



Can-Trace Beef Pilot Project Report



Agriculture and Agri-Food Canada Agriculture et Agroalimentaire Canada

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Can-Trace Beef Pilot Project Report





Pilot Project Summary Report

Submitted to: Can–Trace Steering Committee

Submission date: September 30, 2004

Can-Trace Beef Pilot Report





Introduction

The focus of the current phase of the Can-Trace initiative has been the development of whole-chain data standards for traceability. Following the announcement by Can-Trace in May 2004 of a draft standard, pilot projects in beef, pork and produce were undertaken to verify the minimum mandatory data requirements, and to provide recommendations on any modifications that should be considered prior to their adoption as a national standard. A secondary objective of the pilots was to collect information to support the development of the business case "Decision Support Tool" by identifying categories of costs and benefits of traceability to selected firms.

Pilot teams were then formed in the May/June timeframe. Each team hired a project manager/consultant to oversee the project and co-ordinate the research. Teams met regularly via conference call to discuss the findings and ensure the work was on track. Pilot project results were reported to the Can-Trace Standards Working Group in late September.

The decision to pilot beef, pork and produce came as a result of consultations across the country with industry and government in mid 2003. Funding was not available for a similar pilot in seafood.

The pilot teams were recruited with a focus on ensuring participation and involvement of all components of the supply chain. Particular attention and effort was directed toward including, where possible, involvement from SME's.

Methodology

After the project managers were retained by the pilot teams, initial conference call meetings were held to agree on how the project would be conducted and on how the deliverables and timelines would be met. Considerable up front time was also spent identifying additional participants in order to ensure that all components of the supply chain were represented.

Appendix 1 contains a list of participating companies and the roles they played in the pilot.

The project managers then set up a series of interviews with participating pilot company members to begin the research. They were given a three-fold task:

- To gather information on current track and trace practices
- To map the Can-Trace attributes to existing participating company practices
- To undertake a series of recall scenarios designed to test whether the Can-Trace standards were sufficient to conduct a recall.

On average, pilot teams required about 6-8 weeks to do the work, with another 2-3 weeks of reports, revisions and approvals.

General Observations about Participants in the Pilot Studies

- Most firms have track and trace capability of varying degree and some kind of system for doing recalls. This variation among companies is evidence of the absence of national standards.
- Recall scope and frequency vary widely by role in the supply chain and by firm type [e.g. small, medium or large].

- Participating companies were very co-operative at providing information; however, they were reluctant to share [or unable to extract] the kind of detailed financial information required by the Business Case report. While the Decision Support Tool developed by the Business Case study tested successfully, additional financial data would have allowed for a more robust verification.
- The use of three different consulting firms to act as project manager for each pilot [RCM Technologies Produce; Trimark Engineering Beef; eBiz Professionals Pork] added considerably to the administrative challenge. However, it likely provided a broader range of experience, approaches and analysis.

Conclusions/Recommendations From the Pilot Studies

- All Pilot groups concluded that the draft Can-Trace standards provided stakeholders with sufficient information to enable the traceability of products in the supply chain.
- Pilot participants are already using most of the Can-Trace data attributes.
- Additions to the data attributes were proposed by all three pilots.
- Traceability systems that are integrated with existing company business practices are more likely to be maintained and more likely to be accurate than stand-alone traceability systems.

Beef Pilot Recommendations:

- Add Purchase Order number to mandatory list of attributes
- Remove Buyer Identifier and Vendor/Supplier Identifier from Mandatory attributes
- Co-ordinate with CCIA to ensure whole-chain Traceability
- Promote awareness of technology solutions

Produce Pilot Recommendations:

- Adopt a consistent product lot number that aligns with the GTIN
- Shipment identifiers should be used in addition to retailer/distributor purchase order number
- Add shipped quantity and unit of measure to the proposed minimum data standard
- Add pack date to the minimum standard and remove harvest date from the minimum standard
- Develop requirements for Master data
- Develop data retention guidelines

Pork Pilot Recommendations:

- Promote Lot Number as a key mandatory data attribute
- Add quantity shipped and unit of measure as a mandatory attribute
- Consider the use of a Best Before Date as a possible data component for identifying a product Lot Number
- Establish Carton Serial numbers and Pallet Number as an optional attribute





Produce Technology Report

In addition to the pilot study of the Can-Trace standards, the Produce Pilot team specifically asked for a discussion paper looking at current technology options to support implementation of whole-chain food traceability in Canada. The report suggests four pillars of Track & Trace, and examines both bar coding and RFID data collection methods. While the recommendations and conclusions focused on options for the Produce sector, the report is interesting reading for anyone looking to better understand the linkages between technology issues and Traceability.

Summary

The Standards Working Group found the Pilot studies to be invaluable in terms of:

- a) confirming the general ability of the Can-Trace data standard to enable product traceability; and
- b) generating helpful suggestions on further standardization of the use of several data elements across the supply chain [e.g. with respect to Lot number].

Appendix 1: Supply Chain Company List

Sector	Primary Producers	First Processor	Secondary Processor or Distributor	Retailer/Food Service
Beef	CCIA	Better Beef Abattoir Colbex*	Caravelle Martin-Brower* Levinoff Meats Metro-Richelieu	Metro-Richelieu McDonald's Restaurants Levinoff Butcher Shop*
Produce	All Season Mushroom* Oppenheimer	Oppenheimer Pro-Organics Neptune Food Service	Oppenheimer Pro-Organics Neptune Food Service Sobeys	Sobeys Thrifty's Food Services* Fairmont Hotels Neptune Food Service
Pork	Samis Farms*	Quality Meat Packers Olymel Trochu (Sunterra) Meats*	Valbella Meats Loblaws/Provigo – Distribution Centre	Sunterra West Market* Flanagan Food Service Loblaws/Provigo

* Small or Medium Enterprise

Can-Trace Beef Pilot Report





Can-Trace Beef Pilot Project Report

Submitted to: Can–Trace Steering Committee

Submission date: September 29, 2004

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Can-Trace Beef Pilot Project Report





1. Report Highlights

1.1. The draft Can-Trace Data Attributes provide stakeholders sufficient data to facilitate one up/one down traceability between levels of the beef supply chain.

1.2. Project participants have product traceability and tracking systems in place. There is a high correlation between traceability data attributes currently in use by the beef industry and the draft Can-Trace Data Attributes.

1.3. Traceability and tracking simulations performed during this project, used current industry data attributes and systems. Target products were successfully traced.

1.4. To ensure effectiveness of traceability in a one up/one down system, a common platform (including data attributes, attribute definitions and data flow requirements) is required.

1.5. The draft Can-Trace Data Attributes are generally aligned with data attributes in the EAN International Traceability of Beef guidelines and Regulation (EC) 1760/2000.

1.6. The draft Can-Trace Data Attributes are generally aligned with the requirements of the US Bioterrorism Act of 2002, Proposed Regulations.

1.7. Traceability data attributes collected for business operational use are more likely to be accurate, accessible and timely than data attributes collected for stand alone traceability or quality assurance systems.

1.8. There is no consensus on which traceability data attributes are key in the beef industry supply chain.

1.9. A number of draft Can-Trace Data Attributes proposed as mandatory are currently not used, not available or considered to be of secondary or supplemental value in the beef industry supply chain.

1.10. A data attribute (purchase order number) considered key by stakeholders in the beef supply chain is not included in the draft Can-Trace Data Attributes.

2. Executive Summary

The report provides full information and supporting data. Readers requiring summary information only are recommended to read Report Sections 1, 2 and 4.

2.1. Report Scope (Section 3.)

The report documents the project consultant deliverables including:

- Review of participant current traceability processes
- Map existing practices to draft Can-Trace Data Attributes
- Conduct mock simulations to verify data attributes
- Provide recommendations as determined by the review and simulations
- Map draft Can-Trace Data Attributes with other selected requirements

2.3. Methology (Section 6.)

Three main activities were used to complete this project:

- On-site interviews with participants using qualitative research protocol
- Simulations of traceability
- Gap analysis of draft Can-Trace Data Attributes to selected traceability systems and international requirements

2.4. Results and Discussion (Section 7.)

- The draft Can-Trace Data Attributes provide sufficient information to facilitate traceability between levels of the beef industry supply chain.
- Current traceability and tracking procedures of participants were effective in tracing target product in project simulations.
- Simulations that traced target product back up the supply chain to slaughter resulted in a large number of possible source animals (ear tag numbers).
- The value of data attributes to traceability is relative to the specific situation. Certain data attributes are commonly identified as key.
- Most draft Can-Trace Data Attributes are currently collected by supply chain participants.
- Supply chain participants collect data attributes that are not on the draft Can-Trace Attribute list.
- The draft Can-Trace Data Attributes are generally aligned with the requirements of the US Bioterrorism Act of 2002, Proposed Regulations.
- The draft Can-Trace Data Attributes are generally aligned with data attributes in the EAN International Traceability of Beef guidelines and Regulation (EC) 1760/2000.





3. Introduction

In May 2004, Can-Trace issued a Request for Proposal (RFP) for a third party to provide consultant services for the Can-Trace Beef Pilot Project. The RFP defined the project objectives.

3.1. Objectives of the Pilot Project

- To validate the Can-Trace tracking and tracing standards for beef developed by the Standards Working Group.
- To trace sample beef products one up/one down within the food supply chain with focus on data and business process requirements. (The pilot will indicate differences in time and accuracy between slow (paper) and fast (electronic) communication).
- To highlight variations between the Can-Trace minimum data requirements and requirements imposed by other jurisdictions including the European Union (EU), the United State (US) and one or two other provinces.
- To provide implementation experience and data to form the basis for industry implementation guidelines.
- To validate the applicability of Can-Trace Guidelines when considering the Small and Medium Sized Enterprises (SME) Working Group's recommendations.
- To provide feedback and reference material from the pilot in a form easily understood by any supply chain participant.
- To validate the findings and templates developed by the Business Case Working Group.

3.2. Report Scope

Beef industry traceability and tracking can extend from parentage of the animal through the supply chain to the package in the supermarket display cooler. The Beef Working Group identified constraints on the scope of the study of one up/one down traceability throughout the whole beef supply chain. The constraints exist at both the top and bottom ends of the supply chain.

A national program identifies cattle entering the supply chain in Canada. The program is administered by the Canadian Cattle Identification Agency (CCIA). The program is based on a unique identification number assigned and attached by ear tag to each animal by the time it leaves the herd of origin. The program's minimum requirements are that the ear tag contains a visible unique number, bar code and CCIA logo. Numbers are assigned by the CCIA to tag manufacturers and tags are distributed through authorized service centres. The service centres record the numbers received by each producer and the numbers are entered into the CCIA database. Primary producers are not required to maintain records. The CCIA requires animal identification by the ear tag number up to and including the point of carcass inspection.

In Quebec Agri-Traçabilité Québec (ATQ), a not-for-profit agency, is mandated by the provincial government to implement livestock identification and tracing. The CCIA allocates ear tag numbers to ATQ for livestock identification.

In the event of a health or safety issue involving an animal, the CCIA will provide the Canadian Food Inspection Agency (CFIA) with the record of the herd of origin. The CCIA does not provide others with access to the ear tag database. Numbers are only accessed when entered into the CCIA database, in the event of a health or safety issue and on retirement of the animal (post slaughter). The ear tag number is not used by the CCIA to track animal movement or ownership.

The Beef Pilot Project Working Group determined that the scope of this project would start at the point of carcass inspection.

The other area of constraint on a whole chain one up/one down traceability system is at the retailer/consumer interface. In Canada, the current common practise is to end beef product traceability at the point which products are removed from the case at the retailer. Beef products on retail shelves are no longer linked to the previous level in the supply chain. Similarly, in the restaurant, the identification chain ends with product removal from the supplier case.

The Beef Pilot Project Working Group determined that the scope of the project would end at the retailer.

3.3. Consultant Project Deliverables

Based on the Can-Trace Request for Proposal and the direction of the Beef Project Working Group, the consultant's deliverables for this project are:

- Conduct a pre-Pilot Review of participants and their representatives
- Map current practices to Can-Trace Data Attributes
- Conduct mock simulations to verify data attributes
- Provide (in the final report) Can-Trace Data Attributes implementation recommendations as determined by the Pre-Pilot Review
- Map draft Can-Trace Data Attributes with other mandatory requirements (such as the US, EU) provided to the consultant by Can-Trace
- Provide information collected for the Beef Pilot Study to any party as directed by Can-Trace
- Support the Business Case Project Manager as is possible during the course of completing the Beef Pilot Study

This report documents the consultant's deliverables.





4. Observations

4.1. General Observations

4.1.1. Management of a traceability system across a supply chain of unrelated organizations and large geographic distances is a complex and difficult task.

4.1.2. The one up/one down model is an effective system to ensure supply chain traceability.

4.1.3. Implementation of one up/one down beef industry traceability requires both methodology and technology. Supply chain participants, especially those in small and medium size business, require support to implement system changes.

4.1.4. Traceability is a potential marketing and sales tool. Recent events in the beef industry (media coverage of BSE, E. Coli 0157:H7) reinforce that industry stakeholders who place a strong marketing emphasis on food safety, quality and security will be positioned to retain market share and revenue in adverse times.

4.1.5. Traceability failure can be fatal to a specific business and severely damage the entire supply chain.

4.1.6. Regulatory requirements for traceability in the beef industry will become more stringent on a global basis.

4.1.7. A common platform to manage traceability between supply chain levels is required in a one up/one down system. It is necessary to ensure that data collection, sharing and retention are uniform, standard, transparent, efficient and accessible.

4.1.8. Information flow must be integrated through the supply chain. At the one up/one down interfaces of the supply chain, data exchange must be seamless. Gaps in the agreed sharing of data can cause failure. Participants must agree and comply with data flow requirements.

4.1.9. All levels of the supply chain must share a common definition of data attributes and traceability norms at the one up/one down interface.

4.1.10. Each level of the supply chain must maintain the capability to collect, record and manage the traceability data. The one up/one down model relies on the internal system of participants. Reliability of the system depends on the accurate collection and recording of data. The data provided one up/one down must be verifiable.

4.1.11. Efficient data management is essential to beef supply chain traceability. Production, quality and food safety personnel are challenged by the current volume of data. As the requirement to manage additional data attributes and additional data volume increases, paper records are less capable of maintaining and managing traceability data. Electronic management systems are the most efficient and least costly tools to effectively utilize high volumes of data.

4.1.12. The number and variety of off-the-shelf and customized traceability and tracking technologies is rapidly expanding. Many new traceability technologies are targeted at the beef industry.

4.1.13. Stand-alone traceability systems are likely to fail. Traceability systems that are integral with operational systems are more likely to be maintained and more likely to be accurate. Companies have immediate financial incentive to ensure operational systems work.

4.1.14. Traceability systems at some project participants were either under review or were planned for upgrades.

4.1.15. Participants were volunteers to the project. Participants are organizations that place value on customer safety, adherence to Good Manufacturing Practices (GMPs) and compliance to regulations. Effective one up/one down traceability will require wilful participation from supply chain operators who are not currently as motivated as project participants.

4.1.16. Traceability simulations generated a large number of ear tag numbers. Systems to reduce the number generated would improve traceability at the primary producer side of the supply chain. Additional benefit includes significant reduction of risk to 1st Processors

4.1.17. Costs to implement and maintain traceability systems are important factors in the decision process of stakeholders.

4.1.18. Live cattle are freely moved inter-provincially.

4.1.19. In Quebec, a not-for-profit agency is mandated by the provincial government to implement livestock identification and tracing. The Agri-Traçabilité Québec (ATQ) is developing a "slaughterhouse to the table" trace system. The first phase of the system uses a central data base to track animal movements from birth to the slaughterhouse.

4.1.20. The draft Can-Trace Data Attributes generally align to data attributes in the EAN International Traceability of Beef guidelines and Regulation (EC) 1760/2000. Regulation EC 1760/2000 requires identification of beef animals, carcasses and cuts through the whole supply chain. Unique identification numbers must link between each point in the supply chain. Canada does not have a legal requirement to uniquely link through the supply chain. The Can-Trace Attributes provide for linking to groups of animals, batches and lots. Canadian beef industry stakeholders typically do not uniquely link cuts to individual animals.

4.1.21. The draft Can-Trace Data Attributes generally align to data attributes in the proposed regulations to enable the US Bioterrorism Act. The Act is to prevent bioterrorism not ensure traceability. The proposed US regulation requires additional data attributes including: name, address and phone number of person responsible at each level of the supply chain and each logistics provider

4.1.22. The proposed US Health and Human Services BSE regulations do not require the collection or sharing of traceability data attributes.

4.2. Draft Can-Trace Data Attributes Observations

4.2.1. The Draft Can-Trace Data Attributes provide stakeholders sufficient information to facilitate traceability between levels of the beef industry supply chain.

4.2.2. Many of the draft data attributes are collected by supply chain participants in existing procedures. Most of these attributes are collected to support the participants business systems.





4.2.3. Based on interview data and trace simulations, the following Draft Can-Trace Data Attributes were determined "Not Used or Unavailable Data":

Number	Draft Can-Trace Attribute	Comment
1	Animal Age	Used by producer. Age is currently useful data to others (due to BSE feed regulations)
4	Buyer Identifier	EAN number not used
7	Country of Origin, State or Province	EAN number not used
10	Location Identifier	EAN number not used
15	Ship From Location Identifier	EAN number not used
19	Vendor / Supplier Identifier	EAN number not used

4.2.4. Based on interview data and trace simulations, the following "mandatory" Draft Can-Trace Data Attributes were determined either "Secondary or Supplemental Value Data" or "Not Used or Unavailable Data":

Number	Mandatory Draft Can-Trace Attribute	Comment
2	Batch or Production Lot Number	
4	Buyer Identifier	EAN number not used
16	Shipment Identifier	
19	Vendor / Supplier Identifier	EAN number not used

4.2.5. Based on interview data and trace simulations, the following data attribute was determined "Primary Value Data" but is not a Draft Can-Trace Data Attribute:

Number	Primary Trace Attribute	Comment
	Purchase Order Number	

4.3. Opportunities

4.3.1. Define the scope of the one up/one down model. If scope is defined to include the whole chain, from primary producer to consumer, determine processes and requirements of the one up/one down model before the inspected carcass level and after the retailer receiving dock.

4.3.2. Promote traceability as a marketing and sales advantage to build acceptance of traceability among supply chain participants. Whole chain one up/one down traceability requires the wilful participation of all chain members.

4.3.3. Build consensus on the data attributes that are key in the beef industry supply chain through promotion of the Can-Trace Data Attributes.

4.3.4. Provide procedural templates and implementation guides for participants.

4.3.5. Provide opportunities for educational opportunities for participant staff to build support and to increase capabilities.

4.3.6. Research, review and inform stakeholders of available technology solutions.

4.3.7. Provide a forum for supply chain participants to meet and find shared (common) process and technology solutions. Ideal solutions will be seamless at the one up/one down interface.

4.3.8. Provide a tool-kit to support the management of the one up/one down model. The tool-kit to include:

- Traceability data attributes
- Clear attribute definitions. Attribute definitions defined in the context of each level of the supply chain
- One up/one down data flow requirements for the supply chain
- Implementation System including a formal mechanism to enable the participants to agree on the sharing process
- Provision for auditing and verification
- Certification to identify compliant participants

4.3.9. Finalize the Can-Trace Data Attribute list:

- Add purchase order number data attribute to the Can-Trace Data Attribute list
- Remove "mandatory" status from: Buyer Identifier and Vendor/Supplier Identifier. Data attribute (GLN) is uncommon in the industry. Identification of the buyer and vendor are necessary to ensure traceability but it is currently considered necessary to use GLNs to achieve identification.

4.3.10. Coordinate with the Canadian Cattle Identification Agency to ensure national whole chain traceability. Coordinate with ATQ to ensure required data attributes are provided to the national cattle identification agency (CCIA).





5. Background

5.1. Can-Trace Mandate

Federal, provincial and territorial Ministers of Agriculture initiated the Agriculture Policy Agreement (APF) in 2003. The APF defines five objectives to be jointly reached by the contributing levels of government by 2008. One objective is the improvement of food safety and food quality.

Can-Trace was launched in July 2003, with the assistance of leading national trade associations. Shortly after, the Can-Trace Steering Committee was created. Membership of the Committee initially included representatives from national trade associations. The Electronic Commerce Council of Canada (ECCC), acts as the Committee secretariat and more than 20 national trade associations, several provincial governments and the federal government are active Steering Committee members.

The mission of Can-Trace is to define and develop voluntary minimum requirements for national whole-chain tracking and tracing standards, utilizing the EAN.UCC global system where applicable, within the supply chain. Can-Trace is a voluntary industry-led initiative that fosters open dialogue within the supply chain to design the necessary framework for Canadian traceability. Can-Trace minimum requirements must leverage existing data capture and management solutions when creating a traceability solution. Some Canadian primary producer food manufacturers, processors, distributors and retailers already have significant investment in product identification schemas and information technology systems. Any identified solutions will leverage these investments to control cost and speed implementation.

The Can-Trace Steering Committee formed a Standards Working Group to draft Can-Trace attributes. Generic by design, the draft Attributes were applied to specific levels in the supply chain of four industry sectors (beef, produce, pork and seafood). The focus of this report is on the beef sector and the draft Attributes assigned to that sector.

A Beef Pilot Project Working Group was established to support the beef project and to advise the Standards Working Group and the Steering Committee.

5.2. Definition of Traceability

There is general international consensus on the definition of traceability. In Europe, Regulation EC/178/2002 defines traceability as "the ability to trace and follow food, feed, and ingredients through all stages of production, processing and distribution."

The ISO 9000:2000 definition of traceability is "the ability to trace the history, application or location of an entity by means of recorded identifications."

The US Federal Meat Inspection Act defines traceability as "the ability to retrieve the history, use and location of an article through a recordkeeping and audit system or registered identification."

Can-Trace defines traceability as the ability to track a food item (of animal or plant origin; finished product or ingredient) forwards or backwards through the food continuum (or supply chain). Can-Trace uses definitions of tracking and tracing to clarify. Tracking is the capability to follow the path of a specified unit of a product and/or batch through the supply chain as it moves between organizations towards the final point-of-sale or point-of-service. Can-Trace defines tracing as the capability to identify the origin of a particular unit and/or batch of product located within the supply chain by reference to records held upstream. This report uses the Can-Trace definitions.

Each supply chain and each controlling jurisdiction has different requirements. No traceability system will satisfy all requirements of all stakeholders. Financial resources, time and accuracy all act as constraints on total traceability in the beef supply chain. Traceability systems are compromises. Typical differences include types of data attributes collected, how and by who are they collected, how is data shared and for what purpose.

5.3. One Up/One Down Model

"The whole theme behind traceability is being able to record one step back and one step forward in your program, which basically says where did it come from, where did it go?"

- Danny Raulerson, Florida Fruit and Vegetable Association, Director

Supply chain traceability can be achieved through several different methods including one up/one down traceability managed by supply chain participants and data collection and tracking systems managed by third parties or governments.

The one up/one down model, adopted by Can-Trace, the European Food Law and others rises out of industry practice and tradition. Participants in the supply change collect information and keep records. They exchange information with their suppliers and customers. These practises are common throughout the food industry and specifically the beef industry.

One up/one down traceability requires that each member of a supply chain record and retain information about both their supplier and those that they have supplied. Each supply chain member is responsible to maintain records that could be used to trace a product from the step above to the step below them on a supply chain. A one up/one down model is show in Illustration 5.3.a.





Illustration 5.3.a:

ONE UP/ONE DOWN TRACEABILITY MODEL



In the Electronic Commerce Council of Canada 2003 Can-Trace Initiative White Paper on Tracking and Tracing Food Products in Canada, several benefits of the one up/one down system over other methods of traceability are identified:

- Whole-chain coverage Traceability is not limited to a single operator in the supply chain. Traceability can extend from primary producer to consumer.
- Distribution of cost The cost of the system is spread among all supply chain participants.
- Least complex and easiest to implement Participants are accountable to maintain and implement the system. Each supply chain member can use the most cost effective method to record and keep one up/one down information. Supply chain members are responsible to maintain communications only with one up/one down participants. Little or no change in record keeping methods is required to conform to system guidelines.
- Applicable to imports and exports As traceability is done on an individual supply chain participant level, products imported and exported into a country by participants can be documented easily.

Disadvantages to the one up/one down system were identified in the ECCC 2003 Can-Trace White Paper:

- Time-consuming In order to execute a trace, product travel through the supply chain must be retraced, stepby-step.
- Directly dependent on supply chain member record keeping Each participant must document product information in a way that is simple, complete, accurate and easy to access. The effectiveness of a trace or recall is dependent on the weakest link in the data record.

The one up/one down model is an effective system to provide product traceability. It is commonly chosen for use in food supply chains because it is the most complete and easiest traceability system to use and implement. Most food supply chain participants retain accurate information about their suppliers and buyers because record keeping is an important business practice. One up/one down traceability does not require major change or addition to these practices. Implementing traceability systems can be expensive and time-consuming. The model that requires the fewest changes to supply chain member practices is the most realistic way to achieve traceability.





6. Methology

Following the RFP process, Trimark Engineering Ltd. (Trimark) was selected as the project consultant. The Project Launch Meeting was held during a conference call of the Beef Pilot Project Working Group on June 4, 2004. During the Project Launch Meeting, the Working Group identified the specific section of the supply chain to be included in the project and refined the consultant deliverables.

During June and July, 2004 Trimark Engineering Ltd. conducted research to prepare this report. This research included:

- An on-site survey of existing beef supply chain traceability and tracking processes of selected industry participants.
- A review of international traceability standards, specifically the EAN International Traceability of Beef Guidelines, Regulation (EC) No. 1760/2000, the United States Bioterrorism Act (including proposed regulations) and the United States Department of Agriculture proposed BSE regulations.
- A literature review of national and international traceability and tracking information.
- On-site interviews of selected senior managers responsible for traceability, tracking and recall at large and medium sized businesses active in the Canadian beef supply chain.
- Three tracing and tracking simulations conducted with selected industry participants to validate usefulness of data attributes.
- Interviews with representatives of regulatory agencies including the Canadian Food Inspection Agency, Canadian Cattle Identification Agency, Agri-Traçabilité Québec, United States Food and Drug Administration and the United States Department of Agriculture.

6.1. Qualitative Research Protocol

Methods for data collection and analysis vary along a continuum. At one end of this continuum are methods relying on random sampling. Structured data collection instruments are used to fit diverse experiences into predetermined response categories. Statistical data analysis translates the data into useful formats. These methods, generally associated with quantitative research, produce results that are easy to summarize, compare and generalize. Quantitative research typically requires large sample sizes and long study times.

At the other end of the continuum are methods typically associated with qualitative research. These methods are characterized by the following attributes:

- Open-ended and less structured protocols (i.e., researchers may change the data collection strategy by adding, refining, or dropping techniques on the fly),
- Reliance on interviews; respondents may be interviewed several times to follow up on a particular issue, clarify concepts or check the reliability of data,
- Use of triangulation to increase the credibility of findings (i.e., researchers rely on multiple data collection methods to check the authenticity of results),
- Findings cannot be generalized to any specific population; rather each case study produces a single piece of evidence that can be used to seek general patterns among different studies of the same issue.

In between the two extremes, there are a number of possible evaluation methodologies that combine different aspects (sample design, research protocol, data collection and data analysis) of the quantitative and qualitative approaches.

For the Can-Trace Beef Pilot Project, the limited project schedule and list of pre-selected participants indicated a qualitative approach. Elements of quantitative research were incorporated into the protocol. Initial on-site interviews were pre-structured. While participants were given the opportunity to describe processes and procedures in their own words, interviewers used both an interview guide and prepared questionnaires to ensure that activities relating to data attributes and data exchange were captured. As is often the case with a qualitative research protocol, participants were directly involved in collecting and reviewing information.

The qualitative methods included in this project can be classified in three broad categories:

- In-depth interviews
- Observational methods
- Document review

Qualitative methods for data collection are effective to provide information to understand the processes behind observed results and conditions. These methods enable assessment not only of the state of traceability as viewed by participants in the supply chain, but also participant perceptions of how the system functions. Incorporating quantitative elements improved and clarified qualitative findings.

In a strict qualitative process, rather than collect large amounts of statistical data that would be tabulated to generalize about the industry, the researcher looks for a saturation of themes. Common threads and patterns emerge from the research. By combining elements of the quantitative approach with the qualitative research protocol it is anticipated that the Beef Pilot Project results will provide enriched interpretation and explanation of the evaluation.

6.2. Interviews

The Can-Trace Beef Pilot Working Group is open to all parties who are stakeholders or have an interest in the Canadian beef supply chain. Members of the Working Group volunteered as participants in the Project. A list of the member companies and organizations of the Beef Pilot Working Group is included in Section 8.1.

The Working Group determined that within the pool of volunteers, a number of interconnecting links in the supply chain existed. From these volunteers, it was possible to map supply chains extending from 1st Processors to both retail stores and restaurants. It was determined by the Working Group that the identified supply chain segments were representative of the industry and that these segments would form the participants of the Project.

Supply chain segments to be studied were mapped. Volunteer companies working in the mapped supply chains were selected for the interview process. Participants were active in the beef supply chain and were identified as 1st Processors (large and medium sized abattoirs), 2nd Processors, Wholesalers, Distributors and Retailers (large retailer, large fast food and small retailer). Selected participants were contacted by telephone and a schedule for on-site interviews was developed.

Some participants raised confidentiality concerns both during interview scheduling and during interviews. A confidentiality agreement between the interviewer (Trimark) and Can-Trace was developed. The confidentiality agreement listed and covered all interviewees. Trimark initiated each interview with a discussion of disclosure





issues and the confidentiality agreement. Trimark complied with the request of one participant to sign the participant's in-house confidentiality agreement.

Some participants elected not to disclose certain procedures, technology and practises. Some participants elected not to provide copies of company forms, procedures and documents. Some participants used hypothetical examples and unnamed suppliers and customers to illustrate their points. The inability to access the withheld information is not considered critical to the report.

Preparation time was allocated in preparing the interview guide and questionnaires. To ensure compliance to the qualitative research protocol, open-ended questions formed a key part of the questionnaires. Separate questionnaires were developed for each participant level in the supply chain:

- Processors
- Wholesalers/Distributors/Retailers.

A general Supply Chain Questionnaire was administered to all participants. A copy of each questionnaire is included in Section 8.3, Appendix.

The beef industry is a competitive marketplace. Obtaining access to employees, internal procedures, records and documents was critical to the success of the project. The membership list of the Beef Pilot Working Group is public domain information. To protect the participants proprietary and otherwise sensitive information, it was determined that the interview data would not be linked directly to participant/company names in the report. Two objectives of the report-writing phase were to ensure that participant-supplied information was accurately related and that no confidential information was revealed. Interview notes and completed questionnaires will remain confidential. The single exception to participant confidentiality was the release, at the direction of Can-Trace, of certain raw data and preliminary sections of the report to the Can-Trace Business Case project manager.

In several cases, interviews were conducted to include more than one person from the same company or organization. Typical length of time per interview was three hours. All participants were interviewed in person and at their place of business. The initial interviews were completed between June 14 and June 25, 2004. Most participants were requested to provide supplemental information and clarifications at various times following the initial interview. The information gathered during this core phase of the research provided the basis for analysis, interpretation and conclusions.

Interview data was analyzed and compiled to develop the Gap Analysis provided in Section 7.3 of this report.

The comparison of the Can-Trace Draft Traceability Standards to international standards was based on literature review and analysis. The resultant Gap Analysis is provided in Section 7.3.

6.3. Product Tracking Simulations

A primary traceability system requirement is to facilitate the removal of unhealthy, adulterated, mislabelled or otherwise defective product from the marketplace through recall. An effective recall system provides for the quick identification, location and secure detention of the target product.

Various stakeholders in the beef industry including producers, processors and distributors may initiate recalls. Government agencies may also imitate a recall. When a recall is initiated, the Canadian Food Inspection Agency (CFIA) must be contacted using a specified notification procedure. The CFIA oversees recall activities by registered

establishments to ensure the necessary recall steps are taken. If a company refuses to recall product that the Health Protection Branch of Health Canada evaluates as a health hazard, the CFIA has the legal authority to intervene. Enforcement actions can be taken during and after a recall.

The CFIA's Meat Inspection Act, Meat Hygiene Manual of Procedures specifies that beef industry operators "take precautionary steps to facilitate actions if recall procedures become necessary." The Manual specifies that the operator:

- Prepare and maintain a detailed written recall system or plan.
- Maintain records of Health and Safety Complaints regarding the product.
- Use sufficient coding of products to permit positive identification and facilitate effective recall of those lots.
- Maintain product distribution records necessary to facilitate location of products that need to be recalled.

This project evaluates the data attributes that are collected, shared and kept by the project participants and the data attributes proposed by Can-Trace. This project conducted trace simulations to determine if:

- The data attributes currently collected, shared and kept by participants facilitate effective identification and location of target product.
- The proposed Can-Trace attributes facilitate improved identification and location of target product.

Three simulation scenarios were completed. For each scenario, specific product was designated as "target." Participants were instructed to implement existing procedures to track the target product through the supply chain. Each level in the supply chain provided tracing data elements to the next level in the chain, as they would with an actual recall situation. The participants were requested to provide a copy of all transmitted data (including, electronic, fax, hard copy) to Trimark. Participants were also requested to record and provide the steps (procedures) and timelines used in the process to Trimark. Participants were not given detailed procedural instructions for the simulations to reduce the risk of the simulation design affecting the outcome. Simulation participants were asked to provide:

- Information received from others.
- Information supplied to others.
- Description of how information was provided.
- General observations of the recall.

Early in the simulation design, it was determined that simulations would cover the same scope of the supply chain as the balance of this report. That is, from the inspected carcass to the retailer. It was possible to increase this scope by verifying that the ear tag numbers generated during the simulations were valid numbers. The ear tag numbers generated during the simulations were validated through the Canadian Cattle Identification Agency database.

Segments of the supply chain were identified for each simulation. For Scenario 1, a case of product in a restaurant was selected and designated "defective." In Scenario 2, a case of product in a retail store (supermarket) was selected and designated "defective." The challenge for participants in Scenario 1 and Scenario 2 was to track the target product as far back up the supply chain as possible using one up/one down exchange of data.





For Scenario 3, a 20 case lot of product, produced at a 1st Processor and subsequently shipped to a customer, was selected and designated "defective." The challenge for participants in Scenario 3 was to track the product down the supply chain as far as possible using one up/one down exchange of data.

6.4. Comparison of Can-Trade Draft Traceability Standards to Existing Practices and Selected International Standards

When it has been determined that a recall of product is required, what necessary information is required to effectively trace and complete the recall? Various international systems define and recommend the data attributes to be considered as minimum data requirements in a traceability system.

The CFIA suggests useful data to obtain is:

- Product identification including company name, company number, identification codes, production date, import and export information.
- Product type.
- Brand name.
- Net contents, size, weight.
- Code/lot numbers or other distinguishing marks.
- Distribution date and region of distribution.

To comply with the CFIA, operators of registered facilities are required to prepare and maintain a detailed written recall system or plan. To meet this requirement, the operator must maintain records necessary to facilitate the location of products. The operator must use sufficient coding to permit positive identification of products. The exact data attributes that the operator must use to accomplish these requirements are not specified by the regulations. Typically, to develop a recall plan, operators determine the tracking data elements that they understand to be most useful for their specific circumstances.

As part of its mandate to develop traceability standards for all food products grown, manufactured and sold in Canada, Can-Trace has defined and developed draft minimum requirements for national beef industry whole-chain tracking and tracing. The Can-Trace standards are based on the EAN.UCC system.

An objective of this project is to compare the data attributes specified in the Can-Trace Draft Traceability Standards to the data attributes used in current practise by selected operators in the Canadian beef supply chain. A further objective of this project is to compare the data attributes specified in the Can-Trace Draft Traceability Standards with two international standards.

7. Results and Discussion

7.1. Product Tracking Simulations

During the project interview phase, it was determined that all participants have developed and maintain traceability and recall procedures. These procedures rely on data attributes that are collected and shared one up/one down by the levels in the supply chain. The project identified these data attributes. The analysis of the gap between the existing data attributes used by participants and the Can-Trace Draft Attributes is included in Section 7.3.1.

To verify that the data attributes currently collected facilitate effective traceability, three simulations were conducted. The activity steps of participants during the simulations was determined to be uniform both at each level of the supply chain and in each scenario. The common steps of participants were:

- Collect data attributes from information at hand.
- Determine "key" attributes.
- Provide key attributes to the next level of the supply chain.

Typically, participants had more data attributes at hand than were deemed 'key' or necessary to provide to the next level in the supply chain. Through past experience, participants had determined the data attributes required by the next level in the supply chain to continue the trace. The key data attributes were determined by participants to be sufficient to trace the target product. It was considered unnecessary or excessive to supply extra data attributes.

Each of the scenarios is illustrated on a simulation flow diagram. The flow diagrams show the flow of data through the supply chain. For each scenario, accompanying matrix charts provide comparisons of:

- The draft Can-Trace Data Attributes
- The data attributes available to each level of the supply chain
- The actual data supplied one up and one down

Highlights and Notes follow each set of matrix charts.

7.1.1. Scenario 1

Product Trace Simulation Flow Diagram Data Comparison Scenario 1, Highlights and Notes Illustration 7.1.a Illustrations 7.1.b to 7.1.g Section 7.1.1.1





Illustration 7.1.a:

PRODUCT TRACE SIMULATION FLOW DIAGRAM SCENARIO 1, RETAIL (RESTAURANT) TO EAR TAGS



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Illustration 7.1.b:



DATA AVAILABLE COMPARED TO DATA UTILIZED, SIMULATION SCENARIO #1 Retailer A

#	Sector	Can-Trace Data Attributes for Wholesalers, Distributors, Retailers	Data Available to Retailer A	Data Received by Retailer A to Trace Product (From One Down)	Data Provided by Retailer A to Trace Product (Provided One Up)	Notes
1	Beef					
2	All	Batch or Production Lot Number	Batch or Production Lot Number			
3	All	Best Before Date	Best Before Date		Best Before Date	Includes time stamp
4	All	Buyer Identifier				
5	All	Buyer Name	Buyer Name		Buyer Name	
6	All	Case / Pallet Serial Number	Case / Pallet Serial Number		Case / Pallet Serial Number	EAN number not used
7	All	Country of Origin State or Province	Country of Origin State or Province			EAN number not used
8	All					
9	All	Receipt Date	Receipt Date			
10	All					
11	All	Logistics Provider Identifier				

Illustration 7.1.b:

DATA AVAILABLE COMPARED TO DATA UTILIZED, SIMULATION SCENARIO #1 Retailer A

#	Sector	Can-Trace Data Attributes for Wholesalers, Distributors, Retailers	Data Available to Retailer A	Data Received by Retailer A to Trace Product (From One Down)	Data Provided by Retailer A to Trace Product (Provided One Up)	Notes
12	All	Product Description	Product Description		Product Description	
13	All	Product Identifier				
14	All	Ship Date	Ship Date			
15	All	Ship From Location Number	Ship From Location Number			
16	All	Shipment Identifier	Shipment Identifier			
17	All					
18	All	Vehicle Identifier	Vehicle Identifier			
19	All	Vendor / Supplier Identifier				
20	All	Vendor / Supplier Name	Vendor / Supplier Name		Vendor / Supplier Name	
21	All	Unit of Trade	Unit of Trade		Unit of Trade	


Illustration 7.1.c:



DATA AVAILABLE COMPARED TO DATA UTILIZED, SIMULATION SCENARIO #1 Distributor A

#	Sector	Can-Trace Data Attributes for Wholesalers, Distributors, Retailers	Data Available to Distributor A	Data Received by Distributor A to Trace Product (From One Down)	Data Provided by Distributor A to Trace Product (Provided One Up)	Notes
1	Beef					
2	All	Batch or Production Lot Number	Batch or Production Lot Number			
3	All	Best Before Date	Best Before Date	Best Before Date	Best Before Date	Includes time stamp
4	All	Buyer Identifier				
5	All	Buyer Name	Buyer Name	Buyer Name	Buyer Name	
6	All	Case / Pallet Serial Number	Case / Pallet Serial Number	Case / Pallet Serial Number	Case / Pallet Serial Number	EAN number not used
7	All	Country of Origin State or Province	Country of Origin State or Province			EAN number not used
8	All					
9	All	Receipt Date	Receipt Date			
10	All					
11	All	Logistics Provider Identifier				

Illustration 7.1.c:

DATA AVAILABLE COMPARED TO DATA UTILIZED, SIMULATION SCENARIO #1 Distributor A

#	Sector	Can-Trace Data Attributes for Wholesalers, Distributors, Retailers	Data Available to Distributor A	Data Received by Distributor A to Trace Product (From One Down)	Data Provided by Distributor A to Trace Product (Provided One Up)	Notes
12	All	Product Description	Product Description	Product Description	Product Description	
13	All	Product Identifier				
14	All	Ship Date	Ship Date		Ship Date	
15	All	Ship From Location Number	Ship From Location Number			
16	All	Shipment Identifier	Shipment Identifier			
17	All					
18	All	Vehicle Identifier	Vehicle Identifier			
19	All	Vendor / Supplier Identifier				
20	All	Vendor / Supplier Name	Vendor / Supplier Name	Vendor / Supplier Name	Vendor / Supplier Name	
21	All	Unit of Trade	Unit of Trade	Unit of Trade	Unit of Trade	
			Distributor A Purchase Order #		Distributor A Purchase Order #	Non-Can-Trace Data Attribute



Illustration 7.1.d:

DATA AVAILABLE COMPARED TO DATA UTILIZED, SIMULATION SCENARIO #1 2nd Processor B

#	Sector	Can-Trace Data Attributes for 2nd Processors	Data Available to 2nd Processor B	Data Received by 2nd Processor B to Trace Product (From One Down)	Data Provided by 2nd Processor B to Trace Product (Provided One Up)	Notes
1	Beef					
2	All	Batch or Production Lot Number	Batch or Production Lot Number			
3	All	Best Before Date	Best Before Date	Best Before Date		Includes time stamp
4	All	Buyer Identifier				
5	All	Buyer Name	Buyer Name	Buyer Name	Buyer Name	
6	All	Case / Pallet Serial Number	Case / Pallet Serial Number	Case / Pallet Serial Number		EAN number not used
7	All	Country of Origin State or Province	Country of Origin State or Province			EAN number not used
8	All					
9	All	Receipt Date	Receipt Date			
10	All					
11	All	Logistics Provider Identifier				

Illustration 7.1.d:

DATA AVAILABLE COMPARED TO DATA UTILIZED, SIMULATION SCENARIO #1 2nd Processor B

#	Sector	Can-Trace Data Attributes for 2nd Processor	Data Available to 2nd Processor B	Data Received by 2nd Processor B to Trace Product (From One Down)	Data Provided by 2nd Processor B to Trace Product (Provided One Up)	Notes
12	All	Product Description	Product Description	Product Description	Product Description	
13	All	Product Identifier				
14	All	Ship Date	Ship Date	Ship Date	Ship Date	
15	All	Ship From Location Number	Ship From Location Number			
16	All	Shipment Identifier	Shipment Identifier			
17	All					
18	All	Vehicle Identifier	Vehicle Identifier			
19	All	Vendor / Supplier Identifier				
20	All	Vendor / Supplier Name	Vendor / Supplier Name	Vendor / Supplier Name	Vendor / Supplier Name	
21	All	Unit of Trade	Unit of Trade	Unit of Trade	Unit of Trade	
			2nd Processor Purchase Order #		2nd Processor Purchase Order #	Non-Can-Trace Data Attribute



Illustration 7.1.e:

DATA AVAILABLE COMPARED TO DATA UTILIZED, SIMULATION SCENARIO #1 2nd Processor A

#	Sector	Can-Trace Data Attributes for 2nd Processors	Data Available to 2nd Processor B	Data Received by 2nd Processor A to Trace Product (From One Down)	Data Provided by 2nd Processor A to Trace Product (Provided One Up)	Notes
1	Beef					
2	All	Batch or Production Lot Number	Batch or Production Lot Number			
3	All	Best Before Date				
4	All	Buyer Identifier				
5	All	Buyer Name	Buyer Name	Buyer Name	Buyer Name	
6	All	Case / Pallet Serial Number	Case / Pallet Serial Number			EAN number not used
7	All	Country of Origin State or Province	Country of Origin State or Province			EAN number not used
8	All					
9	All	Receipt Date	Receipt Date			
10	All					
11	All	Logistics Provider Identifier				



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Illustration 7.1.e:

DATA AVAILABLE COMPARED TO DATA UTILIZED, SIMULATION SCENARIO #1 2nd Processor A

#	Sector	Can-Trace Data Attributes for 2nd Processor	Data Available to 2nd Processor A	Data Received by 2nd Processor A to Trace Product (From One Down)	Data Provided by 2nd Processor A to Trace Product (Provided One Up)	Notes
12	All	Product Description	Product Description	Product Description	Product Description	
13	All	Product Identifier				
14	All	Ship Date	Ship Date	Ship Date	Ship Date	
15	All	Ship From Location Number				
16	All	Shipment Identifier	Shipment Identifier			
17	All					
18	All	Vehicle Identifier	Vehicle Identifier		Vehicle Identifier	
19	All	Vendor / Supplier Identifier				
20	All	Vendor / Supplier Name	Vendor / Supplier Name	Vendor / Supplier Name	Vendor / Supplier Name	
21	All	Unit of Trade	Unit of Trade	Unit of Trade	Unit of Trade	
			2nd Processor B Purchase Order #	2nd Processor B Purchase Order #		Non-Can-Trace Data Attribute



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Illustration 7.1.f:

DATA AVAILABLE COMPARED TO DATA UTILIZED, SIMULATION SCENARIO #1 1st Processor A

#	Sector	Can-Trace Data Attributes for 1st Processors	Data Available to 1st Processor A	Data Received by 1st Processor A to Trace Product (From One Down)	Data Provided by 1st Processor A to Trace Product (Provided One Up)	Notes
1	Beef					
2	All	Batch or Production Lot Number	Batch or Production Lot Number			
3	All	Best Before Date				
4	All	Buyer Identifier				
5	All	Buyer Name	Buyer Name	Buyer Name	Buyer Name	
6	All	Case / Pallet Serial Number				
7	All	Country of Origin State or Province	Country of Origin State or Province			EAN number not used
8	All	Date of Retirement	Date of Retirement			
9	All	Receipt Date	Receipt Date			
10	All					
11	All	Logistics Provider Identifier				



Illustration 7.1.f:

DATA AVAILABLE COMPARED TO DATA UTILIZED, SIMULATION SCENARIO #1 1st Processor A

#	Sector	Can-Trace Data Attributes for 1st Processors	Data Available to 1st Processor A	Data Received by 1st Processor A to Trace Product (From One Down)	Data Provided by 1st Processor A to Trace Product (Provided One Up)	Notes
12	All	Product Description	Product Description	Product Description	Product Description	
13	All	Product Identifier	Product Identifier		Product Identifier	CCIA Ear Tag #
14	All	Ship Date	Ship Date	Ship Date		
15	All	Ship From Location Number				
16	All	Shipment Identifier	Shipment Identifier			
17	All					
18	All	Vehicle Identifier	Vehicle Identifier			
19	All	Vendor / Supplier Identifier				
20	All	Vendor / Supplier Name	Vendor / Supplier Name	Vendor / Supplier Name	Vendor / Supplier Name	
21	All	Unit of Trade	Unit of Trade	Unit of Trade	Unit of Trade	
			2nd Processor B Purchase Order #	2nd Processor B Purchase Order #		Non-Can-Trace Data Attribute



Illustration 7.1.g:

DATA AVAILABLE COMPARED TO DATA UTILIZED, SIMULATION SCENARIO #1 1st Processor B

#	Sector	Can-Trace Data Attributes for 1st Processors	Data Available to 1st Processor B	Data Received by 1st Processor B to Trace Product (From One Down)	Data Provided by 1st Processor B to Trace Product (Provided One Up)	Notes
1	Beef					
2	All	Batch or Production Lot Number	Batch or Production Lot Number			
3	All	Best Before Date				
4	All	Buyer Identifier				
5	All	Buyer Name	Buyer Name	Buyer Name	Buyer Name	
6	All	Case / Pallet Serial Number				
7	All	Country of Origin State or Province	Country of Origin State or Province			EAN number not used
8	All	Date of Retirement	Date of Retirement			
9	All	Receipt Date	Receipt Date			
10	All					
11	All	Logistics Provider Identifier				



Illustration 7.1.g:

DATA AVAILABLE COMPARED TO DATA UTILIZED, SIMULATION SCENARIO #1 1st Processor B

#	Sector	Can-Trace Data Attributes for 1st Processors	Data Available to 1st Processor B	Data Received by 1st Processor B to Trace Product (From One Down)	Data Provided by 1st Processor B to Trace Product (Provided One Up)	Notes
12	All	Product Description	Product Description	Product Description	Product Description	
13	All	Product Identifier	Product Identifier		Product Identifier	CCIA Ear Tag #
14	All	Ship Date	Ship Date	Ship Date		Ship Time Included
15	All	Ship From Location Number	Ship From Location Number			ATQ Number available, EAN not used
16	All	Shipment Identifier	Shipment Identifier			
17	All					
18	All	Vehicle Identifier	Vehicle Identifier	Vehicle Identifier		
19	All	Vendor / Supplier Identifier				
20	All	Vendor / Supplier Name	Vendor / Supplier Name	Vendor / Supplier Name	Vendor / Supplier Name	
21	All	Unit of Trade	Unit of Trade	Unit of Trade	Unit of Trade	

7.1.1.1. Highlights and Illustration Notes from Scenario 1

- a) In Scenario 1, a case of product in the cooler of Retailer A (a restaurant) was selected and designated as "defective." The trace simulation of the target product initiated at Retailer A.
- b) Note 1—The Best Before Date code on the case contains a time stamp, production line designation and pallet designation. The time stamp interval is minutes. This is not a unique case serial number as more than one case can be produced in a minute. It does identify two to four cases.
- c) Note 2—Distributor A Purchase Order number is considered a key data attribute by Distributor A. Distributor A expects that the one up supplier (2nd Processor B) will use the number to trace the product. Purchase Order number is not a draft Can-Trace Data Attribute.
- d) Note 3—2nd Processor B provides Purchase Order number to the one up suppliers (1st Processor A and 2nd Processor A). 2nd Processor B expectation of suppliers is that they will be able to trace the product using only this data attribute. In the simulation, 2nd Processor B Purchase Order number was incorrectly entered in 1st Processor A records. 1st Processor A was able to trace the product by linking the Ship Date to the production date and confirming the correct Purchase Order number with 2nd Processor B.

Scenario 1, Simulation Results

- One case of product, identified as defective at retailer level, was traced from the retailer, to the distributor, to the 2nd processor, to two 1st processors and to a list of ear tag numbers.
- The target product was traced to 28 combos (approximately 28,000 lbs. of beef) at 2nd processor level of the supply chain.
- Twenty-eight combos at the 2nd processor level were traced to 2,077 animals at the 1st processor (slaughterhouse) level. It was determined that animals were slaughtered at two facilities.
- Ear tag numbers were obtained for 1,927 animals. 150 (7%) animals did not have valid ear tag numbers recorded at the slaughterhouse.
- The scope of this project does not include traceability before the inspected carcass in the slaughterhouse. It was determined that submission of ear tag numbers to the CCIA for verification would provide verification that the simulation numbers were valid. Sixteen randomly selected ear tag numbers that resulted from Scenario 1 were provided to the CCIA for verification in the CCIA database. Three of the numbers were verified in the CCIA database. Two of the numbers were recorded as retired. CCIA advised that the missing ear tag numbers may be from a number batch allocated to Quebec by the CCIA. This was not confirmed from the CCIA database. In Quebec, ATQ is responsible for control of the ear tag numbers and has a regulatory obligation to report the numbers to the CCIA. The Quebec numbers have not been reported to the CCIA. The scope of this project did not permit further investigation.

7.1.2. Scenario 2

Product Trace Simulation Flow Diagram Data Comparison Scenario 2, Highlights and Notes Illustration 7.1.h Illustrations 7.1.i to 7.1.k Section 7.1.2.1





Illustration 7.1.h:

PRODUCT TRACE SIMULATION FLOW DIAGRAM SCENARIO 2, RETAIL (SUPERMARKET) TO EAR TAGS



Illustration 7.1.i:



DATA AVAILABLE COMPARED TO DATA UTILIZED, SIMULATION SCENARIO #2 Retailer C

#	Sector	Can-Trace Data Attributes for Wholesalers, Distributors, Retailers	Data Available to Retailer C	Data Received by Retailer C to Trace Product (From One Down)	Data Provided by Retailer C to Trace Product (Provided One Up)	Notes
1	Beef					
2	All	Batch or Production Lot Number	Batch or Production Lot Number			
3	All	Best Before Date				
4	All	Buyer Identifier				
5	All	Buyer Name	Buyer Name		Buyer Name	
6	All	Case / Pallet Serial Number	Case / Pallet Serial Number		Case / Pallet Serial Number	EAN number not used
7	All	Country of Origin State or Province	Country of Origin State or Province			EAN number not used
8	All					
9	All	Receipt Date	Receipt Date			
10	All					
11	All	Logistics Provider Identifier				
12	All	Product Description	Product Description		Product Description	

Illustration 7.1.i:

DATA AVAILABLE COMPARED TO DATA UTILIZED, SIMULATION SCENARIO #2 Retailer C

#	Sector	Can-Trace Data Attributes for Wholesalers, Distributors, Retailers	Data Available to Retailer C	Data Received by Retailer C to Trace Product (From One Down)	Data Provided by Retailer C to Trace Product (Provided One Up)	Notes
13	All	Product Description				
14	All	Ship Date	Ship Date		Ship Date	
15	All	Ship From Location Number				
16	All	Shipment Identifier	Shipment Identifier			
17	All					
18	All	Vehicle Identifier	Vehicle Identifier			
19	All	Vendor / Supplier Identifier				
20	All	Vendor / Supplier Name	Vendor / Supplier Name		Vendor / Supplier Name	
21	All	Unit of Trade	Unit of Trade		Unit of Trade	
			Pack Date			Non-Can-Trace Data Attribute



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Illustration 7.1.j:

DATA AVAILABLE COMPARED TO DATA UTILIZED, SIMULATION SCENARIO #2 Wholesaler A

#	Sector	Can-Trace Data Attributes for Wholesalers, Distributors, Retailers	Data Available to Wholesaler A	Data Received by Wholesaler A to Trace Product (From One Down)	Data Provided by Wholesaler A to Trace Product (Provided One Up)	Notes
1	Beef					
2	All	Batch or Production Lot Number	Batch or Production Lot Number			
3	All	Best Before Date				
4	All	Buyer Identifier				
5	All	Buyer Name	Buyer Name	Buyer Name	Buyer Name	
6	All	Case / Pallet Serial Number	Case / Pallet Serial Number		Case / Pallet Serial Number	EAN number not used
7	All	Country of Origin State or Province	Country of Origin State or Province			EAN number not used
8	All					
9	All	Receipt Date	Receipt Date		Receipt Date	
10	All					
11	All	Logistics Provider Identifier				



Illustration 7.1.j:

DATA AVAILABLE COMPARED TO DATA UTILIZED, SIMULATION SCENARIO #2 Wholesaler A

#	Sector	Can-Trace Data Attributes for Wholesalers, Distributors, Retailers	Data Available to Retailer C	Data Received by Retailer C to Trace Product (From One Down)	Data Provided by Retailer C to Trace Product (Provided One Up)	Notes
12	All	Product Description	Product Description	Product Description	Product Description	
13	All	Product Identifier				
14	All	Ship Date	Ship Date	Ship Date		
15	All	Ship From Location Number				
16	All	Shipment Identifier	Shipment Identifier			
17	All					
18	All	Vehicle Identifier	Vehicle Identifier			
19	All	Vendor / Supplier Identifier				
20	All	Vendor / Supplier Name	Vendor / Supplier Name	Vendor / Supplier Name	Vendor / Supplier Name	
21	All	Unit of Trade	Unit of Trade	Unit of Trade	Unit of Trade	
			Wholesaler A Purchase Order #		Wholesaler A Purchase Order #	Non-Can-Trace Data Attribute

Illustration 7.1.k:

DATA AVAILABLE COMPARED TO DATA UTILIZED, SIMULATION SCENARIO #2 1st Processor A

#	Sector	Can-Trace Data Attributes for 1st Processors	Data Available to 1st Processor A	Data Received by 1st Processor A to Trace Product (From One Down)	Data Provided by 1st Processor A to Trace Product (Provided One Up)	Notes
1	Beef					
2	All	Batch or Production Lot Number	Batch or Production Lot Number			
3	All	Best Before Date				
4	All	Buyer Identifier				
5	All	Buyer Name	Buyer Name	Buyer Name	Buyer Name	
6	All	Case / Pallet Serial Number	Case / Pallet Serial Number	Case / Pallet Serial Number		
7	All	Country of Origin State or Province	Country of Origin State or Province			EAN number not used
8	All	Date of Retirement	Date of Retirement			
9	All	Receipt Date	Receipt Date			
10	All					
11	All	Logistics Provider Identifier				



Illustration 7.1.k:

DATA AVAILABLE COMPARED TO DATA UTILIZED, SIMULATION SCENARIO #2 1st Processor A

#	Sector	Can-Trace Data Attributes for 1st Processors	Data Available to 1st Processor A	Data Received by 1st Processor A to Trace Product (From One Down)	Data Provided by 1st Processor A to Trace Product (Provided One Up)	Notes
12	All	Product Description	Product Description	Product Description	Product Description	
13	All	Product Identifier	Product Identifier		Product Identifier	CCIA Ear Tag #
14	All	Ship Date	Ship Date	Ship Date		
15	All	Ship From Location Number				
16	All	Shipment Identifier	Shipment Identifier			
17	All					
18	All	Vehicle Identifier	Vehicle Identifier			
19	All	Vendor / Supplier Identifier				
20	All	Vendor / Supplier Name	Vendor / Supplier Name	Vendor / Supplier Name	Vendor / Supplier Name	
21	All	Unit of Trade	Unit of Trade	Unit of Trade	Unit of Trade	
			Pack Date	Pack Date		Non-Can-Trace Data Attribute
			Wholesaler A Purchase Order #	Wholesaler A Purchase Order #		Non-Can-Trace Data Attribute



7.1.2.1. Highlights and Illustration Notes from Scenario 2

- a) In Scenario 2, a case of product at Retailer C (a supermarket chain store) was selected and designated as "defective." The trace simulation of the target product was initiated at this store.
- b) Note 4—The target product is packaged into a case by 1st Processor A. The case label shows the "Pack Date." During the simulation, Wholesaler A collects this data attribute and provides it to one up (1st Processor A). The Pack Date is a key data attribute to Wholesaler A and 1st Processor A.
- c) Note 5—Wholesaler A Purchase Order number is considered a key data attribute by Wholesaler A. It is provided one up (1st Processor A).
- d) Note 6—Receiving Date is a key data attribute to Wholesaler A.

Scenario 2, Simulation Results

- One case of product, identified as defective at the retailer level, was traced from the Retailer, to the Wholesaler, to the 1st Processor and to a list of ear tag numbers.
- The target case was traced to a shipment of 51 cases received at the wholesaler level.
- The 51 case shipment was traced to 1,710 animals at the 1st processor (slaughterhouse) level.
- Ear tag numbers were obtained for 1,571 animals. 139 (8%) animals did not have valid ear tag numbers recorded at the slaughterhouse.
- Nine randomly selected ear tag numbers that resulted from Scenario 2 were provided to the CCIA for verification in the CCIA database. Five of the numbers verified in the CCIA database. All five were identified as retired. CCIA advised that the missing ear tag numbers may be from a number batch allocated to Quebec by the CCIA. This was not confirmed from the CCIA database. The Quebec numbers have not been reported to the CCIA. The scope of this project did not permit further investigation.

7.1.3. Scenario 3

Product Trace Simulation Flow DiagramIllustration 7.1.lData ComparisonIllustration 7.1.m to Illustration 7.1.oScenario 3, Highlights and NotesSection 7.1.3.1





Illustration 7.1.I:

PRODUCT TRACE SIMULATION FLOW DIAGRAM SCENARIO 3, 1st PROCESSOR TO RETAIL (SUPERMARKET)



Illustration 7.1.m:

DATA AVAILABLE COMPARED TO DATA UTILIZED, SIMULATION SCENARIO #3 1st Processor A

#	Sector	Can-Trace Data Attributes for 1st Processors	Data Available to 1st Processor A	Data Provided by 1st Processor A to Trace Product (Provided One Down)	Notes
1	Beef				
2	All	Batch or Production Lot Number	Batch or Production Lot Number		
3	All	Best Before Date			
4	All	Buyer Identifier			
5	All	Buyer Name	Buyer Name	Buyer Name	
6	All	Case / Pallet Serial Number	Case / Pallet Serial Number	Case / Pallet Serial Number	
7	All	Country of Origin State or Province	Country of Origin State or Province		EAN number not used
8	All	Date of Retirement	Date of Retirement		
9	All	Receipt Date	Receipt Date		
10	All				
11	All	Logistics Provider Identifier			
12	All	Product Description	Product Description	Product Description	

Illustration 7.1.m:

DATA AVAILABLE COMPARED TO DATA UTILIZED, SIMULATION SCENARIO #3 1st Processor A

#	Sector	Can-Trace Data Attributes for 1st Processors	Data Available to 1st Processor A	Data Provided by 1st Processor A to Trace Product (Provided One Down)	Notes
13	All	Product Identifier	Product Identifier		
14	All	Ship Date	Ship Date	Ship Date	
15	All	Ship From Location Number			
16	All	Shipment Identifier	Shipment Identifier	Shipment Identifier	
17	All				
18	All	Vehicle Identifier	Vehicle Identifier	Vehicle Identifier	
19	All	Vendor / Supplier Identifier			
20	All	Vendor / Supplier Name	Vendor / Supplier Name		
21	All	Unit of Trade	Unit of Trade	Unit of Trade	
			Pack Date	Pack Date	Non-Can-Trace Data Attribute
			Wholesaler A Purchase Order #	Wholesaler A Purchase Order #	Non-Can-Trace Data Attribute
			Invoice # (to Wholesaler A)	Invoice # (to Wholesaler A)	Non-Can-Trace Data Attribute



Illustration 7.1.n:



DATA AVAILABLE COMPARED TO DATA UTILIZED, SIMULATION SCENARIO #3 Wholesaler A

#	Sector	Can-Trace Data Attributes for Wholesalers, Distributors, Retailers	Data Available to Wholesaler A	Data Received by Wholesaler A to Trace Product (From One Up)	Data Provided by Wholesaler A to Trace Product (Provided One Down)	Notes
1	Beef					
2	All	Batch or Production Lot Number	Batch or Production Lot Number			
3	All	Best Before Date				
4	All	Buyer Identifier				
5	All	Buyer Name	Buyer Name	Buyer Name	Buyer Name	
6	All	Case / Pallet Serial Number	Case / Pallet Serial Number	Case / Pallet Serial Number		EAN number not used
7	All	Country of Origin State or Province	Country of Origin State or Province			EAN number not used
8	All					
9	All	Receipt Date	Receipt Date			
10	All					
11	All	Logistics Provider Identifier				

Illustration 7.1.n:

DATA AVAILABLE COMPARED TO DATA UTILIZED, SIMULATION SCENARIO #3 Wholesaler A

#	Sector	Can-Trace Data Attributes for Wholesalers, Distributors, Retailers	Data Available to Wholesaler A	Data Received by Wholesaler A to Trace Product (From One Up)	Data Provided by Wholesaler A to Trace Product (Provided One Down)	Notes
12	All	Product Description	Product Description	Product Description	Product Description	
13	All	Product Identifier	Product Identifier			
14	All	Ship Date	Ship Date	Ship Date		
15	All	Ship From Location Number				
16	All	Shipment Identifier	Shipment Identifier	Shipment Identifier		
17	All					
18	All	Vehicle Identifier	Vehicle Identifier	Vehicle Identifier		
19	All	Vendor / Supplier Identifier				
20	All	Vendor / Supplier Name	Vendor / Supplier Name	Vendor / Supplier Name	Vendor / Supplier Name	
21	All	Unit of Trade	Unit of Trade	Unit of Trade	Unit of Trade	
			Pack Date	Pack Date	Pack Date	Non-Can-Trace Data Attribute
			Wholesaler A Purchase Order #	Wholesaler A Purchase Order #		Non-Can-Trace Data Attribute
			Invoice # (From 1st Processor A)	Invoice # (From 1st Processor A)		Non-Can-Trace Data Attribute

Illustration 7.1.0:



DATA AVAILABLE COMPARED TO DATA UTILIZED, SIMULATION SCENARIO #3 Retailer C

#	Sector	Can-Trace Data Attributes for Wholesalers, Distributors, Retailers	Data Available to Retailer C	Data Received by Retailer C to Trace Product (From One Up)	Notes
1	Beef				
2	All	Batch or Production Lot Number	Batch or Production Lot Number		
3	All	Best Before Date			
4	All	Buyer Identifier			
5	All	Buyer Name	Buyer Name	Buyer Name	
6	All	Case / Pallet Serial Number	Case / Pallet Serial Number		EAN number not used
7	All	Country of Origin State or Province	Country of Origin State or Province		EAN number not used
8	All				
9	All	Receipt Date	Receipt Date		
10	All				
11	All	Logistics Provider Identifier			

Illustration 7.1.0:

DATA AVAILABLE COMPARED TO DATA UTILIZED, SIMULATION SCENARIO #3 Retailer C

#	Sector	Can-Trace Data Attributes for Wholesalers, Distributors, Retailers	Data Available to Retailer C	Data Received by Retailer C to Trace Product (From One Up)	Notes
12	All	Product Description	Product Description	Product Description	
13	All	Product Identifier	Product Identifier		
14	All	Ship Date	Ship Date		
15	All	Ship From Location Number			
16	All	Shipment Identifier	Shipment Identifier		
17	All				
18	All	Vehicle Identifier	Vehicle Identifier		
19	All	Vendor / Supplier Identifier			
20	All	Vendor / Supplier Name	Vendor / Supplier Name	Vendor / Supplier Name	
21	All	Unit of Trade	Unit of Trade	Unit of Trade	



7.1.3.1. Highlights and Illustration Notes from Scenario 3

- a) In Scenario 3, a product "lot" at 1st Processor A (a slaughterhouse) was selected and designated as "defective." The trace simulation of the target product was initiated at the 1st Processor level.
- b) It was determined that the target product was packed into 20 cases of product and shipped to a wholesaler.
- c) Note 7—1st Processor A linked the product to a Pack Date. The Pack Date is on the case label affixed by 1st Processor A. The Pack Date was provided to one down (Wholesaler A). Both 1st Processor A and Wholesaler A consider the pack date a key data attribute.
- d) Note 8—1st Processor A linked the shipment of the target product to the customer (Wholesaler A) Purchase Order number. The Purchase Order number was provided one down (Wholesaler A). Both 1st Processor A and Wholesaler A consider the Purchase Order as a key data attribute. The Purchase Order number is not a draft Can-Trace Data Attribute.
- e) Note 9—Wholesaler A provided the Pack Date to one down (retailers). Both the wholesaler and retailers consider the Pack Date as a key data attribute.

Scenario 3, Simulation Results

- A product 'lot,' identified as defective at the 1st processor level (slaughterhouse), was traced to 20 cases shipped from the 1st processor, to the wholesaler and subsequently to 53 retail stores.
- Wholesaler A determined the Ship Dates of all target product.
- Wholesaler A recalled all product that matched: Store Purchase Order number, Product Description and Ship Date. Product other than the target product also met these criteria. The result was a recall of more than the target product.
- Sixty-one cases were recalled (20 target cases and 41 non-target cases).

7.2. Verification of Data Attributes

Not all draft Can-Trace Data Attributes were equally useful to traceability. Based on the product tracking simulations and the participant interview process, a determination was made of the relative value placed on data elements by participants. Different situations determine what attributes are available. Secondary attributes may be the only information available. A level of redundancy of information is useful to ensure traceability. The relative value of draft Can-Trace Data Attributes is shown in Illustration 7.2.a. Primary data attributes used by participants but not included in the draft Can-Trace list are included in the illustration.



Illustration 7.2.a:

DATA VERIFICATION, RELATIVE VALUE OF DATA ELEMENTS TO TRACEABILITY (Analysis Based on Simulations and Interviews)

#	Sector	Draft Can-Trace Data Attributes	Value to 1st Processor	Value to 2nd Processor	Value to Wholesalers Distributors Retailers	Notes
1	Beef	Animal Age	0	0	0	
2	All	Batch or Production Lot Number	2	2	0	
3	All	Best Before Date	0	2	1	
4	All	Buyer Identifier	0	0	0	Not available
5	All	Buyer Name	1	1	1	
6	All	Case / Pallet Serial Number	1	1	1	
7	All	Country of Origin State or Province	0	0	0	EAN numbers not used
8	All	Date of Retirement	1	0	0	
9	All	Receipt Date	1	2	2	
10	All	Location Identifier	0	0	0	Not available
11	All	Logistics Provider Identifier	0	0	0	GLN not used
12	All	Product Description	1	1	1	

Legend

0 = Data Attribute Not Used or Unavailable

1 = Primary Value Data Attribute

2 = Secondary or Supplemental Value Data Attribute



Illustration 7.2.a:

DATA VERIFICATION, RELATIVE VALUE OF DATA ELEMENTS TO TRACEABILITY (Analysis Based on Simulations and Interviews)

#	Sector	Draft Can-Trace Data Attributes	Value to 1st Processor	Value to 2nd Processor	Value to Wholesalers Distributors Retailers	Notes
13	All	Product Identifier	1	2	2	
14	All	Ship Date	1	1	2	
15	All	Ship From Location Number	0	0	0	Not available
16	All	Shipment Identifier	2	2	2	Invoice and bill of lading number both used
17	Seafood	N/A	0	2	1	
18	All	Vehicle Identifier	2	2	2	
19	All	Vendor / Supplier Identifier	0	0	0	Not available
20	All	Vendor / Supplier Name	2	1	1	
21	All	Unit of Trade	2	2	2	
	Beef	Purchase Order Number	1	1	1	Non-Can-Trace Data Attribute

Legend

0 = Data Attribute Not Used or Unavailable

1 = Primary Value Data Attribute

2 = Secondary or Supplemental Value Data Attribute



7.3. GAP ANALYSIS

This report compares the draft Can-Trace Data Attributes to:

- Data attributes currently collected, shared and kept by project participants
- Data attributes recommended by EAN International for the beef industry
- Data attributes contained in Regulation (EC) No. 1760/2000
- Data attributes included in the US Bioterrorism Legislation Proposed Regulations and the USDA
- Data attributes included in HHS BSE Proposed Regulations

Comparisons are presented in Gap Analysis format in Illustrations 7.3.1.a to 7.3.1.i. Notes to the illustrations are in Section 7.3.5

7.3.1. Comparison of Draft Can-Trace Data Attributes to Current Systems

1st Processor A	Illustration 7.3.1.a
1st Processor B	Illustration 7.3.1.b
2nd Processor A	Illustration 7.3.1.c
2nd Processor B	Illustration 7.3.1.d
Distributor A	Illustration 7.3.1.e
Wholesaler A	Illustration 7.3.1.f
Retailer A	Illustration 7.3.1.g
Retailer B	Illustration 7.3.1.h
Retailer C	Illustration 7.3.1.i

In this report section, shaded and bold font rows illustrate Draft Can-Trace Data Attributes proposed as mandatory by Can-Trace. Blank attribute cells indicate the data is not collected or used by the participant. Column number references use the Draft Attributes Dictionary number system. The Draft Attributes Dictionary is provided in Section 8.7.

Illustration 7.3.1.a:

GAP ANALYSIS OF DRAFT CAN-TRACE ATTRIBUTES TO CURRENT TRACEABILITY SYSTEM OF 1ST PROCESSOR A

	#	Sector	Can-Trace Draft Attributes for 1st Processors	1st Processor A	Gap Identified	Alternative Information Used	Notes
			DATA INPUTS TO COL	LECT			
	2	Beef	Batch or Production Lot Number	Batch or Production Lot Number			26
	4	Beef	Buyer Identifier		EAN identifier is not used		27
С	5	Beef	Buyer Name	Buyer Name		Buyer name is on Bill of Lading, Purchase Order and Invoice.	
OLLEC	21	Beef	Unit of Trade	Unit of Trade			
	7	Beef	Country of Origin State or Province	Country of Origin State or Province			
	11	Beef	Logistics Provider Identifier		EAN identifier is not used	Logistics provider on Bill of Lading and shipping documentation.	28
	12	Beef	Product Description	Product Description			
	13	Beef	Product Identifier		GTIN Identifier is not used.	Unique serial number based on EAN identifier is used for all products.	29
	15	Beef	Ship From Location Identifier		EAN identifier is not used	Ship from location is on Bill of Lading, Purchase Order and Invoice.	30
•	18	Beef	Vehicle Identifier	Vehicle Identifier			
	19	Beef	Vendor / Supplier Identifier		EAN identifier is not used	Supplier name is on Bill of Lading, Purchase Order and Invoice.	31
	20	Beef	Vendor / Supplier Name	Vendor / Supplier Name			

Illustration 7.3.1.a:

GAP ANALYSIS OF DRAFT CAN-TRACE ATTRIBUTES TO CURRENT TRACEABILITY SYSTEM OF 1ST PROCESSOR A

	#	Sector	Can-Trace Draft Attributes for 1st Processors	1st Processor A	Gap Identified	Alternative Information Used	Notes
			DATA OUTPUT TO SHA	ARE			
	2	Beef	Batch or Production Lot Number	Batch or Production Lot Number			
	3	Beef	Best Before Date				
	4	Beef	Buyer Identifier		EAN identifier is not used	Buyer information is on Purchase Orders, Invoices and Loading Sheets.	32
	5	Beef	Buyer Name	Buyer Name			
	21	Beef	Unit of Trade	Unit of Trade			
C	6	Beef	Case Serial Number	Case Serial Number			
5	7	Beef	Country of Origin State or Province	Country of Origin State or Province			
A	11	Beef	Logistics Provider Identifier		EAN identifier is not used	Logistics provider name is on Bill of Lading, Purchase Order and shipping documentation.	33
R	12	Beef	Product Description	Product Description			
E	13	Beef	Product Identifier	Product Identifier			34
	14	Beef	Ship Date	Ship Date			
	15	Beef	Ship From Location Identifier		EAN identifier is not used	Ship location is on Bill of Lading, Purchase Order and Invoice.	35
	16	Beef	Shipment Identifier	Shipment Identifier			
	18	Beef	Vehicle Identifier	Vehicle Identifier			
	19	Beef	Vendor / Supplier Identifier		EAN identifier is not used	Supplier name is on Bill of Lading, Purchase Order and Invoice.	36
	20	Beef	Vendor / Supplier Name	Vendor / Supplier Name			

Illustration 7.3.1.a:

GAP ANALYSIS OF DRAFT CAN-TRACE ATTRIBUTES TO CURRENT TRACEABILITY SYSTEM OF 1ST PROCESSOR A

	#	Sector	Can-Trace Draft Attributes for 1st Processors	1st Processor A	Gap Identified	Alternative Information Used	Notes
			DATA TO KEEP				
	2	Beef	Batch or Production Lot Number	Batch or Production Lot Number			
	3	Beef	Best Before Date				
	4	Beef	Buyer Identifier		EAN identifier is not used	Buyer name is on Bill of Lading, Purchase Order and Invoice.	37
	5	Beef	Buyer Name	Buyer Name			
	21	Beef	Unit of Trade	Unit of Trade			
	6	Beef	Case Serial Number	Case Serial Number			
	7	Beef	Country of Origin State or Province	Country of Origin State or Province			
	8	Beef	Date of Retirement	Date of Retirement			
Ξ	9	Beef	Receipt Date	Receipt Date			
Ξ	11	Beef	Logistics Provider Identifier		EAN identifier is not used	Logistics provided is on the Bill of Lading and shipping documentation.	38
D	12	Beef	Product Description	Product Description			
	13	Beef	Product Identifier	Product Identifier			
	14	Beef	Ship Date	Ship Date			
	15	Beef	Ship From Location Identifier		EAN identifier is not used	Ship from location is on the Bill of Lading, Purchase Order and Invoice.	39
	16	Beef	Shipment Identifier	Shipment Identifier			
	18	Beef	Vehicle Identifier	Vehicle Identifier			
	19	Beef	Vendor / Supplier Identifier		EAN identifier is not used	Supplier name is on the Bill of Lading, Purchase Order and Invoice.	40
	20	Beef	Vendor / Supplier Name	Vendor / Supplier Name			

Illustration 7.3.1.b:

GAP ANALYSIS OF DRAFT CAN-TRACE ATTRIBUTES TO CURRENT TRACEABILITY SYSTEM OF 1ST PROCESSOR B

	#	Sector	Can-Trace Draft Attributes for 1st Processors	1st Processor B	Gap Identified	Alternative Information Used	Notes
			DATA INPUTS TO COL	LECT			
	2	Beef	Batch or Production Lot Number	Batch or Production Lot Number			41
	4	Beef	Buyer Identifier		EAN identifier is not used	Buyer name is on Bill of Lading, Purchase Order and Invoice.	42
С	5	Beef	Buyer Name	Buyer Name			
ŏ	21	Beef	Unit of Trade	Unit of Trade			
2	7	Beef	Country of Origin State or Province	Country of Origin State or Province			
F.	11	Beef	Logistics Provider Identifier		EAN identifier is not used	Logistics provider is on Bill of Lading and all shipping documentation.	43
	12	Beef	Product Description	Product Description			
E	13	Beef	Product Identifier		EAN identifier is not used	Product is identified using information on loading sheets.	44
	15	Beef	Ship From Location Identifier		EAN identifier is not used	Ship from location is on Bill of Lading, Purchase Order and Invoice.	45
	18	Beef	Vehicle Identifier	Vehicle Identifier			
	19	Beef	Vendor / Supplier Identifier		EAN identifier is not used	Supplier name is on Bill of Lading, Purchase Order and Invoice.	46
	20	Beef	Vendor / Supplier Name	Vendor / Supplier Name			

Illustration 7.3.1.b:

GAP ANALYSIS OF DRAFT CAN-TRACE ATTRIBUTES TO CURRENT TRACEABILITY SYSTEM OF 1ST PROCESSOR B

	#	Sector	Can-Trace Draft Attributes for 1st Processors	1st Processor B	Gap Identified	Alternative Information Used	Notes
			DATA OUTPUT TO SH	ARE			
	2	Beef	Batch or Production Lot Number	Batch or Production Lot Number			
	3	Beef	Best Before Date				
	4	Beef	Buyer Identifier		EAN identifier is not used	Buyer name is on shipping documents, Purchase Order and/or Invoices.	47
	5	Beef	Buyer Name	Buyer Name			
	21	Beef	Unit of Trade	Unit of Trade			
SHA	6	Beef	Case Serial Number		Case serial number is not applicable.	Produce sold as swinging beef.	48
	7	Beef	Country of Origin State or Province	Country of Origin State or Province			
	11	Beef	Logistics Provider Identifier		EAN identifier is not used	Logistics provider information is on Bill of Lading and shipping documentation.	49
K	12	Beef	Product Description	Product Description			
	13	Beef	Product Identifier		EAN identifier is not used		34
	14	Beef	Ship Date	Ship Date			
	15	Beef	Ship From Location Identifier		EAN identifier is not used	Ship location is on Load Sheet, Bill of Lading, Purchase Order and Invoice.	50
	16	Beef	Shipment Identifier	Shipment Identifier			
	18	Beef	Vehicle Identifier	Vehicle Identifierr			
	19	Beef	Vendor / Supplier Identifier		EAN identifier is not used	Supplier name is on Bill of Lading, Purchase Order and Invoice.	51
	20	Beef	Vendor / Supplier Name	Vendor / Supplier Name			

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Illustration 7.3.1.b:

GAP ANALYSIS OF DRAFT CAN-TRACE ATTRIBUTES TO CURRENT TRACEABILITY SYSTEM OF 1ST PROCESSOR B

	#	Sector	Can-Trace Draft Attributes for 1st Processors	1st Processor B	Gap Identified	Alternative Information Used	Notes
			DATA TO KEEP				
	2	Beef	Batch or Production Lot Number	Batch or Production Lot Number			
	3	Beef	Best Before Date				
	4	Beef	Buyer Identifier		EAN identifier is not used	Buyer name is on Bill of Lading, Purchase Order and Invoice.	52
	5	Beef	Buyer Name	Buyer Name			
	21	Beef	Unit of Trade	Unit of Trade			
	6	Beef	Case Serial Number				
V	7	Beef	Country of Origin State or Province	Country of Origin State or Province			
N	8	Beef	Date of Retirement	Date of Retirement			
E	9	Beef	Receipt Date	Receipt Date			
Ē	11	Beef	Logistics Provider Identifier		EAN identifier is not used	Logistics provider is on Bill of Lading and all shipping documentation.	53
D	12	Beef	Product Description	Product Description			
•	13	Beef	Product Identifier		EAN identifier is not used		54
	14	Beef	Ship Date	Ship Date			
	15	Beef	Ship From Location Identifier		EAN identifier is not used	Ship location is on Bill of Lading, Purchase Order and Invoice.	55
	16	Beef	Shipment Identifier	Shipment Identifier			
	18	Beef	Vehicle Identifier	Vehicle Identifier			
	19	Beef	Vendor / Supplier Identifier		EAN identifier is not used	Supplier name is on Bill of Lading, Purchase Order and Invoice.	56
	20	Beef	Vendor / Supplier Name	Vendor / Supplier Name			
Illustration 7.3.1.c:

GAP ANALYSIS OF DRAFT CAN-TRACE DRAFT ATTRIBUTES TO CURRENT TRACEABILITY SYSTEM OF 2ND PROCESSOR A

	#	Sector	Can-Trace Draft Attributes for 2nd Processors	2nd Processor A	Gap Identified	Alternative Information Used	Notes
			DATA INPUTS TO COL	LECT			
	2	Beef	Batch or Production Lot Number	Batch or Production Lot Number			
	4	Beef	Buyer Identifier	Buyer Identifier	EAN identifier is not used	Buyer name is on Bill of Lading, Purchase Order and Invoice.	1
	5	Beef	Buyer Name	Buyer Name			
	21	Beef	Unit of Trade	Unit of Trade			
	7	Beef	Country of Origin State or Province	Country of Origin State or Province			
	11	Beef	Logistics Provider Identifier		EAN identifier is not used	Logistics provider is on Bill of Lading and shipping documentation.	2
	12	Beef	Product Description	Product Description			
C	13	Beef	Product Identifier		EAN identifier is not used		
Ē	15	Beef	Ship From Location Identifier		EAN identifier is not used	Ship location is on Bill of Lading, Purchase Order and Invoice.	3
	18	Beef	Vehicle Identifier	Vehicle Identifier			
	19	Beef	Vendor / Supplier Identifier		EAN identifier is not used	Supplier name is on the Bill of Lading, Purchase Order and Invoice	4
	20	Beef	Vendor / Supplier Name	Vendor / Supplier Name			



Illustration 7.3.1.c:

GAP ANALYSIS OF DRAFT CAN-TRACE DRAFT ATTRIBUTES TO CURRENT TRACEABILITY SYSTEM OF 2ND PROCESSOR A

	#	Sector	Can-Trace Draft Attributes for 2nd Processors	2nd Processor A	Gap Identified	Alternative Information Used	Notes
			DATA OUTPUT TO SHA	ARE			
	2	Beef	Batch or Production Lot Number	Batch or Production Lot Number			
	3	Beef	Best Before Date	Best Before Date			
	4	Beef	Buyer Identifier		EAN identifier is not used		5
	5	Beef	Buyer Name	Buyer Name			
	21	Beef	Unit of Trade	Unit of Trade			
S	6	Beef	Case Serial Number				
Н	7	Beef	Country of Origin State or Province	Country of Origin State or Province			
A	11	Beef	Logistics Provider Identifier		EAN identifier is not used	Logistics provider is on Bill of Lading and shipping documentation.	6
D	12	Beef	Product Description	Product Description			
	13	Beef	Product Identifier	Product Identifier			
E	14	Beef	Ship Date	Ship Date			
	15	Beef	Ship From Location Identifier		EAN identifier is not used	Ship from location is on Bill of Lading and Invoice.	7
	16	Beef	Shipment Identifier	Shipment Identifier			
	18	Beef	Vehicle Identifier	Vehicle Identifierr			
	19	Beef	Vendor / Supplier Identifier		EAN identifier is not used	Supplier name is on Bill of Lading and Invoice.	8
	20	Beef	Vendor / Supplier Name	Vendor / Supplier Name			



Illustration 7.3.1.c:

GAP ANALYSIS OF DRAFT CAN-TRACE DRAFT ATTRIBUTES TO CURRENT TRACEABILITY SYSTEM OF 2ND PROCESSOR A

	#	Sector	Can-Trace Draft Attributes for 2nd Processors	2nd Processor A	Gap Identified	Alternative Information Used	Notes
			DATA TO KEEP				
	2	Beef	Batch or Production Lot Number	Batch or Production Lot Number			
	3	Beef	Best Before Date				
	4	Beef	Buyer Identifier		EAN identifier is not used	Buyer name is on Bill of Lading and Invoice.	9
	5	Beef	Buyer Name	Buyer Name			
	21	Beef	Unit of Trade	Unit of Trade			
	6	Beef	Case Serial Number	Case Serial Number			
(7	Beef	Country of Origin State or Province	Country of Origin State or Province			
	9	Beef	Receipt Date	Receipt Date			
	11	Beef	Logistics Provider Identifier		EAN identifier is not used	Logistics provider is on Bill of Lading and shipping documentation.	10
	12	Beef	Product Description	Product Description			
	13	Beef	Product Identifier	Product Identifier			
	14	Beef	Ship Date	Ship Date			
	15	Beef	Ship From Location Identifier		EAN identifier is not used	Ship from location is on Bill of Lading and Invoice.	11
	16	Beef	Shipment Identifier	Shipment Identifier			
	18	Beef	Vehicle Identifier	Vehicle Identifier			
	19	Beef	Vendor / Supplier Identifier		EAN identifier is not used	Supplier name is on Bill of Lading and Invoice.	12
	20	Beef	Vendor / Supplier Name	Vendor / Supplier Name			

Illustration 7.3.1.d:

GAP ANALYSIS OF DRAFT CAN-TRACE ATTRIBUTES TO CURRENT TRACEABILITY SYSTEM OF 2ND PROCESSOR B

	#	Sector	Can-Trace Draft Attributes for 2nd Processors	2nd Processor B	Gap Identified	Alternative Information Used	Notes
			DATA INPUTS TO COL	LECT			
	2	Beef	Batch or Production Lot Number	Batch or Production Lot Number			
	4	Beef	Buyer Identifier	Buyer Identifier	EAN identifier is not used	Buyer name is on Bill of Lading, Purchase Order and Invoice.	13
С	5	Beef	Buyer Name	Buyer Name			
Ň	21	Beef	Unit of Trade	Unit of Trade			
ř	7	Beef	Country of Origin State or Province	Country of Origin State or Province			
ĩ.	11	Beef	Logistics Provider Identifier		EAN identifier is not used	Logistics provider name is on Bill of Lading and shipping documents.	14
	12	Beef	Product Description	Product Description			
E	13	Beef	Product Identifier	Product Identifier			
<u>C</u>	15	Beef	Ship From Location Identifier		EAN identifier is not used	Ship from location is on Bill of Lading, Purchase Order and Invoice.	15
Τ	18	Beef	Vehicle Identifier	Vehicle Identifier			
	19	Beef	Vendor / Supplier Identifier		EAN identifier is not used	Supplier name is on Bill of Lading, Purchase Order and Invoice.	16
	20	Beef	Vendor / Supplier Name	Vendor / Supplier Name			

Illustration 7.3.1.d:

GAP ANALYSIS OF DRAFT CAN-TRACE ATTRIBUTES TO CURRENT TRACEABILITY SYSTEM OF 2ND PROCESSOR B

	#	Sector	Can-Trace Draft Attributes for 2nd Processors	2nd Processor B	Gap Identified	Alternative Information Used	Notes
			DATA OUTPUT TO SH	ARE			
	2	Beef	Batch or Production Lot Number	Batch or Production Lot Number			
	3	Beef	Best Before Date	Best Before Date			
	4	Beef	Buyer Identifier		EAN identifier is not used		17
	5	Beef	Buyer Name	Buyer Name			
	21	Beef	Unit of Trade	Unit of Trade			
2	6	Beef	Case Serial Number				
	7	Beef	Country of Origin State or Province	Country of Origin State or Province			
Δ	11	Beef	Logistics Provider Identifier		EAN identifier is not used	Logistics provider name is on Bill of Lading and shipping documents.	18
	12	Beef	Product Description	Product Description			
K	13	Beef	Product Identifier		EAN identifier is not used		
	14	Beef	Ship Date	Ship Date			
	15	Beef	Ship From Location Identifier		EAN identifier is not used	Ship from location is on Bill of Lading and Invoice.	19
	16	Beef	Shipment Identifier	Shipment Identifier			
	18	Beef	Vehicle Identifier	Vehicle Identifierr			
	19	Beef	Vendor / Supplier Identifier		EAN identifier is not used	Supplier name is on Bill of Lading and Invoice.	20
	20	Beef	Vendor / Supplier Name	Vendor / Supplier Name			

Illustration 7.3.1.d:

GAP ANALYSIS OF DRAFT CAN-TRACE ATTRIBUTES TO CURRENT TRACEABILITY SYSTEM OF 2ND PROCESSOR B

	#	Sector	Can-Trace Draft Attributes for 2nd Processors	2nd Processor B	Gap Identified	Alternative Information Used	Notes
			DATA TO KEEP				
	2	Beef	Batch or Production Lot Number	Batch or Production Lot Number			
	3	Beef	Best Before Date	Best Before Date			
	4	Beef	Buyer Identifier		EAN identifier is not used	Buyer name is on Bill of Lading and Invoice.	21
	5	Beef	Buyer Name	Buyer Name			
	21	Beef	Unit of Trade	Unit of Trade			
V	6	Beef	Case Serial Number		Unique number not used. Code date + time identifies multiple cases.		22
K	7	Beef	Country of Origin State or Province	Country of Origin State or Province			
5	9	Beef	Receipt Date	Receipt Date			
E	11	Beef	Logistics Provider Identifier		EAN identifier is not used	Logistics Provider name on Bill of Lading and Shipping Documents.	23
Ρ	12	Beef	Product Description	Product Description			
	13	Beef	Product Identifier				
	14	Beef	Ship Date	Ship Date			
	15	Beef	Ship From Location Identifier		EAN identifier is not used	Ship from Location is on Bill of Lading and Invoice.	24
	16	Beef	Shipment Identifier	Shipment Identifier			
	18	Beef	Vehicle Identifier	Vehicle Identifier			
	19	Beef	Vendor / Supplier Identifier		EAN identifier is not used	Supplier name is on Bill of Lading and Invoice.	25
	20	Beef	Vendor / Supplier Name	Vendor / Supplier Name			



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Illustration 7.3.1.e:

GAP ANALYSIS OF DRAFT CAN-TRACE ATTRIBUTES TO CURRENT TRACEABILITY SYSTEM OF DISTRIBUTOR A

	#	Sector	Can-Trace Data Attributes for Wholesalers, Distributors, Retailers	Distributor A	Gap Identified	Alternative Information Used	Notes
			DATA INPUTS TO COL	LECT			
	2	Beef	Batch or Production Lot Number				
	4	Beef	Buyer Identifier		EAN identifier is not used	Buyer name is on Bill of Lading, Purchase Order and Invoice.	65
	5	Beef	Buyer Name	Buyer Name			
ň	21	Beef	Unit of Trade	Unit of Trade			
	7	Beef	Country of Origin State or Province				
	11	Beef	Logistics Provider Identifier		EAN identifier is not used	Logistic provider is on Bill of Lading and shipping documents.	66
	12	Beef	Product Description	Product Description			
	13	Beef	Product Identifier				
	15	Beef	Ship From Location Identifier		EAN identifier is not used	Ship from location is on Bill of Lading, Purchase Order and Invoice.	67
	18	Beef	Vehicle Identifier	Vehicle Identifier			
	19	Beef	Vendor / Supplier Identifier		EAN identifier is not used	Supplier name is on Bill of Lading, Purchase Order and Invoice.	68
	20	Beef	Vendor / Supplier Name	Vendor / Supplier Name			



Illustration 7.3.1.e:

GAP ANALYSIS OF DRAFT CAN-TRACE ATTRIBUTES TO CURRENT TRACEABILITY SYSTEM OF DISTRIBUTOR A

	#	Sector	Can-Trace Data Attributes for Wholesalers, Distributors, Retailers	Distributor A	Gap Identified	Alternative Information Used	Notes
			DATA OUTPUT TO SHA	ARE			
	2	Beef	Batch or Production Lot Number				
	3	Beef	Best Before Date	Best Before Date			
	4	Beef	Buyer Identifier		EAN identifier is not used		69
	5	Beef	Buyer Name	Buyer Name			
	21	Beef	Unit of Trade	Unit of Trade			
S	6	Beef	Case Serial Number				
H	7	Beef	Country of Origin State or Province	Country of Origin State or Province			
Ä	11	Beef	Logistics Provider Identifier		EAN identifier is not used	Logistics provider name is on Bill of Lading and shipping documentation.	70
D	12	Beef	Product Description	Product Description			
	13	Beef	Product Identifier	Product Identifier			
E	14	Beef	Ship Date	Ship Date			
	15	Beef	Ship From Location Identifier		EAN identifier is not used	Ship from location is on Bill of Lading and Invoice.	71
	16	Beef	Shipment Identifier	Shipment Identifier			
	18	Beef	Vehicle Identifier	Vehicle Identifierr			
	19	Beef	Vendor / Supplier Identifier		EAN identifier is not used	Supplier name is on Bill of Lading and Invoice.	72
	20	Beef	Vendor / Supplier Name	Vendor / Supplier Name			

Illustration 7.3.1.e:

GAP ANALYSIS OF DRAFT CAN-TRACE ATTRIBUTES TO CURRENT TRACEABILITY SYSTEM OF DISTRIBUTOR A

	#	Sector	Can-Trace Data Attributes for Wholesalers, Distributors, Retailers	Distributor A	GAP Identified	Alternative Information Used	Notes
			DATA TO KEEP				
	2	Beef	Batch or Production Lot Number				
	3	Beef	Best Before Date	Best Before Date			
	4	Beef	Buyer Identifier				
	5	Beef	Buyer Name	Buyer Name			
	21	Beef	Unit of Trade	Unit of Trade			
(6	Beef	Case Serial Number				
	7	Beef	Country of Origin State or Province	Country of Origin State or Province			
	11	Beef	Logistics Provider Identifier		EAN identifier is not used	Logistics provider name is on Bill of Lading and shipping documents.	73
	12	Beef	Product Description	Product Description			
	13	Beef	Product Identifier	Product Identifier			
	14	Beef	Ship Date	Ship Date			
	15	Beef	Ship From Location Identifier		EAN identifier is not used	Ship from location is on Bill of Lading and Invoice.	74
	16	Beef	Shipment Identifier	Shipment Identifier			
	18	Beef	Vehicle Identifier	Vehicle Identifier			
	19	Beef	Vendor / Supplier Identifier		EAN identifier is not used	Supplier name is on Bill of Lading and Invoice.	75
	20	Beef	Vendor / Supplier Name	Vendor / Supplier Name			

Illustration 7.3.1.f:

GAP ANALYSIS OF DRAFT CAN-TRACE ATTRIBUTES TO CURRENT TRACEABILITY SYSTEM OF WHOLESALER A

	#	Sector	Can-Trace Data Attributes for Wholesalers, Distributors, Retailers	Wholesaler A	Gap Identified	Alternative Method Used	Notes
			DATA INPUTS TO COL	LECT			
	2	Beef	Batch or Production Lot Number	Batch or Production Lot Number			
	4	Beef	Buyer Identifier		EAN identifier is not used	Buyer name is on Bill of Lading, Purchase Order and Invoice	81
С	5	Beef	Buyer Name	Buyer Name			
Ň	21	Beef	Unit of Trade	Unit of Trade			
ř	7	Beef	Country of Origin State or Province				
ĩ.	11	Beef	Logistics Provider Identifier		EAN identifier is not used	Logistics provider is on Bill of Lading and Shipping Documentation.	82
	12	Beef	Product Description	Product Description			
E	13	Beef	Product Identifier	Product Identifier			
CT	15	Beef	Ship From Location Identifier		EAN identifier is not used	Ship from location is on Bill of Lading, Purchase Order and Invoice.	83
	18	Beef	Vehicle Identifier	Vehicle Identifier			
	19	Beef	Vendor / Supplier Identifier		EAN identifier is not used	Supplier name is on Bill of Lading, Purchase Order and Invoice.	84
	20	Beef	Vendor / Supplier Name	Vendor / Supplier Name			

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Illustration 7.3.1.f:

GAP ANALYSIS OF DRAFT CAN-TRACE ATTRIBUTES TO CURRENT TRACEABILITY SYSTEM OF WHOLESALER A

	#	Sector	Can-Trace Data Attributes for Wholesalers, Distributors, Retailers	Wholesaler A	Gap Identified	Alternative Information Used	Notes
			DATA OUTPUT TO SH	ARE			
	2	Beef	Batch or Production Lot Number	Batch or Production Lot Number			
	3	Beef	Best Before Date				
	4	Beef	Buyer Identifier		EAN identifier is not used		85
	5	Beef	Buyer Name	Buyer Name			
	21	Beef	Unit of Trade	Unit of Trade			
5	6	Beef	Case Serial Number	Case Serial Number			
Н	7	Beef	Country of Origin State or Province	Country of Origin State or Province			
A	11	Beef	Logistics Provider Identifier		EAN identifier is not used	Logistics provider name is on Bill of Lading and shipping documentation.	86
R	12	Beef	Product Description	Product Description			
	13	Beef	Product Identifier	Product Identifier			
-	14	Beef	Ship Date	Ship Date			
	15	Beef	Ship From Location Identifier	Ship From Location Identifier			
	16	Beef	Shipment Identifier	Shipment Identifier			
	18	Beef	Vehicle Identifier	Vehicle Identifierr			
	19	Beef	Vendor / Supplier Identifier	Vendor / Supplier Identifier	EAN identifier is not used	Supplier name is on Bill of Lading and Invoice.	87
	20	Beef	Vendor / Supplier Name	Vendor / Supplier Name			



Illustration 7.3.1.f:

GAP ANALYSIS OF DRAFT CAN-TRACE ATTRIBUTES TO CURRENT TRACEABILITY SYSTEM OF WHOLESALER A

	#	Sector	Can-Trace Data Attributes for Wholesalers, Distributors, Retailers	Wholesaler A	GAP Identified	Alternative Information Used	Notes
			DATA TO KEEP				
	2	Beef	Batch or Production Lot Number	Batch or Production Lot Number			
	3	Beef	Best Before Date				
	4	Beef	Buyer Identifier		EAN identifier is not used		88
	5	Beef	Buyer Name	Buyer Name			
	21	Beef	Unit of Trade	Unit of Trade			
	6	Beef	Case Serial Number	Case Serial Number			
K	7	Beef	Country of Origin State or Province	Country of Origin State or Province			
Ē	11	Beef	Logistics Provider Identifier		EAN identifier is not used	Logistics provider name is on Bill of Lading and shipping documents.	89
E	12	Beef	Product Description	Product Description			
Ρ	13	Beef	Product Identifier	Product Identifier			
	14	Beef	Ship Date	Ship Date			
	15	Beef	Ship From Location Identifier		EAN identifier is not used	Ship from location is on Bill of Lading and Invoice.	90
	16	Beef	Shipment Identifier	Shipment Identifier			
	18	Beef	Vehicle Identifier	Vehicle Identifier			
	19	Beef	Vendor / Supplier Identifier		EAN identifier is not used	Supplier name is on Bill of Lading and Invoice.	91
	20	Beef	Vendor / Supplier Name	Vendor / Supplier Name			

Illustration 7.3.1.g:

GAP ANALYSIS OF DRAFT CAN-TRACE ATTRIBUTES TO CURRENT TRACEABILITY SYSTEM OF RETAILER A

	#	Sector	Can-Trace Data Attributes for Wholesalers, Distributors, Retailers	Retailer A	Gap Identified	Alternative Information Used	Notes
			DATA INPUTS TO COL	LECT			
	2	Beef	Batch or Production Lot Number				
	4	Beef	Buyer Identifier		EAN identifier is not used	Buyer name is on Bill of Lading, Purchase Order and Invoice.	57
C	5	Beef	Buyer Name	Buyer Name			
ň	21	Beef	Unit of Trade	Unit of Trade			
	7	Beef	Country of Origin State or Province	Country of Origin State or Province			
	11	Beef	Logistics Provider Identifier		EAN identifier is not used	Logistics provider name is on Bill of Lading and shipping documentation.	58
	12	Beef	Product Description	Product Description			
	13	Beef	Product Identifier	Product Identifier			
C	15	Beef	Ship From Location Identifier		EAN identifier is not used	Ship from location is on Bill of Lading, Purchase Order and Invoice.	59
Г	18	Beef	Vehicle Identifier	Vehicle Identifier			
-	19	Beef	Vendor / Supplier Identifier		EAN identifier is not used	Supplier name is on Bill of Lading, Purchase Order and Invoice.	60
	20	Beef	Vendor / Supplier Name	Vendor / Supplier Name			



Illustration 7.3.1.g:

GAP ANALYSIS OF DRAFT CAN-TRACE ATTRIBUTES TO CURRENT TRACEABILITY SYSTEM OF RETAILER A

	#	Sector	Can-Trace Data Attributes for Wholesalers, Distributors, Retailers	Retailer A	Gap Identified	Alternative Information Used	Notes
			DATA OUTPUT TO SH	ARE			
	2	Beef	Batch or Production Lot Number				
	3	Beef	Best Before Date				
	4	Beef	Buyer Identifier				
	5	Beef	Buyer Name	Buyer Name			
	21	Beef	Unit of Trade				
5	6	Beef	Case Serial Number				
Η	7	Beef	Country of Origin State or Province				
A	11	Beef	Logistics Provider Identifier				
R	12	Beef	Product Description				
F	13	Beef	Product Identifier				
	14	Beef	Ship Date				
	15	Beef	Ship From Location Identifier				
	16	Beef	Shipment Identifier				
	18	Beef	Vehicle Identifier				
	19	Beef	Vendor / Supplier Identifier				
	20	Beef	Vendor / Supplier Name				

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Illustration 7.3.1.g:

GAP ANALYSIS OF DRAFT CAN-TRACE ATTRIBUTES TO CURRENT TRACEABILITY SYSTEM OF RETAILER A

	#	Sector	Can-Trace Data Attributes for Wholesalers, Distributors, Retailers	Retailer A	GAP Identified	Alternative Information Used	Notes
			DATA TO KEEP				
	2	Beef	Batch or Production Lot Number				
	3	Beef	Best Before Date				
	4	Beef	Buyer Identifier		EAN identifier is not used		61
	5	Beef	Buyer Name	Buyer Name			
K	21	Beef	Unit of Trade	Unit of Trade			
	6	Beef	Case Serial Number				
	7	Beef	Country of Origin State or Province				
E	11	Beef	Logistics Provider Identifier		EAN identifier is not used	Logistics provider name is on Bill of Lading and shipping documentation.	62
E	12	Beef	Product Description	Product Description			
D	13	Beef	Product Identifier	Product Identifier			
	14	Beef	Ship Date	Ship Date			
	15	Beef	Ship From Location Identifier		EAN identifier is not used	Ship from location is on Bill of Lading and Invoice.	63
	16	Beef	Shipment Identifier	Shipment Identifier			
	18	Beef	Vehicle Identifier	Vehicle Identifier			
	19	Beef	Vendor / Supplier Identifier		EAN identifier is not used	Supplier name is on Bill of Lading and invoice.	64
	20	Beef	Vendor / Supplier Name	Vendor / Supplier Name			



Illustration 7.3.1.h:

GAP ANALYSIS OF DRAFT CAN-TRACE ATTRIBUTES TO CURRENT TRACEABILITY SYSTEM OF RETAILER B

	#	Sector	Can-Trace Data Attributes for Wholesalers, Distributors, Retailers	Retailer B	Gap Identified	Alternative Information Used	Notes
			DATA INPUTS TO COL	LECT			
	2	Beef	Batch or Production Lot Number				
	4	Beef	Buyer Identifier		EAN identifier is not used	Buyer name is on Bill of Lading and Invoice.	76
C	5	Beef	Buyer Name	Buyer Name			
	21	Beef	Unit of Trade				
0	7	Beef	Country of Origin State or Province				
F.	11	Beef	Logistics Provider Identifier		EAN identifier is not used	Logistics provider is on shipping documentation.	77
L	12	Beef	Product Description	Product Description			
E	13	Beef	Product Identifier		EAN identifier is not used		
Ç	15	Beef	Ship From Location Identifier		EAN identifier is not used	Ship from location is on Invoice.	78
	18	Beef	Vehicle Identifier	Vehicle Identifier			
	19	Beef	Vendor / Supplier Identifier		EAN identifier is not used	Supplier name is on Bill of Lading, Purchase Order and Invoice.	79
	20	Beef	Vendor / Supplier Name	Vendor / Supplier Name			

Illustration 7.3.1.h:

GAP ANALYSIS OF DRAFT CAN-TRACE ATTRIBUTES TO CURRENT TRACEABILITY SYSTEM OF RETAILER B

	#	Sector	Can-Trace Data Attributes for Wholesalers, Distributors, Retailers	Retailer B	Gap Identified	Alternative Information Used	Notes
			DATA OUTPUT TO SH	ARE			
	2	Beef	Batch or Production Lot Number				
	3	Beef	Best Before Date				
	4	Beef	Buyer Identifier				
	5	Beef	Buyer Name				
	21	Beef	Unit of Trade	Unit of Trade			
5	6	Beef	Case Serial Number				
	7	Beef	Country of Origin State or Province				
4	11	Beef	Logistics Provider Identifier				
R	12	Beef	Product Description	Product Description			
	13	Beef	Product Identifier				
	14	Beef	Ship Date				
	15	Beef	Ship From Location Identifier				
	16	Beef	Shipment Identifier				
	18	Beef	Vehicle Identifier				
	19	Beef	Vendor / Supplier Identifier				
	20	Beef	Vendor / Supplier Name				

Illustration 7.3.1.h:

GAP ANALYSIS OF DRAFT CAN-TRACE ATTRIBUTES TO CURRENT TRACEABILITY SYSTEM OF RETAILER B

	#	Sector	Can-Trace Data Attributes for Wholesalers, Distributors, Retailers	Retailer B	GAP Identified	Alternative Information Used	Notes
			DATA TO KEEP				
	2	Beef	Batch or Production Lot Number				
	3	Beef	Best Before Date				
	4	Beef	Buyer Identifier				
	5	Beef	Buyer Name				
	21	Beef	Unit of Trade				
	6	Beef	Case Serial Number				
Κ	7	Beef	Country of Origin State or Province				
Ê	11	Beef	Logistics Provider Identifier				
F	12	Beef	Product Description	Product Description			
	13	Beef	Product Identifier				
Ρ	14	Beef	Ship Date	Ship Date			
	15	Beef	Ship From Location Identifier				
	16	Beef	Shipment Identifier	Shipment Identifier			
	18	Beef	Vehicle Identifier				
	19	Beef	Vendor / Supplier Identifier		EAN identifier is not used	Supplier name is on Bill of Lading and Invoice.	80
	20	Beef	Vendor / Supplier Name	Vendor / Supplier Name			

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Illustration 7.3.1.i:

GAP ANALYSIS OF DRAFT CAN-TRACE ATTRIBUTES TO CURRENT TRACEABILITY SYSTEM OF RETAILER C

	#	Sector	Can-Trace Data Attributes for Wholesalers, Distributors, Retailers	Retailer C	Gap Identified	Alternative Information Used	Notes
			DATA INPUTS TO COL	LECT			
	2	Beef	Batch or Production Lot Number				
	3	Beef	Buyer Identifier		EAN identifier is not used	Buyer name is on Bill of Lading, Purchase Order and shipping documentation.	92
C	4	Beef	Buyer Identifier				
Ň	21	Beef	Unit of Trade	Unit of Trade			
Ĭ	7	Beef	Country of Origin State or Province				
	11	Beef	Logistics Provider Identifier		EAN identifier is not used	Logistics provider name is on Bill of Lading and shipping documentation.	93
2	12	Beef	Product Description	Product Description			
	13	Beef	Product Identifier		EAN identifier is not used	Invoice has generated product code.	94
ř	15	Beef	Ship From Location Identifier		EAN identifier is not used	Ship from location is on Bill of Lading, Purchase Order and Invoice.	95
	18	Beef	Vehicle Identifier	Vehicle Identifier			
	19	Beef	Vendor / Supplier Identifier		EAN identifier is not used	Supplier name is on Bill of Lading, Purchase Order and Invoice.	96
	20	Beef	Vendor / Supplier Name	Vendor / Supplier Name			



Illustration 7.3.1.i:

GAP ANALYSIS OF DRAFT CAN-TRACE ATTRIBUTES TO CURRENT TRACEABILITY SYSTEM OF RETAILER C

	#	Sector	Can-Trace Data Attributes for Wholesalers, Distributors, Retailers	Retailer C	Gap Identified	Alternative Information Used	Notes
			DATA OUTPUT TO SHA	ARE			
	2	Beef	Batch or Production Lot Number				
	3	Beef	Best Before Date		Best before date is not recorded.	Pack date supplied for some products.	97
	4	Beef	Buyer Identifier				
	5	Beef	Buyer Name	Buyer Name			
	21	Beef	Unit of Trade	Unit of Trade			
5	6	Beef	Case Serial Number				
Η	7	Beef	Country of Origin State or Province				
A	11	Beef	Logistics Provider Identifier				
R	12	Beef	Product Description	Product Description			
F	13	Beef	Product Identifier				
	14	Beef	Ship Date				
	15	Beef	Ship From Location Identifier				
	16	Beef	Shipment Identifier				
	18	Beef	Vehicle Identifier				
	19	Beef	Vendor / Supplier Identifier				
	20	Beef	Vendor / Supplier Name				

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Illustration 7.3.1.i:

GAP ANALYSIS OF DRAFT CAN-TRACE ATTRIBUTES TO CURRENT TRACEABILITY SYSTEM OF RETAILER C

	#	Sector	Can-Trace Data Attributes for Wholesalers, Distributors, Retailers	Retailer C	GAP Identified	Alternative Information Used	Notes
			DATA TO KEEP				
	2	Beef	Batch or Production Lot Number				
	3	Beef	Best Before Date				
	4	Beef	Buyer Identifier				
	5	Beef	Buyer Name	Buyer Name			
K	21	Beef	Unit of Trade	Unit of Trade			
	6	Beef	Case Serial Number				
	7	Beef	Country of Origin State or Province				
Ε	11	Beef	Logistics Provider Identifier		EAN identifier is not used	Logistics provider is on Bill of Lading and shipping documentation.	98
	12	Beef	Product Description	Product Description			
	13	Beef	Product Identifier				
	14	Beef	Ship Date	Ship Date			
	15	Beef	Ship From Location Identifier		EAN identifier is not used	Ship from location is on Bill of Lading and Invoice.	99
	16	Beef	Shipment Identifier	Shipment Identifier			
	18	Beef	Vehicle Identifier	Vehicle Identifier			
	19	Beef	Vendor / Supplier Identifier		EAN identifier is not used	Supplier name is on Bill of Lading and Invoice.	100
	20	Beef	Vendor / Supplier Name	Vendor / Supplier Name			





7.3.2. EAN International Traceability of Beef Third Revised Edition, Comparison to Draft Can-Trace Data Attributes

European Union legislators enacted Regulation (EC) 1760/2000 (Beef Labelling Regulation) to regulate labelling and traceability in the beef supply chain. The European beef supply chain is complying with the legislation using the EAN.UCC System. The United Nations recommends use of the EAN.UCC System for tracking and tracing of beef. The EAN.UCC System is an internationally accepted numbering and bar coding system. The EAN has published guidelines to implement beef traceability using the EAN.UCC system.

Regulation (EC) 1760/2000 provides the legal minimum requirements for beef traceability and labelling. The EAN International guidelines provide the recommended data requirements for each level of the beef supply chain.

To provide an accurate gap analysis to European Union requirements, both the Regulation and the EAN guidelines were mapped to the draft Can-Trace Attributes. See Section 7.3.4 for the gap analysis between Regulation (EC) 1760/2000 and the draft Can-Trace Data Attributes. Section 7.3.2 contains the gap analysis between the EAN International Traceability of Beef guidelines and the draft Can-Trace Data Attributes:

1st Processors	Illustration 7.3.2.a
2nd Processors	Illustration 7.3.2.b
Wholesalers, Distributors, Retailers	Illustration 7.3.2.c

Illustration 7.3.2.a:

GAP ANALYSIS OF DRAFT CAN-TRACE DATA ATTRIBUTES TO EAN INTERNATIONAL TRACEABILITY OF BEEF GUIDELINES – 1st PROCESSORS

#	Sector	Can-Trace Draft Attribute for 1st Processors	EAN Recommendation for 1st Processors	Gap / Notes
1	Beef		Animal Passport or a Certificate of Good Health as well as Valid Ear Tag	EAN International: Requires passport for intake at slaughterhouse. Can-Trace: Animal age is a requirement at Primary Producer stage. Not a requirement at intake of 1st Processor.
2	Beef	Batch or Production Lot Number	Reference Number or Reference Code	Equivalent Attribute: Both Batch or Production Lot Number and the Reference Number or Reference Code provide a link between the meat and the animal or group of animals.
3	Beef	Best Before Date		EAN International: Not required. Optional attribute. Can-Trace: Product is freshest to this date. Expressed as month / day / year.
4	Beef	Buyer Identifier	Approval Number of the slaughter house	EAN International: Buyer (retailer, wholesaler or distributor) identity is recorded as a purchase order number or a specific customer number. Recommended that it be collected. Can-Trace: The party to which the product is sold. The EAN.UCC-13 data structure to identify physical, functional or legal entity.
5	Beef	Buyer Name	Buyer Name	EAN International: Linked to the buyer's Approval Number. Can-Trace: Name of buyer.
6	Beef	Case / Pallet Serial Number	Case / Pallet Serial Number	EAN International: EAN.UCC data points combine to make a serial number for a case and / or pallet. Can-Trace: A seller assigned number that uniquely identifies a logistic unit (case or pallet).
7	Beef	Country of Origin State or Province	Country of Origin State or Province	EAN International: The Country of Origin is the country of birth. Can-Trace: The country codes in which the goods have been produced or manufactured.
8	Beef	Date of Retirement		EAN International: Not required. Optional attribute. Can-Trace: The date that the product was harvested, retired or caught. Expressed as month / day / year.
9	Beef	Receipt Date		EAN International: Not required. Optional attribute. Can-Trace: Date that the item is received.
10	Beef			
11	Beef	Logistics Provider Identifier		EAN International: Not required. Optional attribute. Can-Trace: The 3rd party logistics provider, EAN.UCC Global Location Number is used.





Illustration 7.3.2.a:

GAP ANALYSIS OF DRAFT CAN-TRACE DATA ATTRIBUTES TO EAN INTERNATIONAL TRACEABILITY OF BEEF GUIDELINES – 1st PROCESSORS

#	Sector	Can-Trace Draft Attribute for 1st Processors	EAN Recommendation for 1st Processors	Gap / Notes
12	Beef	Product Description	Product Description	EAN International: The EAN.UCC international code is the product description and identifier. It has specific information about that specific piece of meat. All of the data elements in this section are recommended to be included in the product code. Can-Trace: Free form description of the product.
13	Beef	Product Identifier	Product Identifier	Equivalent Attribute: Finished / Processed Product Identifier (a uniquely numerical value used to identify a product.) The EAN.UCC (GTIN) is used.
14	Beef	Ship Date		EAN International: Not required. Optional attribute. Can-Trace: Identifies date that goods were shipped from the producer / supplier's facility.
15	Beef	Ship From Location Identifier		EAN International: Not required. Optional attribute. Cutting house Approval Number links to ship from location. Can-Trace: Uniquely identifies the ship from location of the animals or product. (Global Location Numbers are recommended.)
16	Beef	Shipment Identifier	Shipment Identifier	EAN International: Not required. Can-Trace: Uniquely distinguishes a seller's shipment of product.
17	N / A			
18	Beef	Vehicle Identifier		EAN International: Not required. Optional attribute. Can-Trace: A value, which uniquely identifies a vehicle or vessel in a carrier fleet.
19	Beef	Vendor / Supplier Identifier	Vendor / Supplier Identifier	Equivalent Attributes
20	Beef	Vendor / Supplier Name	Vendor / Supplier Name	EAN International: Linked to animal passport and / or ear tag. Can-Trace: Vendor / Supplier Name
21	Beef	Unit of Trade		EAN-International: Not required. Can-Trace: Logistic unit of weight of the product.
	Beef		Country or Countries of Fattening	EAN International: Recommended attribute. Capacity to record up to five countries of fattening is recommended.
	Beef		Country of Slaughter	EAN International: Recommended attribute.
	Beef		Ear Tag Number	EAN International: Recommends ear tag number be attached to carcass and encoded in the EAN.UCC-128 bar code. Can-Trace: Product Identifier

Note:

The EAN.UCC System can integrate in excess of 50 data attributes regarding the product. The EAN.UCC code system provides for the ear tags or a specific unique number to be carried through the entire process. The code numbers 'look up' numbers that allow information about the product to be retrieved.

Illustration 7.3.2.a:

GAP ANALYSIS OF DRAFT CAN-TRACE DATA ATTRIBUTES TO EAN INTERNATIONAL TRACEABILITY OF BEEF GUIDELINES – 1st PROCESSORS

#	Sector	Can-Trace Draft Attribute for 2nd Processors	EAN Recommendation for 2nd Processors	Gap / Notes
1	Beef			
2	Beef	Batch or Production Lot Number	Batch or Production Lot Number	EAN International: The batch or production number includes GTIN, Ear Tag Number, Country of Birth, Country of Slaughter, Country of Fattening and Approval Number. Can-Trace: Code assigned to identify product production batch or lot. Differs from serial number assigned to identify each individual product uniquely.
3	Beef	Best Before Date		EAN International: Not required. Optional attribute. Can-Trace: Product is freshest to this date. Expressed as month / day / year
4	Beef	Buyer Identifier	Retailer, Wholesaler or Distributor Approval Number	EAN International: Buyer (retailer, wholesaler or distributor) linked to Approval Number Can-Trace: The party to which the product is sold. The EAN.Ucc-13 data structure to identify physical, functional or legal entity.
5	Beef	Buyer Name	Buyer Name	EAN International: Linked to Buyer Approval Number. Can-Trace: Name of buyer
6	Beef	Case Pallet or Serial Number	Case Pallet or Serial Number	EAN International: EAN.UCC data points combine to make the serial number for a case and/or pallet. Can-Trace: A seller assigned number that uniquely identifies a logistic unit (case or pallet).
7	Beef	Country of Origin State or Province	Country of Origin State or Province	EAN International: The Country of Origin is the country of birth. Can-Trace: The country codes in which the goods have been produced or manufactured.
8	Beef			
9	Beef	Receipt Date		EAN International: Not required. Optional attribute. Can-Trace: Date that the item is received.
10				
11	Beef	Logistics Provider Identifier		EAN International: Not required. Optional attribute. Can-Trace: The 3rd party logistics provider, EAN.UCC Global Location Number is used.
12	Beef	Product Description	Product Description	EAN International: The EAN.UCC international code is the product description and identifier. It has specific information about that specific piece of meat. All of the data elements in this section are recommended to be included in the product code. Can-Trace: Free form description of the product.





Illustration 7.3.2.b:

GAP ANALYSIS OF DRAFT CAN-TRACE DATA ATTRIBUTES TO EAN INTERNATIONAL TRACEABILITY OF BEEF GUIDELINES – 2nd PROCESSORS

#	Sector	Can-Trace Draft Attribute for 2nd Processors	EAN Recommendation for 2nd Processors	Gap / Notes
13	Beef	Product Identifier	Product Identifier	EAN International: The EAN.UCC International code is the product description and identifier. It has specific information about that specific piece of meat. All of the data elements in this section are recommended to be included in the product code. Can-Trace: Finished / Processed Product Identifier (a unique numerical value used to identify a product). The EAN.UCC (GTIN) is used.
14	Beef	Ship Date		EAN International: Not required. Optional attribute. Can-Trace: Identifies the date that goods were shipped from the producer / supplier's facility.
15	Beef	Ship From Location Identifier		EAN International: Not required. Optional attribute. Cutting house Approval Number links to shipped from location. Can-Trace: Uniquely identifies the shipped from location of the animals or product. (Global Location Numbers are recommended)
16	Beef	Shipment Identifier		EAN International: Not required. Can-Trace: Uniquely distinguishes a seller's shipment of product.
17	N / A			
18	Beef	Vehicle Identifier		EAN International: Not required. Optional attribute. Can-Trace: An identifying value that uniquely identifies a vehicle or vessel in a carrier fleet.
19	Beef	Vendor / Supplier Identifier	Slaughter House Approval Number	Equivalent Attributes
20	Beef	Vendor / Supplier Name		EAN International: Linked to the slaughterhouse Approval Number. Can-Trace: Vendor / Supplier Name
21	Beef	Unit of Trade		EAN-International: Not required. Can-Trace: Unit of Trade is by the logistic unit of weight of the product.
	Beef		Country and Approval Number of Cutting Hall(s)	EAN International: Requires all countries of cutting and the cutting halls be listed in the EAN.UCC code.
	Beef		Country of Fattening	EAN International: Countries of fattening encoded into the EAN.UCC-128.
	Beef		Country of Slaughter	EAN International: Country of slaughter encoded into the EAN.UCC-128.

Illustration 7.3.2.c:

GAP ANALYSIS OF DRAFT CAN-TRACE DATA ATTRIBUTES TO EAN INTERNATIONAL TRACEABILITY OF BEEF GUIDELINES – DISTRIBUTORS, RETAILERS AND WAREHOUSERS

#	Sector	Can-Trace Draft Attribute for Distributors, Retailers and Warehousers	EAN Recommendation for Distributors, Retailers and Warehousers	Gap / Notes
1	Beef			
2	Beef	Batch or Production Lot Number	Batch or Production Lot Number	EAN International: The batch or production number includes GTIN, Ear Tag Number, Country of Birth, Country of Slaughter, Country of Fattening and Approval Number of the slaughterhouse. Can-Trace: Code assigned to identify products production batch or lot. Differs from serial number that is assigned to identify each individual product uniquely.
3	Beef	Best Before Date		
4	Beef	Buyer Identifier		
5	Beef	Buyer Name	Buyer Name	EAN International: Linked to Buyer's Approval Number. Can-Trace: Free form Buyer name.
6	Beef	Case/Pallet Serial Number	Case/Pallet Serial Number	EAN International: EAN.UCC data points combine to make a serial number for a case and / or pallet. Can-Trace: A seller assigned number that uniquely identifies a logistic unit (case or pallet).
7	Beef	Country of Origin State or Province		EAN International: The Country of Origin is the country of birth. Can-Trace: The country codes in which the goods have been produced or manufactured.
8	Beef			
9	Beef	Receipt Date		EAN International: Not required. Optional attribute. Can-Trace: Date that the item is received.
10				
11	Beef	Logistics Provider Identifier		EAN International: Not required. Optional attribute. Can-Trace: The 3rd party logistics provider, EAN.UCC Global Location Number is used.





Illustration 7.3.2.c:

GAP ANALYSIS OF DRAFT CAN-TRACE DATA ATTRIBUTES TO EAN INTERNATIONAL TRACEABILITY OF BEEF GUIDELINES – DISTRIBUTORS, RETAILERS AND WAREHOUSERS

#	Sector	Can-Trace Draft Attribute for Distributors, Retailers and Warehousers	EAN Recommendation for Distributors, Retailers and Warehousers	Gap / Notes
12	Beef	Product Description	Product Description	EAN International: The EAN.UCC International code is the product description and identifier. All of the data elements in this section are recommended to be included in the product code. Can-Trace: Free form description of the product.
13	Beef	Product Identifier	Product Identifier	EAN International: The EAN.UCC international code is the product description and identifier. All of the data elements in this section are recommended to be included in the product code. Can-Trace: Finished / Processed Product Identifier (a uniquely numerical value used to identify a product). The EAN.UCC (GTIN) is used.
14	Beef	Ship Date		EAN International: Not required. Optional attribute. Can-Trace: Identifies the date that goods were shipped from producer / supplier's facility.
15	Beef	Ship From Location Identifier		EAN International: Not required. Optional attribute. Cutting house Approval Number is linked to the shipped from location. Can-Trace: Uniquely identifies the shipped from location of the animals or product. (Global Location Numbers are recommended)
16	Beef	Shipment Identifier		EAN International: Not required. Can-Trace: Uniquely distinguishes a seller's shipment of product.
17	N / A			
18	Beef	Vehicle Identifier		EAN International: Not required. Optional attribute. Can-Trace: An identifying value that uniquely identifies a vehicle or vessel in a carrier fleet.
19	Beef	Vendor / Supplier Identifier	Cutting House Approval Number	Equivalent Attributes
20	Beef	Vendor / Supplier Name		EAN International: Linked to slaughter house Approval Number Can-Trace: Vendor / Supplier Name
21	Beef	Unit of Trade		EAN International: Not required. Can-Trace: Unit of Trade is by the logistic unit of weight of the product.
	Beef		Country of Fattening	EAN International: Countries of fattening encoded into the UCC.EAN-128.
	Beef		Country of Slaughter	EAN International: Country of slaughter encoded into the EAN.UCC-128.
	Beef		Country and Approval Number of Cutting Hall(s)	EAN International: Requires all countries of cutting and the cutting halls in EAN.UCC code.

7.3.3. US Bioterrorism Legislation Proposed Regulations and the United States Department of Agriculture/Health and Human Services Bovine Spongiform Encephalopathy Proposed Regulations, Comparison to Draft Can-Trace Data Attributes

This section provides gap analysis to proposed US Department of Health and Human Services (HHS) Bovine Spongiform Encephalopathy (BSE) Regulations and Proposed Regulations to enable Title III, Safety of the Food and Drug Supply section of the US Bioterrorism Act of 2002.

The proposed HHS/BSE Regulation requires "that manufacturers and processors of human food and cosmetics that are manufactured from, processed with, or otherwise contain, material from cattle must establish and maintain records sufficient to demonstrate that the human food and cosmetics do not contain prohibited cattle materials and that such records must be made available to FDA for inspection and copying." Prohibited materials are defined in the Regulation.

The proposed HHS/BSE Regulation does not include product traceability requirements. The draft Can-Trace Data Attributes do not include attributes relating to product composition or quality.

Section 7.3.3 contains gap analysis to Proposed Regulations to enable Title III, Safety of the Food and Drug Supply section of the US Bioterrorism Act:

One Up	Illustration	7.3.3.a
One Down	Illustration	7.3.3.b
Logistics Provider	Illustration	7.3.3.c





Illustration 7.3.3.a:

Illustration 7.3.3.a: GAP ANALYSIS OF DRAFT CAN-TRACE ATTRIBUTES TO PROPOSED US BIOTERRORISM REGULATIONS FOR "ONE UP"

#	Sector	Can-Trace Draft Attributes	US Proposed Regulation Attributes From Previous Source (One-Up)	Gap / Notes
1	Beef	Animal Age		
2	Beef	Batch or Production Lot Number	Lot or code number or other identifier of food	US Proposed: Requires lot or code number or other identifier of the food (to the extent the information exists).
3	Beef	Best Before Date		
4	Beef	Buyer Identifier		US Proposed: EAN number is not used.
5	Beef	Buyer Name	Buyer Name	US Proposed: Requires the name of the firm and responsible individual, address and phone number and if available, the fax number and e-mail address of the person who had possession, custody or control of the food previously (transporters and provider).
6	Beef	Case / Pallet Serial Number		
7	Beef	Country of Origin State or Province	Country of Origin State or Province	Equivalent
8	Beef	Date of Retirement		
9	Beef	Receipt Date	Receipt Date	US Proposed: Date food received must be recorded.
10	Beef	Location Identifier		US Proposed: Does not use GLN.
11	Beef	Logistics Provider Identifier	Logistics Provider Identifier	US Proposed: Requires the name of the firm and responsible individual, address and phone number and if available, the fax number and email address of the transporters.
12	Beef	Product Description	Product Description	US Proposed: Includes brand name and specific variety. Example: Cheddar Cheese instead of just cheese as descriptor.
13	Beef	Product Identifier		US Proposed: EAN number is not used.
14	Beef	Ship Date	Date product left supplier to be captured	US Proposed: The logistics provider to record dates of when the product was picked up from the supplier. Date provided to the buyer.
15	Beef	Ship From Location Identifier		US Proposed: EAN number is not used.
16	Beef	Shipment Identifier		US Proposed: EAN number is not used.
17	NA			

Illustration 7.3.3.a:

Illustration 7.3.3.a: GAP ANALYSIS OF DRAFT CAN-TRACE ATTRIBUTES TO PROPOSED US BIOTERRORISM REGULATIONS FOR "ONE UP"

#	Sector	Can-Trace Draft Attributes	US Proposed Regulation Attributes From Previous Source (One-Up)	Gap / Notes
18	Beef	Vehicle Identifier	Vehicle Identifier	US Proposed: Includes brand name and specific variety. Example: Cheddar Cheese instead of just cheese as descriptor.
19	Beef	Vendor / Supplier Identifier		US Proposed: EAN number is not used.
20	Beef	Vendor / Supplier Name	Vendor / Supplier Name	US Proposed: Includes brand name and specific variety. Example: Cheddar Cheese instead of just cheese as descriptor.
21	Beef	Unit of Trade	Quantity in which the food is packaged	US Proposed: Includes brand name and specific variety. Example: Cheddar Cheese instead of just cheese as descriptor.
	Beef		Source of all ingredients added during processing	US Proposed: Identify the specific source of every product used to make every lot of finished product.





Illustration 7.3.3.b:

GAP ANALYSIS OF DRAFT CAN-TRACE ATTRIBUTES TO PROPOSED US BIOTERRORISM REGULATIONS FOR "ONE DOWN"

#	Sector	Can-Trace Draft Attributes	US Proposed Regulation Attributes To Customer (One-Down)	Gap / Notes
1	Beef	Animal Age		
2	Beef	Batch or Production Lot Number	Lot or code number or other identifier of food	US Proposed: Requires lot or code number or other identifier of the food (to the extent the information exists).
3	Beef	Best Before Date		
4	Beef	Buyer Identifier		US Proposed: EAN number is not used.
5	Beef	Buyer Name		
6	Beef	Case Pallet or Serial Number		
7	Beef	Country of Origin State or Province	Country of Origin State or Province	Equivalent
8	Beef			
9	Beef	Receipt Date	Receipt Date	US Proposed: Date food received must be captured.
10	Beef	Location Identifier		
11	Beef	Logistics Provider Identifier	Logistics Provider Identifier	US Proposed: Requires the identification of each and every mode of transportation (e.g. company truck, private carrier, railway, etc) and the individual responsible until the time that the product is delivered. EAN number is not required.
12	Beef	Product Description	Product Description	US Proposed: Requires an adequate description of the type of food, including brand name and specific variety.
13	Beef	Product Identifier		US Proposed: EAN number is not used.
14	Beef	Ship Date	Ship Date	US Proposed: Date that the product was shipped from the supplier is to be recorded and supplied.
15	Beef	Ship From Location Identifier		US Proposed: EAN number is not used.
16	Beef	Shipment Identifier		US Proposed: EAN Number is not used.
17	NA			
18	Beef	Vehicle Identifier	Vehicle Identifier	US Proposed: All information regarding the logistics provider to be provided to recipient. This information includes the name of the firm and responsible individual, address, phone number and, if available the fax number and e-mail address of the transporter who transported the food to the buyer.

Illustration 7.3.3.b:

GAP ANALYSIS OF DRAFT CAN-TRACE ATTRIBUTES TO PROPOSED US BIOTERRORISM REGULATIONS FOR "ONE DOWN"

#	Sector	Can-Trace Draft Attributes	US Proposed Regulation Attributes To Customer (One-Down)	Gap / Notes
19	Beef	Vendor / Supplier Identifier	Vehicle Identifier	US Proposed: EAN number is not used.
20	Beef	Vendor / Supplier Name	Vendor / Supplier Name	US Proposed: Requires the name of the firm and responsible individual, address, phone number and, if available, the fax number and email address of the person who has possession, custody, or control of the food immediately previously.
21	Beef	Unit of Trade	Unit of Trade	US Proposed: Requires the quantity of food and how it is packaged. Example: 25 lbs cartons.





Illustration 7.3.3.c:

GAP ANALYSIS OF DRAFT CAN-TRACE ATTRIBUTES TO US PROPOSED BIOTERRORISM REGULATIONS FOR LOGISTICS

#	Sector	Can-Trace Draft Attributes	US Proposed Regulation Attributes From Previous Source (Logistics Provider)	Gap / Notes
1	Beef	Animal Age		
2	Beef	Batch or Production Lot Number	Lot or code number	US Proposed: Requires the lot or code number or other identifier of the food (to the extent this information exists).
3	Beef	Best Before Date		
4	Beef	Buyer Identifier		US Proposed: EAN number is not used.
5	Beef	Buyer Name	Buyer or point of delivery	US Proposed: Requires the name of the firm and responsible individual, address, phone number and, if available, fax number and e-mail address of the person who has possession, custody or control of the food immediately previous and the date that it was delivered from the specified person.
6	Beef	Case/Pallet Serial Number		
22	Beef	Country of Origin State or Province	Country of Origin State or Province	Equivalent
8	Beef	Date of Retirement		
9	Beef	Receipt Date	Receipt Date	US Proposed: The date that the food/product is delivered by the logistics provider must be recorded.
10	Beef	Location Identifier		
11	Beef	Logistics Provider Identifier	Logistics Provider Identifier	US Proposed: Requires the identification of each and every mode of transportation (e.g. company truck, private carrier, railway, etc.) and the individual responsible until the time that the product is delivered.
12	Beef	Product Description	Product Description	US Proposed: Requires an adequate description of the type of food, including brand name and specific variety
13	Beef	Product Identifier		US Proposed: EAN number is not used.
14	Beef	Ship Date	Ship Date	US Proposed: The date that the food/product is picked up by the logistics provider must be recorded.

Illustration 7.3.3.c:

GAP ANALYSIS OF DRAFT CAN-TRACE ATTRIBUTES TO US PROPOSED BIOTERRORISM REGULATIONS FOR LOGISTICS

#	Sector	Can-Trace Draft Attributes	US Proposed Regulation Attributes From Previous Source (Logistics Provider)	Gap / Notes
15	Beef	Ship From Location Identifier		US Proposed: EAN number is not used.
16	Beef	Shipment Identifier		US Proposed: EAN number is not used.
17	NA			
18	Beef	Vehicle Identifier	Vehicle Identifier	US Proposed: Each and every vehicle that transports the product must be recorded, linked to logistics identifier.
19	Beef	Vendor / Supplier Identifier	Vehicle Identifier	US Proposed: EAN number is not used.
20	Beef	Vendor / Supplier Name	Vendor / Supplier Identifier	US Proposed: Requires the name of the firm and responsible individual, address, phone number and, if available, the fax number and e-mail address of the person who has possession, custody, or control of the food immediately after you and the date it was delivered to that person.
21	Beef	Unit of Trade	Unit of Trade	US Proposed: Requires the quantity of food and how it is packaged. Example: 25 lbs cartons.





7.3.4. European Union Regulation (EC) 1760/2000 (Beef Labelling Regulation), Comparison to Draft Can-Trace Data Attributes

Section 7.3.4 contains gap analysis between the Draft Can-Trace Data Attributes and Regulation (EC) 1760/2000: (EC) 1760/2000 Illustration 7.3.4.a
GAP ANALYSIS OF DRAFT CAN-TRACE ATTRIBUTES TO REQUIREMENTS OF REGULATION (EC) NO. 1760/2000

#	Sector	Can-Trace Draft Attributes	EC Regulations Recommendations	Notes / Gaps	Notes
1	Beef		Animal passport or a certificate of good health as well as valid ear tag.	EC Regulation: Animals to be identified with ear tag in each ear; every animal to keep ear tag throughout the duration of its life.	101
2	Beef	Batch or Production Lot Number	A reference number or reference code	EC Regulation: Compulsory reference number or reference code which is unique and links the product (meat etc.) and the specific animal(s).	102
3	Beef	Best Before Date		EC Regulation: Does not require the Best Before Date.	
4	Beef	Buyer Identifier	Approval number of the slaughterhouse.	EC Regulation: Approval number of the slaughterhouse required on label.	
5	Beef	Buyer Name	Buyer Name	EC Regulation: Required in the slaughterhouse approval numbers.	
6	Beef	Case/Pallet Serial Number		EC Regulation: Label to indicate origin, where the animal was born, where it was fattened and where it was slaughtered.	
7	Beef	Country of Origin State or Province	Country of Origin State or Province	EC Regulation: The Country of Origin is the country of birth. Can-Trace: The Country codes in which the goods have been produced or manufactured.	
8	Beef	Date of Retirement		EC Regulation: Does not specify date of retirement as a specific beef traceability requirement. Can-Trace: The date that the product was harvested, retired or caught. Expressed as month / day / year.	
9	Beef	Receipt Date			103
10	Beef				
11	Beef	Logistics Provider Identifier		EC Regulation: Not a requirement. Can-Trace: The 3rd party logistics provider EAN.UCC Global Location Number is used.	
12	Beef	Product Description	Product Description	EC Regulation: Label on the product to indicate origin, place of fattening, place of slaughter, cutting house.	



GAP ANALYSIS OF DRAFT CAN-TRACE ATTRIBUTES TO REQUIREMENTS OF REGULATION (EC) NO. 1760/2000

#	Sector	Can-Trace Draft Attributes	EC Regulations Recommendations	Notes / Gaps	Notes
13	Beef	Product Identifier	Product Identifier	EC Regulation: The EAN.UCC International code is the product description and identifier. It has specific information about the specific piece of meat. All of the data elements in this section are recommended to be included in the product code. Can-Trace: Finished / Processed Product Identifier (a unique numerical value used to identify a product). The EAN.UCC (GTIN) is used.	
14	Beef	Ship Date	A reference number or reference code	EC Regulation: Not a requirement. Optional attribute. Can-Trace: Identifies the date that goods were shipped from the producer / supplier facility.	
15	Beef	Ship From Location Identifier		EC Regulation: Ship from location is optional attribute. If the cutting house approvalnumber is collected this indicates the shipped location. Can-Trace: Uniquely identifies the shipped from location of the animals or product. (Global Location Numbers are recommended.)	
16	Beef	Shipment Identifier	Shipment Identifier	EC Regulation: Shipment identification not required. Can-Trace: Uniquely distinguishes a seller's shipment of product.	
17	NA				
18	Beef	Vehicle Identifier		EC Regulation: Vehicle identifier is not a traceability requirement. Can-Trace: Identifying value that uniquely identifies a vehicle or vessel in a carrier fleet.	
19	Beef	Vendor / Supplier Identifier	Vendor / Supplier Identifier	Equivalent	
20	Beef	Vendor / Supplier Name	Vendor / Supplier Name	EC Regulation: Information linked to the animal passport and / or ear tag provide the name of the Vendor. Can-Trace: Vendor / Supplier Name	
21	Beef	Unit of Trade		EC Regulation: Not a requirement. Can-Trace: Unit of Trade is the logistic unit of weight of the product.	

GAP ANALYSIS OF DRAFT CAN-TRACE ATTRIBUTES TO REQUIREMENTS OF REGULATION (EC) NO. 1760/2000

#	Sector	Can-Trace Draft Attributes	EC Regulations Recommendations	Notes / Gaps	Notes
	Beef		Country or countries of Fattening	EC Regulation: Country of fattening captured as well as the Country of Origin. Up to five countries of fattening may have to be recorded.	
	Beef		Cutting House Approval Number	EC Regulation: Cutting house approval number must be recorded.	
	Beef		Country of Slaughter	EC Regulation: Country of slaughter must be recorded	



7.3.5. Notes to Gap Analysis

Notes to Gap Analysis Illustration 7.3.5.a

NOTES TO GAP ANALYSIS

Note #	Comment
1	EAN Buyer identifier is not used. Alternative information available includes buyer name, buyer address and buyer contact information.
2	EAN Logistics identifier is not used. Alternative information available includes the logistics name, trailer number, driver information, address of logistics provider.
3	EAN Shipper identifier is not used. Alternative information available includes shipper name, shipper address and shipper contact information.
4	EAN Supplier identifier is not used. Alternative information available includes supplier name, supplier address and supplier contact number.
5	EAN Buyer identifier is not used. Alternative information available includes buyer name, buyer address and buyer contact information.
6	EAN Logistics identifier is not used. Alternative information available includes the logistics name, trailer number, driver information, address of logistics provider.
7	EAN Ship From Location Identifier is not used. Alternative information available includes ship from location address, ship from name and contact information.
8	EAN Vendor identifier is not used. Alternative information available includes vendor name, vendor address and vendor contact information.
9	EAN Buyer identifier is not used. Alternative information available includes buyer name, buyer address and buyer contact information.
10	EAN Logistics identifier is not used. Alternative information available includes the logistics name, trailer number, driver information, address of logistics provider.
11	EAN Ship From Location Identifier is not used. Alternative information available includes ship from location address, ship from name and contact information.



NOTES TO GAP ANALYSIS

Note #	Comment
12	EAN Vendor identifier is not used. Alternative information available includes vendor name, vendor address and vendor contact information.
13	EAN Buyer identifier is not used. Alternative information available includes buyer name, buyer address and buyer contact information.
14	EAN Logistics identifier is not used. Alternative information available includes the logistics name, trailer number, driver information, address of logistics provider.
15	EAN Ship From Location Identifier is not used. Alternative information available includes ship from location address, ship from name and contact information.
16	EAN Vendor identifier is not used. Alternative information available includes vendor name, vendor address and vendor contact information.
17	EAN Buyer identifier is not used. Alternative information available includes buyer name, buyer address and buyer contact information.
18	EAN Logistics identifier is not used. Alternative information available includes the logistics name, trailer number, driver information, address of logistics provider.
19	EAN Ship From Location Identifier is not used. Alternative information available includes ship from location address, ship from name and contact information.
20	EAN Vendor identifier is not used. Alternative information available includes vendor name, vendor address and vendor contact information.
21	EAN Buyer identifier is not used. Alternative information available includes buyer name, buyer address and buyer contact information.
22	Product can be traced back to the minutes and line that it was produced but there may be more than one case produced in that minute on that line.

NOTES TO GAP ANALYSIS

Note #	Comment
23	EAN Logistics identifier is not used. Alternative information available includes the logistics name, trailer number, driver information, address of logistics provider.
24	EAN Ship From Location Identifier is not used. Alternative information available includes ship from location address, ship from name and contact information.
25	EAN Vendor identifier is not used. Alternative information available includes vendor name, vendor address and vendor contact information.
26	Lot number is a generated number at the facility. The lot is defined as one delivery from one producer.
27	EAN Buyer identifier is not used. Alternative information available includes buyer name, buyer address and buyer contact information.
28	EAN Logistics identifier is not used. Alternative information available includes the logistics name, trailer number, driver information, address of logistics provider.
29	GTIN identifier is not used but EAN based serial number is created for every product that leaves the facility. The serial number created is unique for every product.
30	EAN Ship From Location Identifier is not used. Alternative information available includes ship from location address, ship from name and contact information.
31	EAN Vendor identifier is not used. Alternative information available includes vendor name, vendor address and vendor contact information.
32	EAN Buyer identifier is not used. Alternative information available includes buyer name, buyer address and buyer contact information.
33	EAN Logistics identifier is not used. Alternative information available includes the logistics name, trailer number, driver information, address of logistics provider.

NOTES TO GAP ANALYSIS

Note #	Comment
34	EAN.UCC barcode generated.
35	EAN Ship From Location Identifier is not used. Alternative information available includes ship from location address, ship from name and contact information.
36	EAN Supplier identifier is not used. Alternative information available includes supplier name, supplier address and supplier contact number.
37	EAN Buyer identifier is not used. Alternative information available includes buyer name, buyer address and buyer contact information.
38	EAN Logistics identifier is not used. Alternative information available includes the logistics name, trailer number, driver information, address of logistics provider.
39	EAN Ship From Location Identifier is not used. Alternative information available includes ship from location address, ship from name and contact information.
40	EAN Supplier identifier is not used. Alternative information available includes supplier name, supplier address and supplier contact number.
41	Lot number is generated at time of delivery.
42	EAN Buyer identifier is not used. Alternative information available includes buyer name, buyer address and buyer contact information. Documents are linked back to the lot numbers.
43	EAN Logistics identifier is not used. Alternative information available includes the logistics name, trailer number, driver information, address of logistics provider.
44	Product is identified per truckload combined with the sequence of loading. Product is kept together in the lots that they arrive in and then assigned a sequence as they enter the kill floor. This sequence is maintained throughout the process.

NOTES TO GAP ANALYSIS

Note #	Comment
45	EAN Ship From Location Identifier is not used. Alternative information available includes ship from location address, ship from name and contact information.
46	EAN Supplier identifier is not used. Alternative information available includes supplier name, supplier address and supplier contact number.
47	EAN Buyer identifier is not used. Alternative information available includes buyer name, buyer address and buyer contact information. Documents are linked back to the lot numbers.
48	Case serial number is not applicable. Each individual product that leaves the facility is assigned a sequence number and date that creates a unique "serial number" that identifies that particular product.
49	EAN Logistics identifier is not used. Alternative information available includes the logistics name, trailer number, driver information, address of logistics provider.
50	EAN Ship From Location Identifier is not used. Alternative information available includes ship from location address, ship from name and contact information.
51	EAN Supplier identifier is not used. Alternative information available includes supplier name, supplier address and supplier contact number.
52	EAN Buyer identifier is not used. Alternative information available includes buyer name, buyer address and buyer contact information. Documents are linked back to the lot numbers.
53	EAN Logistics identifier is not used. Alternative information available includes the logistics name, trailer number, driver information, address of logistics provider.
54	Lot number is generated at time of delivery this combined with date and sequence creates a unique product identifier.
55	EAN Ship From Location Identifier is not used. Alternative information available includes ship from location address, ship from name and contact information.



NOTES TO GAP ANALYSIS

Note #	Comment
56	EAN Supplier identifier is not used. Alternative information available includes supplier name, supplier address and supplier contact number.
57	EAN Buyer identifier is not used. Alternative information available includes buyer name, buyer address and buyer contact information. Documents are linked back to the lot numbers.
58	EAN Logistics identifier is not used. Alternative information available includes the logistics name, trailer number, driver information, address of logistics provider.
59	EAN Ship From Location Identifier is not used. Alternative information available includes ship from location address, ship from name and contact information.
60	EAN Supplier identifier is not used. Alternative information available includes supplier name, supplier address and supplier contact number.
61	EAN Buyer identifier is not used. Alternative information available includes buyer name, buyer address and buyer contact information. Documents are linked back to the lot numbers.
62	EAN Logistics identifier is not used. Alternative information available includes the logistics name, trailer number, driver information, address of logistics provider.
63	EAN Ship From Location Identifier is not used. Alternative information available includes ship from location address, ship from name and contact information.
64	EAN Supplier identifier is not used. Alternative information available includes supplier name, supplier address and supplier contact number.
65	EAN Buyer identifier is not used. Alternative information available includes buyer name, buyer address and buyer contact information. Documents are linked back to the lot numbers.
66	EAN Logistics identifier is not used. Alternative information available includes the logistics name, trailer number, driver information, address of logistics provider.

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Note #	Comment
67	EAN Ship From Location Identifier is not used. Alternative information available includes ship from location address, ship from name and contact information.
68	EAN Supplier identifier is not used. Alternative information available includes supplier name, supplier address and supplier contact number.
69	EAN Buyer identifier is not used. Alternative information available includes buyer name, buyer address and buyer contact information. Documents are linked back to the lot numbers.
70	EAN Ship From Location Identifier is not used. Alternative information available includes ship from location address, ship from name and contact information.
71	EAN Logistics identifier is not used. Alternative information available includes the logistics name, trailer number, driver information, address of logistics provider.
72	EAN Supplier identifier is not used. Alternative information available includes supplier name, supplier address and supplier contact number.
73	EAN Logistics identifier is not used. Alternative information available includes the logistics name, trailer number, driver information, address of logistics provider.
74	EAN Ship From Location Identifier is not used. Alternative information available includes ship from location address, ship from name and contact information.
75	EAN Supplier identifier is not used. Alternative information available includes supplier name, supplier address and supplier contact number.
76	EAN Buyer identifier is not used. Alternative information available includes buyer name, buyer address and buyer contact information. Documents are linked back to the lot numbers.
77	EAN Logistics identifier is not used. Alternative information available includes the logistics name, trailer number, driver information, address of logistics provider.

NOTES TO GAP ANALYSIS

Note #	Comment
78	EAN Ship From Location Identifier is not used. Alternative information available includes ship from location address, ship from name and contact information.
79	EAN Supplier identifier is not used. Alternative information available includes supplier name, supplier address and supplier contact number.
80	EAN Supplier identifier is not used. Alternative information available includes supplier name, supplier address and supplier contact number.
81	EAN Buyer identifier is not used. Alternative information available includes buyer name, buyer address and buyer contact information. Documents are linked back to the lot numbers.
82	EAN Logistics identifier is not used. Alternative information available includes the logistics name, trailer number, driver information, address of logistics provider.
83	EAN Ship From Location Identifier is not used. Alternative information available includes ship from location address, ship from name and contact information.
84	EAN Supplier identifier is not used. Alternative information available includes supplier name, supplier address and supplier contact number.
85	EAN Buyer identifier is not used. Alternative information available includes buyer name, buyer address and buyer contact information. Documents are linked back to the lot numbers.
86	EAN Logistics identifier is not used. Alternative information available includes the logistics name, trailer number, driver information, address of logistics provider.
87	EAN Supplier identifier is not used. Alternative information available includes supplier name, supplier address and supplier contact number.
88	EAN Buyer identifier is not used. Alternative information available includes buyer name, buyer address and buyer contact information. Documents are linked back to the lot numbers.

NOTES TO GAP ANALYSIS

Note #	Comment
89	EAN Logistics identifier is not used. Alternative information available includes the logistics name, trailer number, driver information, address of logistics provider.
90	EAN Ship From Location Identifier is not used. Alternative information available includes ship from location address, ship from name and contact information.
91	EAN Supplier identifier is not used. Alternative information available includes supplier name, supplier address and supplier contact number.
92	EAN Buyer identifier is not used. Alternative information available includes buyer name, buyer address and buyer contact information. Documents are linked back to the lot numbers.
93	EAN Logistics identifier is not used. Alternative information available includes the logistics name, trailer number, driver information, address of logistics provider.
94	EAN Product identifier is not used. Product code is generated on invoice that is unique to shipment.
95	EAN Ship From Location Identifier is not used. Alternative information available includes ship from location address, ship from name and contact information.
96	EAN Supplier identifier is not used. Alternative information available includes supplier name, supplier address and supplier contact number.
97	Best Before Date is not captured on the product. Pack date is supplied for some products.
98	EAN Logistics identifier is not used. Alternative information available includes the logistics name, trailer number, driver information, address of logistics provider.
99	EAN Ship From Location Identifier is not used. Alternative information available includes ship from location address, ship from name and contact information.

NOTES TO GAP ANALYSIS

Note #	Comment
100	EAN Supplier identifier is not used. Alternative information available includes supplier name, supplier address and supplier contact number.
101	Animal imported from third countries must also comply with the ear tag regulation. Regulation states that 'in principle' each animal that has an ear tag should also possess a passport.
102	The reference code or reference number can refer to a specific animal or a lot of animals.
103	Information such as the receipt date, best before date and so on are to be determined on a community basis. "All keepers of animals, with the exception of transporters, are to keep and up to date registry of the animals in their holdings. The characteristics of the register should be determined on a community basis."



8. Appendix

8.1. Beef Pilot Working Group Membership and Observers

Better Beef Ltd. Guelph, Ontario

Canadian Bison Association Regina, Saskatchewan

Canadian Cattle Identification Agency Calgary, Alberta

Caravelle Foods Brampton, Ontario

Colbex Abattoir Inc. St-Cyrille de Wendover, Québec

Écolait La Plaine, Québec

Levinoff Meat Products Ltd. Montreal, Québec

Metro Richelieu Inc. Montreal, Québec

8.2. References

Alan Bennett Public Affairs Specialist Food and Drug Administration Portland, Oregon, USA

Code of Best Practice for Beef Traceability British Retail Consortium London, UK

Compliance Policy Guide Guidance for FDA and CBP Staff Prior Notice of Imported Food Under the Public Health Security and Bioterrorism Preparedness and Response Act of 2002 U.S. Department of Health and Human Services Food and Drug Administration Office of Regulatory Affairs, Center for Food Safety and Applied Nutrition Center for Veterinary Medicine and Department of Homeland Security





Bureau of Customs and Border Protection Issued December 2003 Revised June 2004, USA

EAN International Traceability of Beef Guidelines Application of EAN.UCC Standards in implementing Regulation (EC) 1760/2000 EAN International, Belgium

Establishment and Maintenance of Records Under the Public Health Security and Bioterrorism Preparedness and Response Act of 2002; Proposed Rule Federal Register: May 9, 2003 (Volume 68, Number 90)], Part IV Department of Health and Human Services Food and Drug Administration 21 CFR Parts 1 and 11 [Docket No. 02N-0277] RIN 0910-AC39

Francine Lapointe, agr. Director of Development Agri-Traçabilité Québec Longueuil, Québec

Global Trade Item Number Implementation Guide Uniform Code Council Inc. May 2004

Health of Animals Regulations Health of Animals Act SOR/91-525, s. 1 Canada

July 17, 2004 Health Hazard Alert Churchill Falls (Labrador) Corporation Limited Canadian Food Inspection Agency

Meat Inspection Act Meat Hygiene Manual of Procedure Canadian Food Inspection Agency

Product Recall Guidelines for Firms Food Safety and Inspection Service U.S. Department of Agriculture

Public Health Security and Bioterrorism Preparedness and Response Act of 2002 Public Law 107-188, 107th Congress, USA

Recall Notification, 019-2004, Ground Beef, E. coli 0157:H7

U.S. Department of Agriculture Food Safety Inspection Service

Record Keeping Requirements for Human Food and Cosmetics Manufactured From, Processed With, or Otherwise Containing, Material from Cattle Department of Human Services, Food and Drug Administration 21 CFR Parts 189 and 700 Docket No. 2004N-0257, RIN 0910-AF48 (Proposed Rule) USA

Report No. 24601-03-Hy Food Safety and Inspection Service Office of Inspector General, Northeast Region U.S. Department of Agriculture

Summary of Title III, Subtitle A Of The Public Health Security and Bioterrorism Preparedness and Response Act of 2002 Food and Drug Administration USA

Traceability in the Food Chain, Board Paper, July 2002 Foods Standards Agency Government of the UK London, UK

Traceability in the Meat Supply Chain Dr. Brian Buhr University of Minnesota

Traceability in the U.S. Food Supply: Economic Theory and Industry Studies Economic Research Service Agricultural Economic Report Number 830 United States Department of Agriculture, USA

Traceability of Food Products Yoav Sarig Agricultural Engineering International: the CIGR Journal of Scientific Research and Development, Invited Overview Paper. Vol V, December 2003

8.3. Templates of Interview Guides/Questionnaires

Attached questionnaires:

- Processor
- Wholesaler/Distributors/Retailers
- Supplemental Questionnaire, Supply Chain





Can-Trace Beef Pilot Project Pilot Questionnaire – Processor



Objective:

- 1. Establish an understanding of the existing traceability practices and systems.
- 2. Establish an understanding of existing recall procedures and practices.

Company Name: _____

Contact 1 (Name, Title, Contact Info.): _____

Contact 2 (Name, Title, Contact Info.):

Completed By:

Company Address:

Date: _____

A. General Traceability/Recall Information

Questions

- 1. Registration:
 - Federal
 - Provincial
 - EAN
 - Other
 - N/A
- 2. Which function (who) is responsible for the maintenance of the traceability program?
- 3. What medium is used to store traceability information? (hard copy, electronic, combination, etc.).
- 4. What procedures (and flow charts) exist relating to a product recall program?
 - Tracking, analysis, actions taken & records of product complaints
 - The person or persons responsible, eg. Recall coordinator(s)
 - The roles and responsibilities for co-ordination and implementation of a recall
 - Methods to identify, locate and control recalled product
 - Analysis of other products potentially affected by the hazard and to be included in the recall
 - Procedure for monitoring the effectiveness of the recall
 - Procedures to verify the capability of the program to rapidly identify and control a code lot of potentially affected product and reconcile the amount of product produced, in inventory and in distribution.
 - Notification of CFIA authorities with appropriate details
- 5. How long are operation records related to traceability maintained?
- 6. Do 3rd party shipper documents contain: i.e. shipment identifier, ship from/to, location identifier, ship date, receipt date. Is this data shared one up/one down?





B. Mandatory Traceability Requirement Information

Questions

Provide the following information, including detail regarding the related procedures. Provide sample documentation where possible.

ONE UP/KEEP - Product Identifier

(Uniquely identifies animal, single or lot. Refer to sector specific animal identification schemes.) How is this information supplied from the Primary Producer? Who, where and when is it recorded?

ONE DOWN – Product Identifier

How is this information supplied to the Secondary Processors/Wholesalers/Distributors/Retailers?

ONE UP/KEEP - Product Description

(Free form description of the trade item that can be used to identify the product at point of sale). How is this information supplied from the Primary Producer? Who, where and when is it recorded?

ONE DOWN – Product Description

How is this information supplied to the Secondary Processors/Wholesalers/Distributors/Retailers?

ONE UP/KEEP - Vendor/Supplier Identifier

(The selling party. The EAN.UCC (GLN) Global Location Number is used). How is this information supplied from the Primary Producer? Who, where and when is it recorded?

ONE DOWN – Vendor/Supplier Identifier

How is this information supplied to the Secondary Processors/Wholesalers/Distributors/Retailers?

ONE UP/KEEP - Shipment Identifier (Uniquely distinguishes a seller's shipment of product).

How is this information supplied from the Primary Producer? Who, where and when is it recorded?

ONE DOWN – Shipment Identifier

How is this information supplied to the Secondary Processors/Wholesalers/Distributors/Retailers?

ONE UP/KEEP - Buyer Identifier

(The party to which the product is sold. The EAN.UCC (GLN) Global Location Number is used. A number that uses the EAN.UCC-13 data structure to identify physical, functional or legal entities). Who, where and when is it recorded?





ONE DOWN – Buyer Identifier

How is this information supplied to the Secondary Processors/Wholesalers/Distributors/Retailers?

ONE UP/KEEP - Date of Retirement

(The date that the product was harvested, retired or caught. Expressed as month/day/year). How is this information supplied from the Primary Producer? Who, where and when is it recorded?

ONE DOWN – Date of Retirement

How is this information supplied to the Secondary Processors/Wholesalers/Distributors/Retailers?

ONE UP/KEEP - Batch or Production Lot Number

How is this information supplied from the previous Processor? Who, where and when is it recorded?

ONE DOWN – Batch or Production Lot Number

How is this information supplied to the Secondary Processors/Wholesalers/Distributors/Retailers?

C. Optional Traceability Requirement Information

Questions

Provide the following information, including detail regarding the related procedures. Provide sample documentation where possible.

ONE UP/KEEP - Vendor/Supplier Name

How is this information supplied from the Primary Producer? Who, where and when is it recorded?

ONE DOWN – Vendor/Supplier Name

How is this information supplied to the Secondary Processors/Wholesalers/Distributors/Retailers?

ONE UP/KEEP - Buyer Name

ONE DOWN – Buyer Name

Who, where and when is it recorded?





ONE UP/KEEP - Logistics Provider Identifier (The 3rd party logistics provider, EAN.UCC (GLN) is used).

How is this information supplied? Who, where and when is it recorded?

ONE DOWN – Logistics Provider Identifier

How is this information supplied to the Secondary Processors/Wholesalers/Distributors/Retailers?

ONE UP/KEEP - Ship From/To Location Identifier

(Uniquely identifies the location the animals or product was shipped from. Primary producer will use sector specific location identification schemas. All other will use the EAN.UCC (GLN)). How is this information supplied from the Primary Producer? Who, where and when is it recorded?

ONE DOWN – Ship From/To Location Identifier

How is this information supplied to the Secondary Processors/Wholesalers/Distributors/Retailers?

ONE UP/KEEP - Ship Date (Identifies date that goods were shipped from the producers/supplier's facility).

How is this information supplied from the Primary Producer? Who, where and when is it recorded?

ONE DOWN – Ship Date

How is this information supplied to the Secondary Processors/Wholesalers/Distributors/Retailers?

ONE UP/KEEP - Vehicle Identifier

(An identifying value which uniquely identifies a vehicle or a vessel in a carrier fleet). How is this information supplied from the Primary Producer? Who, where and when is it recorded?

ONE DOWN – Vehicle Identifier

How is this information supplied to the Secondary Processors/Wholesalers/Distributors/Retailers?

ONE UP/KEEP - Unit of Trade

(The logistic unit of weight of the product. This is the net weight). How is this information supplied from the Primary Producer? Who, where and when is it recorded?

ONE DOWN – Unit of Trade

How is this information supplied to the Secondary Processors/Wholesalers/Distributors/Retailers?





ONE UP/KEEP - Country of Origin/State or Province

(The country codes in which the goods have been produced or manufactured. Includes the Province or State. Can be expressed as the name or using ISO codes).

How is this information supplied from the Primary Producer? Who, where and when is it recorded?

ONE DOWN – Country of Origin/State or Province

How is this information supplied to the Secondary Processors/Wholesalers/Distributors/Retailers?

PROCESSOR/KEEP – Receipt Date

(Date that the item is received. The date for which the GTIN arrives at the ship to location). Who, when and how is this generated/recorded?

PROCESSOR/KEEP – Best Before Date

(Product is the freshest to this date. Expressed as month/date/year).

Who, when and how is this generated/recorded?

ONE DOWN – Best Before Date

How is this information supplied to the Secondary Processors/Wholesalers/Distributors/Retailers?

PROCESSOR/KEEP – Case Serial Number

(A seller assigned number that uniquely identifies a logistic unit (case or pallet). The EAN.UCC serialized shipping container code (SSCC)).

Who, when and how is this generated/recorded?

ONE DOWN – Case Serial Number

How is this information supplied to the Secondary Processors/Wholesalers/Distributors/Retailers?





Beef Pilot Project Pilot Questionnaire – Wholesaler/Distributors/Retailers



Objective:

- 1. Establish an understanding of the existing traceability practices and systems.
- 2. Establish an understanding of existing recall procedures and practices.

Company Name:	
Company Address:	
Contact 1 (Name, Title, Contact Info.):	
Contact 2 (Name, Title, Contact Info.):	
Completed By:	
Date:	

A. General Traceability/Recall Information

Questions

- 1. Registration:
 - Federal
 - Provincial
 - EAN
 - Other
 - N/A

2. Which function (who) is responsible for the maintenance of the traceability program?

- 3. What medium is used to store traceability information? (hard copy, electronic, combination, etc.)
- 4. What procedures (and flow charts) exist relating to a product recall program?
 - Tracking, analysis, actions taken & records of product complaints
 - The person or persons responsible, eg. Recall coordinator(s)
 - The roles and responsibilities for co-ordination and implementation of a recall
 - Methods to identify, locate and control recalled product
 - Analysis of other products potentially affected by the hazard and to be included in the recall
 - Procedure for monitoring the effectiveness of the recall
 - Procedures to verify the capability of the program to rapidly identify and control a code lot of potentially affected product and reconcile the amount of product produced, in inventory and in distribution.
 - Notification of CFIA authorities with appropriate details
- 5. How long are operation records related to traceability maintained?
- 6. 3rd party logistics. i.e. shipment identifier, ship from/to, location identifier, ship date, receipt date?





B. Mandatory Traceability Requirement Information

Questions

Provide the following information, including detail regarding the related procedures. Provide sample documentation where possible.

ONE UP/KEEP - Product Identifier

(Uniquely identifies animal, single or lot. Refer to sector specific animal identification schemes). How is this information supplied from the Processor? Who, where and when is it recorded?

ONE DOWN – Product Identifier

How is this information supplied to the Store/Operator Level?

ONE UP/KEEP - Product Description

(Free form description of the trade item that can be used to identify the product at point of sale). How is this information supplied from the Processor? Who, where and when is it recorded?

ONE DOWN – Product Description

How is this information supplied to the Store/Operator Level?

ONE UP/KEEP - Vendor/Supplier Identifier

(The selling party. The EAN.UCC (GLN) Global Location Number is used). How is this information supplied from the Processor? Who, where and when is it recorded?

ONE DOWN – Vendor/Supplier Identifier

How is this information supplied to the Store/Operator Level?

ONE UP/KEEP – Buyer Identifier

(The party to which the product is sold. The EAN.UCC (GLN) Global Location Number is used. A number that uses the EAN.UCC-13 data structure to identify physical, functional or legal entities).

ONE DOWN/Keep – Buyer Identifier

Who, where and when is it recorded?





ONE UP/KEEP - Batch or Production Lot Number

(Code assigned to identify products production batch or lot. Differs from serial number that is assigned to identify each individual product uniquely).

How is this information supplied from the Processor? Who, where and when is it recorded?

ONE DOWN – Batch or Production Lot Number

How is this information supplied to the Store/Operator Level?

ONE UP/KEEP - Shipment Identifier

(Uniquely distinguishes a seller's shipment of product). How is this information supplied from the Processor? Who, where and when is it recorded?

ONE DOWN – Shipment Identifier

How is this information supplied to the Store/Operator Level?

ONE UP/KEEP - Date of Retirement

(The date that the product was harvested, retired or caught. Expressed as moth/day/year). How is this information supplied from the Processor? Who, where and when is it recorded?

C. Optional Traceability Requirement Information

Questions

Provide the following information, including detail regarding the related procedures. Provide sample documentation where possible.

ONE UP/KEEP – Vendor/Supplier Name

How is this information supplied from the Processor? Who, where and when is it recorded?

ONE DOWN – Vendor/Supplier Name

How is this information supplied to the Store/Operator Level?

ONE UP/KEEP – Buyer Name

How is this information supplied from the Processor? Who, where and when is it recorded?

ONE DOWN/Keep – Buyer Name

Who, where and when is it recorded?





ONE UP/KEEP – Logistics Provider Identifier

(The 3rd party logistics provider, EAN.UCC (GLN) Global Location Number is a structured identification of a physical location, legal or functional entity within an enterprise.)

How is this information supplied from the Processor? Who, where and when is it recorded?

ONE DOWN – Logistics Provider Identifier

How is this information supplied to the Store/Operator Level?

ONE UP/KEEP - Ship From/To Location Identifier

(Uniquely identifies the location the animals or product was shipped from. Primary producer will use sector specific location identification schemas. All others will use the EAN.UCC (GLN)). How is this information supplied from the Processor? Who, where and when is it recorded?

ONE DOWN – Ship From/To Location Identifier

How is this information supplied to the Store/Operator Level?

ONE UP/KEEP – Ship Date (Identifies date that goods were shipped from the producers/supplier's facility.)

How is this information supplied from the Processor? Who, where and when is it recorded?

ONE DOWN – Ship Date

How is this information supplied to the Store/Operator Level?

ONE UP/KEEP – Vehicle Identifier

(An identifying value which uniquely identifies a vehicle or a vessel in a carrier fleet.) How is this information supplied from the Processor? Who, where and when is it recorded?

ONE DOWN – Vehicle Identifier

How is this information supplied to the Store/Operator Level?

ONE UP/KEEP – Best Before Date (Product is freshest to this date. Expressed as month/date/year.)

How is this information supplied from the Processor? Who, when and how is this recorded?

ONE DOWN – Best Before Date

How is this information supplied to the Store/Operator Level?





ONE UP/KEEP – Case Serial Number

(A seller assigned number that uniquely identifies a logistic unit (case or pallet). The EAN.UCC serialized shipping container code (SSCC).

How is this information supplied from the Processor? Who, when and how is this recorded?

ONE DOWN – Case Serial Number

How is this information supplied to the Store/Operator Level?

ONE UP/KEEP – Unit of Trade (The Unit of Trade is a logistic unit of weight of the product. This is the net weight).

How is this information supplied from the Processor? Who, where and when is it recorded?

ONE DOWN – Unit of Trade

How is this information supplied to the Store/Operator Level?

ONE UP/KEEP – Country of Origin/State or Province

(The country codes in which the goods have been produced or manufactured. Includes the province or State. Can be expressed as the name or using the ISO codes).

How is this information supplied from the Processor? Who, where and when is it recorded?
ONE DOWN – Country of Origin/State or Province

How is this information supplied to the Store/Operator Level?





Supplemental Questionnaire 1

On-Site Interviews, All Participants

Supply Chain Redundancy and Timeliness Questionnaire

- 1. Have you ever experienced a data issue (computer or hard copy file) that prevented you from accessing information regarding traceability? If yes, describe.
- 2. How did you handle information transfer during the power outage of August 2003?
- 3. Is the information that you receive timely enough to make your decisions?
- 4. Do you provide timely information?
- 5. What is your protocol for validating the accuracy of the information you are provided from the upstream supplier?
- 6. What is your protocol for validating the accuracy of the information you provide to your downstream customer?
- 7. How much money do you keep in the budget to audit the protocol of validating the above?
- 8. Have you ever had to act without the required information? If so, please describe an example.

8.4. GLOSSARY OF TERMS AND ABBREVIATIONS

1st Processor	Beef Industry: Typically slaughter house. Receives live animal from primary producer, cattle dealers or auction house.
2nd Processor	Beef Industry: Typically secondary cutting facility, grinder or other value adder. Receives carcass or portions from 1st Processors.
AI	Application Identifiers
APF	Agriculture Policy Agreement, Canada
ATQ	Agri-Traçabilité Québec
B/L	Bill of Lading
BSE	Bovine Spongiform Encephalopathy
CCIA	Canadian Cattle Identification Agency
CFIA	Canadian Food Inspection Agency
cGMP	Current Good Manufacturing Practices
СМС	Canadian Meat Council
Combo	Shipping container holding approximately 1000 lbs. of boned beef
Consumer	End user, member of the general public.
CSA	Canadian Standards Council
deg. C	Degrees Celsius
Distributor	Intermediary step between processors and retailer or food service. May provide storage, labelling, limited processing and repacking services.
DNA	Deoxyribonucleic acid
EAN	EAN International
EAN.UCC	Specifications, standards and guidelines co-administered by UCC and EAN
Ear Tag	Part of the Canadian national cattle identification system. A tag to be applied by the time an animal leaves the herd of origin. The tag must contain a visible unique number, bar code and CCIA logo.
ECCC	Electronic Commerce Council of Canada
EDI	Electronic Data Interchange
EMEG	European Meat Expert Group
EU	European Union
FDA	Food and Drug Administration, U.S.
FSEP	Food Safety Enhancement Program





Food Safety and Inspection Service, U.S. Department of Agriculture
feet or foot
Global Location Number
Good Manufacturing Practises
Global Trade Item Number
Department of Health and Human Services, U.S.
Hazard Analysis Critical Control Points
Identification Number
International Organization for Standards
Pounds (weight of measurement)
A recall as per Section 19 of the Canadian Food Inspection Agency Act
Ministère de l'Agriculture, des Pêcheries et de l'Alimentation, Québec
Removal from further sale or use of a marketed product that does not violate legislation administered or enforced by the CFIA.
Purchase Order
Point of Sale
A primary producer is an individual or company carrying on a primary production business alone or in partnership.
Noun. Process of recalling affected product and encompasses all tiers of the affected product distribution system.
Verb. Remove from sale or use, or to correct, a marketed product that contravenes legislation administered or enforced by the CFIA.
Numerical designation assigned to a product recall to indicate the relative degree of health risk presented by the product.
Reasonable probability that use or exposure to a violative product will cause serious adverse health consequences or death.
Use or exposure to a violative product will cause temporary health consequences or where the possibility of serious adverse health consequences is remote.
Use or exposure to a violative product is not likely to cause any adverse health consequences.
Level to which a recall is conducted.
Establishment to sell small quantities to the consumer. Restaurant and food service operators are included in this classification.
Radio Frequency Identification

RFP	Request for Proposal
sq. ft.	Square feet or square foot
Traceability	"Ability to track a food item (of animal or plant origin; finished product or ingredient) forwards or backwards through the food continuum (or supply chain)"—Can-Trace
Tracing	Capability to identify the origin of a particular unit and/or batch of product located within the supply chain by reference to records held upstream. This report uses the Can-Trace definitions.
Tracking	Capability to follow the path of a specified unit of a product and/or batch through the supply chain as it moves between organizations towards the final point-of-sale or point-of-service.
UCC	Uniform Code Council
USDA	United States Department of Agriculture
Violative Product	Product that violates legislation administered or enforced by the CFIA.
Wholesaler	Intermediary step between processors and retailer or food service. May provide storage, labelling, limited processing and repacking services.





8.5. ASSUMPTIONS/LIMITATIONS

8.5.1. Report

This report combines information from primary sources (research and simulation exercises), secondary sources (articles and surveys conducted by other organizations for other purposes) and personal interviews as summarized by the consultant contracted for this study. Some of the information contained in this report consists of opinions expressed by survey respondents and/or other authors; consequently, the views expressed herein are those of the originators and do not necessarily represent the opinions of individual project participants, Can-Trace or the Electronic Commerce Council of Canada.

Trimark Engineering Ltd., Can-Trace or the Electronic Council of Canada and their employees, servants or agents make no representations or warranties as to the accuracy or completeness of the information contained in this report. Parties who rely on the information do so at their own risk.

8.5.2. Participants

Participants were primarily volunteers from the membership of the Can-Trace Beef Pilot Project Team. It is reasonable to assume that membership in an organization committed to implementation of traceability differentiates these participants from a random sample of companies. The individuals and companies interviewed have a wide range of perspectives and experiences covering an extensive segment of the Canadian beef supply chain. They do not necessarily constitute a random sample of the operators in the beef supply chain.

Information collected from project participants is an indication of processes at participating organizations only. Participant exchanges of data with other vendors and customers were not investigated. Exchange of data between other beef industry operators was not investigated for this report.

The understanding of the report author is that the qualitative research protocol used for this report has identified typical data collection and exchange patterns in the beef industry. This is backed-up by consultant team experience in the beef and other food industry sectors.

8.5.3. Scope

Ideal traceability is whole chain traceability. With minor exceptions, the scope of this report extends from the inspected carcass at the 1st processor to the retailers refrigerated storeroom.

Further study is required to determine the adequacy of current traceability capability at the intake end of the supply chain. The interface of data (one up/one down) and the relationship between the producer, the Canadian Cattle Identification Agency and the 1st processor is not in the scope of this report.

The one up/one down model of traceability at the retailer/consumer interface was not included in this report. Issues for further review at this level of the supply chain include the loss of traceability at the retailer (cutting, repacking and re-labelling) and the data attributes that are shared one up/one down with the consumer.

8.6. INDEX OF ILLUSTRATIONS

NUMBER ILLUSTRATION

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7.1.a	Product Trace Simulation Flow Diagram, Scenario 1
7.1.b	Data Available Compared to Data Utilized, Scenario 1, Retailer A
7.1.c	Data Available Compared to Data Utilized, Scenario 1, Distributor A
7.1.d	Data Available Compared to Data Utilized, Scenario 1, 2nd Processor B
7.1.e	Data Available Compared to Data Utilized, Scenario 1, 2nd Processor A
7.1.f	Data Available Compared to Data Utilized, Scenario 1, 1st Processor A
7.1.g	Data Available Compared to Data Utilized, Scenario 1, 1st Processor B
7.1.h	Product Trace Simulation Flow Diagram, Scenario 2
7.1.i	Data Available Compared to Data Utilized, Scenario 2, Retailer C
7.1.j	Data Available Compared to Data Utilized, Scenario 2, Wholesaler A
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- 7.3.2.c Gap Analysis EAN, Wholesalers/Distributors/Retailers
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8.7. CAN-TRACE ATTRIBUTES DICTIONARY

The Can-Trace Attributes Dictionary included in this Section has been approved by the Can-Trace Standards Working Group.

The attributes were agreed upon by the Can-Trace Standards Working Group.

The spreadsheets capture the Can-Trace Data Attributes that have been identified by the different sectors.

There are 5 spreadsheets identifying the attributes:

- 1. ALL Attributes
- 2. BEEF Attributes
- 3. PRODUCE Attributes
- 4. SEAFOOD Attributes
- 5. PORK Attributes

LEGEND:

Groups – Primary Producers which includes Farmers, Growers and Fishers, Processors, Wholesalers/Distributors/Retailers.

Master and Transactional Data Identifier (M/T)

- Master data that is static.
- Transactional data that is unique to every business transaction.

Data Attributes Definitions Examples

BOLD indicate Mandatory Data Elements NOTE:

Quantity and Unit of Measure need to be added to all Sectors. Quantity will be Transactional, Mandatory. Unit of Measure Master, Mandatory?



Dictionary
Attributes I
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				tion Number. The y. This code will on a one to one		Container	which the or manufactured, hed for the e value may the trade		l arrives at the	(GLN) is a physical location, iin an enterprise.	tion Number is umber (GLN) is a physical location, vin an enterprise.	e trade item that rade item at point	umber which is ade item or service) to retrieve pre- may be priced or oint in any supply 14 digit structure ally a 8, 12 or 13	I must be shipped.
EAN.UCC Global Data Dictionary Definition				EAN.UCC (GLN) Global Local buyer assigned ID for a part be used for cross-reference relationship.		EAN.UCC Serialized Shipping Code (SSCC)	The country code (codes) in goods have been produced (according to criteria establis purposes of application of th or may not be presented on item label.		The date for which the GTIN ship to location.	The Global Location Number structured Identification of a legal or functional entity with	EAN.UCC (GLN) Global Local used, The Global Location N structured Identification of a legal or functional entity with	A free form description of th can be used to identify the t of sale.	GTIN = Global Trade Item N used to identify any item (tr upon which there is a need 1 defined information and that ordered or invoiced at any p chain. 8, 12, 13 (Europe) or * at the consumer level, usu digit number	The date for which the GTIN
Examples	Date	Raw Materials- 200404211000112345= production date+pcode+ vendor code	Expressed as month/day/year.	Grower, Packer, Shipper, Repacker, Buyer Identification Number (GLN). i.e. 5467248000014		i.e. (00) 3761234500000016	ISO Codes "124" = Canada, "840" United States	Date of Harvest, Catch, Retirement	Date	GLN Number	Carrier, Vessel, Container	STRIPLOIN AAA	Cow, Flock, Catch of Fish, Bin, Case GTIN (i.e. 041540564003 (12-digit example))	Date
Data Attribute Definition	The birth date of the animal.	Code assigned to identify products production batch or lot. Differs from Serial Number which is assigned to identify each individual product uniquely.	Product is the freshest to this date. Expressed as month/day/year.	The party to which the product is sold. The EAN.UCG (GIN) Global Location Number is used. A number that uses the EAN.UCC-13 data structure to identify physical, functional, or legal entities.	Name of Buyer.	A seller assigned number that uniquely identifies a logistic unit (case or pallet). The EAN.UCC Serialized Shipping Container Code (SSCC).	The country codes in which the goods have been produced or manufactured. Includes the Province or State. Can be expressed as the name or using International Standards Organization (ISO) codes.	The date that the product was harvested, retired or caught. Expressed as month/day/year.	Date that the item is received.	Uniquely identifies a premise or catch area. Refer to sector specific location identification guidelines.	The 3rd party logistics provider Motor, EAN. UCC (GLN) Global Location Number is used.	Free form product description.	Animal/Catch/Identifier Number (Uniquely identifies animal, single or lot. Refer to sector specific animal identification schemas). Finished/Processed Product Identifier Number (A uniquely numerical value used to identify a product). The EN.UCC (GTIN) Global Trade Item Number is used.	Identifies date that goods were shipped from the producers/supplier's facility.
Master or Transaction Data	Σ	F	⊢	Σ	Σ	F	Σ	F	F	Σ	Σ	Σ	Σ	F
Wholesalers Distributors Retailers		Batch or Production Lot Number	Best Before Date	Buyer Identifier	Buyer Name	Case / Pallet Serial Number	Country of Origin State or Province		Receipt Date		Logistics Provider Identifier	Product Description	Product Identifier	Ship Date
2nd Processor		Batch or Production Lot Number	Best Before Date	Buyer Identifier	Buyer Name	Case / Pallet Serial Number	Country of Origin State or Province		Receipt Date		Logistics Provider Identifier	Product Description	Product Identifier	Ship Date
1st Processor		Batch or Production Lot Number	Best Before Date	Buyer Identifier	Buyer Name	Case / Pallet Serial Number	Country of Origin State or Province	Date of Harvest/ Catch/Retirement	Receipt Date	Location Identifier	Logistics Provider Identifier	Product Description	Product Identifier	Ship Date
Primary Producers	Animal Age			Buyer Identifier	Buyer Name		Country of Origin State or Province	Date of Harvest/ Catch/Retirement	Receipt Date	Location Identifier	Logistics Provider Identifier	Product Description	Product Identifier	Ship Date
Sector	Beef	AII	AII	AII	All	AII	All	AII	AII	AII	AII	AII	Ч	All
#	1	7	m	4	ß	و	~	8	6	10	11	12	13	14





Draft Can-Trace Attributes Dictionary

	#	Sector	Primary Producers	1st Processor	2nd Processor	Wholesalers Distributors Retailers	Master or Transaction Data	Data Attribute Definition	Examples	EAN.UCC Global Data Dictionary Definition
	15	All	Ship From Location Identifier	Ship From Location Identifier	Ship From Location Identifier	Ship From Location Identifier	М	Uniquely identifies the location the animals or product was shipped from. Primary producer will use sector specific location identification schemas. All others will use the EAN.UCC (GLN) Global Location Number.	GLN Number	EAN.UCC (GLN) Global Location Number. The Global Location Number (GLN) is a structured Identification of a physical location, legal or functional entity within an enterprise.
	16	All	Shipment Identifier	Shipment Identifier	Shipment Identifier	Shipment Identifier	Т	Uniquely distinguishes a seller's shipment of product.	Bill of Lading, Invoice	This class is mandatory with possible multiple occurrences. This class has three mandatory associations to other classes. Deliver Shipment Information with role name shipment information Delivery Payment Method Code List with role name method of payment Service Level Code List with role name service level. This class has a choice relationship to the Shipment Party Information class with the following role choices and one the three role must be selected. Consignee Return service Third party The class contains one attribute. Reference Number
	17 S	Seafood	Supplier License Number					Commercial License issued to primary producer.	Commercial License Number	
	18	All	Vehicle Identifier	Vehicle Identifier	Vehicle Identifier	Vehicle Identifier	М	An identifying value which uniquely identifies a vehicle or a vessel in a carrier fleet.	Vehicle, Carrier, Vessel Number	Carriers Reference Number Pro or Invoice Number.
	19	All	Vendor/Supplier Identifier	Vendor/Supplier Identifier	Vendor/Supplier Identifier	Vendor/Supplier Identifier	М	The selling party. The EAN.UCC (GLN) Global Location Number is used.	Internal Vendor/Supplier code number(CEN001000), GLN Number	EAN.UCC (GLN) Global Location Number. The Global Location Number (GLN) is a structured Identification of a physical location, legal or functional entity within an enterprise.
:	20	All	Vendor / Supplier Name	Vendor / Supplier Name	Vendor / Supplier Name	Vendor / Supplier Name	М	Vendor/Supplier Name.	Central Meat	Descriptive name of the manufacturer of the trade item. Party, which provides service(s) and/ or manufactures or otherwise has possession of goods and consigns or makes them available in trade. Descriptive name of the manufacturer of the trade item.
:	21	All	Unit of Trade	Unit of Trade	Unit of Trade	Unit of Trade	М	The Unit of Trade is the logistic unit of weight of the product. This is the net weight.	lbs, kg "11.5 kgm" value - pounds, grams, etc.	Used to identify the net weight of the trade item. Net weight excludes any packaging materials and applies to all levels but consumer unit level.



8.8. Draft Can-Trace Beef Attributes Summary

The Draft Can-Trace Beef Attributes Summary included in this Section has been approved by the Can-Trace Standards Working Group.



Draft Can-Trace Beef Attributes Summary

	#	Sector	Primary Producers	1st Processors	2nd Processors	Wholesalers, Distributors, Retailers
				DATA INPUTS TO COLLECT		
	1	Beef	Animal Age			
	2	Beef		Batch or Production Lot Number	Batch or Production Lot Number	Batch or Production Lot Number
С	3	Beef	Buyer Identifier	Buyer Identifier	Buyer Identifier	Buyer Identifier
ŏ	4	Beef	Buyer Name	Buyer Name	Buyer Name	Buyer Name
V	5	Beef	Unit of Trade	Unit of Trade	Unit of Trade	Unit of Trade
Ŀ.	6	Beef	Country of Origin State or Province			
L	7	Beef	Location Identifier			
F	8	Beef	Logistics Provider Identifier	Logistics Provider Identifier	Logistics Provider Identifier	Logistics Provider Identifier
	9	Beef	Product Description	Product Description	Product Description	Product Description
C	10	Beef	Product Identifier	Product Identifier	Product Identifier	Product Identifier
Т	11	Beef	Ship From Location Identifier			
	12	Beef	Vehicle Identifier	Vehicle Identifier	Vehicle Identifier	Vehicle Identifier
	13	Beef	Vendor/Supplier Identifier	Vendor/Supplier Identifier	Vendor/Supplier Identifier	Vendor/Supplier Identifier
	14	Beef	Vendor/Supplier Name	Vendor/Supplier Name	Vendor/Supplier Name	Vendor/Supplier Name

	#	Sector	Primary Producers	1st Processors	2nd Processors	Wholesalers, Distributors, Retailers
	1	Beef		Batch or Production Lot Number	Batch or Production Lot Number	Batch or Production Lot Number
	2	Beef		Best Before Date	Best Before Date	Best Before Date
	3	Beef	Buyer Identifier	Buyer Identifier	Buyer Identifier	Buyer Identifier
	4	Beef	Buyer Name	Buyer Name	Buyer Name	Buyer Name
C	5	Beef		Unit of Trade	Unit of Trade	Unit of Trade
	6	Beef		Case Serial Number	Case Serial Number	Case Serial Number
H	7	Beef	Country of Origin State or Province			
A	8	Beef	Logistics Provider Identifier	Logistics Provider Identifier	Logistics Provider Identifier	Logistics Provider Identifier
R	9	Beef	Product Description	Product Description	Product Description	Product Description
E	10	Beef	Product Identifier	Product Identifier	Product Identifier	Product Identifier
	11	Beef	Ship Date	Ship Date	Ship Date	Ship Date
	12	Beef	Ship From Location Identifier			
	13	Beef	Shipment Identifier	Shipment Identifier	Shipment Identifier	Shipment Identifier
	14	Beef	Vehicle Identifier	Vehicle Identifier	Vehicle Identifier	Vehicle Identifier
	15	Beef	Vendor/Supplier Identifier	Vendor/Supplier Identifier	Vendor/Supplier Identifier	Vendor/Supplier Identifier
	16	Beef	Vendor/Supplier Name	Vendor/Supplier Name	Vendor/Supplier Name	Vendor/Supplier Name

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Draft Can-Trace Beef Attributes Summary



Draft Can-Trace Beef Attributes Summary

	#	Sector	Primary Producers	1st Processors	2nd Processors	Wholesalers, Distributors, Retailers
				DATA TO KEEP		
	1	Beef	Animal Age			
	2	Beef		Batch or Production Lot Number	Batch or Production Lot Number	Batch or Production Lot Number
	3	Beef		Best Before Date	Best Before Date	Best Before Date
	4	Beef	Buyer Identifier	Buyer Identifier	Buyer Identifier	Buyer Identifier
	5	Beef	Buyer Name	Buyer Name	Buyer Name	Buyer Name
	6	Beef		Unit of Trade	Unit of Trade	Unit of Trade
	7	Beef		Case Serial Number	Case Serial Number	Case Serial Number
K	8	Beef	Country of Origin State or Province			
	9	Beef		Date of Retirement		
	10	Beef		Receipt Date	Receipt Date	
	11	Beef	Location Identifier			
P	12	Beef	Logistics Provider Identifier	Logistics Provider Identifier	Logistics Provider Identifier	Logistics Provider Identifier
	13	Beef	Product Description	Product Description	Product Description	Product Description
	14	Beef	Product Identifier	Product Identifier	Product Identifier	Product Identifier
	15	Beef	Ship Date	Ship Date	Ship Date	Ship Date
	16	Beef	Ship From Location Identifier			
	17	Beef	Shipment Identifier	Shipment Identifier	Shipment Identifier	Shipment Identifier
	18	Beef	Vehicle Identifier	Vehicle Identifier	Vehicle Identifier	Vehicle Identifier
	19	Beef	Vendor/Supplier Identifier	Vendor/Supplier Identifier	Vendor/Supplier Identifier	Vendor/Supplier Identifier
	20	Beef	Vendor/Supplier Name	Vendor/Supplier Name	Vendor/Supplier Name	Vendor/Supplier Name



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