

**Supply Chain Management for Fresh
Fruit and Vegetables
Integrated Guideline Part 3:
Product Identification with GTIN**



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GS1 in Europe

GS1 in Europe is a collaboration of 46 GS1 member organisations and leads the creation and implementation of harmonised, user-driven solutions for improving the supply and demand chain of European companies. Further information on GS1 in Europe and the activities in the area of fruit and vegetables can be obtained from www.gs1.eu

Frug I Com (Foundation Platform Fresh Chain Information)

Frug I Com is a unique collaboration of the Dutch Potato, Fruit and Vegetable Supply Chain. The ultimate goal is to establish electronic exchange of information between the participants in the Potato, Fruit and Vegetable Supply Chain by means of uniform labelling using electronic messages. Working with information standards allows Fruit and Vegetable Supply Chain companies to make optimum use of the information available in the supply chain and to apply it to order processing, tracing of products, optimising logistics and quality improvement. The result? A faster and more efficient supply chain which is less error-prone. Further information see www.frugicom.nl

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1. Introduction

Efficient order and delivery processes, flexibility and traceability: the demands of the fruit and vegetables business have constantly increased over the last years. By means of unique product identification - which can be achieved by using the GS1 standards - these demands can be fulfilled by small, medium and large size companies. The enormous range of items and trading units requires a very detailed description of product specifications and it all depends on the right GTIN (Global Trade Item Number). By thoughtfully preparing to assign GTINs the administrative and operational burdens can be minimized.

This guide is for the fruit and vegetable industry, providing guidance on how to assign a GTIN (Global Trade Item Number) and when to assign a new GTIN. It should be pointed out that GTIN Allocation Rules are available in the GS1 General Specifications. This document is intended for the person responsible for product data management in fruit and vegetable companies to understand the application of those allocation rules.

This guideline is based on the “Fruit & Vegetable GTIN Assignment Implementation Guide” provided by GS1 Global Office. In addition to the global document the GS1 in Europe Fruit & Vegetable Group added target-market specific information for Europe as well as additional examples.

1.1. Purpose and Scope of this Part

It is usual business for the global fruit and vegetable sector to provide fresh products every day. Consumers value the high quality and wide range of fruits and vegetables on the shelves of their retail stores; however supply and demand can change easily in the short term based on factors such as to climate, season and actual weather and plant health issues. This makes it very important for fruit and vegetable retailers to be able to react rapidly to get the right products in their stores.

Increasingly there is an expectation within industry to utilise common, global standards for product identification combined with automated electronic data processing. For all sectors, this is the most efficient way to manage ordering, receiving and labelling of products easily and without problems. In the current business and regulatory environment no industry sector can avoid exchanging detailed and transparent product information such as: country of origin, growing method, size, packaging and colour.

The purpose of this document is to provide companies with clear guidance to support unique GTIN Assignment. Experts within the fruit and vegetable sector have created this guide which includes an overview for fruit and vegetable products and provides business examples explaining the conditions under which a new GTIN must be assigned and defines all attributes and characteristics on which the assignment will depend.

Every effort was made to make this guide relevant across all target markets however in some instances regional guidelines have been developed to assist the industry and to ensure compliance with those specific markets. In some target markets differences in attributes may require a new GTIN, variety, commercial grade, colour of flesh and country of origin are good examples.

Readers are urged to understand and apply regulatory and business requirements specific to Target Market. The relevant target-market specific requirements for Europe are covered within this document.

1.2. Key Definitions

GS1 Glossary Term	Definition
Consumer Package	A trade item as it is distributed to the consumer or end-user.
Trade Package (Case)	“Case” is a generic term which includes any item handled as a single unit in the transport and distribution process. This definition covers a wide variety of package types such as pallets, PRCs, cartons, cases, bins and totes. These items can be trade items and/or logistic units.
Logistics Unit	An item of any composition established for transport and/or storage that needs to be managed through the supply chain. It is identified with an SSCC.
Size	<p>An alphanumeric size factor the brand owner wishes to communicate to the consumer. For example, Jumbo, Medium, Size B, 88 count, etc. Be sure to reference your local market standards for Size information.</p> <p>Produce and trade of most fruits and vegetables in the European Union is in most cases subject to the regulation EU 543/2011, which has to be applied on every trade level. Fresh fruit and vegetables not regulated by this standard of commercialization have to comply with the general marketing standard of the European Union or the respective UN/ECE standard. In UN/ECE Standards size is determined by diameter, length, weight, circumference, depending on the nature of produce.</p>
Class / Grade	<p>A code indicating the degree of refinement, features and capabilities for a trade item. An accepted level or standard to determine the quality of fresh produce. Quality grades provide a common language among buyers and sellers, which in turn assures consistent quality for consumers. (source: PMA)</p> <p>Produce and trade of most fruits and vegetables in the European Union is in most cases subject to the regulation EU 543/2011, which has to be applied on every trade level. Fresh fruit and vegetables not regulated by this standard of commercialization have to comply with the general marketing standard of the European Union or the respective UN/ECE standard. In UN/ECE Standards classification of produce is e.g. “Extra” Class, Class I, Class II.</p>
Global Trade Item Number (GTIN)	The GS1 Identification Key used to identify trade items. The key comprises a GS1 Company Prefix, an Item Reference and Check Digit.
GS1 Company Prefix	Part of the GS1 System identification number consisting of a GS1 Prefix and a Company Number, both of which are allocated by GS1 Member Organisations. See also U.P.C. Company Prefix. GS1 Member Organisations assign GS1 Company Prefixes to entities that administer the allocation of GS1 System identification numbers. These entities may be, for example, commercial companies, not for profit organisations, governmental agencies, and business units within organisations. Criteria to qualify for the assignment of a GS1 Company Prefix are set by the GS1 Member Organisations.
Item Reference Number	A component of the Global Trade Item Number (GTIN) assigned by the brand owner to create a unique GTIN.
Check Digit	A final digit calculated from the other digits of some GS1 Identification Keys. This digit is used to check that the data has been correctly composed.
Indicator Digit	A digit from 1 to 9 in the leftmost position of the GTIN-14
IFPS	International Federation of Produce Standards, is composed of national produce associations from around the globe.

1.3. Rules how to use the GTIN

1.3.1. What is the Global Trade Item Number (GTIN)?

The Global Trade Item Number (GTIN) is the foundation of the GS1 System for uniquely identifying trade items, which includes both products and services that are sold, delivered, and invoiced at any point in the supply chain. GTINs provide unique identification worldwide. The GTIN is encountered most frequently at point-of-sale and on cases and pallets of products in a distribution/warehouse environment.

Companies can be confident that a GTIN will uniquely identify their products as they move through the global supply chain to the ultimate end user. This global identification system of GS1 ensures that the GTIN placed in a bar code is the same information contained in the corresponding electronic documents processed between trading partners.

1.3.2. What are the Key Benefits of the GTIN?

- Facilitates the global flow of trade items (products and services) and associated information used in electronic commerce
- Uniquely identifies trade items at all levels of packaging (item, case, and pallet)
- Delivers trade item data in a consistent format and structure
- Simplifies supply chain management
- Employs the globally accepted GS1 System whose language is standardized, understood and used by multiple industries

1.3.3. Why is the GTIN Useful?

- **Uniqueness:** The GTIN identifies an item uniquely. The rules for assigning GTINs ensure that every variation of an item (product or service) is allocated a single reference number that is globally unique.
- **Non-significance:** The GTIN numbering structure does not contain any meaningful information in itself. A GTIN is a simple pointer to database information that can be directly used in any company and in any country.
- **Multi-sector:** GTINs are unique across all business sectors. This means that a healthcare product, a grocery product, or an apparel product are all identified in a compatible manner.
- **International:** GTINs are unique worldwide. A GTIN can be assigned anywhere in the world and can be used anywhere in the world.
- **Data Integrity:** The Check Digit ensures the integrity of data passing through the system.
- **Source Numbering:** The GTIN is assigned by the brand owner of the product. Once assigned, all trading partners and internal users can use the GTIN. The same GTIN can be used to identify a series of identical items.
- **Automatic Data Capture:** One of the key benefits of the GTIN is that it can be encoded in many automatic data capture technologies (such as a bar code or electronic product code used in Radio Frequency Identification (RFID) tags. Machine reading allows the information flow to be linked to the physical flow of trade items through the supply chain

1.3.4. Composition of a GTIN

GTINs are typically 8 digits, 12 digits, 13 digits, or 14 digits in length. It is recommended that a GTIN be represented in software applications as 14 digits by right justifying and zero filling left, as appropriate. These GTINs can be represented in a bar code and each provides unique numbers when right justified and used in a 14-digit database field:

GTIN-8

- Seven digits containing a GS1 Company Prefix and the Item Reference Digits assigned by your local GS1 Member Organisation.
- One digit representing the Check Digit

If you require an individual GTIN-8, contact your local GS1 Member Organisation to see if your product meets the GTIN-8 allocation criteria.

GTIN-12

- Eleven digits containing a U.P.C. Company Prefix and the Item Reference assigned by your company
- One digit representing the Check Digit

GTIN-13

- Twelve digits containing a GS1 Company Prefix and the Item Reference assigned by your company
- One digit representing the Check Digit

GTIN-14

- When constructing a GTIN 14 for the identification of packaging, such as cases for fixed weight product, the first digit (with a value of 1 through 8) is an indicator digit. The next 12 digits reflect the GTIN on the consumer item in the case. The last digit is a recalculated check digit.
- Twelve digits the GS1 Company Prefix and the Item Reference assigned by your company
- One digit representing the Check Digit

GS1 Company Prefix

The globally unique number assigned to a company by a GS1 Member Organization. GS1 Company Prefixes are assigned to companies in varying lengths.

Item Reference

The number assigned by a holder of the GS1 Company Prefix to uniquely identify a trade item. The Item Reference varies in length as a function of the Company Prefix length.

Check Digit

A calculated one-digit number used to ensure data integrity.

1.3.5. Representations of a GTIN in a GS1 barcode

	<p>GTIN-8 symbology</p> <p>GTIN-8 data structure</p>	<ul style="list-style-type: none"> ■ Used for point-of-sale identification of pre-packaged, fixed weight/count consumer product ■ Only assigned by GS1 MO's for use on space restricted products Not a zero-suppressed number
	<p>UPC-A symbology</p> <p>GTIN-12 data structure</p>	<ul style="list-style-type: none"> ■ Used for point-of-sale identification of pre-packaged, fixed weight/count, consumer product
	<p>EAN-13 symbology</p> <p>GTIN-13 data structure</p>	<ul style="list-style-type: none"> ■ Used for point-of-sale identification of pre-packaged, fixed weight/count, consumer product
	<p>GS1 DataBar symbology (stacked omnidirectional)</p> <p>GTIN -14 Data structure</p>	<ul style="list-style-type: none"> ■ Used for point-of-sale identification of loose, variable weight, consumer product ■ Data Structure holds up to 14 digits. ■ There are seven variations of the DataBar symbology. The example shown is the most common related to the identification of loose produce such as apples, bananas, etc. The variations GS1 DataBar Expanded and GS1 DataBar Expanded Stacked can encode additional information such as net weight or price.
 <p>(01) 3 0614141 00001 3 (17) 050101 (10) A1B2C3</p> <p>The GTIN number is 30614141000013</p> <p>The batch number is A1B2C3</p> <p>The expiry date is 050101 (YY/MM/DD)</p>	<p>GS1-128 symbology</p> <p>Data Structure</p>	<p>Used for trade item identification throughout the supply chain but NOT at point-of-sale.</p>

1.3.6. The IFPS PLU Rules

PLU numbers (Price Look-up Numbers) are not used on any bagged product always sold at that weight and not weighed in the store for pricing. PLUs may be used with a corresponding barcode (EAN/UCC-13, UCC-12 or EAN/UCC-8) if the product can be sold either "by each/per unit" or weighed for pricing.

It is incorrect to use both a barcode and PLU code(s) together on an item that can only be sold in a fixed weight form, such as a 1-pound bag of carrots. That bag of carrots is never sold in variable weight form: the cashier would never weigh it on the scale and determine its price based on a price per pound/kg. It is always sold just as is: a 1 pound bag of carrots and should carry the appropriate bar code.

Some retailers have indicated their preference for a barcode whenever possible on variable weight produce. This may vary from retailer to retailer and should be considered when preparing coding for product.

For full information, please consult the IFPS Produce PLU "A Users' Guide" at www.ifpsglobal.com

2. Overview on GTIN Assignment

A GTIN is used to identify any item (trade item or service) upon which there is a need to retrieve pre-defined information and that may be priced or ordered or invoiced at any point in any supply chain. A separate, unique GTIN is required whenever any of the pre-defined characteristics of an item are different in any way that is relevant to the trading process.

Fruits and vegetables have unique characteristics which can create confusion during the assignment of GTINs. Changes in variety, colour, packaging, species and many other attributes of the produce item may mean that a separate GTIN is required to distinguish a product from one which seems very similar. Grower/packer/shippers need to understand these differences and use this information to determine what GTINs need to be assigned to uniquely identify/describe their products.

Below are three charts outlining the difference in trade item labelling and where a GTIN is to be assigned for the Consumer Package, Trade Package (Case) and Pallet.

Figure 2.1 – Overview Consumer Package

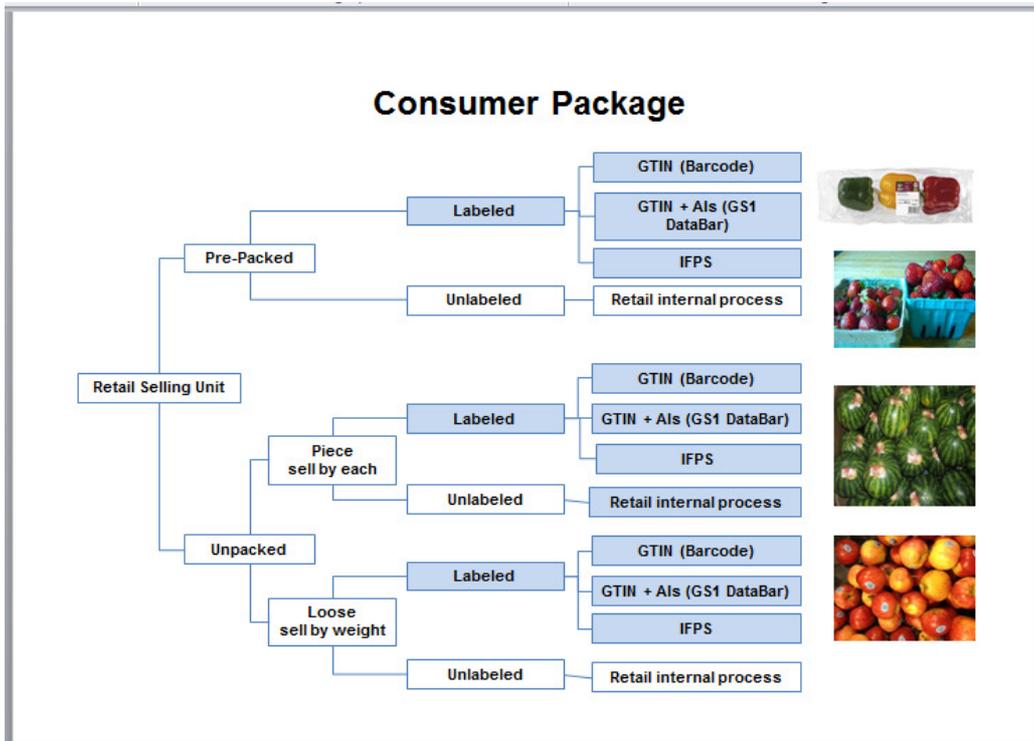


Figure 2.2 – Overview Trade Package

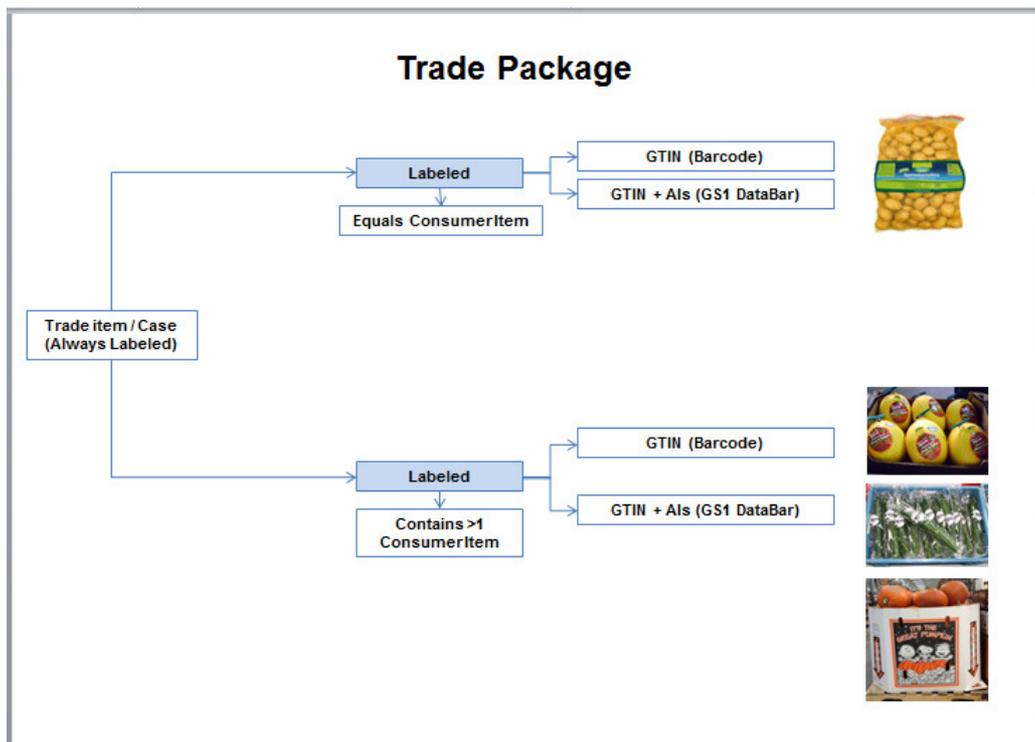
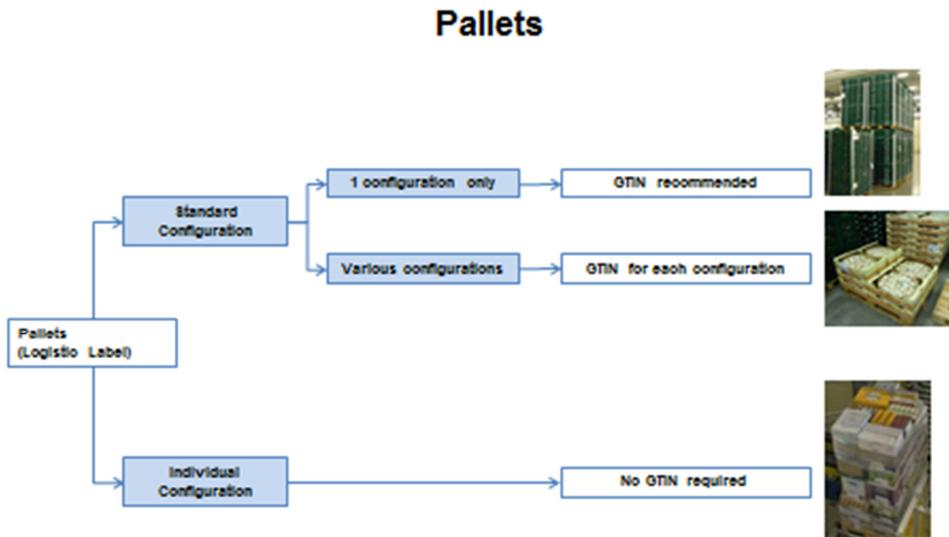


Figure 2.3 – Overview Pallets



✓ **Remark (GS1 in Europe).**

The figure on pallets is focusing on the pallet as trade unit, if a GTIN is assigned it is to identify the trade unit.

3. GTIN Assignment

3.1. The GTIN – Basis for effective trade processes

The GTIN (Global Trade Identification Number) is part of the global GS1 system and helps to uniquely identify products, selling units, trading units and services. The GTIN enables companies to capture product data automatically for example by barcode scan – from harvest to point-of-sale. GTIN is also a key attribute for GDSN (Global Data Synchronisation Network).

The GTIN provides the basis for EDI (Electronic Data Interchange) between suppliers and retailers. From product ordering (by electronic systems), to reliable identification in warehouse and availability on the shelves of the retail store or foodservice operation, trading partners can optimize their bilateral trading processes regardless of restrictions of sector or country.

Using the GTIN lays the groundwork for your success in business. A supplier of fruits and vegetables you may need to full fill legal requirements such as commercial demands of buyers but the GTIN offers more opportunities. For example, globally unique product identification provides the key to modern electronically governed business process. Single components of the GS1 System fit to each other as tools in a tool box. They can be variously combined. Producers and suppliers are able to optimize their business processes step-by-step using this GS1 tool box.

3.2. Where is the GTIN used?

The GTIN identifies loose or pre-packed trade items at any stage of the supply chain up to the end consumer. In order to ensure the use of the GTIN along the entire supply chain, the GTIN should be assigned as early as possible. In the fruit and vegetable sector it is the party who brings the product into the market; this can be the grower or brand owner, but also the packer, despatcher or shipper.

In electronic messages such as Order, Despatch Advice/ASN and Invoice the GTIN identifies consumer units as well as sales units / trade units.

One specific case is private label brands: to enable labelling of the owner of the private label brand of a product, supplies all needed information and item numbers. It is also important to note that a trading partner who assigns GTINs for consumer goods will be held responsible for the GTINs of the trading units of these products.

The Brand Owner of private label products (aka the Private Label Brand Owner, or PLBO) is responsible for assigning GTINs for those products, not the grower or packer serving that PLBO. While not a common practice, some Private Label Brand Owners may choose to have the grower or packer assign GTINs.

3.3. Who is responsible for GTIN assignment?

The brand owner, the organisation that owns the specifications of the trade item regardless of where and by whom it is manufactured, is normally responsible for the assignment of the Global Trade Item Number (GTIN). On joining a GS1 Member Organisation, the brand owner receives a GS1 Company Prefix for the sole use of the company to which it is assigned. The GS1 Company Prefix cannot be sold, leased, or given, in whole or in part, for use by any other company.

The brand owner is the organisation that owns the trade item specifications and may be:

- The manufacturer or supplier: The company that manufactures the trade item or has it manufactured, in any country, and sells it under its own brand name

- The importer or wholesaler: The importer or wholesaler that has the trade item manufactured, in any country and sells it under its own brand name or the importer or wholesaler that changes the trade item (for example by modifying the packaging of the trade item)
- The retailer: The retailer that has the trade item manufactured, in any country, and sells it under its own brand

To determine which supply chain partner assigns the GTIN the following are best practices:

- 1) If the consumer item is a retailer's or foodservice private label the brand owner is responsible for assigning the GTIN
- 2) If the Trade item is a private label the brand owner is typically responsible for assigning the GTIN
 - a. In some cases, the retailer may have the supplier of the product assign the case level GTIN but the inner product will be assigned the retailer's GTIN
- 3) If the Packer / Repacker / Despatcher / Shipper is responsible for marking the product they should ensure that the product has a GTIN

Assigning GTINs to Private Label Products

The Brand Owner of private label products (aka the Private Label Brand Owner, or PLBO) is responsible for assigning GTINs for those products, not the grower or packer serving that PLBO. Note that if a PLBO allows more than one grower or packer to use the same GTIN, there is a remote possibility of repetition of Batch/Lot Numbers across the marketplace. In other words, the same Batch/Lot Number might be used by several growers at the same time, which can result in marketplace confusion if a trace back is required. Care should be taken to correctly track Batch/Lot Numbers for private label products when using multiple growers or packers.

GTINs then are assigned only for a unique combination of attributes, and new GTINs are assigned only when an item is added that represents a new combination of attributes.

Remark (GS1 in Europe)

Although GS1 refers to the term brand owner in relation to GTIN assignment, this term is in the fruit and vegetable sector often used in another context, e.g. the brand owner for a certain variety. For GTIN Assignment the definition of "brand owner" according to the GS1 General Specification: The party that is responsible for allocating GS1 System Identification Keys. The administrator of a GS1 Company Prefix.

3.4. When does a new GTIN needs to be assigned?

As a guiding principle, if the customer is expected to distinguish a new trade item from an old trade item and purchase accordingly, a new GTIN should be assigned to the new trade item. This will ensure the product package and shelf edge label declarations should appear the same to the consumer. However, any law or regulation that contradicts these rules shall supersede these rules.

The question for the fruit and vegetable sector now is the following: When does a producer or retailer have to assign a new GTIN for a product?

A GTIN must always be unique: for each possible packaging of a consumer good a new GTIN has to be assigned, also for each change of measurement of package and for each different quality of the product itself.

Changes of product qualities and the differentiation in degree of these qualities lead also to an assignment of a new GTIN.

In Summary - If a basic characteristic or a packaging characteristic is different, a new GTIN needs to be assigned. Any modification the basic elements that characterises a trade item will usually lead to a change in the GTIN.

 **Note:** For a complete list of Fruit and Vegetable Master Data Attributes, reference the Fruit & Vegetable Master Data Attribute Implementation Guide

A separate unique GTIN is required whenever any of the **pre-defined characteristics of an item** are different in **relevance to the trading process**. Dependent on the Target Market, a new identification number (GTIN) may be assigned to a product if one of these properties is different:

Basic Characteristics	Explanation	Example
Commodity name	Name of the produce (Botanic Name/ descendant from)	Apple (Malus Domestica)
Growing method	Organic; Transitional; Conventional	Organic
Country of origin/region	Country of origin (optional also region of origin or national, regional or local name of product)	Netherlands Germany-Lake Contance
Brand Name (incl. No Name)		Chiquita
Premium Attribute / Commercial Claim (includes Maturity Method)	Premium attributes are used to distinguish from regular products, e.g. air-transport, ready-to-eat, citrus fruit with leaves.	Clementines with leaves (Premium Attribute) Ready-to-Eat (Maturity)

Product Specific Characteristics	Explanation	Example
Size	Size of the product according to relevant standards	Apples 75/85 mm Oranges 2/3s
Class (Grade)	Class (Grade) of the product according to relevant standards	Extra, Class I, Class II
Colour	Colour of the fruit/vegetable (not colour of flesh)	Gooseberries: white
Shape	Shape of the fruit/vegetable	Cucumbers: crooked
Variety	Variety of the fruit or vegetable	Apple: Elstar Avocado: Hass
Commercial type	Commercial type of fruit or vegetable used in trade	Citrus: Primofiore
Colour of Flesh	Colour of the inner flesh of fruit or vegetable	Peaches: white; Grapefruit: rose
Post-Harvest Treatment	Post-harvest treatment: chemical treatment or waxed.	Clementines: treated
Post-Harvest Processing	Physical treatment e.g. washed or trimmed	Brussels Sprouts: trimmed
Cooking type	Waxiness of Potatoes: waxy, predominantly waxy; floury	Potatoes: floury
Seed Properties	Characteristic based on the amount of seeds.	Grapes: seedless

Packaging Characteristics	Explanation	Example
Content/Quantity in trade package	Content of the trade package (Package, Box, Crate, Pallet)	11 kg package; 150 kg big box
Package type and method for trade unit	Type of trade unit package, includes different returnable assets (deposits etc.)	EPS returnable asset; Carton
Content/Quantity in consumer unit	Pre-packed units for consumer, marked and unmarked	120 g; 250 g
Composition of Assortment (trade unit)	Items and/or Quantity	Crate with different potted herbs
Package type and method for consumer unit	Pre-packed units for consumer, marked and unmarked	Bag; Basket, Net
Composition of Assortment (consumer unit)	Items and/or Quantity	Tomato assortment pack Bicolor

NOTE: In some Target Markets differences in attributes may require a new GTIN. Variety, Commercial Grade, Colour of Flesh and Country of Origin are good examples. Readers are urged to understand and apply regulatory and business requirements specific to Target Market.

 **Remark (GS1 in Europe)**

Produce and trade of most fruits and vegetables in the European Union is in most cases subject to the regulation EU 543/2011, which has to be applied on every trade level. Fresh fruit and vegetables not regulated by this standard of commercialization have to comply with the general marketing standard of the European Union or the respective UN/ECE standard. In order to fulfil all demands of the supply chain for fruits and vegetables the present recommendation is based on the UN/ECE standards.

The defined product characteristics clearly explain the conditions when a new GTIN has to be allocated and used. If a basic characteristic or a packaging characteristic is different, always a new GTIN needs to be allocated. Also in the case of different product specific characteristics a new GTIN is needed if this characteristic applies to the product. The differentiation of apples can be used as an example: Apart from different basic and packaging characteristics also each size, sort and quality and, under special circumstances, also post-harvest treatment, lead to a new GTIN.

A table containing all relevant types of produce and the relevant characteristics leading to new GTIN is provided in Annex A (Chapter 6).

Examples for case level are provided in the table below, but do not necessarily reflect the European requirements.

Consumer and Trade Item (Case) Level Example for GTIN Assignment:

									Examples	New GTIN	Change Requirements	Attribute
Peach	Peach	Peach	Peach	Peach	Peach	Peach	Peach	Peach	Peach	YES	Commodity (Functional Name)	
Fortuna	Fortuna	Fortuna	Revita	Revita	Revita	August Lady	Summer Lady	August Lady	August Lady	YES	Variety (Variant)	
Greece	Greece	Greece	Italy	Italy	Italy	USA	USA	USA	USA	NO	Country of Origin	
										YES	Case Qty (Qty of Next Lower Level)	
Carton	Carton	Carton	Carton	Carton	Carton	Carton	Carton	Carton	Carton	YES	Case Type (Packaging Type)	
Tray Pack	Tray Pack	Tray Pack	Tray Pack	Tray Pack	Tray Pack	Tray Pack	Tray Pack	Tray Pack	Tray Pack	Target has a GTIN, change will affect	Pack Style (Packaging Type)	
65	52	40	75	64	64	52	52	52	52	YES	Pack Size (Net Content)	
Each	Each	Each	Each	Each	Each	Each	Each	Each	Each	YES	Pack Size Unit (Net Content UoM)	
A	A	AA	B	B	B					dimensional change, YES	Size Group (Descriptive Size)	
Traditional	Traditional	Traditional	Traditional	Traditional	Traditional	Tree Rippe	Tree Rippe	Tree Rippe	Tree Rippe	YES	Growing Method	
Podakino AC Meliki Inathia Verna	Podakino AC Meliki Inathia Verna	Podakino AC Meliki Inathia Verna	La Perla Siciliana Corso Messina 3 Tindari - ME	La Perla Siciliana Corso Messina 3 Tindari - ME	La Perla Siciliana Corso Messina 3 Tindari - ME	MO	LH	CL	CL	NO	Grower Label (Farm)	
II	I	Extra	II	I	Extra	US No. 2	US No. 1	US No. 1	US No. 1	YES	Grade (Quality / Class)	
Bares	Bares	Bares	Pella Siciliana	Pella Siciliana	Pella Siciliana	Brown's	Brown's	Brown's	Brown's	YES	Brand Name	
40x30x32	40x30x28	40x30x28	40x30x30	40x30x28	40x30x28					YES	Any Dimensional Changes (H, W, D) (+/- 10%)	
10075	8060	8000	9000	7680	7680					YES	Any Weight Changes (Gross, Net) (+/- 10%)	
Yellow	Yellow	Yellow	White	White	White					YES (Target-market Europe)	Colour of Flesh	
05213456799039	05213456799022	05213456799015	08398907258616	08395678901233	08391234567899	00614141000036	00614141000029	00614141000012	00614141000012		Unique GTIN	

3.5. GTIN Assignment Examples

Example 1: Pre-packed units, Differentiation

False: GTIN 4311501991008 for "Iceberg Lettuce"	Correct:
<p>Why:</p> <ul style="list-style-type: none"> >> Lettuce has to be differentiated by country of origin, size, class (grade) (EU 543/2011 B 4) >> Their packaging (a protective packaging in this instance) is for the target market Germany liable to licence fees according the „Verpackungsverordnung“. 	<ul style="list-style-type: none"> >> GTIN 4311501991015 for "Iceberg Spain class I 9er foiled" >> GTIN 4311501991022 for "Iceberg Spain class I 10 foiled" >> GTIN 4311501991039 for "Iceberg Germany class II 8er foiled"




Example 2: Pre-packed units, Variety Packs/Mixes

False: GTIN 4311501991046 for "Tomato Mix"	Correct:
<p>Why:</p> <ul style="list-style-type: none"> >> Tomatoes are differentiated by country of origin and class (grade) (EU 543/2011 B 10), for class II the size is optional. Further there must be made a difference in growing method between conventional and organic (EG 889/2008). There are different brands and different packagings. 	<ul style="list-style-type: none"> >> GTIN 4311502112846 for „Merida Cherry Tomatoes Trimix Netherlands extra class 200 g dish with cap“ >> GTIN 4311527003167 for „Cozumel Bio Wild Wonders Tomatoes Mix Netherlands class II 200 g beaker with cap“




Example 3: Pre-packed units, content information

<p>False: GTIN 4311501991053 for "Trusses of cocktail tomatoes 300 g or 400 g"</p>	<p>Correct:</p>
<p>Why:</p> <ul style="list-style-type: none"> >> Trusses of cocktail tomatoes are differentiated by commercial type, country of origin and class (grade) (EU 543/2011 B 10). The packaging is for the target market Germany liable to licence fees according the „Verpackungsverordnung“. The base price is different. 	<ul style="list-style-type: none"> >> GTIN 4311502991069 for "Trusses of cocktail tomatoes Netherlands extra class 300g dish with cap" >> GTIN 4311502991076 for "Trusses of cocktail tomatoes Netherlands extra class 400 g dish with cap"



Example 4: Trade units, Differentiation

<p>False: GTIN 4311502991083 for "Tomatoes"</p>	<p>Correct:</p>
<p>Why:</p> <ul style="list-style-type: none"> >> Tomatoes are differentiated by commercial type, country of origin, size and class (grade) (EU 543/2011 B 10). >> The packaging is for transportation purpose and has to be treated according to relevant recycling regulations. 	<ul style="list-style-type: none"> >> GTIN 4311502991106 for "Tomatoes Italy class I 48 to 57 mm carton 5 kg" >> GTIN 4311502991113 for "Tomatoes yellow Italy class I 48 to 57 mm carton 5 kg"



Example 5: Trade units, Variety Packs/Mixes

False: GTIN 4311502991120 for "Mix of herbs in pot including pots"	Correct:
<p>Why:</p> <ul style="list-style-type: none"> >> Most herbs in pots have to be differentiated by country of origin (EU 543/2011 A). Furthermore the pots need to be differentiated by size. >> For each composition of a mix a new GTIN has to be allocated and additionally a separate GTIN is needed for each herb in pot product. 	<ul style="list-style-type: none"> >> GTIN 4311502991137 for "Chives in pot Germany pot diameter 13 cm" >> GTIN 4311502991144 for "Parsley curly in pot Germany pot diameter 13 cm" >> GTIN 4311502991151 for "mixed herbs in pot Germany pot diameter 13 cm (6 pots chives, 6 pots parsley curly)"



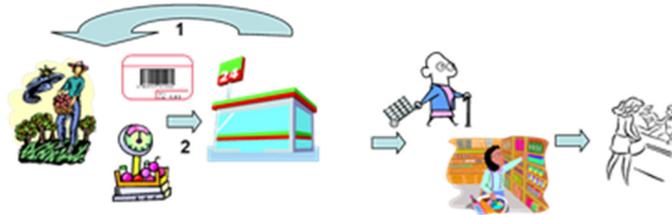
Example 6: Trade units, returnable empties

False: GTIN 4311502991168 for "oranges Spain class I 10 kg"	Correct:
<p>Why:</p> <ul style="list-style-type: none"> >> Oranges are differentiated by variety, country of origin, size and class (grade) (EU 543/2011 B2). Packaging has to be differentiated because it is a returnable transport packaging, for ex. a returnable crate of type EPS 186. 	<ul style="list-style-type: none"> >> GTIN 4311502991175 for "Oranges Cara- Cara Spain class I 1 10 kg carton" >> GTIN 4311502991182 for "Oranges Cara- Cara Spain class I 1 10 kg carton of type EPS 186"



3.6. Scenarios for GTIN Assignment

3.6.1. Packages Pre-Packed by the Supplier



The producers/traders/importers/packers pre-pack the merchandise for the retailer and it is delivered to the retailer labelled according to regular GS1 GTIN or IFPS PLU data structure.

The final consumer will normally find the products weighed at the point-of-sale with price clearly marked.

Producer/Supplier Brand

The supplier/producer is the party responsible to assign the GTIN to the item. The supplier/producer will use its GS1 company prefix and a unique number to create the GTIN for the trade item. The final consumer will normally find the products weighed at the point-of-sale with price clearly marked.

3.6.2. Packages Pre-Packed by the Retailer at the Point of Sale



The producers/traders deliver the merchandise to the retailer as previously agreed. The retailer will manipulate the merchandise to turn it into the final item for the consumer and label it according regular GS1 GTIN or IFPS PLU data structure.

The final consumer will normally find the products weighed at the point-of-sale with price clearly marked.

Retailer Brand

The Retailer is the party responsible to assign the GTIN to the item. The retailer will use its GS1 company prefix and a unique number to create the GTIN for the trade item.

The final consumer will normally find the products weighed at the point-of-sale with price clearly marked.

3.6.3. Generic Products (non-branded packages)

For generic products, the supplier should be the party responsible to assign the GTIN to the item. This principle is very important if we want to have full traceability through all the supply chain, since items coming from different suppliers have different GTINs.

The supplier will use its GS1 company prefix and a unique number to create the GTIN for the trade item.

- ✓ **Example:** Pack of 6 apples sold by unit with Supplier Brand with GTIN 84567800996. The price for the Pack of 6 apples is not related to its weight.



3.6.4. Articles Sold as Loose Product



For items sold in bulk to the final consumer the brand of item is not important. The producers; traders; importers; packers deliver the merchandise to the retailer as previously agreed. Products are presented at the point of sale without any specific packaging. The final consumer takes the fruits or vegetables; he puts them in a plastic bag and weighs it. The scale will automatically print a label with all the necessary information to determine the price of the article at the point of sale. The code to identify the product is normally assigned by the retailer.

- ✓ **Example:** Oranges are sold loose. The final consumer of a retailer takes 1.073 kilograms of Oranges from a Box in the Fruit section of a supermarket. The total weight is 1.073 Kilograms and the price per kilogram is € 1.23.

The alternative scenario is that the produce is marked with a GTIN (EAN/UPC or GS1 DataBar) or an IFPS PLU Number and the article will be scanned and weighed at the point of sale.

- ✓ **Example:** Oranges are sold loose and are marked with a GTIN encoded with an EAN/UPC or GS1 DataBar Barcode. At the point of sale it is scanned and registered that is variable weight product and it is weighed at the point of sale.

4. GTIN Assignment Business Examples

Example 1 - Standard product packaging Case of Bulk Cucumbers

Who are the Trading Partners?

- Norbert's Packers –medium size product facility operating in Valencia, Spain with customers throughout the world
- Norbert packers specializes in bulk cucumbers products and ships direct to retail customers
- Customer - Henri's Retailer based in Cologne, Germany

What is happening?

- Norbert Packers trades bulk cucumbers with the same grade, quantity, quality, size and country of origin. Product is traded in 3 standard case configurations

	<p>Bulk cucumbers with no GTIN (wrapped or unwrapped, with brand label or with PLU)</p>
	<p>Case 1- cardboard box, with 12 cucumbers inside GTIN - 08456789000007</p>
	<p>Case 2 - Wood crate with 12 cucumbers inside GTIN – 08456789000014</p>
	<p>Case 3 – Reusable plastic container (RPC) with 12 cucumbers inside GTIN – 08456789000021</p>

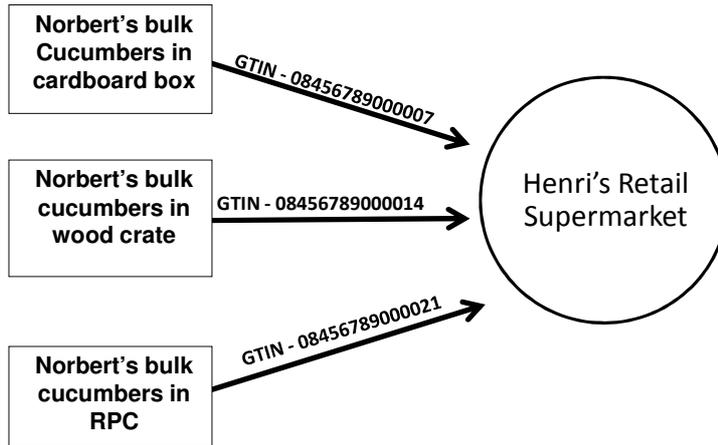
- Henri's purchases all three products from Norbert's Packers

What is the Best Practice?

- Because the trade items are traded in different packaging types, they require different GTIN Assignment
- Norbert's identifies these three trade items with 3 different GTINs
 - Cardboard box with 08456789000007
 - Wood crate with 08456789000014
 - RPC with 08456789000021

- This example demonstrates the difference in packaging types and how they require a unique GTIN Assignment

Bulk Cucumbers with same product characteristics but different packaging



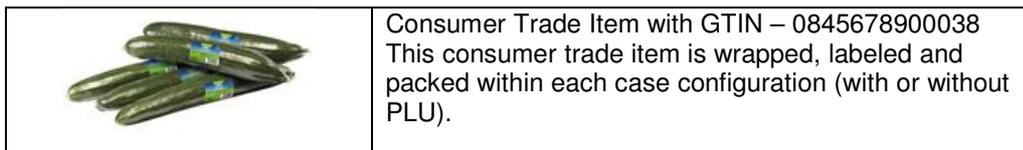
Example 2 - Standard produce case with Consumer Trade Item inside

Who are the Trading Partners?

- Norbert's Packers – medium size product facility operating in Valencia, Spain with customers throughout the world
- Norbert packers specializes in pre-packed cucumbers and ships direct to retail customers
- Customer - Henri's Retailer based in Cologne, Germany

What is happening?

- Norbert Packers trades pre-packed cucumbers with the same grade, quantity, quality, size and country of origin. Product is traded in 2 standard case configurations. Each case configuration contains a pre-packed consumer items with a GTIN.

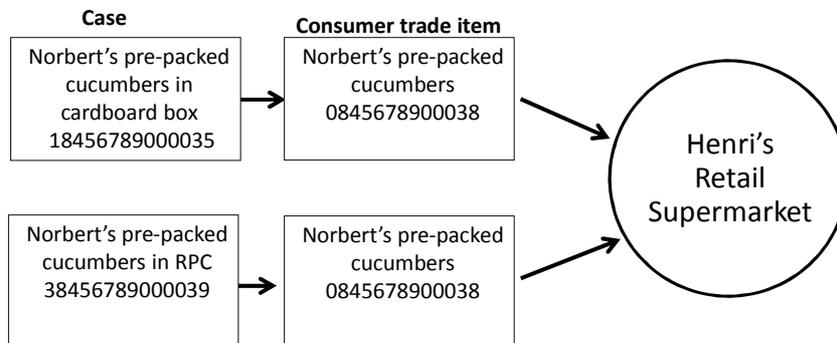


	<p>Case 1- cardboard box, with 12 cucumbers inside GTIN - 18456789000035</p>
	<p>Case 2 – Reusable plastic container (RPC) with 12 cucumbers inside GTIN – 38456789000039</p>

What is the Best Practice?

- Because the consumer item has to be identified at Point-of-Sale it requires a unique GTIN, Norbert's identifies his pre-packed consumer trade item with a unique GTIN – 08456789000038
- Because we need to differentiate each case configuration Norbert's identifies each case with a unique GTIN
 - Cardboard box with 18456789000035
 - RPC with 38456789000039

Pre-packed Cucumbers with the identical consumer Trade item inside



Example 3 – Packaging Changes and their impact on GTIN assignment

Who are the Trading Partners?

- Norbert's Packers – medium size product facility operating in Valencia, Spain with customers throughout the world
- Norbert packers specializes in cucumbers and ships direct to retail customers
- Customer - Henri's Retailer based in Cologne, Germany

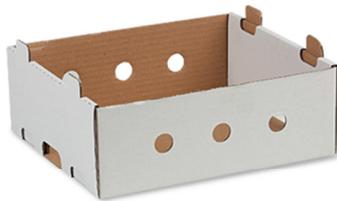
Minor Change – What is happening?

- Norbert Packers trades cucumbers in a box. Its dimensions are 40cm x 30 cm x 16.5cm.
- Norbert Packers changes packaging suppliers and replaces the box with a slightly taller one. Its dimensions are 40cm x 30cm x 17.5cm. This dimension change represents less than 10%.
- The net content remains the same.

Minor Change – What is the Best Practice?

- The packaging change is considered minor (less than 10%) and for this reason, Norbert Packers can continue using the same GTIN.

NO NEW GTIN REQUIRED



Case 1

**40cm x 30 cm x 16.5cm
GTIN - 18456789000042**



Case 2

**40cm x 30cm x 17.5cm
GTIN - 18456789000042**

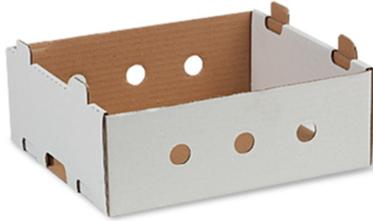
Major Change – What is happening?

- Norbert Packers changes packaging suppliers once again. This time, the new package dimensions are 40cm x 30cm x 21cm. This dimension change represents more than 20%.
- The net content remains the same.

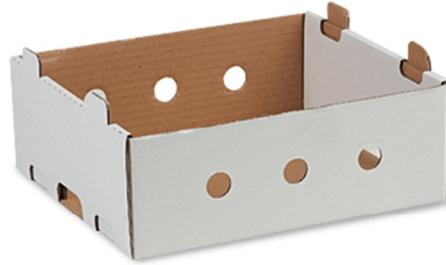
Major Change – What is the Best Practice?

- The packaging change is considered major (greater than 20%) and for this reason, Norbert Packers assigns a new GTIN.

NEW GTIN REQUIRED



Case 1
40cm x 30 cm x 16.5cm
GTIN - 18456789000042



Case 3
40cm x 30cm x 21cm
GTIN - 28456789000049

Example 4 – Sourcing product based on Country of Origin (address regulatory or business need)

Who are the Trading Partners?

- Juan's Grapefruit Packers is an international company specializing in grapefruit product from Mexico and the USA. They trade grapefruit all over the world including Greg's Citrus Trading Company
- Mike's Grapefruit Packers is an international company specializing in grapefruit product from Mexico and the USA. They trade grapefruit all over the world including Greg's Citrus Trading Company
- Greg Citrus Trading Company is a Trader which buys and sells grapefruit in the international market.
- Jane's Grocery is a mid-size supermarket based in the USA
- Isabelle's Corner Store based in France

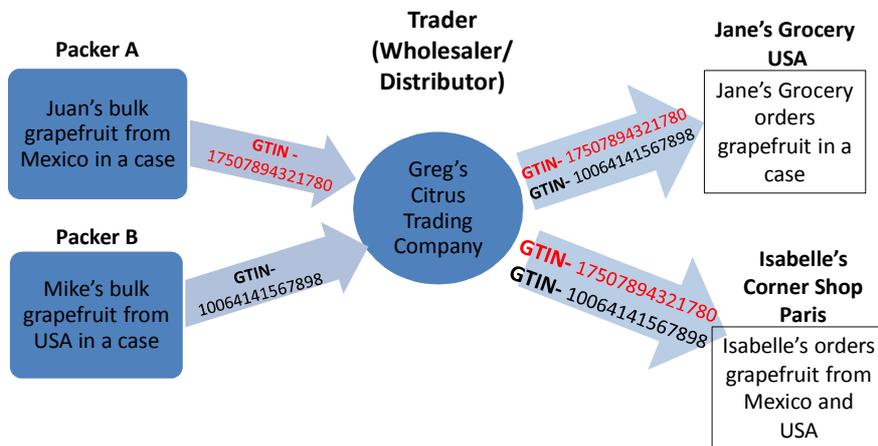
What is happening?

- Greg's Citrus Company is sourcing product grown and packed in different countries
- Greg's Citrus Company does not change the products it buys in any way; they simply resell the product
- Greg's Citrus Company has customers in France (Isabelle's) and USA (Jane's).
- European regulation requires that country of origin must be defined at time of ordering, therefore, Isabelle's Corner Store requires that country of origin is part of Master Data.
- When Greg's Citrus Trading Company provides his Master Data to Jane's Grocery and Isabelle's Corner Store, he exchanges information for both case products.
- When Jane's Grocery orders, they do not specify the country of origin. Consequently, they may receive either product from Greg's Citrus Trading Company.
- When Isabelle's Corner Store orders, they will always specify the desired country of origin.

What is the Best Practice?

- Juan’s assigns a GTIN to his product originating from Mexico and makes this available to his customer, Greg’s Citrus Trading Company
 - GTIN – 17507894321780
- Mike’s assigns a GTIN for his product originating from USA and makes this available to his customer, Greg’s Citrus Trading Company
 - GTIN - 10064141567898
- Greg’s Citrus Trading Company records and list Juan’s and Mike’s GTIN in his database

Country of Origin



Example 5 – Post Harvest Processing (banana Ripening)

Who are the trading partners?

- Bobby Banana Company is a fruit packer and ships bananas to wholesale and ripening facilities.
- Ed’s Ripening Facility is a banana ripener who sells ripened bananas to wholesalers

What is happening?

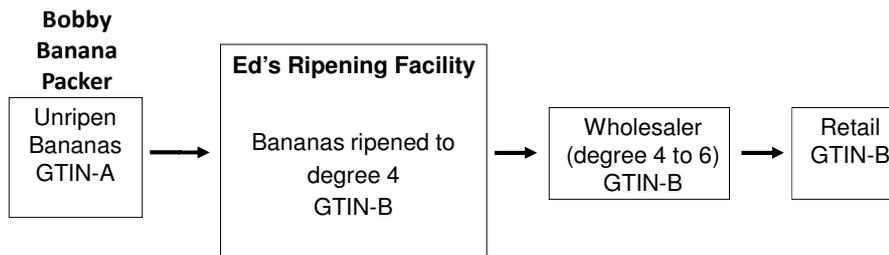
- Bobby Banana Company sells unripen bananas to Ed’s Ripening Facility
- Ed’s Ripening orders unripen bananas, use GTIN-A for invoice.

What is the Best Practice?

- The Packer assigns GTIN-A to identify unripen bananas for selling / ordering
- Ripening of bananas to degree 4 is a transformation of the product, therefore the Ed’s is responsible for assigning a new GTIN (GTIN-B)

- Further ripening of bananas (degree 4 to degree 6) does not represent a transformation, and consequently the same GTIN (GTIN-B) is used
- **Note:** other examples could include celery, romaine hearts, Brussels sprouts...

Post Harvest Processing (e.g. Bananas)



Example 6 – Post Harvest Processing (e.g. broccoli, celery, Brussels sprouts, green beans)

Who are the trading partners?

- Klaus Growers is a producer of Brussels sprouts
- Mike's Packer is a distributor of Brussels sprouts
- Pere's Fresh market is a small retailer of fruit and vegetables in Barcelona
- Harry's Discount Market is a mid-size retailer in Amsterdam

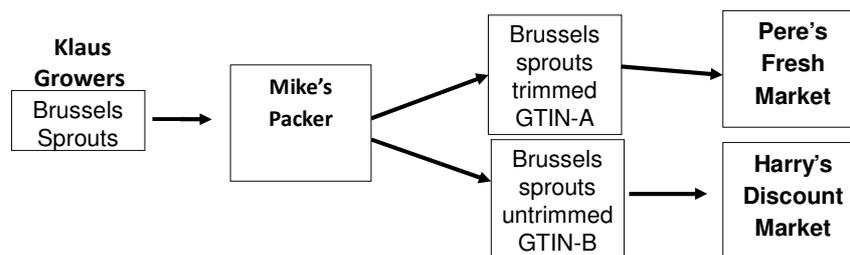
What is happening?

- Klaus Growers ships Brussels Sprouts to Mike's Packer
- Mike's Packer has a processing line for trimming. Trimmed product is available to the trade as GTIN-A
- Mike's Packer also sells unprocessed (i.e. untrimmed) Brussels sprouts. These are available to the trade as GTIN-B
- Pere's Fresh Market specializes in premium fruit and vegetables. Pere's Fresh Market purchases GTIN-A from Mike's
- Harry's Discount Market purchases untrimmed product from Mike's, GTIN-B

What is the Best Practice?

- Trimming is a process and for this reason has to be distinguished from unprocessed product
- Mike's Packer assigns Trimmed Brussels sprouts
- Mike's Packer assigns Untrimmed Brussels sprouts

Post Harvest Processing



Example 7 – Packing / Repacking

Who are the trading partners?

- Hometown Farms is a large grower of apples operating in New York State, USA
- Precision Packing is a large repacker of apples with customers throughout the world
- Sam's Independent Grocer is a mid-size retailer based in Chicago, USA
- Harry's Discount Market is a mid-size retailer in Amsterdam
- Really Big Retail is a large retailer with stores throughout France

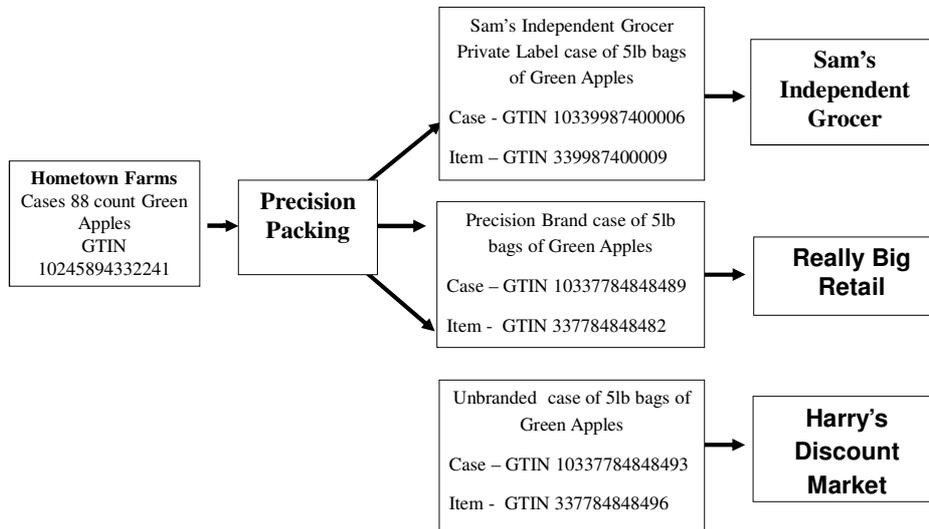
What is happening?

- Hometown Farms sells packed green apples to Precision Packing
- Precision Packing repacks Hometown Farms green apples into new trade items
- Precision packs branded and unbranded trade items
- Precision Packing is creating product for Sam's under their private label. This means those products are identified using a GTIN assigned by Sam's Independent Grocer
- Precision Packing also creates product under the brand name Precision. These products are sold to Really Big Retail. These products are identified using a GTIN assigned by themselves
- Precision Packing is also trading Unbranded products using a different GTIN assigned by themselves

What is the Best Practice?

- Hometown Farms assigns a GTIN to their cases of Green apples GTIN -10245894332241
- Precision Packing uses a GTIN assigned by Sam’s Independent Grocer 5lb bags –
 - Case - 1033998740000
 - Item - 339987400009
- Precision Packing assigns new GTINs to cases and items themselves
 - Case - 10337784848489
 - Item - 337784848482
- Precision Packing assigns new GTINs to Unbranded items themselves
 - Case - 1033778484849
 - Item – 337784848496

Packing / Repacking



Example 8 – Packing / Repacking Variety packs

Who are the trading partners?

- Good Bros Farms is small local grower of peppers
- Fresh Pepper Farms is a small local grower of peppers
- Precision Farms is a large grower of peppers and owned by Precision Packing
- Sam's Independent Grocer is a mid-size retailer based in Chicago, USA
- Harry's Discount Market is a mid-size retailer in Amsterdam
- Really Big Retail is a large retailer with stores throughout France

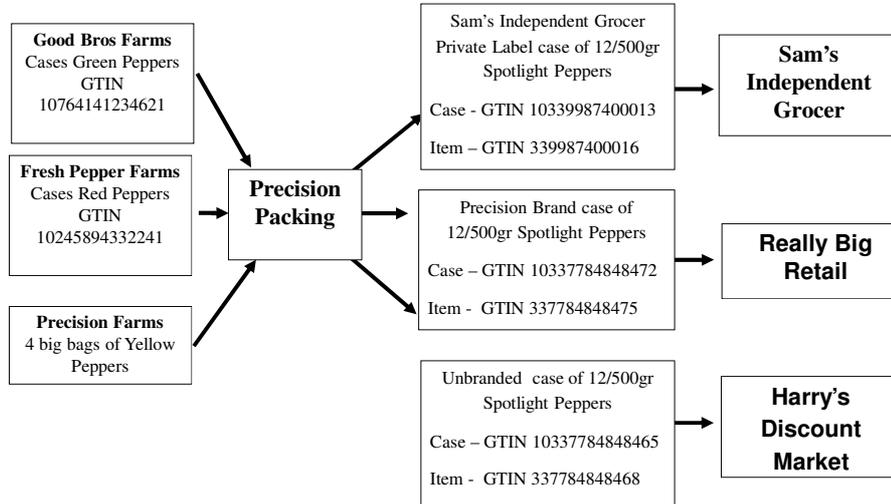
What is happening?

- Good Bros Farms sells packed green bell peppers to Precision Packing
- Fresh Pepper Farms sells packed red bell peppers to Precision Packing
- Precision Farms (owned by Precision Packing) delivers yellow bell peppers directly from the field.
- Precision Packing repacks all bell peppers into variety packs contain one red, one green and one yellow bell-pepper as new trade items.
- Precision packs branded and unbranded trade items
- Precision Packing is creating product for Sam's under their private label. This means those products are identified using a GTIN assigned by Sam's Independent Grocer
- Precision Packing also creates product under the brand name Precision. These products are sold to Really Big Retail. These products are identified using a GTIN assigned by themselves
- Precision Packing is also trading Unbranded products using a different GTIN assigned by themselves

What is the Best Practice?

- Good Bros Farms assigns a GTIN to their cases of Green peppers GTIN -1076414123462
- Fresh Pepper Farms assigns a GTIN to their cases of Red peppers GTIN – 10245894332241
- As Precision Packing is creating new products, a new GTIN must be assigned by Precision Packing or Sam's Independent Grocer (private label brand owner). Precision Packing must not use the GTINs assigned by Good Bros and Fresh Peppers in this case.
- As the Yellow Peppers from Precision Farms comes directly from the field to the packhouse (i.e. Precision Packing) there is no GTIN required
- Precision Packing uses a GTIN assigned by Sam's Independent Grocer for the Private Label Variety Packs –
 - Case - 10339987400013
 - Item - 339987400016
- When Precision Packing assigns GTINs, they must do so based on Precisions Packing GS1 Company Prefix.
- Precision Packing assigns new GTINs to their own branded items
 - Case - 10337784848472
 - Item - 337784848475
- Precision Packing assigns new GTINs to Unbranded items
 - Case - 10337784848465
 - Item - 337784848468

Packing / Repacking Variety Packs



Example 9 – Repacking after rejection (e.g. Re-grading)

Who are the trading partners?

- Precision Packing is distributor of Green Apples
- Sam's Independent Retailer
- Really Big Retailer
- Harry's Discount Market
- Dawn's is a solution provider that serves the industry by repacking products

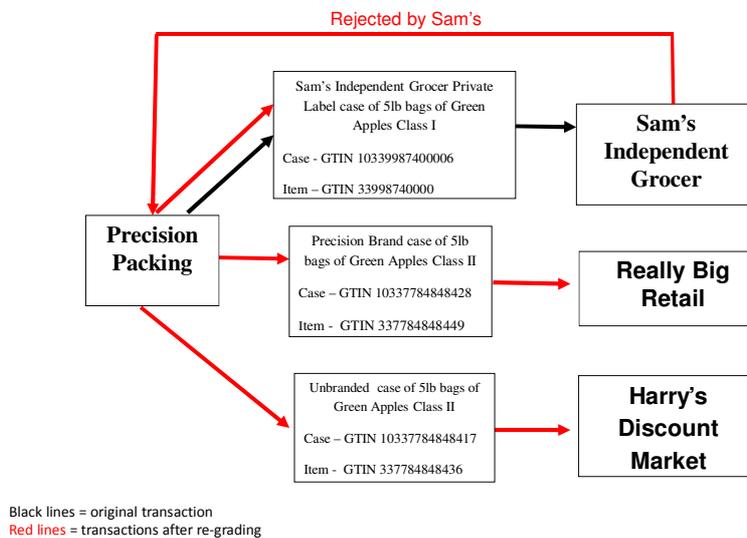
What is happening?

- Precision Packing is selling Class I Green Apples for Sam's under their private label. This means those products are identified using a GTIN assigned by Sam's Independent Grocer
- Sam's rejects the whole delivery as some products did not meet Sam's specifications. Precision retains ownership and re-packs the rejected delivery.
- Out of this delivery, Precision repacks the product into three items;
 - The first item meets Sam's specifications and can be sold to Sam's using the original GTIN
 - The second item is degraded to Class II and sold under Precision's brand to Really Big Retail
 - The third item is degraded to Class II and sold as Unbranded to Harry's Discount Market

What is the Best Practice?

- Precision Packing assigns new GTINs to their own branded items Class II
 - Case - 10337784848428
 - Item - 337784848449
- Precision Packing assigns new GTINs to Unbranded items Class II
 - Case - 10337784848417
 - Item - 337784848436

Repacking after rejecting (e.g. re-grading)



Example 10 – Repacking by Third Party after rejection

Who are the trading partners?

- Precision Packing is distributor of Green Apples
- Sam's Independent Retailer
- Miguel's Hypermarket
- Harry's Discount Market
- Dawn's Local Repacking Inc.
- Dawn's Local Repacking Inc. sells Class I & Class II Green Apples under their own brand and GTINs to the market.

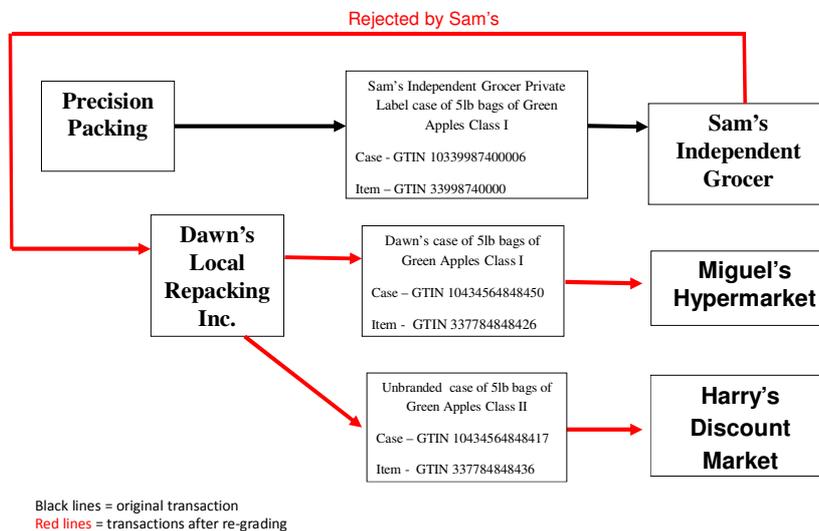
What is happening?

- Precision Packing is selling Class I Green Apples for Sam’s under their private label. This means those products are identified using a GTIN assigned by Sam’s Independent Grocer.
- Sam’s rejects the whole delivery as some products did not meet Sam’s specifications.
- Precision sells the rejected products to Dawn’s Local Repacking Services and arranges transportation directly from Sam’s to Dawn’s facility.
- Dawn’s Local Repacking Inc. sells Class I & Class II Green Apples under their own brand and GTINs to the market.
- Out of this delivery, Dawn’s Local Repacking Services repacks the product into two items;
 - Although the first item meets Sam’s specifications (e.g. Class I), Dawn’s will sell them to another retailer using Dawn’s GTIN for Class I green apples.
 - The second item is degraded to Class II. Dawn’s sells unbranded Green Apples to a Discount Market using a GTIN assigned by Dawn’s.

What is the Best Practice?

- Dawn’s Repacking Inc. assigns their GTINs to their own branded items Class I
 - Case - 10434564848450
 - Item - 337784848426
- Dawn’s Repacking Inc. assigns their GTINs to Unbranded items Class II
 - Case - 10434564848417
 - Item – 337784848436

Repacking by Third Party after rejection



Example 11 – Same retail product but in different packaging

Who are the trading partners?

- Gerard's Produce Company – a large producer of packaged fruits and vegetables in France has several different sized customers with varied needs
- Gerard's Produce Company produces 500g packages of leeks; one in a clam shell and the other in a 500g bag.
- Olivier's Fruit and Vegetable Market is one of Gerard's customers in Lille.

What is happening?

- Olivier's Fruit and Vegetable Market requires the 500g packages of leeks in a bag.

What is the Best Practice?

- Gerard's Produce Company identifies each packaging type of leeks with a different GTIN
 - 500g packages of leeks in a shell with saran as GTIN-A
 - 500g bags of leeks as GTIN-B



GTIN-A



GTIN-B

5. Internet Resources

The following links provide additional resources regarding GTIN allocation as well detailed information on the referenced food marketing standards.

Information about structure and use of the GTIN

www.gs1.org/barcodes/technical/idkeys/gtin

GS1 in Europe

www.gs1.eu

GTIN Allocation Rules for Fresh Foods

www.gs1.org/1/gtinrules/index.php/tid=32

GS1 Global Office

www.gs1.org

UNECE Standards for Fresh Fruits and Vegetables (FFV)

www.unece.org/trade/agr/standard/fresh/FFV-StandardsE.html

UNECE Standards for Dry and Dried Produce (DDP)

www.unece.org/trade/agr/standard/dry/DDP-Standards.html

Codex Alimentarius – International Food Standards

www.codexalimentarius.org

EU Regulation on Fruit & Vegetables EU 543/2011

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:157:0001:0163:EN:PDF>

6. Annex A - Check List When to Assign a New GTIN

The following table lists the different Fruits and Vegetables alphabetically. Based on the individual product features, it is possible to check when the assignment of a separate GTIN is required for Europe.

M = Different properties always lead to a new GTIN

C = Different properties can lead to a new GTIN

(e.g. whenever a particular mark, optional sort specification)

R = It is recommended that different properties result in a new GTIN



Comment: This list will be updated according to new products added. For the latest version please refer to www.gs1.eu

Version 1.1, 13.11.2012

Commodity Name	Descendant from	Growing Method	Country of Origin	Brand Name	Premium Attributes	Size	Class (Grade)	Colour and/or Shape	Variety	Commercial Type	Colour of Flesh	Post-Harvest Treatment	Post-Harvest Processing	Cooking Type	Seed Characteristics	Content/Quantity of Pre-Packed Unit	Content/Quantity of Trade Unit	Packaging Type of Pre-Packed Unit	Packaging Type of Trade Unit	RTI-Type	Composition of Pre-Packed Unit	Composition of mixed Trade Units	Relevant Regulation or Standard
Almonds	Prunus amygdalus fragilis	M	M	M	M	-	-	M	C	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE DDP-18
American Persimmon	Diospyros virginiana	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Ananas d'Amérique	Cucumis melo	M	M	M	M	M	M	-	C	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-23
Apples	Malus domestica	M	M	M	M	M	M	-	M	-	-	C	-	-	-	M	M	M	M	M	M	M	EU 543/2011 B/1
Apricots	Prunus armeniaca	M	M	M	M	C	M	-	C	-	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-02
Asparagus	Asparagus officinalis	M	M	M	M	M	M	M	-	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-04
Aubergines	Solanum melongena	M	M	M	M	C	M	C	C	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-05
Babacos	Carica pentagona	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Bananas (ripe)	Musa	M	M	M	M	-	-	-	-	R	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Bananas (unripe)	Musa	M	M	M	M	-	M	-	-	R	-	-	-	-	-	M	M	M	M	M	M	M	EU 2898/1995
Baskavas	Cucumis melo	M	M	M	M	M	M	-	C	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-23
Beans	Phaseolus vulgaris	M	M	M	M	C	M	-	C	-	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-06
Beetroot	Beta vulgaris	M	M	M	M	-	M	-	-	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-59
Bilberries	Vaccinium myrtillus L.	M	M	M	M	-	M	-	C	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-57
Bird's Eye Chili or Thai Chili	Capsicum annuum (Capsicum indicum)	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Bitter Melon	Momordica charantia	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Black Radish, Beer Radish, Daikon	Raphanus sativus L. var. niger	M	M	M	M	-	M	-	-	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-59
Black Salsify	Scorzonera	M	M	M	M	-	M	-	-	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-59
Blackberries	Rubus sect. Rubus	M	M	M	M	-	M	-	C	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-57
Branco	Cucumis melo	M	M	M	M	M	M	-	C	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-23
Broccoli	Brassica oleracea L. var. italica	M	M	M	M	C	M	-	-	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-48

Part 3 - Product Identification in the Fruit and Vegetables Supply Chain with GTIN

Commodity Name	Descendant from	Growing Method	Country of Origin	Brand Name	Premium Attributes	Size	Class (Grade)	Colour and/or Shape	Variety	Commercial Type	Colour of Flesh	Post-Harvest Treatment	Post-Harvest Processing	Cooking Type	Seed Characteristics	Content/Quantity of Pre-Packed Unit	Content/Quantity of Trade Unit	Packaging Type of Pre-Packed Unit	Packaging Type of Trade Unit	RTI-Type	Composition of Pre-Packed Unit	Composition of mixed Trade Units	Relevant Regulation or Standard
Broccoli (stem)	Brassica oleracea L. var. italica x Bras	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Brussels Sprouts	Brassica oleracea L. var. gemmifera	M	M	M	M	C	M	-	-	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-08
Calabash	Lagenaria siceraria	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Cantaloupe, Western Shipper	Cucumis melo	M	M	M	M	M	M	-	C	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-23
Cape Gooseberries	Physalis peruviana	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Carambola	Averrhoa carambola	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Carobs	Ceratonia siliqua	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Carrots	Daucus carota	M	M	M	M	C	M	C	C	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-10
Cassia	Cassia fistula	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Cauliflower	Brassica oleracea L. convar. botrytis	M	M	M	M	M	M	C	-	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-11
Celeriac	Apium graveolens var. rapaceum	M	M	M	M	-	M	-	-	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-59
Celery	Apium graveolens L. var. dulce Mill.	M	M	M	M	C	M	-	-	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-12
Cep or Penny Bun	Boletus edulis	M	M	M	M	-	M	-	C	-	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-54
Chanterelles	Cantharellus cibarius	M	M	M	M	C	M	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-55
Chard (leaf)	Beta vulgaris var. flavescens	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Chard (stem)	Beta vulgaris var. flavescens	M	M	M	M	-	M	-	-	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-58
Chayote, Pear Squash, Chouchoute	Sechium edule	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Cherimoya	Annona cherimola	M	M	M	M	M	M	-	C	-	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-47
Chestnuts or Sweet Chestnuts	Castanea sativa	M	M	M	M	-	M	-	C	-	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-39

Part 3 - Product Identification in the Fruit and Vegetables Supply Chain with GTIN

Commodity Name	Descendant from	Growing Method	Country of Origin	Brand Name	Premium Attributes	Size	Class (Grade)	Colour and/or Shape	Variety	Commercial Type	Colour of Flesh	Post-Harvest Treatment	Post-Harvest Processing	Cooking Type	Seed Characteristics	Content/Quantity of Pre-Packed Unit	Content/Quantity of Trade Unit	Packaging Type of Pre-Packed Unit	Packaging Type of Trade Unit	RTI-Type	Composition of Pre-Packed Unit	Composition of mixed Trade Units	Relevant Regulation or Standard
Chicorée, Witloof	Cichorium intybus var. Foliosum	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Chilli Peppers	Capsicum frutescens	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Chinese Cabbages	Brassica pekinensis	M	M	M	M	-	M	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-44
Choy Sum, Flowering Chinese Cabbage	Brassica parachinensis	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Clementines	Citrus clementina	M	M	M	M	M	M	-	M	C	-	M	-	-	-	M	M	M	M	M	M	M	EU 543/2011 B/2
Coconut	Cocos nucifera	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Common Chicory	Cichorium intybus L. Sativum	M	M	M	M	-	M	-	-	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-59
Common Dandelion	Taraxacum officinale	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Common Medlar	Mespilus germanica	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Courgette, Zucchini Squash	Cucurbita pepo L.	M	M	M	M	C	M	C	-	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-41
Cranberries (American)	Vaccinium macrocarpon	M	M	M	M	-	M	-	C	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-57
Cranberries	Vaccinium subgenus Oxycoccus	M	M	M	M	-	M	-	C	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-57
Curuba, Banana Passionfruit	Passiflora mollissima	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Damsons	Prunus domestica L. ssp. domestica	M	M	M	M	C	M	-	M	-	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-29
Dates	Phoenix dactylifera	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Durian	Durio zibethinus	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Elderberries	Sambucus nigra	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Elephant Garlic, Wild Leaf	Allium ampeloprasum	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Endive (Curled)	Cichorium endivia L. var. crispum Lam	M	M	M	M	M	M	C	C	C	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 B/4
Escarole	Cichorium endivia L. var. latifolium Lam	M	M	M	M	M	M	C	C	C	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 B/4

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Feijoas	Acca sellowiana	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Fennel	Foeniculum vulgare	M	M	M	M	M	M	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-16
Figs	Ficus carica	M	M	M	M	M	M	-	C	-	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-17
Finger Avocados	Persea americana	M	M	M	M	M	M	-	M	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-42
Galia	Cucumis melo	M	M	M	M	M	M	-	C	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-23
Garlic	Allium sativum	M	M	M	M	M	M	-	-	M	-	-	C	-	-	M	M	M	M	M	M	M	UNECE FFV-18
Ginger	Zingiber officinale	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Globe Artichokes	Cynara scolymus	M	M	M	M	C	M	-	C	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-03
Gooseberries	Ribes uva-crispa L.	M	M	M	M	-	M	M	C	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-57
Grapefruit	Citrus paradisi	M	M	M	M	M	M	C	C	C	M	M	-	-	C	M	M	M	M	M	M	M	UNECE FFV-14
Green Charentais	Cucumis melo	M	M	M	M	M	M	-	C	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-23
Green Eastern Shipper	Cucumis melo	M	M	M	M	M	M	-	C	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-23
Greengages	Prunus domestica L. ssp. Italica	M	M	M	M	C	M	-	M	-	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-29
Guavas	Psidium guajava	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Hazelnuts	Corylus avellana, Corylus maxima	M	M	M	M	M	M	-	C	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE DDP-03
Head Lettuce	Lactuca sativa L. var. capitata L.	M	M	M	M	M	M	C	C	C	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 B/4
Honey Dew	Cucumis melo	M	M	M	M	M	M	-	C	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-23
Honeydew	Cucumis melo	M	M	M	M	M	M	-	C	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-23
Horned Melon	Cucumis metuliferus	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Horseradish	Cochlearia armoracia L. syn. Armoracia l	M	M	M	M	-	M	-	-	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-59
Hot Peppers	Capsicum annuum var. longum Solanaceae	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A

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Indian Date	Tamarindus indica	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Jackfruit	Artocarpus heterophyllus	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Jalapeño	Capsicum annuum	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Japanese Greens	Brassica rapa var. japonica	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Jerusalem Artichokes	Helianthus tuberosus	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Kaki/Sharon Fruit	Diospyros kaki	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Kale	Brassica oleracea convar. acephala var.	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Kirkagac	Cucumis melo	M	M	M	M	M	M	-	C	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-23
Kiwifruits	Actinidia deliciosa, Actinidia chinensis	M	M	M	M	M	M	C	C	-	C	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 B/3
Kohlrabi (stem cabbage)	Brassica oleracea var. gongylodes L.	M	M	M	M	-	M	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-59
Kumquat	Fortunella	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	-
Lambs Lettuce	Valerianella locusta	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Leaf Lettuce	Lactuca sativa L. var. crispa L.	M	M	M	M	M	M	C	C	C	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 B/4
Leaf Lettuce (other)		M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Leek	Allium porrum	M	M	M	M	C	M	-	-	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-21
Lemon Grass	Cymbopogon citratus	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Lemons	Citrus limon	M	M	M	M	M	M	-	M	C	-	M	-	-	C	M	M	M	M	M	M	M	EU 543/2011 B/2
Limequats	Citrus aurantifolia x Fortunella	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	-
Limes	Citrus aurantiifolia	M	M	M	M	M	M	-	-	-	-	M	-	-	C	M	M	M	M	M	M	M	UNECE FFV-15
Limes (Persian)	Citrus latifolia	M	M	M	M	M	M	-	-	-	-	M	-	-	C	M	M	M	M	M	M	M	UNECE FFV-15
Lingonberries	Vaccinium vitis-idaea	M	M	M	M	-	M	-	C	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-57
Longan	Dimocarpus longan	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A

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Lychees	Litchi chinensis	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Mangos	Mangifera indica	M	M	M	M	M	M	-	M	-	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-45
Manioc, Cassava	Manihot esculenta Crantz	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
May Turnips	Brassica rapa var. rapifera subvar. Maja	M	M	M	M	-	M	-	-	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-59
Minneolas (Tangelos)	Citrus Tangelo	M	M	M	M	M	M	-	M	C	-	M	-	-	-	M	M	M	M	M	M	M	EU 543/2011 B/2
Mirabelle, Yellow Plum	Prunus domestica L. ssp. syriaca	M	M	M	M	C	M	-	M	-	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-29
Mung Bean	Vigna radiata	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Mushrooms (except cultivated champignon mushrooms, ceps, chanterelles and truffles)	e.g. Pleurotus nebrodensis	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	-
Mustard Greens	Brassica juncea (L.) Czern.	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Mustard Greens, Chinese Mustard	Brassica juncea	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Nashi	Pyrus pyrifolia	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Nectarines	Prunus persica var. nucipersica	M	M	M	M	C	M	-	C	-	M	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 B/5
Ogen	Cucumis melo	M	M	M	M	M	M	-	C	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-23
Okra	Abelmoschus esculentus	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Onion	Allium cepa	M	M	M	M	M	M	C	-	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-25
Oranges	Citrus sinensis	M	M	M	M	M	M	-	M	C	-	M	-	-	-	M	M	M	M	M	M	M	EU 543/2011 B/2
Pak Choi	Brassica rapa ssp. Chinensis	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Palestine lime or Sweet Indian lime	Citrus limettioides	M	M	M	M	M	M	-	-	-	-	M	-	-	C	M	M	M	M	M	M	M	UNECE FFV-15
Papayas	Carica papaya	M	M	M	M	M	M	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	CODEX STAN 183
Parsnips	Pastinaca	M	M	M	M	-	M	-	-	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-59

Part 3 - Product Identification in the Fruit and Vegetables Supply Chain with GTIN

Commodity Name	Descendant from	Growing Method	Country of Origin	Brand Name	Premium Attributes	Size	Class (Grade)	Colour and/or Shape	Variety	Commercial Type	Colour of Flesh	Post-Harvest Treatment	Post-Harvest Processing	Cooking Type	Seed Characteristics	Content/Quantity of Pre-Packed Unit	Content/Quantity of Trade Unit	Packaging Type of Pre-Packed Unit	Packaging Type of Trade Unit	RTI-Type	Composition of Pre-Packed Unit	Composition of mixed Trade Units	Relevant Regulation or Standard
Peaches	Prunus persica	M	M	M	M	C	M	-	C	-	M	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 B/5
Pears	Pyrus communis	M	M	M	M	M	M	-	M	-	-	C	-	-	-	M	M	M	M	M	M	M	EU 543/2011 B/6
Peas	Pisum sativum	M	M	M	M	-	M	-	-	M	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-27
Pepino	Solanum muricatum	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Pickling Cucumbers	Cucumis sativus	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Piel de Sapo	Cucumis melo	M	M	M	M	M	M	-	C	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-23
Pineapples	Ananas comosus	M	M	M	M	C	M	C	-	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-49
Pistachio	Pistacia vera	M	M	M	M	C	M	-	C	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE DDP-09
Plantain Bananas	Musa	M	M	M	M	-	-	R	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Plumcots and Pluots	Prunus armeniaca x Prunus salicina	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Plums	Prunus domestica L. ssp. domestica	M	M	M	M	C	M	-	M	-	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-29
Pomegranates	Punica granatum	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Potatoes	Solanum tuberosum	M	M	M	M	C	-	C	M	C	C	-	-	C	-	M	M	M	M	M	M	M	UNECE FFV-52
Potted Herbs		M	M	M	M	M	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Potted Lettuce		M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Prickly Pear, Barbary Fig	Opuntia ficus-indica	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Pummelos	Citrus maxima	M	M	M	M	M	M	C	C	C	M	M	-	-	C	M	M	M	M	M	M	M	UNECE FFV-15
Pumpkins/Winter Squash	Cucurbita	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Puntarelle or Cichoria di Catalogna	Cichorium intybus var. Foliosum	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Purple Mangosteen	Garcinia mangostana	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Purple Maracuja	Passiflora edulis edulis	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A

Part 3 - Product Identification in the Fruit and Vegetables Supply Chain with GTIN

Commodity Name	Descendant from	Growing Method	Country of Origin	Brand Name	Premium Attributes	Size	Class (Grade)	Colour and/or Shape	Variety	Commercial Type	Colour of Flesh	Post-Harvest Treatment	Post-Harvest Processing	Cooking Type	Seed Characteristics	Content/Quantity of Pre-Packed Unit	Content/Quantity of Trade Unit	Packaging Type of Pre-Packed Unit	Packaging Type of Trade Unit	RTI-Type	Composition of Pre-Packed Unit	Composition of mixed Trade Units	Relevant Regulation or Standard
Purple Salsify	Tragopogon porrifolius ssp. porrifolius	M	M	M	M	-	M	-	-	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-59
Purslane	Portulaca oleracea	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Quinces	Cydonia oblonga	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Raab or Rapini	Brassica rapa var. rapa var. cymosa	M	M	M	M	-	M	-	-	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-59
Radichio	Cichorium intybus var. Foliosum	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Rambutan	Nephelium lappaceum	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Raspberries	Rubus idaeus	M	M	M	M	-	M	-	C	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-57
Red Currant, Black Currant	Ribes	M	M	M	M	-	M	M	C	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-57
Redfleshed Sweet Pitayas	Hylocereus polyrhizus	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Rhubarb	Rheum rhaponticum L.	M	M	M	M	-	M	-	-	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-40
Rochet	Cucumis melo	M	M	M	M	M	M	-	C	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-23
Rocket	Eruca sativa	M	M	M	M	-	M	-	-	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-58
Romaine Lettuce	Lactuca sativa var. longifolia	M	M	M	M	M	M	C	C	C	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 B/4
Romanesco	Brassica oleracea L. convar. botrytis	M	M	M	M	M	M	C	-	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-11
Root Parsley	Petroselinum crispum subsp. tuberosum	M	M	M	M	-	M	-	-	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-59
Salak Fruit or Snake Fruit	Salacca zalacca	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Satsuma Mandarins	Citrus unshiu	M	M	M	M	M	M	-	M	C	-	M	-	-	C	M	M	M	M	M	M	M	EU 543/2011 B/2
Scotch Bonnet, Habanero	Capsicum chinense	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Shallots	Allium ascalonicum	M	M	M	M	M	M	-	-	M	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-56
Siberian Kale	Brassica napus pabularia	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A

Part 3 - Product Identification in the Fruit and Vegetables Supply Chain with GTIN

Commodity Name	Descendant from	Growing Method	Country of Origin	Brand Name	Premium Attributes	Size	Class (Grade)	Colour and/or Shape	Variety	Commercial Type	Colour of Flesh	Post-Harvest Treatment	Post-Harvest Processing	Cooking Type	Seed Characteristics	Content/Quantity of Pre-Packed Unit	Content/Quantity of Trade Unit	Packaging Type of Pre-Packed Unit	Packaging Type of Trade Unit	RTI-Type	Composition of Pre-Packed Unit	Composition of mixed Trade Units	Relevant Regulation or Standard
Siberian Pear, Manchurian Pear, Ussurian Pear	<i>Pyrus ussuriensis</i> var. <i>viridis</i>	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Slicing Cucumbers	<i>Cucumis sativus</i>	M	M	M	M	C	M	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-15
Slicing Cucumbers (bended)	<i>Cucumis sativus</i>	M	M	M	M	C	M	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-15
Small Radish, Radishes	<i>Raphanus sativus</i> var. <i>sativus</i>	M	M	M	M	-	M	-	-	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-59
Sorrel	<i>Rumex acetosa</i>	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Soup Greens		M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Spinach	<i>Spinacia oleracea</i>	M	M	M	M	-	M	-	-	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-58
Strawberries	<i>Fragaria</i>	M	M	M	M	-	M	-	C	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 B/7
Sugarcane	<i>Saccharum officinarum</i> L.	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Swedish Turnips, Rutabagas	<i>Brassica napus</i> var. <i>napobrassica</i> , Brassi	M	M	M	M	-	M	-	-	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-59
Sweet Cherries	<i>Prunus avium</i> L.	M	M	M	M	-	M	-	C	M	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-13
Sweet Corn	<i>Zea mays</i> var. <i>saccharata</i>	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Sweet Granadilla	<i>Passiflora ligularis</i>	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Sweet Peppers	<i>Capsicum annuum</i> var. <i>annuum</i>	M	M	M	M	C	M	M	-	M	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 B/8
Sweet Potatoe	<i>Ipomoea batatas</i> L.	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Table Grapes	<i>Vitis vinifera</i>	M	M	M	M	-	M	-	M	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 B/9
Tamarillo	<i>Cyphomandra betacea</i>	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Tangerines/ Other Mandarins	<i>Citrus reticulata</i> , <i>Citrus deliciosa</i> , <i>Citrus tangerina</i>	M	M	M	M	M	M	-	M	C	-	M	-	-	C	M	M	M	M	M	M	M	EU 543/2011 B/2
Tatsoi	<i>Brassica rapa</i> var. <i>rosularis</i>	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Teltow Turnips	<i>Brassica rapa</i> var. <i>rapifera</i> subvar. <i>Pygm</i>	M	M	M	M	-	M	-	-	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-59

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Tendral	Cucumis melo	M	M	M	M	M	M	-	C	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-23
Tomatillo	Physalis philadelphica	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Tomatoes	Lycopersicum esculentum	M	M	M	M	C	M	C	C	M	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 B/10
Truffles	Tuber	M	M	M	M	-	M	-	M	M	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-53
Turnip greens	Brassica rapa var. Rapifera ssp. Pabular	M	M	M	M	-	M	-	-	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-58
Turnip Rooted Chervil	Chaerophyllum bulbosum	M	M	M	M	-	M	-	-	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-59
Turnips	Brassica rapa ssp. rapa	M	M	M	M	-	M	-	-	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-59
Turnips	Brassica rapa var. rapa subvar. Esculent	M	M	M	M	-	M	-	-	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-59
Walnuts	Juglans regia	M	M	M	M	M	M	-	C	M	-	-	-	-	-	M	M	M	M	M	M	M	UNECE DDP-01
Watercress	Nasturtium officinale	M	M	M	M	-	M	-	-	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-58
Watermelons	Citrullus lanatus	M	M	M	M	C	M	-	C	C	C	-	-	-	C	M	M	M	M	M	M	M	UNECE FFV-37
White Cabbages	Brassica oleracea var. capitata	M	M	M	M	-	M	C	-	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-09
White Mushroom, Cultivated Mushroom	Agaricus bisporus	M	M	M	M	C	M	C	-	C	-	-	C	-	-	M	M	M	M	M	M	M	UNECE FFV-24
Whitefleshed Sweet Pitayas	Hylocereus undatus	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Witloof	Cichorium intybus L. var. foliosum Hegi	M	M	M	M	M	M	C	-	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-38
Yam	Dioscorea L	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Yellow Charentais	Cucumis melo	M	M	M	M	M	M	-	C	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-23
Yellow Eastern Shipper	Cucumis melo	M	M	M	M	M	M	-	C	C	-	-	-	-	-	M	M	M	M	M	M	M	UNECE FFV-23
Yellow Maracujas	Passiflora edulis flavicarpa	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A
Yellow Pitaya	Selenicereus megalanthus	M	M	M	M	-	-	-	-	-	-	-	-	-	-	M	M	M	M	M	M	M	EU 543/2011 A

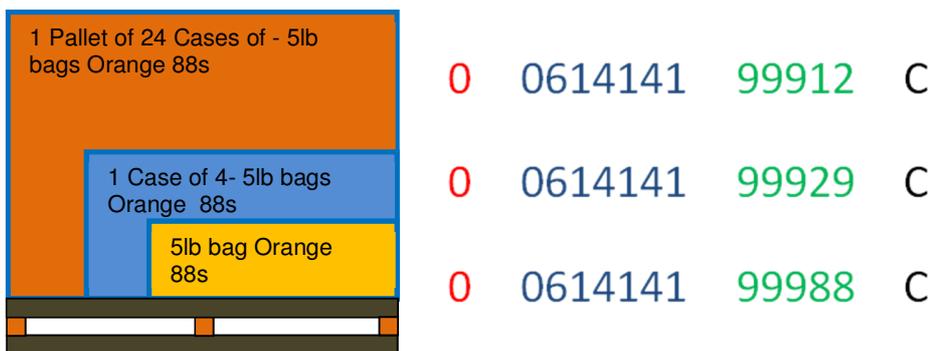
7. Annex B - Packaging Hierarchy GTIN Assignment

Assigning GTINs take place at different levels of packaging such as individual items, cases and pallets. Below, we have provided the various different options that are available today for assigning GTINs for multiple levels of packaging. The following three scenarios illustrate how to assign GTINs at various item and package levels; note that uniqueness can be achieved by using different Indicator Digits or different Item Reference Numbers at the higher levels of packaging.

A. Different Item Reference Numbers for higher levels of packaging

It is acceptable to utilize the digit '0' in the Indicator Digit position at all hierarchy levels, while providing a different Item Reference Number at each level to ensure uniqueness (as shown in Figure 2a). 'C' is a placeholder for the automatically-calculated Check Digit and is the 14th digit of the GTIN.

Figure 2a:



B. Indicator Digit for higher levels of packaging

Depending on the length of an organization's GS1 Company Prefix, using different packaging hierarchy levels (as noted below) will conserve the amount of numbers available for use as the item reference number.

It is acceptable to utilize the digits '1' to '8' in the Indicator Digit position at the designated hierarchy levels, while maintaining the same Item Reference Number at each level to ensure uniqueness (as shown in Figure 2b). The digit '9' may be used in the Indicator Digit position, but it is reserved for Variable Measure Trade Items. 'C' is reserved for the automatically-calculated Check Digit and is the 14th digit of the GTIN.

Figure 2b:


C. Combination of Indicator Digit and Item Reference for higher levels of packaging

It is acceptable to utilize the digit '0' in the Indicator Digit position at multiple different unit levels of the hierarchy, while providing a different Item Reference Number at those levels to ensure uniqueness (as shown in Figure 2c). The remaining hierarchy levels utilize the digits of '1' to '8' in the Indicator Digit position at the designated hierarchy levels, while maintaining a same Item Reference Number at each level to ensure uniqueness. 'C' is reserved for the automatically-calculated Check Digit and is the 14th digit of the GTIN.

Figure 2c:


 **Remark (GS1 in Europe)**

Please note that systems always need to cater for 14 digit GTINs.