Examples of Traceback Systems

1. Methods for Marking Market-Ready Packaging Materials

Different marking methods may be better suited to certain types of packaging. All methods for marking individual packaging materials must contain information identifying the producer and when the product was packed. It must resist any stresses the packages may endure (e.g., rinsing and icing) and be appropriate for the type of packaging material used (e.g., permanent marker may not work well with waxed cardboard containers).

- a) Permanent Marker: Individual producers may create their own coding scheme to identify packages, and manually write this code on each product package using a permanent marker. Most commonly a combination of numbers and letters are used. This can be labor intensive but packing house employees can mark the packaging materials as they fill them with product.
- **b) Stickers:** Stickers are placed on individual packages and may have the code printed from a computer, written manually, be color coded or any combination of the above. For example, a regular printer could be used to pre-print sheets of dates or date codes. These can then be stuck to each box during packing, palletizing or when wrapping pallets.
- c) Stamps: Stamping can be used to place a product code on the individual packages. Date stamps with rotating month, date and year bands can be utilized, or personalized rubber stamps may be used for coding. Color coded ink can also be used to differentiate between producers or packing dates. For example, a group of packers pack their product into a box labeled with the name of a different company who sells the product. Each packer is assigned a number and given a rubber stamp with this number. They then stamp each box with their packer number and add a date identifier.
- d) Computer Systems and Bar Codes: There are also more sophisticated systems that are tied to computer software packages that are designed for traceability. Often they come with label printers or box printers and the computer will automatically assign codes to a production run. These codes may be bar codes or alphanumeric codes. A bar code system is a machine-readable method for storing product information. Bar codes are read by barcode scanners or special software, require special printers and are an expensive system to implement. With automated packing lines, they can be set up by computer to print and automatically attach the codes to the packing materials as they travel along the packing line, thus saving employee time. The data tied to each code is then captured and stored in the computer system.
- **e)** Other Methods: Other systems that have been used are colored handles on product baskets and color coded stickers or ties for closing plastic bags for products such as carrots.

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2. Examples of Pack ID Systems and Codes

For some, a coded date is preferable so that only the packer knows what the code means.

- a) Using a Julian Code: The Julian date or Julian Day Number (JDN) is the integer number of days that have elapsed since January 1st of a particular year. This will vary for leap years (those years that include February 29th). The JDN is often used for product coding, as seen in the example below, where 053 represents the 53rd day of the year, February 22nd. This particular example also includes an additional lot ID to indicate the production line of the product. This could be replaced with a producer code if being used by someone who packs product for others.
- **b)** Color Coding: A color-coded system can be used. This involves using selected colors to represent selected packing dates or producers. This can be done through colored stickers, tags, stamp ink or markers. Some different examples are included below.

Example 1: An asparagus producer/packer only packs asparagus for four weeks. They use small colored circle stickers, have four different colors and assign a different color to each packing week. In the event of a recall they would have to recall a whole week's worth of production but for them this is acceptable. If they were to grow for other producers, they could write their initials or a producer code number on the stickers or add an additional stamp to the boxes.

Example 2: Another packer has picked up colored return address labels that work on their inkjet printer. They have managed to get these labels in four colors. They print a few pages of labels ahead of time with the following code AM-3. The "A" indicates which producer grew the product, the "M" indicates the month as May, the color (e.g., pink) indicates it is the 2nd week of the month, and the "3" indicates the day of the week.

c) Letter and Number Combinations: The most common coding system used is a combination of letters and/or numbers. These codes can range from simple [e.g., (1M3) for producer number one, packed on May 3)], to more complex (e.g., 012608AX where 01 is the first month of packing, 2 is the second week of the month, 6 is Friday, 08 is the year, A is the producer and X is the lot code which links to the harvest date). Any combination will work as long as records are kept of what the codes means

A product coded 053-1 would be been produced on:

February 22nd Production line 1

□ Canadian Horticultural Council, **Combined Vegetable Producer**, **Storage Intermediary and Packer On-Farm Food Safety Manual**, Version 4.0, 2010, Canadian Horticultural Council.