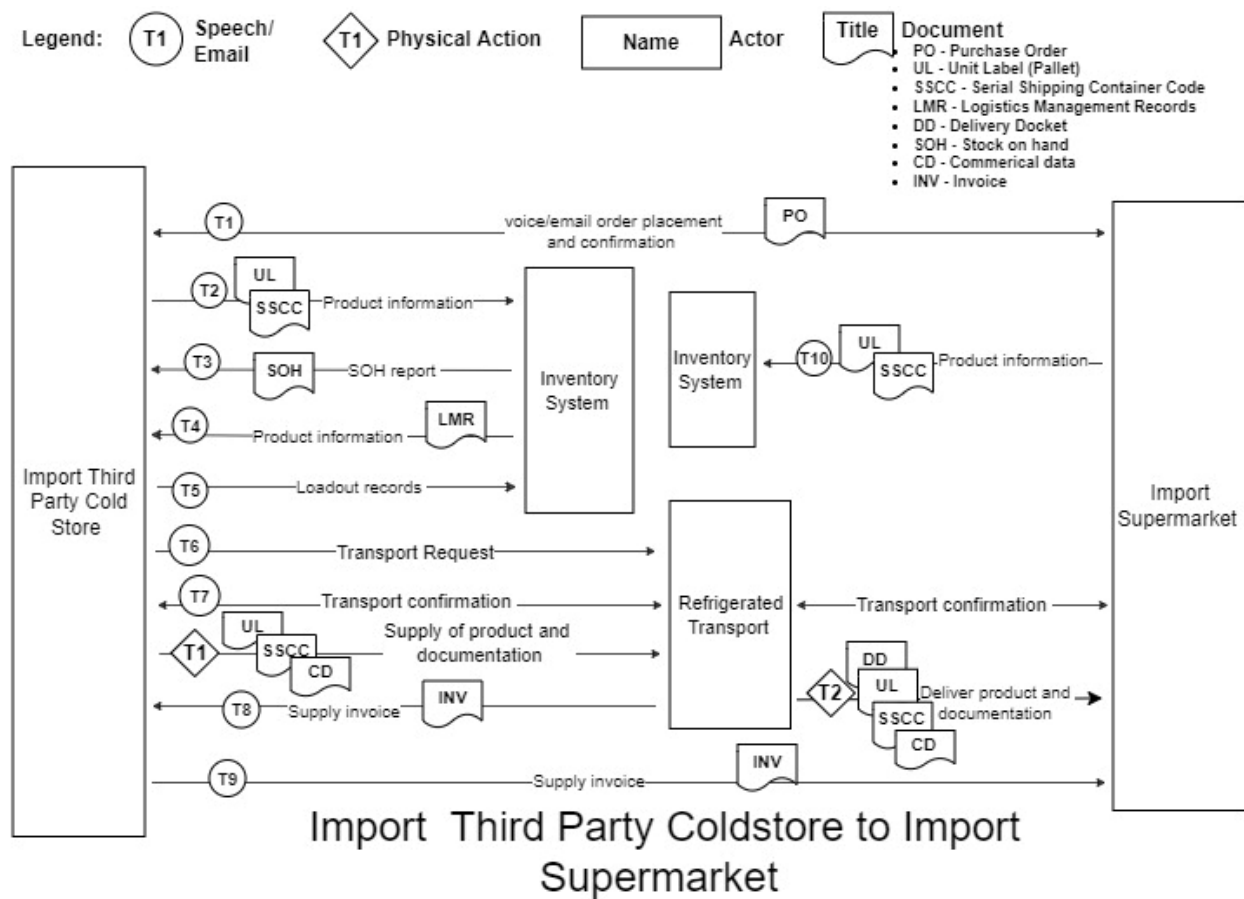


Figure 197. Data or information flows from the import third party cold store to import supermarkets systems in the beef supply chain

5.2.6.9.7.3 Import Value Added to Import Supermarket

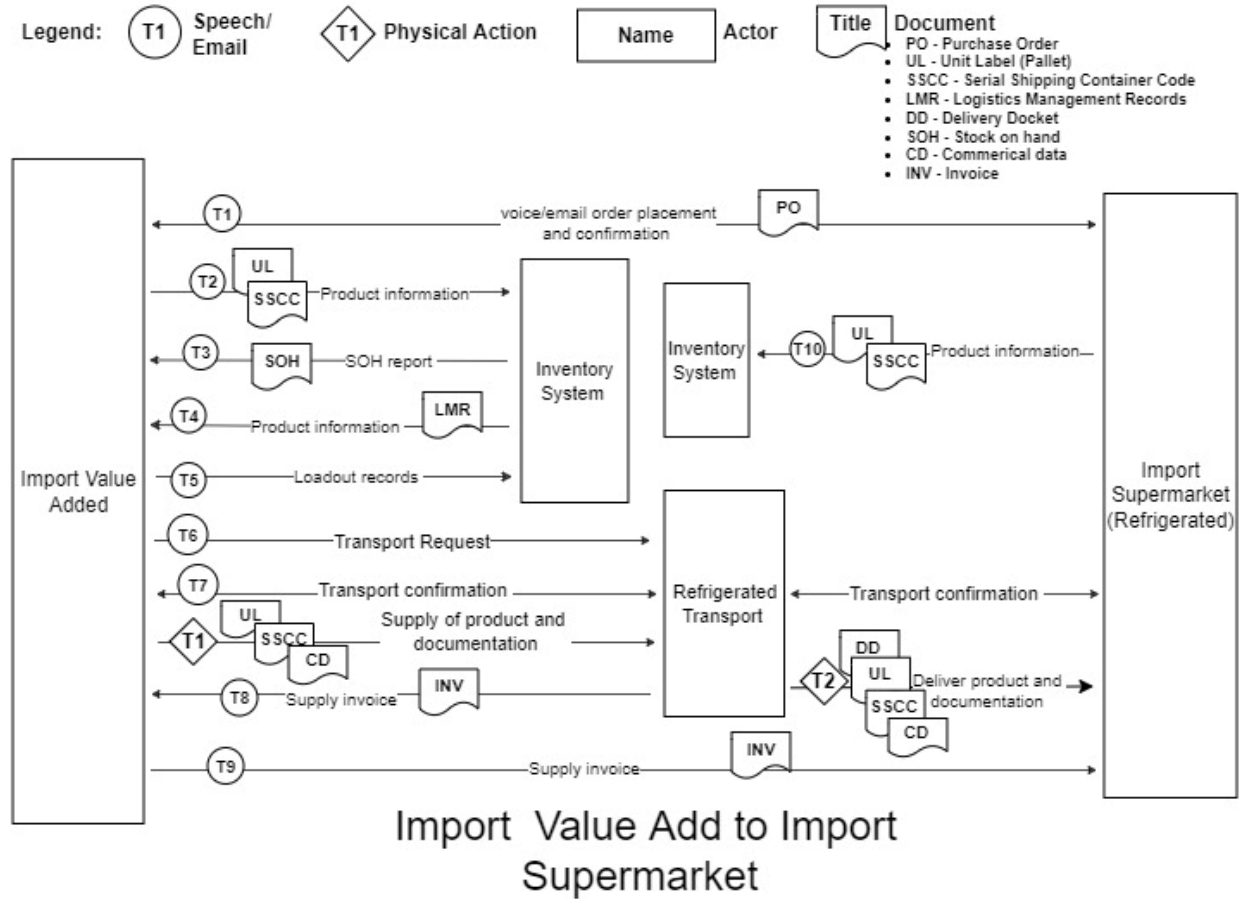


Figure 198. Data or information flows from the import value added to import supermarket systems in the beef supply chain

5.2.7 Importing Country - Cross-sector

5.2.7.1 Import livestock transport

Livestock transport is the process whereby animals are moved from one property to another by a mode of transport, most commonly truck. This journey requires careful preparation to ensure that animal stress, as well as any risks to welfare, are minimised. The importing country's livestock transport requirements and regulations are likely to be found within animal welfare standards and guidelines or legislation.

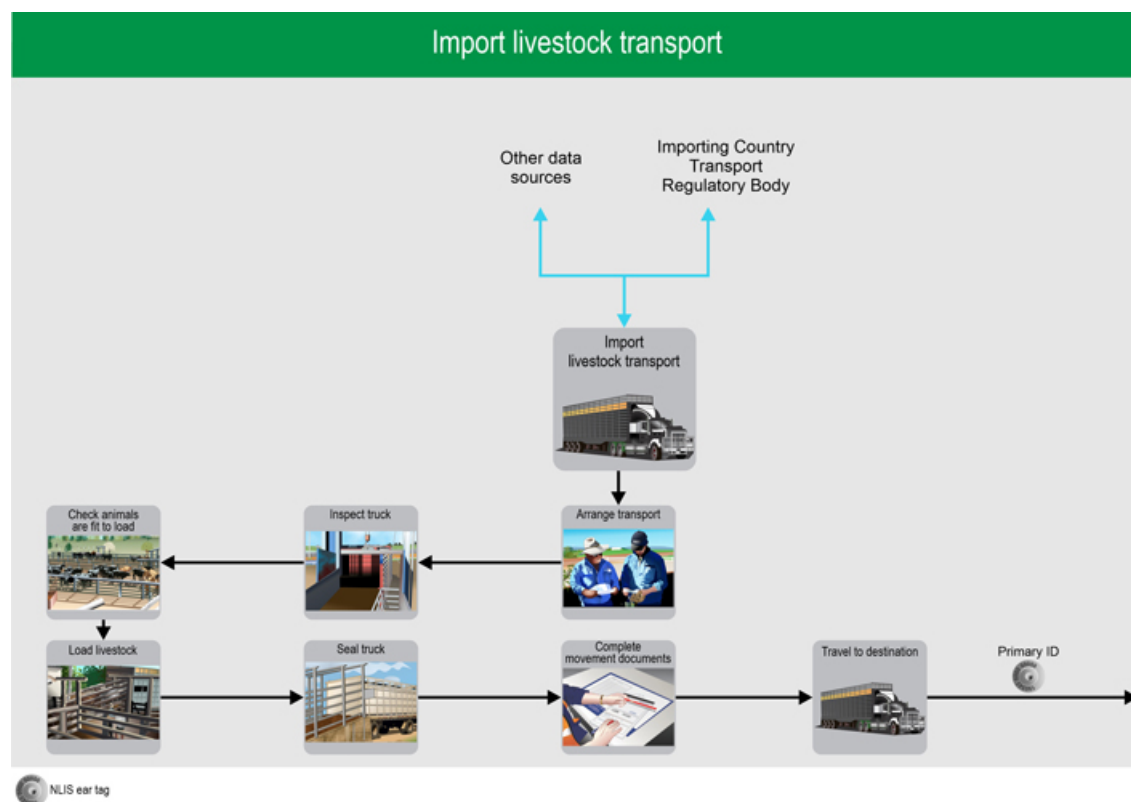


Figure 199. Inputs and outputs of the beef supply chain import livestock transport sector.

5.2.7.1.1 Physical Inputs including Critical Tracking Events (CTEs)

There are few physical inputs for the transportation of livestock. Inputs not only include the cattle, but those materials required to ensure that animal welfare standards and guidelines are met whilst livestock are in transit.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with inputs to the import livestock transport system include the receipt of:

- * Cattle
- * Feed supplies and supplements.

Table 178. Physical inputs and associated Critical Tracking Event related documents for a beef import livestock transport system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details

Cattle	These are bovine livestock and may include any type of cattle e.g., cull cattle, calves etc.	Commercial supply contract, Import feed and water record, Import specific livestock movement forms, Import Receipt of purchase/Tax Invoice	
Feed supplies and supplements	These are supplementary animal feed products such as hay or silage fodder, or mineral supplements which are provided to ensure the production efficiency and health of livestock are maintained. This may also include clean drinking water e.g., where livestock are in transit or at saleyards.	Import specific commodity movement forms, Import Receipt of purchase/Tax Invoice	

5.2.7.1.2 Information Inputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). Information inputs for the movement of cattle are those related to the CTE documents and ensuring the health and welfare of the livestock themselves.

Table 179. Information inputs, Key Data Elements and Critical Tracking Event related documentation for a beef import livestock transport system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Agreement date	This is the date on which an agreement between two parties was made.	Yes	Commercial supply contract	
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Import feed and water record, Import Receipt of purchase/Tax Invoice	
Contract number	This is a unique number allocated to the contract by the seller.	Yes	Commercial supply contract, Import specific commodity movement forms	
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Commercial supply contract, Import feed and water record, Import Receipt of purchase/Tax Invoice, Import specific commodity movement forms, Import specific livestock movement forms	
From property identifier	The identification of the property (may be a PIC) from/to where the livestock or product were consigned.	Yes	Import specific commodity movement forms, Import specific livestock movement forms	
Livestock Identifier	The importer of exported livestock must demonstrate that these livestock remain	Yes	Import specific livestock movement forms	

	traceable throughout the supply chain up to the point of slaughter. Livestock must be effectively identified, and all movements recorded to allow traceability back to the property of birth in the exporting country.			
Livestock movement form serial number	A unique certificate number issued for traceability purposes.	Yes	Import specific livestock movement forms	
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Commercial supply contract, Import specific commodity movement forms, Import specific livestock movement forms	
Product code/description	This is a unique identifier or description assigned by the seller to each product type marketed or for sale.	Yes	Import specific commodity movement forms	
Recipient Business Number	This is a unique registration number, used to identify businesses.	Yes	Import feed and water record, Import Receipt of purchase/Tax Invoice	
Seller/Supplier Business Number	This is a unique registration number, used to identify businesses.	Yes	Import feed and water record, Import Receipt of purchase/Tax Invoice	
To property identifier	The identification of the property (may be a PIC) from/to where the livestock or product were consigned.	Yes	Import specific commodity movement forms, Import specific livestock movement forms	
Transport registration number	The registration number of the vehicle in which the animals or product were transported.	Yes	Import specific livestock movement forms	
Treatment date	The date on which a treatment or product was applied to a unit e.g., paddock, animal, fodder etc.	Yes	Import feed and water record	

5.2.7.1.3 Physical Outputs including Critical Tracking Events (CTEs)

Physical outputs for the transportation of cattle are limited to the cattle themselves.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with the outputs of the import livestock transport system include the movement of:

* Cattle

off the property, premises, or supply chain sector.

Table 180. Physical outputs and associated Critical Tracking Event related documents for a beef import livestock transport system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details

Cattle	These are bovine livestock and may include any type of cattle e.g., cull cattle, calves etc.	Commercial supply contract, Import feed and water record, Import specific livestock movement forms, Import Receipt of purchase/Tax Invoice	

5.2.7.1.4 Information Outputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). Information outputs related to livestock transport include that pertaining to the livestock themselves such as the individual animal identifier and any information to be passed on from feed and water records, as well as all other documents critical to the traceability of livestock movements.

Table 181. Information outputs, Key Data Elements and Critical Tracking Event related documentation for a beef import livestock transport system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Agreement date	This is the date on which an agreement between two parties was made.	Yes	Commercial supply contract	
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Import feed and water record, Import Receipt of purchase/Tax Invoice	
Contract number	This is a unique number allocated to the contract by the seller.	Yes	Commercial supply contract	
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Commercial supply contract, Import feed and water record, Import Receipt of purchase/Tax Invoice, Import specific livestock movement forms	
From property identifier	The identification of the property (may be a PIC) from/to where the livestock or product were consigned.	Yes	Import specific livestock movement forms	
Livestock Identifier	The importer of exported livestock must demonstrate that these livestock remain traceable throughout the supply chain up to the point of slaughter. Livestock must be effectively identified, and all movements recorded to allow traceability back to the property of birth in the exporting country.	Yes	Import specific livestock movement forms	
Livestock movement form serial number	A unique certificate number issued for traceability purposes.	Yes	Import specific livestock movement forms	
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Commercial supply contract, Import	

			specific livestock movement forms	
Recipient Business Number	This is a unique registration number, used to identify businesses.	Yes	Import feed and water record, Import Receipt of purchase/Tax Invoice	
Seller/Supplier Business Number	This is a unique registration number, used to identify businesses.	Yes	Import feed and water record, Import Receipt of purchase/Tax Invoice	
To property identifier	The identification of the property (may be a PIC) from/to where the livestock or product were consigned.	Yes	Import specific livestock movement forms	
Transport registration number	The registration number of the vehicle in which the animals or product were transported.	Yes	Import specific livestock movement forms	
Treatment date	The date on which a treatment or product was applied to a unit e.g., paddock, animal, fodder etc.	Yes	Import feed and water record	

5.2.7.1.5 Regulatory and Industry Programs

* Importing Country Transport Regulatory Body

* Other data sources

5.2.7.1.6 Supply Chain Node Traceability

The National Livestock Identification System (NLIS) is the Australian livestock traceability program which is administered by Integrity Systems Company (ISC). Where stipulated by State legislation and certain export markets, the NLIS system requires all animals bought, sold, and moved along the supply chain to be tagged with an accredited NLIS ID tag. Each tag has an NLIS tag number or Radio Frequency Identifier (RFID) for the traceability of the animal throughout its lifetime. Every property which holds livestock must have a Property Identification Code (PIC) to which the livestock are assigned in the NLIS Database. Each time livestock are transferred between PICs within Australia they must be accompanied by a livestock movement declaration, such as the National Vendor Declaration (NVD) form. This document typically outlines the transporter details, consignment details, compliance with intended market specifications, withholding periods, and the details of the new property PIC. All livestock movements between PICs require an NLIS movement update to be made by either or both the consigner and receiver. Where NLIS ID tags are lost livestock must be issued with a new post-breeder tag if not on the PIC of birth and this reconciled in the NLIS Database. For animals loaded for live export, it is the exporters responsibility to ensure that all livestock are transferred from the port PIC to EEEEEEE (8Es) which signifies that livestock have been exported. The importer of exported livestock must demonstrate that these livestock remain traceable throughout the supply chain up to the point of slaughter. Livestock must be effectively identified, and all movements recorded to allow traceability back to the property of birth in the exporting country i.e., Australia.

5.2.7.1.7 Data flow diagrams

Table 182. Data flow diagrams for the inputs and outputs of the beef import livestock transport

Direction	Description
Input	Import Livestock Transport

5.2.7.1.7.1 Import Livestock Transport

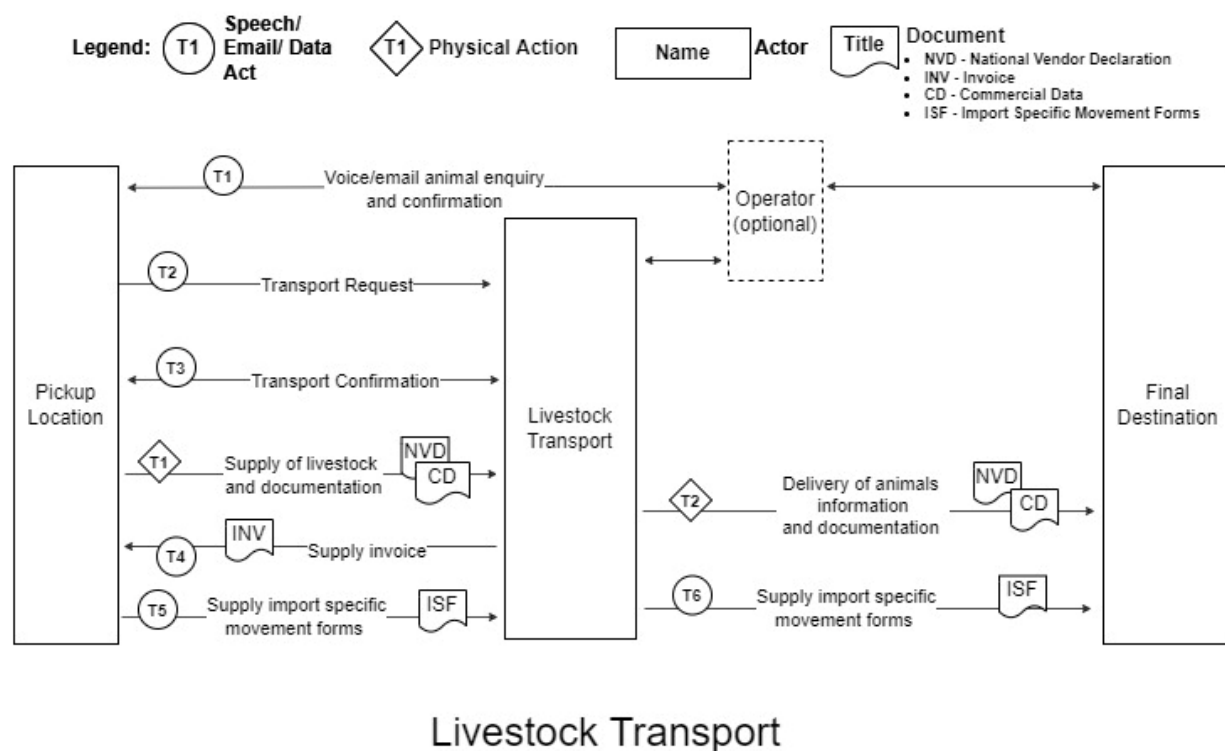


Figure 200. Data or information flows from import livestock transport systems in the beef supply chain.

5.2.7.2 Import refrigerated transport

Refrigerated transport involves the movement (including loading and unloading) of meat and meat products from one premises to another under conditions which ensure that product integrity and wholesomeness are maintained. Ensuring that adequate hygiene and temperature controls are complied with is integral to successful refrigerated transport. Product may be in carcase, cartoned or palletised form and must be accompanied by Critical Tracking Event related documents such as delivery dockets and specific product movement documents.

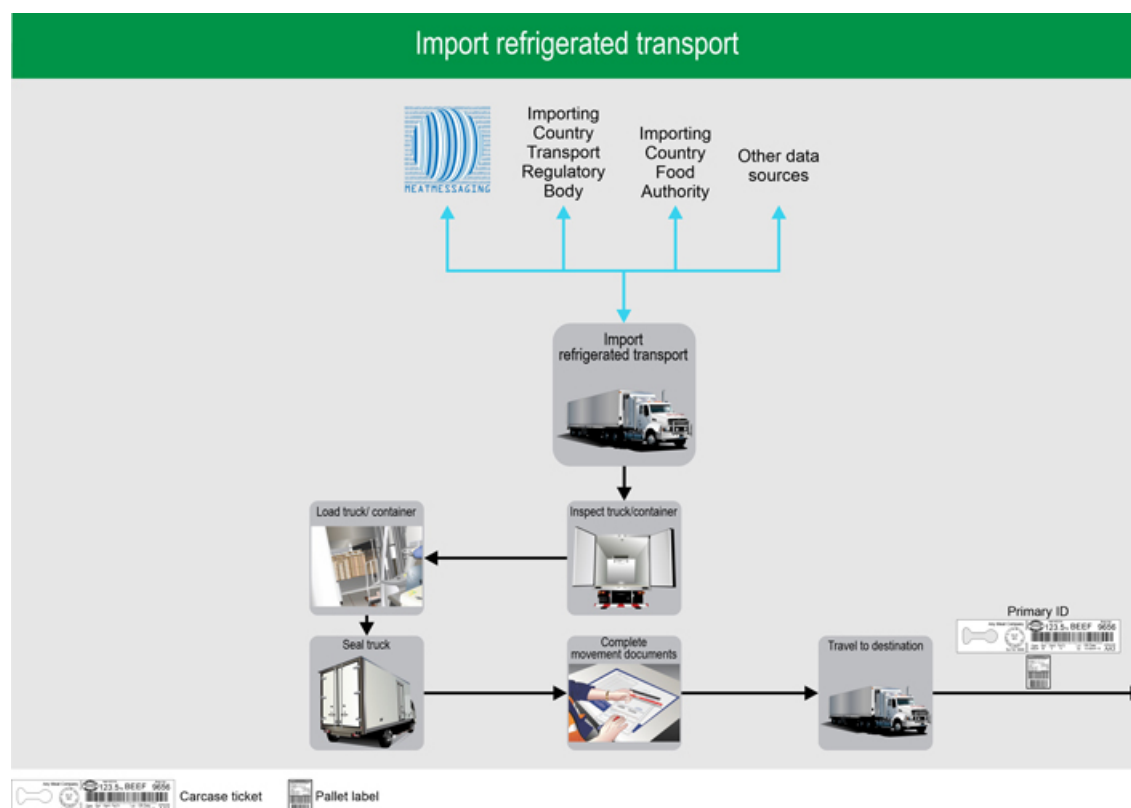


Figure 201. Inputs and outputs of the beef supply chain import refrigerated transport sector.

5.2.7.2.1 Physical Inputs including Critical Tracking Events (CTEs)

Meat and meat products may be transported between various establishments such as import inspection facilities, meat processors, value adding facilities and retailing premises. Therefore, the physical inputs to the refrigerated transport process may take various forms including product in carcase, carton or palletised form or product packed into shipping containers received from exporters.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with inputs to the import refrigerated transport system include the receipt of:

- * Carcase
- * Carton
- * Pallet
- * Container System Unit (meat and meat products).

Table 183. Physical inputs and associated Critical Tracking Event related documents for a beef import refrigerated transport system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Carcase	The body of a slaughtered animal after bleeding. Becomes a dressed carcase when hide,	Carcase Ticket, Delivery Docket/Manifest, Import specific meat/meat product movement forms, Import Receipt of purchase/Tax Invoice	

	head, feet and offal are removed.		
Carton	This is a case, crate, or barrel of product.	Carton label, Delivery Docket/Manifest, Import specific meat/meat product movement forms, Import Receipt of purchase/Tax Invoice	
Pallet	A logistic unit which includes a number of cartons or goods items packed together for transport or storage purposes.	Delivery Docket/Manifest, Import specific meat/meat product movement forms, Import Receipt of purchase/Tax Invoice, SSCC/Pallet label	
Container System Unit (meat and meat products)	A container designed for use as a unit of cargo handling equipment in the transport of goods by aircraft or ship.	Certificate of Analysis (COA), Delivery Docket/Manifest, Import Permit, Import specific meat/meat product movement forms, Imported Food Inspection Advice, Import Receipt of purchase/Tax Invoice	

5.2.7.2.2 Information Inputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). Transport of product between establishments is a Critical Tracking Event. Therefore, the KDEs here can largely be found on transportation documentation such as the Bill of lading/Air Waybill, Meat Transfer Certificate (MTC) or import specific meat/meat product movement forms, Export Health Certificate and Certificate of Analysis. Other documentation such as Carcase Tickets or carton/pallet labels will also contain KDEs.

Table 184. Information inputs, Key Data Elements and Critical Tracking Event related documentation for a beef import refrigerated transport system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Analysis Date	This is the date on which a product sample was analysed.	Yes	Certificate of Analysis (COA), Imported Food Inspection Advice	
Batch number	This is a unique number which identifies products sharing certain production characteristics and is used for traceability purposes.	Yes	Carcase Ticket	
Bill of lading/Air Waybill document number	A unique document number issued for traceability purposes.	Yes	Certificate of Analysis (COA)	
Body number	This is a number assigned to each carcase by the processor for identification purposes.	Yes	Carcase Ticket	
Certificate of Analysis number	A unique certificate number issued for traceability purposes.	Yes	Certificate of Analysis (COA), Imported Food Inspection Advice	
COA test lot identifier	This is a unique identifier allocated to all cartons, pallets, and shipping containers for which an analysis sample represents.	Yes	Certificate of Analysis (COA), Imported Food Inspection Advice	

Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Carton label, Certificate of Analysis (COA), Import Receipt of purchase/Tax Invoice, Imported Food Inspection Advice, SSCC/Pallet label	
Consignment Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., shipment/message that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Import specific meat/meat product movement forms, Imported Food Inspection Advice, SSCC/Pallet label	For more information visit the GS1 website.
Contract number	This is a unique number allocated to the contract by the seller.	Yes	Delivery Docket/Manifest	
Count of Trade Items	Usually encoded in the GS1 barcode, this is the number of trade items e.g., cartons in the logistic unit.	Yes	Delivery Docket/Manifest, Imported Food Inspection Advice, SSCC/Pallet label	For more information visit the GS1 website.
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Certificate of Analysis (COA), Delivery Docket/Manifest, Import Receipt of purchase/Tax Invoice, Import specific meat/meat product movement forms	
Delivery Docket/Manifest number	This is a unique number allocated to the docket for identification purposes.	Yes	Delivery Docket/Manifest	
Food Control Certificate entry number	This is a number assigned to the entry of a shipment of goods imported by the same owner at the same time which can be described by one import entry.	Yes	Imported Food Inspection Advice	
From Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Carcase Ticket, Carton label, Certificate of Analysis (COA), Delivery Docket/Manifest, SSCC/Pallet label	
From property identifier	The identification of the property (may be a PIC) from/to where the livestock or product were consigned.	Yes	Import specific meat/meat product movement forms	
Global Trade Item Number (GTIN)	Encoded in the GS1 barcode, the GTIN is a globally unique 14-digit number used to identify trade items, products, or services.	Yes	Carcase Ticket, Carton label, SSCC/Pallet label	For more information visit the GS1 website.

GTIN of Contained Trade Items	Encoded in the GS1 barcode, the GTIN of the contained trade items is a globally unique 14-digit number used to identify trade items, products, or services in the logistic unit.	Yes	SSCC/Pallet label	
Import Permit Number	A unique permit number is allocated for the import consignment following submission of correct and validated documentation approved by the importing country.	Yes	Import Permit	
Imported Food Inspection Advice certificate number	A unique certificate number issued for traceability purposes.	Yes	Imported Food Inspection Advice	
Lot number	A lot is a number assigned by the processor to each group of cattle consigned to slaughter and is usually vendor specific.	Yes	Carcase Ticket	
Meat/meat product movement form number	A unique certificate number issued for traceability purposes.	Yes	Import specific meat/meat product movement forms	
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Certificate of Analysis (COA), Delivery Docket/Manifest, Import specific meat/meat product movement forms	
Net Weight (Kilograms)	Usually encoded in the GS1 barcode, the Net Weight is a variable measure of the trade item e.g., carton, pallet or shipment recorded in kilograms.	Yes	Carcase Ticket, Carton label, SSCC/Pallet label	For more information visit the GS1 website.
Official mark	Any stamp, seal, label, or mark that is declared by the regulations to be an official mark. An official mark signifies that the product has been inspected by and approved as safe for human consumption by an Authorised Officer.	Yes	Carcase Ticket, Carton label, SSCC/Pallet label	
Order date	This is the date on which the purchase order or contract was raised by the buyer.	Yes	Delivery Docket/Manifest	
Packaging Date	Encoded in the GS1 barcode, the Packaging Date is the date on which the item was packaged and is recorded in the format year, month, day (YYMMDD).	Yes	Carton label, Certificate of Analysis (COA), SSCC/Pallet label	For more information visit the GS1 website.
Packaging Date Range	This includes the oldest and newest packaging dates for the logistic unit.	Yes	SSCC/Pallet label	For more information visit the GS1 website.
Pallet Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., pallet that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Import specific meat/meat product movement forms, SSCC/Pallet label	For more information visit the GS1 website.

Production Date (YYMMDD)	Encoded in the GS1 barcode, this is the 'kill' or slaughter' date of the product and is recorded in the format year, month, day (YYMMDD).	Yes	Carcase Ticket, Certificate of Analysis (COA), Import specific meat/meat product movement forms	For more information visit the GS1 website.
Recipient Business Number	This is a unique registration number, used to identify businesses.	Yes	Import Receipt of purchase/Tax Invoice	
Seller/Supplier Business Number	This is a unique registration number, used to identify businesses.	Yes	Import Receipt of purchase/Tax Invoice	
Serial Number	Encoded in the GS1 barcode, this is a code, numeric or alphanumeric, assigned to an individual instance of an item for its lifetime.	Yes	Carcase Ticket, Carton label	
Shipping Mark	Also known as a port mark, this is a code comprising of three letters representing the foreign establishment number and the last nine digits of the consignment SSCC.	Yes	Certificate of Analysis (COA), Delivery Docket/Manifest, SSCC/Pallet label	
To property identifier	The identification of the property (may be a PIC) from/to where the livestock or product were consigned.	Yes	Import specific meat/meat product movement forms	
Trade description	This is a collective set of words that says what the product is and may include information such as species, net weight of product, name and address of establishments, category ciphers, market endorsements, MSA eating quality etc.	Yes	Carcase Ticket, Carton label, Delivery Docket/Manifest, SSCC/Pallet label	
Transport registration number	The registration number of the vehicle in which the animals or product were transported. For shipments of product this will be a shipping container number.	Yes	Delivery Docket/Manifest, Import specific meat/meat product movement forms	

5.2.7.2.3 Physical Outputs including Critical Tracking Events (CTEs)

As the refrigerated transportation process involves the movement of product between establishments, the physical outputs are the same as for the physical inputs. This may include product in carcase, carton or palletised form or product packed into shipping containers received from exporters.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with the outputs of the import refrigerated transport system include the movement of:

- * Carcase
 - * Carton
 - * Pallet
 - * Container System Unit (meat and meat products)
- off the property, premises, or supply chain sector.

Table 185. Physical outputs and associated Critical Tracking Event related documents for a beef import refrigerated transport system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Carcase	The body of a slaughtered animal after bleeding. Becomes a dressed carcase when hide, head, feet and offal are removed.	Carcase Ticket, Delivery Docket/Manifest, Import specific meat/meat product movement forms, Import Receipt of purchase/Tax Invoice	
Carton	This is a case, crate, or barrel of product.	Carton label, Delivery Docket/Manifest, Import specific meat/meat product movement forms, Import Receipt of purchase/Tax Invoice	
Pallet	A logistic unit which includes a number of cartons or goods items packed together for transport or storage purposes.	Delivery Docket/Manifest, Import specific meat/meat product movement forms, Import Receipt of purchase/Tax Invoice, SSCC/Pallet label	
Container System Unit (meat and meat products)	A container designed for use as a unit of cargo handling equipment in the transport of goods by aircraft or ship.	Certificate of Analysis (COA), Delivery Docket/Manifest, Import Permit, Import specific meat/meat product movement forms, Imported Food Inspection Advice, Import Receipt of purchase/Tax Invoice	

5.2.7.2.4 Information Outputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). Transport of product between establishments is a Critical Tracking Event. Therefore, the KDEs here can largely be found on transportation documentation such as the Bill of lading/Air Waybill, Meat Transfer Certificate (MTC) or import specific meat/meat product movement forms, Export Health Certificate and Certificate of Analysis. Other documentation such as Carcase Tickets or carton/pallet labels will also contain KDEs.

Table 186. Information outputs, Key Data Elements and Critical Tracking Event related documentation for a beef import refrigerated transport system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Analysis Date	This is the date on which a product sample was analysed.	Yes	Certificate of Analysis (COA), Imported Food Inspection Advice	
Batch number	This is a unique number which identifies products sharing certain production characteristics and is used for traceability purposes.	Yes	Carcase Ticket	
Bill of lading/Air Waybill document number	A unique document number issued for traceability purposes.	Yes	Certificate of Analysis (COA)	
Body number	This is a number assigned to each carcase by the processor for identification purposes.	Yes	Carcase Ticket	

Certificate of Analysis number	A unique certificate number issued for traceability purposes.	Yes	Certificate of Analysis (COA), Imported Food Inspection Advice	
COA test lot identifier	This is a unique identifier allocated to all cartons, pallets, and shipping containers for which an analysis sample represents.	Yes	Certificate of Analysis (COA), Imported Food Inspection Advice	
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Carton label, Certificate of Analysis (COA), Import Receipt of purchase/Tax Invoice, Imported Food Inspection Advice, SSCC/Pallet label	
Consignment Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., shipment/message that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Import specific meat/meat product movement forms, Imported Food Inspection Advice, SSCC/Pallet label	For more information visit the GS1 website.
Contract number	This is a unique number allocated to the contract by the seller.	Yes	Delivery Docket/Manifest	
Count of Trade Items	Usually encoded in the GS1 barcode, this is the number of trade items e.g., cartons in the logistic unit.	Yes	Delivery Docket/Manifest, Imported Food Inspection Advice, SSCC/Pallet label	For more information visit the GS1 website.
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Certificate of Analysis (COA), Delivery Docket/Manifest, Import Receipt of purchase/Tax Invoice, Import specific meat/meat product movement forms	
Delivery Docket/Manifest number	This is a unique number allocated to the docket for identification purposes.	Yes	Delivery Docket/Manifest	
Food Control Certificate entry number	This is a number assigned to the entry of a shipment of goods imported by the same owner at the same time which can be described by one import entry.	Yes	Imported Food Inspection Advice	
From Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment	Yes	Carcase Ticket, Carton label, Certificate of Analysis (COA), Delivery	

	numbers for both the dispatching and receiving establishments are recorded.		Docket/Manifest, SSCC/Pallet label	
From property identifier	The identification of the property (may be a PIC) from/to where the livestock or product were consigned.	Yes	Import specific meat/meat product movement forms	
Global Trade Item Number (GTIN)	Encoded in the GS1 barcode, the GTIN is a globally unique 14-digit number used to identify trade items, products, or services.	Yes	Carcase Ticket, Carton label, SSCC/Pallet label	For more information visit the GS1 website.
GTIN of Contained Trade Items	Encoded in the GS1 barcode, the GTIN of the contained trade items is a globally unique 14-digit number used to identify trade items, products, or services in the logistic unit.	Yes	SSCC/Pallet label	For more information visit the GS1 website.
Import Permit Number	A unique permit number is allocated for the import consignment following submission of correct and validated documentation approved by the importing country.	Yes	Import Permit	
Imported Food Inspection Advice certificate number	A unique certificate number issued for traceability purposes.	Yes	Imported Food Inspection Advice	
Lot number	A lot is a number assigned by the processor to each group of cattle consigned to slaughter and is usually vendor specific.	Yes	Carcase Ticket	
Meat/meat product movement form number	A unique certificate number issued for traceability purposes.	Yes	Import specific meat/meat product movement forms	
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Certificate of Analysis (COA), Delivery Docket/Manifest, Import specific meat/meat product movement forms	
Net Weight (Kilograms)	Usually encoded in the GS1 barcode, the Net Weight is a variable measure of the trade item e.g., carton, pallet or shipment recorded in kilograms.	Yes	Carcase Ticket, Carton label, SSCC/Pallet label	For more information visit the GS1 website.
Official mark	Any stamp, seal, label, or mark that is declared by the regulations to be an official mark. An official mark signifies that the product has been inspected by and approved as safe for human consumption by an Authorised Officer.	Yes	Carcase Ticket, Carton label, SSCC/Pallet label	
Order date	This is the date on which the purchase order or contract was raised by the buyer.	Yes	Delivery Docket/Manifest	
Packaging Date	Encoded in the GS1 barcode, the Packaging Date is the date on which the item was packaged and is recorded in the format year, month, day (YYMMDD).	Yes	Carton label, Certificate of Analysis (COA), SSCC/Pallet label	For more information visit the GS1 website.
Packaging Date Range	This includes the oldest and newest packaging dates for the logistic unit.	Yes	SSCC/Pallet label	For more information

				visit the GS1 website.
Pallet Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., pallet that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Import specific meat/meat product movement forms, SSCC/Pallet label	For more information visit the GS1 website.
Production Date (YYMMDD)	Encoded in the GS1 barcode, this is the 'kill' or slaughter' date of the product and is recorded in the format year, month, day (YYMMDD).	Yes	Carcase Ticket, Certificate of Analysis (COA), Import specific meat/meat product movement forms	For more information visit the GS1 website.
Recipient Business Number	This is a unique registration number, used to identify businesses.	Yes	Import Receipt of purchase/Tax Invoice	
Seller/Supplier Business Number	This is a unique registration number, used to identify businesses.	Yes	Import Receipt of purchase/Tax Invoice	
Serial Number	Encoded in the GS1 barcode, this is a code, numeric or alphanumeric, assigned to an individual instance of an item for its lifetime.	Yes	Carcase Ticket, Carton label	For more information visit the GS1 website.
Shipping Mark	Also known as a port mark, this is a code comprising of three letters representing the foreign establishment number and the last nine digits of the consignment SSCC.	Yes	Certificate of Analysis (COA), Delivery Docket/Manifest, SSCC/Pallet label	
To property identifier	The identification of the property (may be a PIC) from/to where the livestock or product were consigned.	Yes	Import specific meat/meat product movement forms	
Trade description	This is a collective set of words that says what the product is and may include information such as species, net weight of product, name and address of establishments, category ciphers, market endorsements, MSA eating quality etc.	Yes	Carcase Ticket, Carton label, Delivery Docket/Manifest, SSCC/Pallet label	
Transport registration number	The registration number of the vehicle in which the animals or product were transported. For shipments of product this will be a shipping container number.	Yes	Delivery Docket/Manifest, Import specific meat/meat product movement forms	

5.2.7.2.5 Regulatory and Industry Programs

- * Importing Country Transport Regulatory Body
- * Importing Country Food Authority
- * Meat Messaging
- * Other data sources

5.2.7.2.6 Supply Chain Node Traceability

The traceability of imported product undergoing refrigerated transport back to the live animal and property of origin is dependent on the form in which the product is being transported.

Traceability of whole carcasses back to the live animal is possible and can be done by the processing establishment where the animal was slaughtered as importers of livestock are required to demonstrate that animals remain traceable throughout the supply chain up to the point of slaughter. Here, carcasses are issued a carcass ticket which correlates to the live animal identifier and contains key information, including GS1 meat industry barcode, body number, processing establishment number and production date or 'kill date'. Thus, there is the potential to trace whole carcasses undergoing refrigerated transport back to the individual live animal and property of origin.

For cartoned and palletised product, each identified by unique serialised carton or product labels respectively, including a GS1 meat industry barcode, traceability is limited to the carcasses that have entered the boning room for the production run of cartons that were created. For example, 200 carcasses (400 sides) individually identified with unique carcass tickets enter the boning room for a specific boning run. These carcass tickets are linked to the specific boning run. From these carcasses, 3 200 cartons of primal cuts and 1 000 cartons of trim and other highly mixed products are created. While all cartons are identified with unique serialised carton labels linked to the boning run (and may be packaged into pallets containing unique serialised pallet labels including a GS1 SSCC barcode), it is not readily possible to identify which carcasses are in which cartons as the cartons will contain meat products from different carcasses. If the carcasses were sourced from several different properties, the resulting carton can only be traced to a number of possible carcasses and source properties. In logistical systems such as transport and cold stores, cartons are typically processed by pallets with only the pallet label being scanned. Therefore, traceability through logistics is often at the pallet level.

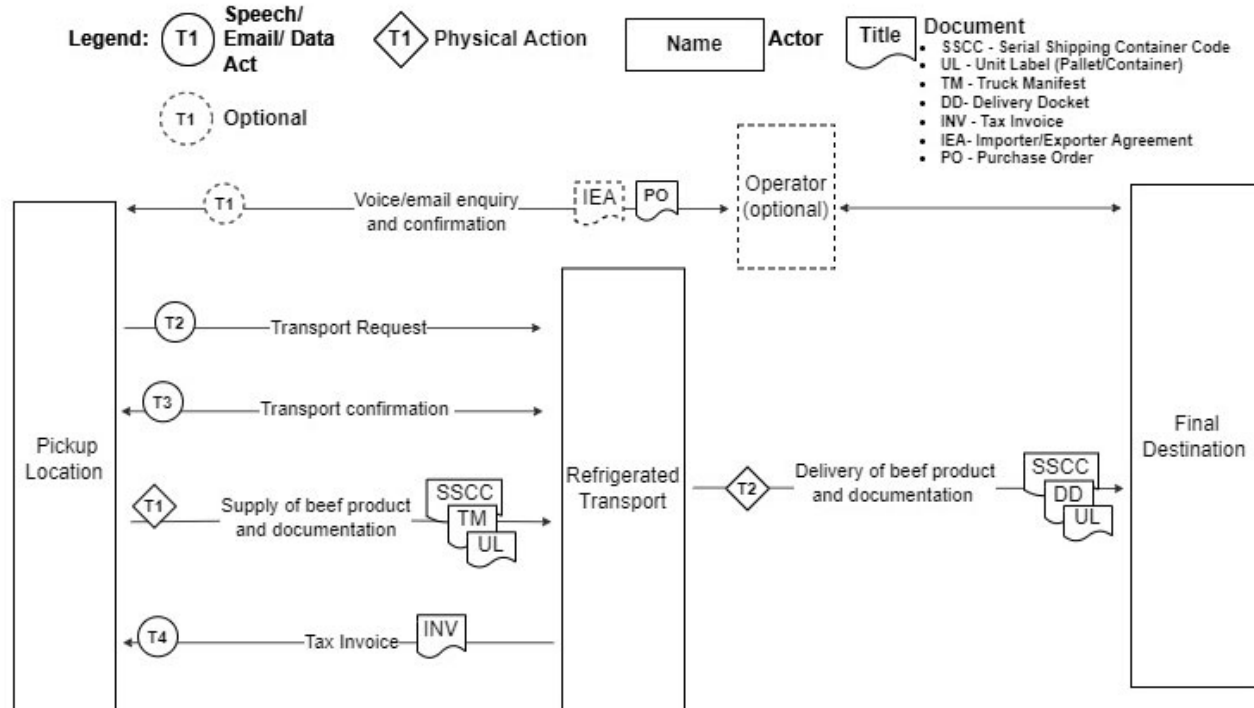
Traceability requirements post slaughter differ depending on the importing country. Typically, product transferred between establishments will be accompanied by import specific meat/meat product movement forms which details the serialised logistic unit identifiers such as the Serial Shipping Container Code (SSCC). This allows traceability of the unit and its subunits back to either the live animal and property of origin (for carcasses) or the boning room production run (for cartons and pallets).

5.2.7.2.7 Data flow diagrams

Table 187. Data flow diagrams for the inputs and outputs of beef import refrigerated transport

Direction	Description
Input/Output	Import Refrigerated Transport

5.2.7.2.7.1 Import Refrigerated Transport



Import Refrigerated Transport

Figure 202. Data or information flows of import refrigerated transport systems in the beef supply chain

5.2.7.3 Import bulk transport

Bulk transport involves the movement (including loading and unloading) of by-products (from render) or hides from one premises to another. By-products and hides are typically manufactured into leather products, feed, fertilizer, and pharmaceutical products for commercial distribution. All bulk transport movements must be accompanied by Critical Tracking Event related documents such as delivery dockets and specific product movement documents.

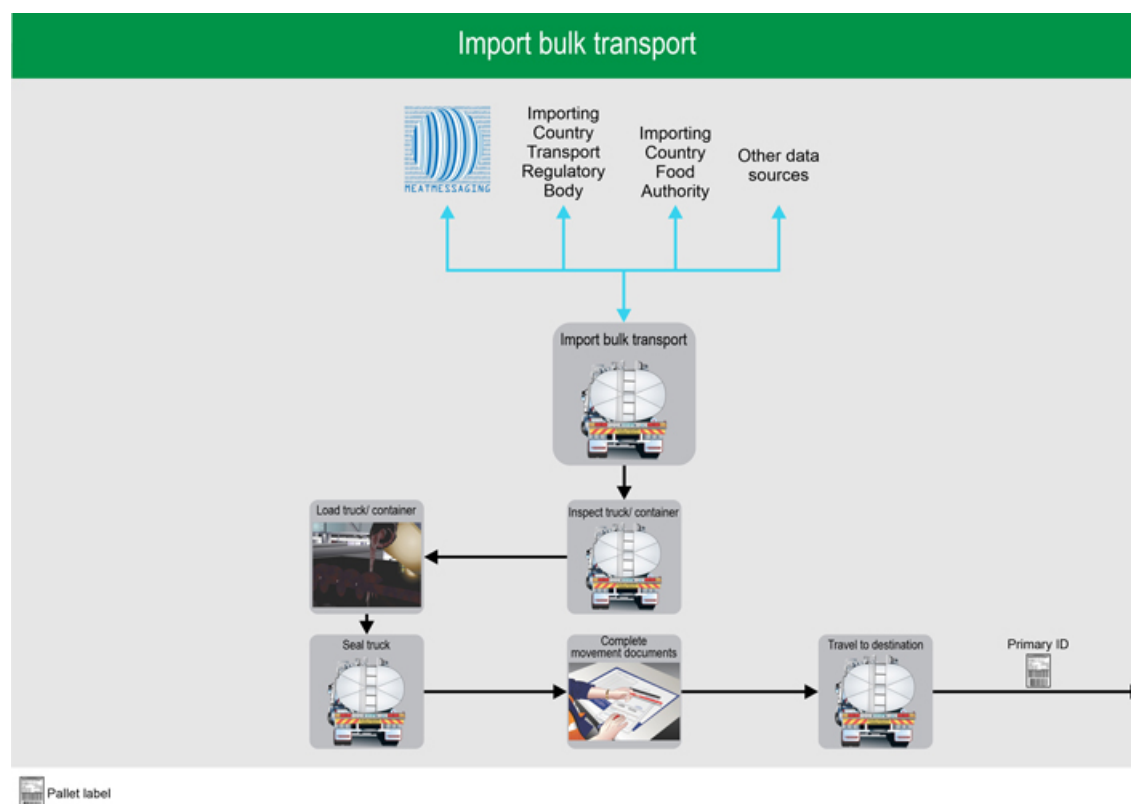


Figure 203. Inputs and outputs of the beef supply chain import bulk transport sector.

5.2.7.3.1 Physical Inputs including Critical Tracking Events (CTEs)

Physical inputs into the import bulk transport system may include animal by products from rendering or hide processing facilities packaged into container system units. Documentation required to accompany the importation and transportation of such product includes the Bill of lading/Air Waybill, Certificate of Analysis (COA), Delivery docket and import specific meat/meat product movement forms among others.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with inputs to the import bulk transport system include the receipt of:

- * Container System Unit (render and hide product).

Table 188. Physical inputs and associated Critical Tracking Event related documents for a beef import bulk transport system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details
Container System Unit (render and hide product)	A container designed for use as a unit of cargo handling equipment in the transport of goods by aircraft or ship.	Bill of lading/Air Waybill, Certificate of Analysis (COA), Delivery Docket/Manifest, Import Permit Import specific meat/meat product movement forms, Import clearance documentation, Import Receipt of purchase/Tax Invoice	

5.2.7.3.2 Information Inputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). The transport of product between establishments is a Critical Tracking Event. Therefore, the KDEs here can largely be found on transportation documentation such as the Bill of lading/Air Waybill, import specific meat/meat product movement forms, Import clearance documentation and Certificate of Analysis. Other documentation such as Receipts of purchase/Tax Invoices will also contain KDEs.

Table 189. Information inputs, Key Data Elements and Critical Tracking Event related documentation for a beef import bulk transport system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Analysis Date	This is the date on which a product sample was analysed.	Yes	Certificate of Analysis (COA)	
Bill of lading/Air Waybill document number	A unique document number issued for traceability purposes.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA)	
Certificate of Analysis number	A unique certificate number issued for traceability purposes.	Yes	Certificate of Analysis (COA)	
COA test lot identifier	This is a unique identifier allocated to all cartons, pallets, and shipping containers for which an analysis sample represents.	Yes	Certificate of Analysis (COA)	
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA), Import Receipt of purchase/Tax Invoice	
Consignment Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., shipment/message that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Bill of lading/Air Waybill, Import clearance documentation	For more information visit the GS1 website.
Contract number	This is a unique number allocated to the contract by the seller.	Yes	Delivery Docket/Manifest	
Count of Trade Items	Usually encoded in the GS1 barcode, this is the number of trade items e.g., cartons in the logistic unit.	Yes	Bill of lading/Air Waybill, Delivery Docket/Manifest	For more information visit the GS1 website.
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA), Delivery Docket/Manifest, Import clearance documentation, Import Receipt of purchase/Tax Invoice	

Delivery Docket/Manifest number	This is a unique number allocated to the docket for identification purposes.	Yes	Delivery Docket/Manifest	
From Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Certificate of Analysis (COA), Delivery Docket/Manifest, Import clearance documentation	
Import Permit Number	A unique permit number is allocated for the import consignment following submission of correct and validated documentation approved by the importing country.	Yes	Import Permit	
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA), Delivery Docket/Manifest, Import clearance documentation	
Net Weight (Kilograms)	Usually encoded in the GS1 barcode, the Net Weight is a variable measure of the trade item e.g., carton, pallet or shipment recorded in kilograms.	Yes	Bill of lading/Air Waybill	For more information visit the GS1 website.
NLIS Tag Number/RFID	All animals transported between PICs must have a permanent National Livestock Identification System tag attached. This tag has a unique animal identification number.	Yes	Bill of lading/Air Waybill	For more information visit the Integrity systems website.
Order date	This is the date on which the purchase order or contract was raised by the buyer.	Yes	Delivery Docket/Manifest	
Packaging Date	Encoded in the GS1 barcode, the Packaging Date is the date on which the item was packaged and is recorded in the format year, month, day (YYMMDD).	Yes	Certificate of Analysis (COA)	For more information visit the GS1 website.
Packaging Date Range	This includes the oldest and newest packaging dates for the logistic unit.	Yes	Import clearance documentation	For more information visit the GS1 website.
Pallet Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., pallet that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Import clearance documentation	For more information visit the GS1 website.
Production Date (YYMMDD)	Encoded in the GS1 barcode, this is the 'kill' or slaughter' date of the product and is recorded in the format year, month, day (YYMMDD).	Yes	Certificate of Analysis (COA)	For more information visit the GS1 website.

Recipient Business Number	This is a unique registration number, used to identify businesses.	Yes	Import Receipt of purchase/Tax Invoice	
Seal Serial Number	This is a unique serial number printed on any tamper-evident seal issued by the Department.	Yes	Bill of lading/Air Waybill, Import clearance documentation	For more information visit the GS1 website.
Seller/Supplier Business Number	This is a unique registration number, used to identify businesses.	Yes	Import Receipt of purchase/Tax Invoice	
Shipping Mark	Also known as a port mark, this is a code comprising of three letters representing the foreign establishment number and the last nine digits of the consignment SSCC.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA), Delivery Docket/Manifest	
To Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Import clearance documentation	
Trade description	This is a collective set of words that says what the product is and may include information such as species, net weight of product, name and address of establishments, category ciphers, market endorsements, MSA eating quality etc.	Yes	Delivery Docket/Manifest, Import clearance documentation	
Transport registration number	The registration number of the vehicle in which the animals or product were transported. For shipments of product this will be a shipping container number.	Yes	Bill of lading/Air Waybill, Delivery Docket/Manifest, Import clearance documentation	

5.2.7.3.3 Physical Outputs including Critical Tracking Events (CTEs)

Physical outputs of the import bulk transport system is product (animal by products from rendering or hide processing facilities) which has been received in shipping containers from exporters. Documentation required to accompany the importation and transportation of such product includes the Bill of lading/Air Waybill, Certificate of Analysis (COA), Delivery docket and import specific meat/meat product movement forms among others.

Critical Tracking Events (CTEs) are defined as those events which include the growing, receiving, transforming, creating, and shipping of food products. Such events are critical to the traceability of product throughout the supply chain.

The CTEs associated with the outputs of the import bulk transport system include the movement of:

- * Container System Unit (render and hide product) off the property, premises, or supply chain sector.

Table 190. Physical outputs and associated Critical Tracking Event related documents for a beef import bulk transport system.

Event related to the inputs	Description of the inputs	Critical Tracking Event (CTE) related documents (including electronic)	More details

Container System Unit (render and hide product)	A container designed for use as a unit of cargo handling equipment in the transport of goods by aircraft or ship.	Bill of lading/Air Waybill, Certificate of Analysis (COA), Delivery Docket/Manifest, Import Permit, Import specific meat/meat product movement forms, Import clearance documentation, Import Receipt of purchase/Tax Invoice	

5.2.7.3.4 Information Outputs including Key Data Elements (KDEs)

Key Data Elements (KDEs) are defined as those elements which are key in identifying and tracing the Critical Tracking Event (CTE). The transport of product between establishments is a Critical Tracking Event. Therefore, the KDEs here can largely be found on transportation documentation such as the Bill of lading/Air Waybill, import specific meat/meat product movement forms, Import clearance documentation and Certificate of Analysis. Other documentation such as Receipts of purchase/Tax Invoices will also contain KDEs.

Table 191. Information outputs, Key Data Elements and Critical Tracking Event related documentation for a beef import bulk transport system.

Attributes (including KDEs)	Description of the Attributes (including KDEs)	Is a KDE	Critical Tracking Event (CTE) related documents (including electronic)	More details
Analysis Date	This is the date on which a product sample was analysed.	Yes	Certificate of Analysis (COA)	
Bill of lading/Air Waybill document number	A unique document number issued for traceability purposes.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA)	
Certificate of Analysis number	A unique certificate number issued for traceability purposes.	Yes	Certificate of Analysis (COA)	
COA test lot identifier	This is a unique identifier allocated to all cartons, pallets, and shipping containers for which an analysis sample represents.	Yes	Certificate of Analysis (COA)	
Company/product code	This is an in-house code for the identification of the product in the unit.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA), Import Receipt of purchase/Tax Invoice	
Consignment Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., shipment/message that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Bill of lading/Air Waybill, Import clearance documentation	
Contract number	This is a unique number allocated to the contract by the seller.	Yes	Delivery Docket/Manifest	
Count of Trade Items	Usually encoded in the GS1 barcode, this is the number of trade items e.g., cartons in the logistic unit.	Yes	Bill of lading/Air Waybill, Delivery Docket/Manifest	
Date	This is the date of signing or of which a record entry or transaction was made.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA), Delivery Docket/Manifest,	

			Import clearance documentation, Import Receipt of purchase/Tax Invoice	
Delivery Docket/Manifest number	This is a unique number allocated to the docket for identification purposes.	Yes	Delivery Docket/Manifest	
From Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Certificate of Analysis (COA), Delivery Docket/Manifest, Import clearance documentation	
Import Permit Number	A unique permit number is allocated for the import consignment following submission of correct and validated documentation approved by the importing country.	Yes	Import Permit	
Movement date	The date on which livestock or other products (e.g., feed or meat products) were transported between PICs/establishments.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA), Delivery Docket/Manifest, Import clearance documentation	
Net Weight (Kilograms)	Usually encoded in the GS1 barcode, the Net Weight is a variable measure of the trade item e.g., carton, pallet or shipment recorded in kilograms.	Yes	Bill of lading/Air Waybill	For more information visit the GS1 website.
NLIS Tag Number/RFID	All animals transported between PICs must have a permanent National Livestock Identification System tag attached. This tag has a unique animal identification number.	Yes	Bill of lading/Air Waybill	For more information visit the Integrity systems website.
Order date	This is the date on which the purchase order or contract was raised by the buyer.	Yes	Delivery Docket/Manifest	
Packaging Date	Encoded in the GS1 barcode, the Packaging Date is the date on which the item was packaged and is recorded in the format year, month, day (YYMMDD).	Yes	Certificate of Analysis (COA)	For more information visit the GS1 website.
Packaging Date Range	This includes the oldest and newest packaging dates for the logistic unit.	Yes	Import clearance documentation	For more information visit the GS1 website.
Pallet Serial Shipping Container Code (SSCC)	Encoded in the GS1 barcode, this is a unique number which identifies the individual logistic unit i.e., pallet that is assigned by the establishment constructing the unit. The SSCC remains the same for the life of the logistic unit.	Yes	Import clearance documentation	For more information visit the GS1 website.

Production Date (YYMMDD)	Encoded in the GS1 barcode, this is the 'kill' or slaughter' date of the product and is recorded in the format year, month, day (YYMMDD).	Yes	Certificate of Analysis (COA)	
Recipient Business Number	This is a unique registration number, used to identify businesses.	Yes	Import Receipt of purchase/Tax Invoice	
Seal Serial Number	This is a unique serial number printed on any tamper-evident seal issued by the Department.	Yes	Bill of lading/Air Waybill, Import clearance documentation	For more information visit the Australian Government Federal Register of Legislation.
Seller/Supplier Business Number	This is a unique registration number, used to identify businesses.	Yes	Import Receipt of purchase/Tax Invoice	
Shipping Mark	Also known as a port mark, this is a code comprising of three letters representing the foreign establishment number and the last nine digits of the consignment SSCC.	Yes	Bill of lading/Air Waybill, Certificate of Analysis (COA), Delivery Docket/Manifest	
To Establishment number	A number issued by Federal and State Authorities to identify the originating site from which meat or meat products were distributed to domestic or export markets. For transfer certificates, the Establishment numbers for both the dispatching and receiving establishments are recorded.	Yes	Import clearance documentation	
Trade description	This is a collective set of words that says what the product is and may include information such as species, net weight of product, name and address of establishments, category ciphers, market endorsements, MSA eating quality etc.	Yes	Delivery Docket/Manifest, Import clearance documentation	
Transport registration number	The registration number of the vehicle in which the animals or product were transported. For shipments of product this will be a shipping container number.	Yes	Bill of lading/Air Waybill, Delivery Docket/Manifest, Import clearance documentation	

5.2.7.3.5 Regulatory and Industry Programs

- * Importing Country Transport Regulatory Body
- * Importing Country Food Authority
- * Other data sources
- * Meat Messaging

5.2.7.3.6 Supply Chain Node Traceability

The traceability of imported rendered and hide product, that is bulk transported, back to the live animal and property of origin is operationally impractical. This is because rendered and hide products are bulk processed and packaged from any given processing day or number of processing days. While this means that the production date or kill date of animals from which hides or rendered product is likely to be known, any batch of product being

packaged into store bags or pallets with unique serialised labels is only traceable to any number of cattle or source properties.

For example, hides or product for render which make up one batch come from a total of 6 plant kill day combinations. For each processing day 800 animals, sourced from 8 different properties are slaughtered and the unique serialised NLIS ID tag numbers or animal identifiers known for each animal as well as that of the corresponding carcase ticket. With render or hide products from these processing days being processed and packaged in one batch, the unique serialised identifiers of output products can be linked only to that batch and the processing dates from which product was obtained. This means that one batch is comprised of any of 4 800 source animals that were supplied by any of 48 source properties.

Traceability requirements post slaughter differ depending on the importing country. Typically, bulk transported product will be accompanied by import specific meat/meat product movement forms and a Meat Messaging Consignment Report. The Consignment Report is issued to the buyer of product and lists all the logistic unit and subunit unique serialised identifiers contained within the Container System Unit to be exported including the Consignment Serial Shipping Container Code (SSCC), Pallet Serial Shipping Container Code, and scanned and verified carton label serial identifiers. Additionally, the product movement forms detail the serialised logistic unit identifiers such as the Serial Shipping Container Code (SSCC). These documents allow traceability of the unit and its subunits back to any number of cattle or source properties.

5.2.7.3.7 Data flow diagrams

Table 192. Data flow diagrams for the inputs and outputs of a beef import bulk transport system

Direction	Description
Input	Import Bulk Transport

5.2.7.3.7.1 Import Bulk Transport

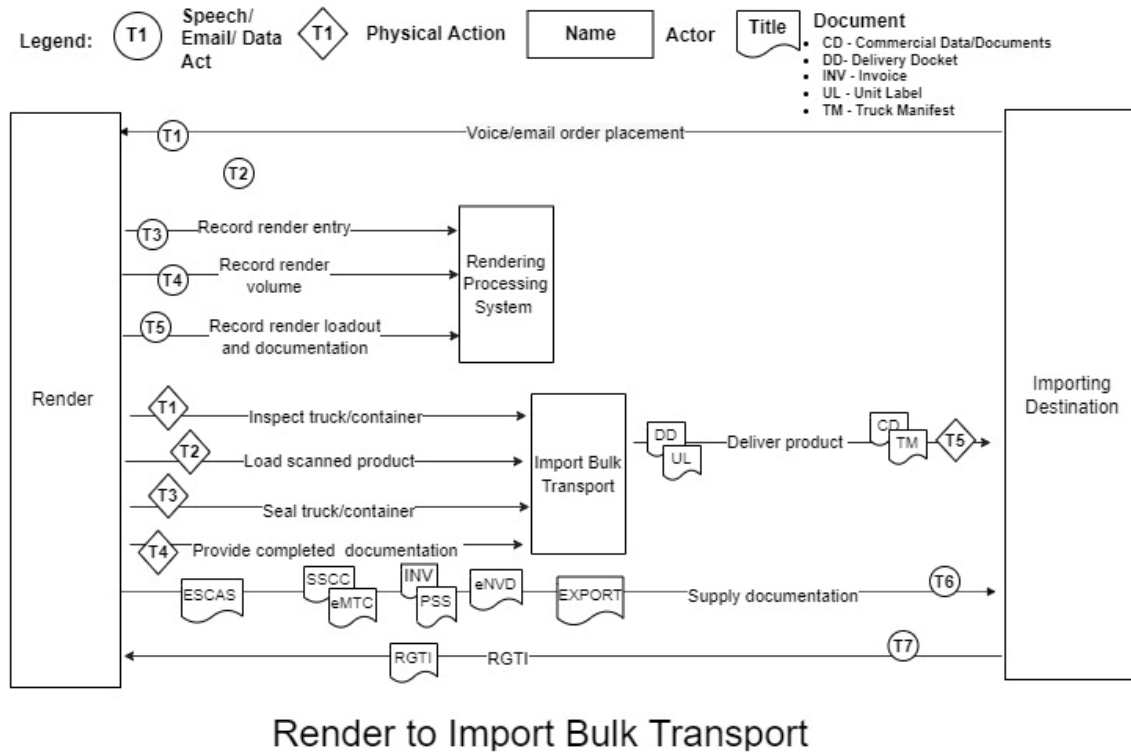


Figure 204. Data or information from the import bulk transport system in the beef supply chain

6 Glossary

Term	Abbreviation	Description	Beef	Sheep	Dairy
National Vendor Declaration	NVD	A document issued by a vendor to certify the origin of the vendor and its livestock.	X	X	X
Meat Standards Australia	MSA	A standards organisation that sets and defines criteria for assessing red meat quality.	X	X	
National Vendor Declaration	eNVD	An electronic document issued by a vendor to certify the origin of the vendor and its livestock.	X	X	X
Recipient Generated Tax Invoice	RGTI	Tax invoice supplied by the vendor or supplier.	X	X	X
Commercial Data	CD	Multiple documents provided e.g., Commercial supply contract, reporting analysis health certificate etc.	X	X	X
Producer feedback	PF	Producer feedback provides insights on how well a carcass performed e.g., MSA grading	X	X	X
National Feedlot Accreditation Scheme	NFAS	Independently audited quality assurance program for the Australian lot feeding industry.	X	X	
Slaughter feedback	SF	Providing feedback to producers or vendors on carcass performance.	X	X	X
Slaughter details	SD	Information and data associated to slaughter.	X	X	
Post-Sale Summary	PSS	A series of tasks that you perform after a customer purchases a product or service.	X	X	X
Kill agenda	KA	An agenda of animals slaughtered on a production day at a processing establishment,	X	X	
Carcass Ticket	CT	A ticket or tag applied to a carcass usually on the slaughter floor and scanned at boning room entry, carcass load in or load out. Provides traceability of the carcass as it moves throughout the processing establishment.	X	X	
Production plan	PP	A production plan is a step-by-step plan implemented at the start of the production day to provide efficient processing of the production life cycle.	X	X	
Pallet label	PL	It is a label applied to a pallet of production after palletisation and shrink wrapping. It is necessary to have correct labelling for logistics, traceability and distribution process.	X	X	X

Unit Label	UL	A label applied to an object or product to describe what it is.	X	X	
Serial Shipping Container Code	SSCC	An 18-digit number used to identify product. SSC is encoded in the barcode and can also be encoded in an RFID tag.	X	X	X
Tender Document	TD	A document outlining a formal statement of the tender participants offer to supply product.	X	X	
Picking instruction	PI	A process of picking items and product from the warehouse inventory.	X	X	X
Truck Manifest	TM	A truck manifest is a document outlining the pickup and drop off associated with the booking or order. It is assigned to a specific truck and assists traceability measures for product being loaded out or loaded in.	X	X	X
Stock on Hand	SOH	Stock on hand is the amount of product that a processing establishment or warehouse has available at a particular time.	X	X	X
Storage Detail	SD	Details on what and where product is located at a processing establishment, warehouse or cold store facility.	X	X	X
Delivery Docket	DD	A delivery is a document accompanying product being delivered to a particular location.	X	X	X
Invoice	INV	A receipt or proof of purchase or tax invoice.	X	X	X
Global Trade Item	GTIN	The Global Trade Item Number is an identifier for trade items developed by the international organisation GS1.	X	X	X
Export Permit	EXPORT	Issued by DAWE, it provides permission to conduct a specific export transaction.	X	X	X
Purchase Order	PO	A contract between the buyer and a seller which specifies information relating to the goods, delivery and terms and conditions of purchase	X	X	X
Production Order	PRO	An order issued within a company to produce a specific quantity of material within a certain timeframe.			X
Importer/Exporter Agreement	IEA	A contract between the importing and exporting businesses which specifies the terms of trade.			X
Export Health/Government Certificate	HC	A certificate issued by the Department containing details about the product being exported and confirming that certain importing country requirements have been met	X	X	X

		to facilitate clearance of goods at import. Depending on requirements, the certificate will be signed by either a Veterinary or Authorised Officer.			
Import Permit	IP	A document that confirms eligibility of goods for import and facilitates the importation of these goods by a country.			X
Transfer Declaration	TD	A declaration statement made by the dispatching establishment regarding the export eligibility of the goods being moved.			X
Export Documents	ED	Covers all official export documents for transport and government requirements.			X
Logistics Management Records	LMR	Internal record keeping system, electronic or paper based.			X
Processor Management Records	PMR	Internal record keeping system, electronic or paper based.			X
Exporter Supply Chain Assurance System	ESCAS	The Exporter Supply Chain Assurance System is an assurance system based on commercial arrangements with supply chain partners in importing countries to provide humane treatment and handling of livestock.	X	X	
Export Documentation System	EXDOC	EXDOC is the DAWEs electronic export documentation system with the purpose of managing export documentation for primary produce.	X	X	X
Importing Country Government System	ICGS	A system used by Importing Country Government for inspection and verification of importing country requirements.	X	X	X
Importing Country Food Authority	ICFA	Importing Country Food Authority implement certain requirements for commercially viable product. e.g., Import Supermarket	X	X	X
Import Specific livestock movement forms	ISF	Import specific commodity movement forms and livestock movement forms. This includes the property (PIC) from/to where the livestock or product were consigned	X	X	

7 Reference List

- EUR-Lex. (2002). Regulation (EC) No 178/2002 of the European Parliament and of the Council of 28 January 2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety. Retrieved from <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32002R0178>
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