



The Global Language of Business

GS1 Global Meat and Poultry Traceability Guideline, Part 1. The GS1 System

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1 Introduction

This document details how to use GS1 Standards to implement a traceability system – or to enhance an existing one - with a specific focus on the meat industry. However, before establishing how to do this, it is important to explore in more detail why implementing a traceability system is increasingly important.

1.1 What is a traceability system?

In the most simplistic terms, a traceability system ensures that any product can be accurately tracked or traced back through all stages of the supply chain to where it started. If the finished product was the result of processing, combining or changing other products, a traceability system identifies where those products came from and where they joined the supply chain for the finished product.

1.2 Why traceability systems are required

The best known use of traceability systems is for locating defective or unsafe foods, pharmaceuticals or other products in order to remove them promptly from shelves. In some cases, being able to quickly and easily recall an item (or a group of items) can save lives. Speedy recall also greatly reduces the potential negative economic impact, and preserves consumers' trust in the quality of their favourite brands and their confidence in the systems that are designed to protect their safety.

A recent example of recall from the meat industry occurred in Europe in 2013 – often referred to in the media as 'Horsegate' – where horsemeat was found to have been illegally substituted for beef in a number of frozen beef and further processed beef products.

The more basic a traceability system is, the less precise the product owner can be about how much of the product is affected by an issue or where it is in the supply chain. This can lead to mass withdrawals of product from all points in the supply chain, at enormous cost to the owner, both financially and in terms of reputation.

There is however, more to traceability than just recall. For example, traceability systems can validate the presence or absence of attributes important to consumers, such as organic farming methods, kosher foods, non-allergenic cosmetics, or sugar-free products. Traceability has become a tool in fighting product counterfeiting and protecting brands. Recently, it has also become a regulatory requirement in some countries in the fight against bioterrorism.

1.3 Types of traceability systems

There are different types of traceability systems. The most common is the so called 'one up, one down' system, in which each player in the supply chain – e.g. producer, distributor, retailer etc. – is able to trace what came in, what happened to it, and where it then went. To trace a product throughout the supply chain using the 'one up, one down' system, one is reliant on each player in the supply chain having that information, and the interested party manually joining the elements together.

The most advanced systems are integrated and interoperable – in other words, the records from each stage of the supply chain all use a common language and enable a comprehensive interrogation of the history of any product and its constituent ingredients/components to be undertaken on any given day or time.

The benefits of an integrated and interoperable process for food traceability are:

- Improved consumer confidence
- Improved food safety due to precise and efficient recalls and whole chain traceability
- Operational efficiencies gained by all members of the supply chain
- Potential revenue growth for all food categories
- Alignment with government regulations and expectations

1.4 Benefits of traceability systems in the food industry

In the food industry, it is standard practice in developed countries for branded manufacturers to have traceability systems in place - wherever in the world their products are being produced - and for retailers to require all their private label suppliers to do likewise.

1. Tracing food from the farm to the kitchen table
 - It is increasingly difficult to trace food from one end of a highly globalized food chain to another. A food traceability system can facilitate knowledge of everything that happens to food between the farm and the kitchen table
2. Knowing where food comes from
 - Increasingly, consumers want to know more about the food and products they buy: Is the food organic? Is it suitable for a vegan or a celiac? Is it Fairtrade? Traceability systems ensure that only the right ingredients or parts enter the supply chain and end up in consumer products.
3. Improving product recalls
 - If products must be recalled there needs to be a method to trace their origin. Traceability systems track what ingredients or parts were used in every batch of the products to be recalled, and where every batch was delivered to. More importantly, traceability systems also improve quality assurance and inventory control – making recalls less necessary and less frequent.
4. Meeting regulations and legal requirements
 - This is one of the major reasons why there has been an increase in interest and activity in the meat, livestock and poultry industries in recent years
5. Consumer trust
 - Progressively, brand owners – from manufacturers and retailers to restaurant chains – are offering the consumer the opportunity to access information, through scanning a barcode with their smartphones or going online, about the origin and provenance of their products

1.5 Where does GS1 fit in?

Food safety, product tracking, and product recalls are currently at the forefront of both government regulations and industry concerns around the world. Companies are facing numerous 'track and trace' requirements, not always easily reconcilable. Moreover, technology offers various ways of achieving traceability and many solutions exist for national, regional and global supply chain participants. As a result, to facilitate trade today, it is necessary to implement International standards and ensure interoperability of traceability systems. That's where GS1 comes in.

GS1 offers traceability and recall standards, and support their implementation, to enhance companies' business processes and to address today's challenges.

1.6 Advice on how to use this Guideline

This is a practical guide that is primarily intended for those responsible for implementing traceability in their company's operations and supply chain.

The Guideline consists of seven documents - starting with Part 1 the GS1 System. Parts 2 to 5 are separate sections covering the Beef, Lamb, Pork and Poultry Sectors. In addition we have included GS1 Made Easy a high level look at the GS1 System of Standards and finally a Glossary of Terms.

These documents provide a guide for traceability practices for meat and poultry processors, value adders, distributors, wholesalers, food service operators and retailers.

For those readers who are not familiar with the application of GS1 standards, it is recommended that they also read a companion document called [GS1 Made Easy – Global Meat and Poultry Traceability Guideline Companion Document](#). This document will help the reader to understand the GS1 System of Standards and the technologies that support their use.

Additional country, market or customer requirements may be applicable in certain circumstances. Contact the applicable representatives in those markets to determine the current requirements.

Refer to your local GS1 Member Organisation's Meat and Poultry Traceability Guideline for local country or market traceability requirements. A complete list of local GS1 Member Organisations is available on the GS1 global website at www.gs1.org

A Glossary of terms can be found at the following location by clicking on the link: [GS1 Global Meat and Poultry Traceability Guideline, Glossary](#)

2 What is Traceability?

2.1 Definition of traceability

Traceability is a business process that enables each traceability partner to identify the direct source and direct recipient of a traceable unit. That traceable unit may be a product or a logistics unit. Implementing a traceability system within a supply chain requires all parties involved to link the physical flow of products with the flow of information about them. Adopting GS1 Standards for traceability processes ensures agreement about identification of the traceable items. This supports the visibility and continuity of information across the supply chain.

Supply chain traceability is the net result of two complementary business processes, referred to as external and internal traceability.

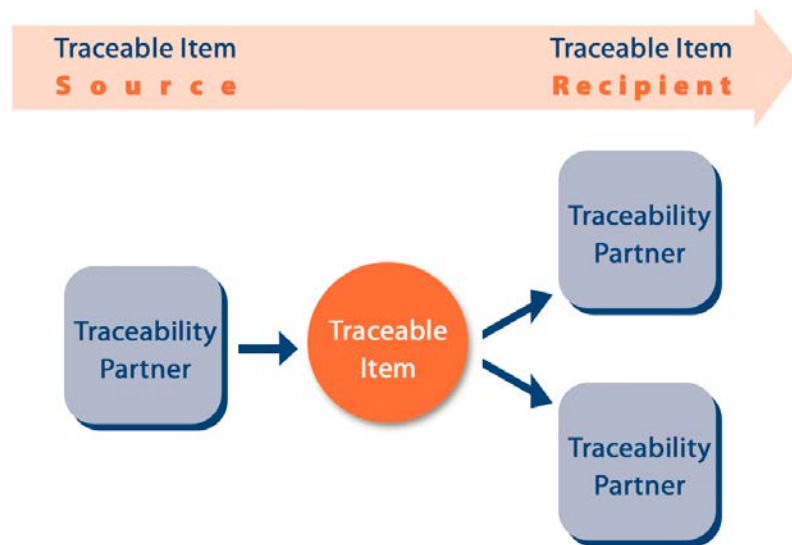
2.2 External and internal traceability

External traceability - All traceable items must be uniquely identified and this information is shared between all affected supply chain partners. External traceability for the meat and poultry industry is primarily based on carcasses as well as the carton level of the product hierarchy. A linkage between all products of every hierarchy level and the product level of shipment must be maintained. Thus at a minimum, the identification of all products for the purpose of traceability requires:

- The assignment of a unique Global Trade Item Number (GTIN); and the assignment of an individual (production date/serial number) or batch/lot code
- The assignment of a unique Serial Shipping Container Code (SSCC) if the traceable item is a logistics unit. The SSCC can also be used to identify the traceable item as an input to the production process.

To maintain external traceability, traceable item identification numbers must be communicated to trading partners on product labels and related paper or electronic business documents. This ties the physical products with the information requirements necessary for traceability. Please refer to the Figure below.

Figure 2-1 External traceability



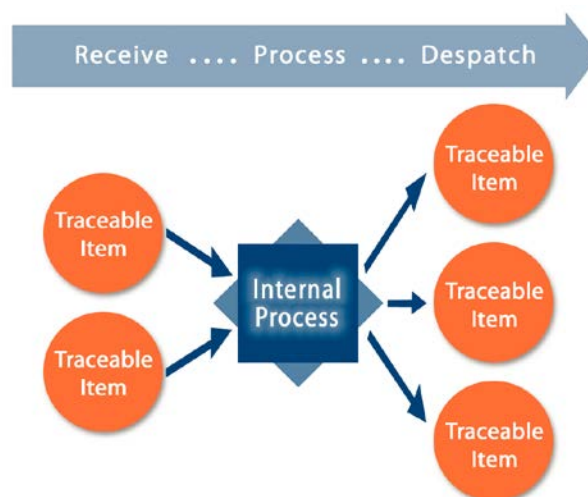
Internal traceability – The processes that enable internal traceability are those that parties maintain within their organisation to link the identity of raw materials to the finished goods.

When a product is combined with others, processed, reconfigured or re-packed, the new product must have its own unique product identifier (i.e. GTIN). The linkage must be maintained between this new product and its original inputs to maintain traceability.

When a traceability item is created, it must be associated to the specific production batch/lot.

The label showing the batch/lot identification of the traceable input item should remain on the packaging until that entire traceable item is consumed. This principle applies even when the traceable item is part of a larger packaging hierarchy. Please refer to the Figure below.

Figure 2-2 Internal traceability



Internal and external traceability - End-to-end traceability requires that the processes of internal and external traceability be effectively conducted. Each traceability partner should be able to identify the direct source and direct recipient of traceable items. This is the "one step up, one step down" principle. This requires that supply chain partners collect, record, store, and share

minimum pieces of information for traceability that are described in the sections that follow. To have an effective traceability system across the supply chain:

- Any item that needs to be traced forward or backward should be globally and uniquely identified and
- All supply chain parties should implement both internal and external traceability practices. Implementation of internal traceability should ensure that the necessary linkages between inputs and outputs are maintained

2.3 Use of trade item serial numbers and batch/lot numbers

The GS1 global traceability standards recommend that trading partners uniquely identify trade items such as carcasses or cartons. An effective traceability system identifies these items using their GTIN + the production batch/lot number or alternatively, their GTIN + individual (serial) numbers.

Where GTIN + batch/lot coding is used as the method of identification, the entire range of product assigned to a single batch/lot may need to be removed from the supply chain in the event of a recall (for example, where the batch/lot represents a single day's production). This needs to be considered when defining your company's standard practice for setting the scope of each batch/lot number for each type of product that it produces.

2.4 Traceability data retention

All companies are expected to maintain records that will facilitate timely and accurate traceability and so support any necessary product recalls. It is recommended that your company establish an internal data retention policy based on the following considerations:

1. Domestic and international regulatory authorities' defined requirements for record keeping, based on the type of product
2. Length of time product may exist in the supply chain beyond the prescribed time. This is based on the type of product (chilled, frozen or shelf stable)
3. The need to promptly retrieve data in the event of an epidemiological event which may, or may not implicate your product
4. Industry agreements or customer requirements

3 How to get started

3.1 Step 1: Understand relevant GS1 standards

If traceability or GS1 Standards are new to your company and you have not already done so, you are encouraged to read [GS1 Made Easy – Global Meat and Poultry Traceability Guideline Companion Document](#).

This document will provide you with the necessary information to apply the GS1 (identify, capture and share) system of standards to the traceability business process.

3.2 Step 2: Determine what are the traceable items and apply to the entire product hierarchy

Trading partners who utilise inputs to create or transform new trade items must uniquely identify that item by assigning a GTIN. As noted in the earlier section, trading partners who create traceable items must determine the level of precision they need to identify traceable items. The best practice is to identify traceable items across the brand owner's entire product hierarchy.

The serialised identification of trade items, which enables total connectivity of information and communication systems, is achieved through the use of Application Identifier AI (01) GTIN and AI (21) Serial Number.

The use of serialised identification on trade items must be agreed by trading partners.

Additional country, market or customer requirements may be applicable in certain circumstances. Contact the applicable representatives in those markets to determine the current requirements.

3.2.1 Other identification issues to consider

3.2.1.1 Live animal identification

The identification of livestock varies enormously from region to region and from country to country. The legal requirements for, and the means of, identifying different types of livestock also varies enormously. Most jurisdictions have laid down very specific requirements about the identification, movement and slaughtering of livestock.

Agreement on a single global standard for live animal identification does not currently exist. Trading partners must therefore be familiar with all regulations related to livestock identification and livestock movements as well as related record keeping within the markets they serve.

3.2.1.2 Animal slaughtering

Abattoirs (first processors) are the critical link between the livestock and meat sectors. It is essential that at the time of induction, the identity of each live animal (or group of animals) is captured and then associated to a carcass or a production batch.

During the slaughter process the slaughter facility is often obliged to ensure traceability through the entire process, including offal and by-products. In some countries there are national reporting requirements for the slaughter of certain livestock; this can include reporting by individual animal identification.

3.2.1.3 Primal processing

After slaughtering, the meat generally becomes a generic product and the identification and traceability requirements follow the GS1 standard for product or logistics unit identification.

In most cases the processor creates a production batch, and records all of the inputs (carcasses, ingredients and packaging) and all of the outputs (primal cuts of meat, bones, trim and other waste).

3.2.1.4 Retail processing

Where product is manufactured in-store, the retailer must also assign a unique product identifier (GTIN), together with date coding and reference to the production batch or serial number. Refer to your local GS1 organisation's Local Meat and Poultry Traceability Guidelines for local market retail traceability requirements. To find your local GS1 organisation, go to www.gs1.org

3.3 Step 3: Exchange product master data with trading partners

Master data refers to trading information that typically does not change with each business transaction. For this reason, a best practice is to exchange all master data in advance of the transactional data that will reference to it. Trading partners should exchange three types of master data.

Product master data

This includes static data such as product descriptions the packing configuration, pack size, nominal weight, quantity of items contained, and even the ingredients (and allergens) used to produce the product.

Each different product and packing configuration should be clearly identified using a different GTIN.

Supplier master data

This includes the name, address and contact details for each of your suppliers. Each supplier should be unambiguously identified using a Global Location Number (GLN). In larger organisations, it may

be necessary to keep a record of the master data for a number of different production facilities and/or distribution depots and a different GLN should be assigned to each one.

Supplier master data should always include clearly identified contact details for those in the organisation responsible for product recall and crisis management.

Customer master data

This includes the name, address and contact details for each of your customers. Again, each customer should be unambiguously identified using a GLN. In larger organisations, it may be necessary to keep a record of the master data for a number of different delivery points and/or distribution depots and a different GLN should be assigned to each one.

Customer master data should always include clearly identified contact details for those in the organisation responsible for product recall and crisis management.

Due to the static nature of such master data, it is normally exchanged between trading partners prior to the movement of physical goods. In most jurisdictions it is also an offence to purchase foodstuffs from unapproved sources, so each trading partner and all of their processing plants and distribution channels need be approved for handling foodstuffs, and the master data record would normally include the various approval numbers required.

3.4 Step 4: Update production systems & procedures to associate production inputs to the traceable item

Information about production inputs is captured and recorded for the item being created. For example, a typical traceability record of an input lot should clearly identify the product (GTIN), supplier (GLN), and supplier/manufacturer batch number, as well as any other instance specific data such as the haulier or transporter details, the delivery note/invoice number and the logistic units (SSCC) received. Ideally, the record should also record the oldest production and/or expiry dates on each logistics unit, or at least on the entire intake lot.

If the (intake) traceable item is identified using SSCCs, it should be possible to capture the relevant data electronically by means of scanning or via electronic documentation such as a despatch advice (also referred to as the Advance Shipping Notice (ASN)). The SSCC can also be used to identify the traceable item as an input to the production process.

If the received items are not identified with the SSCC, trading partners should consider creating and applying an internal SSCC as an efficient means of identifying the items in stock and tracing them through the various production processes.

All raw materials, ingredients and packaging should be recorded upon arrival and this information should be identified on the physical product or logistics unit (using either the suppliers SSCC or an internally applied one).

Where the production input is the live animal it would be necessary to record individual animal identifiers.

Production batches

Some business processes may be considered to be linear, where the traceability attributes and identity of the input items can be transferred directly to the output product(s). A typical slaughtering process is linear – the live animal identity can be linked directly to each carcass or part of the carcass (e.g., the sides of beef, hide, offal, head and tissue samples can be linked directly with a single carcass). Output products are identified by their own unique identifier (e.g., a GTIN + serial number or batch or carcass number which is linked directly to the live animal, or animal group. Although such an identifier may not actually be serialised, it can still be considered to be a 'serial number' for traceability purposes.

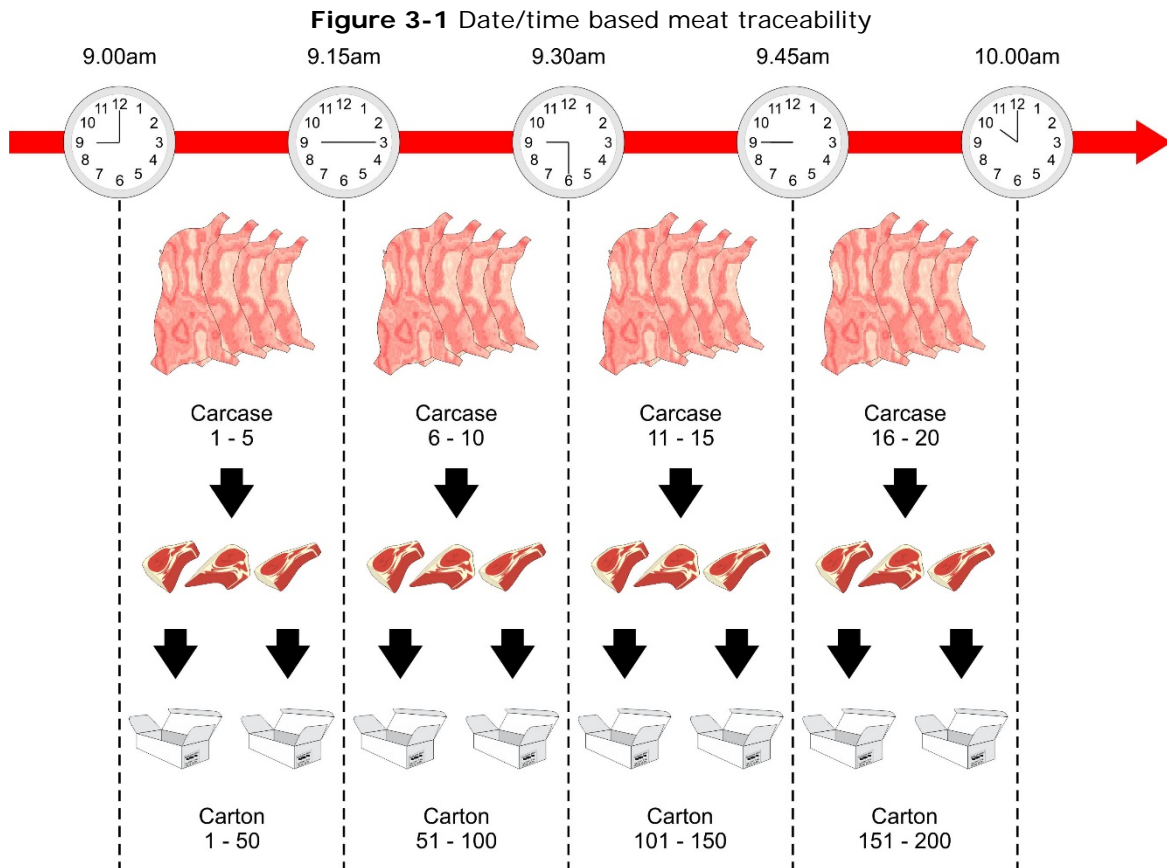
However, most food production processes cannot retain a linear link between the source inputs and the subsequent outputs. Products can only be traced to a list of multiple 'possible' sources of input materials, often from different suppliers, with an array of supplier batch numbers.

The most common method for creating traceability through a continuous production process such as a de-boning room is by use of date/time recording. This is where there is a date and time record of

the serial number (or body number) of each carcasse as it enters the de-boning process and a date/time record of each carton serial number created.

The approach allows for a simple method of searching by a carcasse or body number and returning the potential carton serial number that may contain some part of the carcasse. An example would be that if a carcasse enters the de-boning room at 11:23 in the morning, the cartons produced before 11:23 could not contain any part of that carcasse.

This can also be easily applied to end of runs where de-boning rooms are often fully emptied between product categories or market classes. This re-sets the date and time entry windows to start again. An example would be that if the de-boning room is emptied at 10:45am to change product category, carcasses that entered before 10:45am could not be in any carton made after 10:45am as the de-boning room was fully emptied at the change of category.



Batch assignment considerations

This section only deals with batch managed products. Serial managed product is managed by a different process.

Production batch traceability records must reference all products produced, including work-in-progress and/or unfinished goods. The physical goods must be identified with their own GTIN and the relevant batch number. As well as production and expiry dates, records might also include data on the particular production site, production lines or processes involved in the manufacture of the product.

Production batches should be unambiguously identified using a batch or lot number. The format of a batch/lot number is not normally defined in legislation, but in the absence of specific regulation to the contrary, there are a number of things you must consider when assigning a new batch/lot number;

1. The minimum and most basic traceability requirement is for a combination of GTIN and batch/lot number which is unambiguous in your traceability records
2. Most jurisdictions will insist on instigating a recall of a batch of products at a minimum. The larger your production batch, the more product you will have to recall, and the bigger the impact the recall will have on your business
3. Most jurisdictions will also operate a 'due diligence' policy and will often insist on also recalling batches of product produced just before and just after the batch which instigated a recall
4. Batch/lot numbers should be unique for the life of the product (This normally coincides with the requirement to keep traceability records on file for a reasonable period after its maximum expiry date – remember, the maximum expiry date may far exceed the expiry date actually indicated on the product if the product is suitable for home freezing)
5. Each batch/lot number should only be applied to products which share common traceability attributes
6. Where the same product (GTIN) is produced by more than one processor, it is important that the assignment of batch/lot numbers is managed so that each batch/lot number assigned by each processor is unique. This is valuable when there is the need to trace the origins of a specific batch

Such instance data would typically not only record the raw materials, ingredients and packaging used in the production batch, but would also record the specific batch numbers affixed to them by the manufacturer and/or supplier.

The various primal cuts of beef, pork, lamb and poultry will have different GTINs but may share the same batch/lot number. It should be possible to clearly and quickly retrieve all relevant traceability records (Instance Data) for any given batch/lot number.

For the purpose of traceability and where date/time entry and exit recording occurs for the continuous process, such as in a de-boning room, a search of a specific carcass serial number would return the carton serial number that may contain a portion of the applicable carcass. This occurs because any carton produced before the applicable carcass entered the de-boning room could not be included in the search.

It is also important to remember that the output from one production batch may often be introduced as an input into another. The traceability record should identify this input by its production batch/lot number, thereby retaining the link between the received goods and the goods produced.

Movement data principles

This type of data is normally captured and recorded for particular instances of the items being received, processed, despatched, transported or stored. A typical traceability record for a Sales Transaction, for example, should identify the product (GTIN + serial/batch number) and consignor or consignee (GLN), as well as any other movement specific data such as the haulier or transporter details (GLN, vehicle registration number, and seal numbers), the delivery documentation references and the logistic units (SSCC) being moved. Ideally, the record should hold the different production batch numbers (or serial numbers), production and/or expiry dates for each trade item being despatched.

If the intake lot is a logistics unit, the Despatch Advice (ASN) can serve as a best practice means to exchange essential traceability data between consignor and consignee.

The quantities and/or net weights of products being despatched should also be recorded to facilitate the reconciling of volumes produced with those recalled or withdrawn from the supply chain.

3.5 Step 5: Understand the minimum data attributes to collect, keep and share with trading partners

Each trading partner in the meat and poultry supply chain is obliged to maintain internal and external traceability. This requires the exchange of the minimum set of data attributes recommend below.

It is imperative, however, that all trading partners are familiar with local regulations or trading practices as the minimum data required varies across trading geographies (i.e. target markets).

Who is my traceability partner?

Parties may serve as a:

- Traceable item source. The Global Traceability Standard recommends the use of the Global Location Number (GLN) to uniquely identify this party
- Traceable item recipient. The Global traceability Standard recommends the use of the GLN

What is the traceable item?

The data elements required are dependent on the level of traceable item chosen:

When the traceable item is a batch of trade item:

- Trade item identification (GTIN + batch/lot number)
- Trade item description
- Trade item quantity
- Production date and/or best-before date (BBD)/sell-by date
- Catch weight

When the traceable item is a serialised of trade item:

- Trade item identification (GTIN + Serial Number)
- Trade item description
- Trade item quantity
- Production date
- Catch weight

When the traceable item is a logistics unit:

- Logistics unit Identification (SSCC)
- Logistics unit quantity
- At the beginning of the life of a logistics unit the formation of the logistics unit must be defined, which requires identifying all the items placed on the logistics unit.

Where was it shipped from or shipped to?

- The best practice is to specify the "ship from" or "ship to" location using the (location owner's) GLN

When did I receive/dispatch it?

- The best practice is to specify the date of receipt and/or date of dispatch/shipping

3.6 Step 6: Understand which GS1 barcodes to apply to traded and consumer items

Trading partners must determine the appropriate barcode to apply to products. This decision is initially dependent on whether the product is a fixed or variable measure trade item and if the trade item is intended to be scanned in general retail at point of sale.

Additional country, market or customer requirements may be applicable in certain circumstances. Contact the applicable representatives in those markets to determine the current requirements.

Refer to your local GS1 Member Organisation's Meat and Poultry Traceability Guideline for local country or market traceability requirements. A complete list of local GS1 Member Organisations is available on the GS1 global website at www.gs1.org

3.6.1 Barcoding trade items

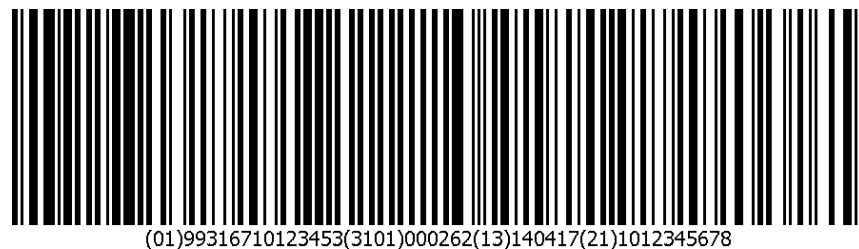
Trade items in the meat and poultry industry are often variable measure because the production process results in a wide range of weights for the same product or because the products are created to meet a special order that states a specific quantity or weight.

A trade item is considered a Variable Measure Trade Item if its measure is variable at any point in the supply chain. For example, a supplier may sell cases/cartons of meat by counts of cases/cartons and invoice by weight. Each of the cartons is likely to be a different weight. The customer, a retailer in this example, may need to know the exact number of cases/cartons in order to organise the distribution to their stores. In this example, the supplier labels the trade item by using a variable measure Global Trade Item Number (GTIN) and the variable weight Element String.

The GS1-128 can be used for fixed or variable weight products.

An example of a GS1-128 barcode appears in Figure 4, below as they could appear on a meat or poultry carton/case. It shows the use of application identifiers (AIs) net weight in kilograms, packaging date and serial number to provide supporting data attributes.

Figure 3-2 GS1-128 barcode



GS1-128 barcodes must be printed according to the GS1 barcode specifications and must include the information in human-readable format. This information can also be referenced in key transactional documents using GS1 eCom.

The GS1 DataBar Expanded and GS1 DataBar Expanded Stacked are comparable to a GS1-128 barcode as it can contain the product identifier (GTIN) as well as Attribute Identifiers (e.g. best before date, serial number, etc.). GS1 DataBar Expanded and GS1 DataBar Expanded Stacked are useful where space is limited for a product label or for variable measure and difficult-to-mark products such as loose produce. GS1 DataBar Expanded and GS1 DataBar Expanded Stacked are also the only variable data symbology accepted globally for use at retail point-of-sale systems, despite limited implementations around the world. For this reason, **GS1 advises companies to contact their trading partners before implementing and labelling products using a GS1 DataBar.**

To view the GS1 barcode specifications, click on www.gs1.org and search on "barcode specifications".

The table below provides best practice guidance on this usage.

Table 3-1 Best practice carton level data requirements for traceability

DATA ELEMENT	Scan Length	VARIABLE-WEIGHT		FIXED-WEIGHT	
		Scan	GS1 eCom	Scan	GS1 eCom
Global Trade Item Number (GTIN) (AI "01")	2+14	●	●	●	●
Net weight (AI "310X" or "320X" Where X is the number of decimal points)	4+6	●	●		
Harvest Date (AI "7007") (for slaughter date – carcass tickets)	N4+N6..12 (FNC1)	● or	● or	● or	● or
Packaging date (AI "13") (for carton/case or wrapped carcass)	2+6	●	●	●	●
Batch/lot number (AI "10")	2+20 max			● or	● or
Carton Serial Number (AI "21")	2+20 max	●	●	●	●

3.6.2 Variable Measure Trade Items Scanned in General Retail at POS

Variable measure trade items that are scanned at point-of-sale have two main GS1 applications that are available. In some instances due to trading partners (e.g. Retailer) requirements both options may be applied to the one variable measure fresh food trade item. **Before implementation of any GS1 applications for variable measure trade items that are scanned at point-of-sale mutual agreement should be obtained between the trading partners.**

The two main GS1 applications for variable measure fresh food trade items are:

- Variable Measure Fresh Food Trade Items using a GTIN and additional attributes encoded with GS1 DataBar Expanded or Expanded Stacked.
- Variable Measure Trade Items using a Restricted Circulation Number (RCN) encoded with the EAN/UPC symbology family.

Barcoding of variable weight consumer items is country and region specific. To enable the traceability of variable weight consumer items refer to your local GS1 organisation's Local Meat and Poultry Traceability Guidelines. To find your local GS1 organisation, go to www.gs1.org

In all situations, barcodes must be printed according to the GS1 barcode specifications and must include the information in human-readable format.

3.7 Step 7: Understanding other best practices for product inbound to retail and foodservice

Processors, value adders, distributors, wholesalers, food service operators and retailers should capture information about inbound product. This information may be captured at any point in the product movement, such as from the warehouse outbound to the store, at arrival at the store, or when the product is being broken down to a new consumer item. To enable traceability, processors, value adders, distributors, wholesalers, food service operators and retailers should identify the GTIN, batch/lot or serial number and quantity of cartons in each order sent to a store. This supports the "one up/one down" principle of tracing a product's movement through the supply chain.

Some trading partners have expanded the use of the Despatch Advice/ASN to serve as an alternative to barcoding individual trade items. This opportunity requires that all trading partners agree on the approach.

3.8 Step 8: Understand individual country-level and trading partner requirements.

Traceability requirements may be specified by regulatory authorities and trading partners. This may apply to domestic as well as export markets. These traceability requirements must be fully understood and integrated into an organisation's systems.

The reader is urged to understand those regulations that are applicable in their target market or markets.

Please reference the following link to the GS1 website showing all available local guidelines for meat and poultry traceability: www.gs1.org

3.9 Step 9: Understand the specific needs of your commodity sector

Readers are encouraged to learn more about the specific needs of individual meat and poultry commodities (i.e. sector-specific requirements).

Please follow the links below to the information about the desired commodity.

Beef sector information:

[GS1 Global Meat and Poultry Traceability Guideline, Part 2. Beef Supply Chain](#)

Lamb sector information:

[GS1 Global Meat and Poultry Traceability Guideline, Part 3. Sheep and Lamb Supply Chain](#)

Pork sector information:

[GS1 Global Meat and Poultry Traceability Guideline, Part 4. Pork Supply Chain](#)

Poultry sector information:

[GS1 Global Meat and Poultry Traceability Guideline, Part 5. Poultry Supply Chain](#)

3.10 Step 10: Where can I get additional help?

Users are encouraged to contact their local GS1 member organisation for guidance on the use of GS1 keys and local data messaging practices. A complete list of GS1 member organisations is available on the GS1 global website at www.gs1.org

4 Conclusion

To be successful in this process, a trading partner that processes, packages, and/or labels product should ensure that all inbound product batches are uniquely identified and linked to outbound product batches so that there is no breakdown in the ability to trace product flow through the supply chain. Minimum requirements for traceability may always depend to a certain extent on human readable information, but the best practice for all supply chain partners is to build a traceability process that allows for electronic data capture, storage, and retrieval of critical product traceability information for all product hierarchy levels throughout the supply chain, from the farm to the final consumer.