



CANADIAN PRODUCE MARKETING ASSOCIATION
ASSOCIATION CANADIENNE DE LA DISTRIBUTION DE FRUITS ET LÉGUMES

To: UN/ECE Working Party (codification of fruits and vegetables)

Submitted by: CPMA (Canadian Produce Marketing Association)

Subject: Canadian Submission on Codification of Fresh Fruits and Vegetables

Introduction

The exploratory work of the UN/ECE Working Party on the codification of fruits and vegetables is a matter of considerable interest in North America.

Over the last few years, various CPMA (Canadian Produce Marketing Association) and PMA (Produce Marketing Association – U.S.) working groups have concluded that an industry solution for Product Identification is essential to the success of many initiatives including e-Commerce, distribution chain logistics, and traceability.

While “consumer level” generic PEIB (Produce Electronic Identification Board) codes have achieved widespread success at point of sale, product identification through the rest of the distribution chain (procurement and logistics levels) is fragmented and proprietary at best. Trading partners seeking to conduct business “electronically” must go through a rigorous mapping process to ensure that their internal product codes are properly synchronized.

As the first step in addressing these issues, the PMA E-Commerce task force developed a set of twelve standard produce attributes (see appendix). (CPMA participates as a member of the Task Force and supports a North American solution.) These attributes are to be used consistently through a growing season to preserve the identity of products through the distribution chain. Therefore, these produce attributes need to remain static, and must not contain “variable” information that may change day-to-day such as Lot#, Production Date, Serial numbers, etc.

Establishing common definitions and terminology via the PMA 12 standard attributes provide a base foundation to enable product synchronization between trading partners.



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Industry Product Database

The position of the CPMA, is that to fully address industry-wide product synchronization, a centralized IPD (Industry Product Database) needs to be established as suggested by the PMA E-Commerce Task Force.

Specifically, through implementing a common registry for the following two areas:

Trading partner profiles:

- Company organization and contact information
- GLN's (Global Location Numbers) or Dunn & Bradstreet number

Product information:

- Case codes [with 2 leading zeros for compatibility with global 14-digit GTIN (Global Trade Identification Number) structure]
- Associated Case code produce attributes

The main benefits to establishing the IPD are as follows:

1) Provides a central repository for the classification and codification of fresh produce industry wide

- Some centralized administration is required to ensure that the content of the IPD produce attributes follows classification standards.

2) Resolves product synchronization through a “one-time” mapping procedure

- Regardless of how many trading partners a given company has, they will only be required to complete a “one-time” map of their internal product codes to the IPD.

3) The EAN*UCC system of using GTIN's to describe products is preserved.

- Suppliers generate Item ID's based on the “unit of trade” sell level. These Item ID's reference internal produce codes, and are also used in the “one time” mapping process to the IPD.

4) Limitations to structured (or concatenated) code sets are avoided.

- Using the GTIN system (supplier defined Item ID's) avoids the need to establish other standards for structured code sets.
- There is no limit to attribute code digit lengths (or attribute content) as these codes are held internally to the IPD.

5) Bar codes (Case and Pallet codes)

- The GTIN Application Identifier will be used to describe produce through the supply chain. Again, GTIN's based on the IPD will define "static" produce attributes that preserve product identify through the distribution chain.
- Additional Application Identifiers can be utilized to describe other "volatile" attributes such as Lot#, Production Date, Grower Number, etc. (In future, PMA will draft a Case coding "best practices" guideline to outline mandatory and optional attributes).

6) E-Commerce

- The GTIN Application Identifier will be used to describe produce through the supply chain. Again, GTIN's based on the IPD define "static" produce attributes that preserve product identify through the distribution chain.
- Separate EDI or XML data elements can be utilized to describe other "volatile" attributes such as Lot#, Production Date, Grower Number.

It is recommended that trading partners follow industry traceability guidelines that detail mandatory and optional Application Identifiers.

Please note that the IPD is still in the early stages of development and is not ready for presentation for formal endorsement by CPMA or PMA. .

Recommendations

- Focus on the classification (or taxonomy) of produce attributes.
- A Global effort is necessary to harmonize produce attributes used in procurement and logistics.
- Explore the possibility of joining the PMA IPD initiative to establish a global solution.

April 8, 2002

APPENDIX

PMA Product Coding Attributes

The following list of attributes was developed with consideration of the depth of information required for systems to identify products sufficiently for facilitation of automated trading. Additionally, the recommendations for optional attributes exist to mirror common selling/ordering processes. When an optional attribute does not fit the standard selling/ordering process it is not required.

The PMA E-Commerce Task Force recommends that the following attributes be utilized for electronic communication between buyers and sellers to create product specificity in a common format. To expedite any mapping/translation work required, both short (code) and long (description) forms of each attribute should be maintained for many of the attributes.

Furthermore, the PMA E-Commerce Task Force highly recommends that both suppliers and retailers utilize UPC Case Codes in all electronic commerce transaction (EDI, XML, proprietary, etc.). The use of UPC Case Codes simplifies each transaction, since the supplier's code is defined within the retailer's system. In the event UPC Case Codes are not utilized, trading partners can use the product attributes to map the supplier's case codes (UPC Case Code or proprietary) and attributes to the retailer's proprietary case codes. When subsequent transactions take place, the retailer's proprietary code is sent in lieu of the UPC Case code, with or without accompanying product attributes. In the event that no case codes are transmitted, a complete set of product attributes would be required to accompany each transaction.

Product Attribute Descriptions

Origin -

Primarily defined as Country of origin. Secondary attributes for State/Province, and Growing Region may be used where necessary.

A NIMA standard will be used for Country and State/Province abbreviations. The NIMA standard abbreviations for the states of the United States match those used by the U.S. Postal Service. State abbreviations will not be available for all countries.

Commodity –

Name of commodity (or species), such as apple or orange.

PMA Guide to Coding Fresh Produce is the recommended source for the list of commodities. Where a commodity is not listed in this guide, “industry standard practices” should be used.

Variety –

Name of Variety (or sub-species), such as Hass, Hayward, Red Delicious.

PMA Guide to Coding Fresh Produce is the recommended source for the list of commodities. Where a commodity is not listed in this guide, “industry standard practices” should be used.

Sub-variety may be used to further define a specific variety (such as the blush or type of point on an apple)

Size –

Size of the individual piece of fruit, vegetable, nut etc.

Generally accepted industry sizes should be utilized here. Valid sizes may include the following types: Descriptive terms: ‘Small’, ‘Medium’, ‘Large’, ‘Jumbo’ or ‘Minimum’.

Specific size: 2 ½” (apples) or Size 12 (Cantaloupe).

Size range: 18 - 20 (peanuts) or 10 – 12 (oz. Russet potato)

Specific size: 40, 48, 60 etc.

Size Unit of Measure may be used as a secondary attribute where size is generally stated as a number and Unit of Measure – such as 2 ½”, where “IN” would be the Unit of Measure code for “inch”.

Count –

Refers to the quantity of individual pieces within the container or “outer pack”. There is a direct relationship with the “Size” attribute. (Knowing the “Count” value yields the “size” of fruit based on a given Outer Pack. Alternatively, knowing the “size” attribute yields the “count” value.) Normally,

either "Size" or "Count" attribute is used (although using both in an electronic transaction is recommended).

Outer Pack –

Shipping Container Type describes the container used to hold either the 'loose' product, or units in a packaged fixed weight/count format.

Standard practice codes should be utilized here. Examples of *Outer Packs* include the following: Carton, Bin, Retail Display Tray, Flat, Euro Box, RPC, etc.

Gross Weight can be included as sub-attribute to *Outer Pack* to describe the gross weight (total weight of product and packaging materials) of the *Outer Pack*

Gross Weight Unit of Measure describes the measure describing the weight. This would include the two-character code for Pound, Ounce, Kilogram, Inch, Quart or other UOM utilized in standard practices.

Net Weight can be included as sub-attribute to *Outer Pack* to describe the net weight (gross weight less packaging materials) of the *Outer Pack*

Net Weight Unit of Measure describes the measure describing the weight. This would include the two-character code for Pound, Ounce, Kilogram, Inch, Quart or other UOM utilized in standard practices.

Inner Pack –

Several *Inner Pack* sub-attributes are generally used together to describe the contents within a given *Outer Pack*. However, when the units are loose within the inner pack, only the *Pack Style* sub-attribute is utilized.

An example of the sub-attributes *Pack Quantity*, *Pack Size*, *Pack Size Unit of Measure* and *Pack Style* would be: 8 - 5lb bags

Pack Style

Packaging style of the units held within the *Outer Pack*. In the example above this would be **bag**.

Examples of *Pack Styles* for loose product would be: Tray Pack, 3 Layer, Volume Fill, etc.

Examples of *Pack Style* include: Clamshell, Bunch, Bag, etc.

Pack Quantity

Number of units held in a packaged format within the *Outer Pack*. In the example this would be **8**, describing that there are **8** bags.

Pack Size

Size of the units held in the packaged format within the *Outer Pack*. In the example this would be **5**, describing that the bags are **5** pound.

Pack Size Unit of Measure

A two-character code describing the unit of measure for the package format. In the example this would be **LB**, describing that the bags are measured in **pounds** (5 LB)

Grade –

Specifies the grade of the commodity. USDA, other country or region grades, or industry standard terminology (ex. US#1, "Good Delivery") can be used.

Label/Brand –

The supplier-defined *Label/Brand* may infer product characteristics not addressed in other attributes. This may include buyer specified quality or appearance, or any other characteristics unique to the supplier.

Handling/Storage –

Describes treatment of product after harvesting that are necessary components of the selling process.

Two sub-attributes are used to define *Handling/Storage*:

Post Harvest may include such things as:

Ripening

Treatment may include such things as:

Waxed

Controlled Atmosphere storage

Growing Method –

Describes growing characteristics whose descriptions are a necessary component of the buying/selling process.

The valid growing methods defined at this time are:

Conventional

Organic
 Transitional
 Genetically Modified
 Hothouse
 Kosher
 NutriClean
 Residue Free

Consumer Labeling –

Describes the physical labeling on each package or individual piece of product.

Type of Consumer Labeling includes the following:

- UPC (includes UPC-E)
- PLU
- RSS
- None

Code is an optional sub-attribute would include the actual PLU or UPC code on the product.

EXAMPLE OF FULLY CODED PRODUCT

US Grown, Red Delicious, Early Season, Apples.

2.5” individual pieces back in 5 pound bags.

8 Bags are packed inside a carton.

Organically grown US Extra Fancy grade fruit.

Origin	Commodity	Variety	Size	Cnt	Outer Pack (Shipping Container Type)	Inner Pack (Pack Style)	Grade	Label	Post Harvest Treatment	Growing Method	Consumer Label (Type)
US	AP	RD	2.5	8	Carton	Bag	US XF	Brand	CA	Organic	UPC

Sub Variety	Size UOM
Early	IN

Gross Weight	Pack Qty
42	8

Code
33383 00914

Gross Weight UOM	Pack Size
LB	5

Net Weight	Pack Size UOM
40	LB

Net Weight UOM	
LB	