



The Produce Traceability Initiative (PTI), A Primer for Hawai'i's Small-Farm Operators

James R. Hollyer,^{1,3} Donna Meyer,² and Vanessa Troegner³

¹CTAHR Farm Food Safety Coach, ²Department of Plant and Environmental Protection Sciences,

³Agricultural Development in the American Pacific Project

Background

Federal and state agencies and the produce industry often have not been able to quickly identify the source of foodborne illnesses, as shown by the difficulty of backtracking outbreaks in recent years. This has prompted the produce industry to work nationally and internationally on an industry-wide, voluntary, electronic Produce Traceability Initiative (PTI). This initiative was started by 48 leading produce companies and is endorsed in North America by the Produce Marketing Association, the Canadian Produce Marketing Association, and the United Fresh Produce Association. Federal agencies have kept abreast of this industry effort with the 2011 FDA Food Safety Modernization Act. More information can be found here: www.producetraceability.org/ or from our College farm food safety's PTI website: <http://tinyurl.com/65prpx>.

Who needs to label?

Not all farms will need to follow the PTI system when it is initially launched. To see if your business activity requires participation, see the diagram on page 2. For details, see the “frequently asked questions” on page 6.

What needs to be labeled

Members of the produce industry favor this voluntary approach, rather than having the government mandate a system. Essentially, the idea is that EACH case, box, carton, or (large) sack (e.g., a 50-lb sack of cabbage) of homogenous produce is marked with a label that is both human- and machine-readable (see the sample label on page 3). The label includes a 14-digit Global Trade Item Number (GTIN), consisting of a unique Company Prefix number assigned to the grower (or “brand owner”) plus

the product code, and a “lot number” that is recorded in an on-farm log with additional information about the shipment.

It is also possible that in the future each individual piece of produce, such as one apple, could have its own traceability information, but this is beyond the scope of the current effort. The goal of the PTI is to have all case-level produce, including imports, marked by late 2011, and the produce industry believes it can make this self-imposed deadline. The current options to obtain a GS1 US, GTIN are as follows:

Option 1: Individual grower purchases GS1 number

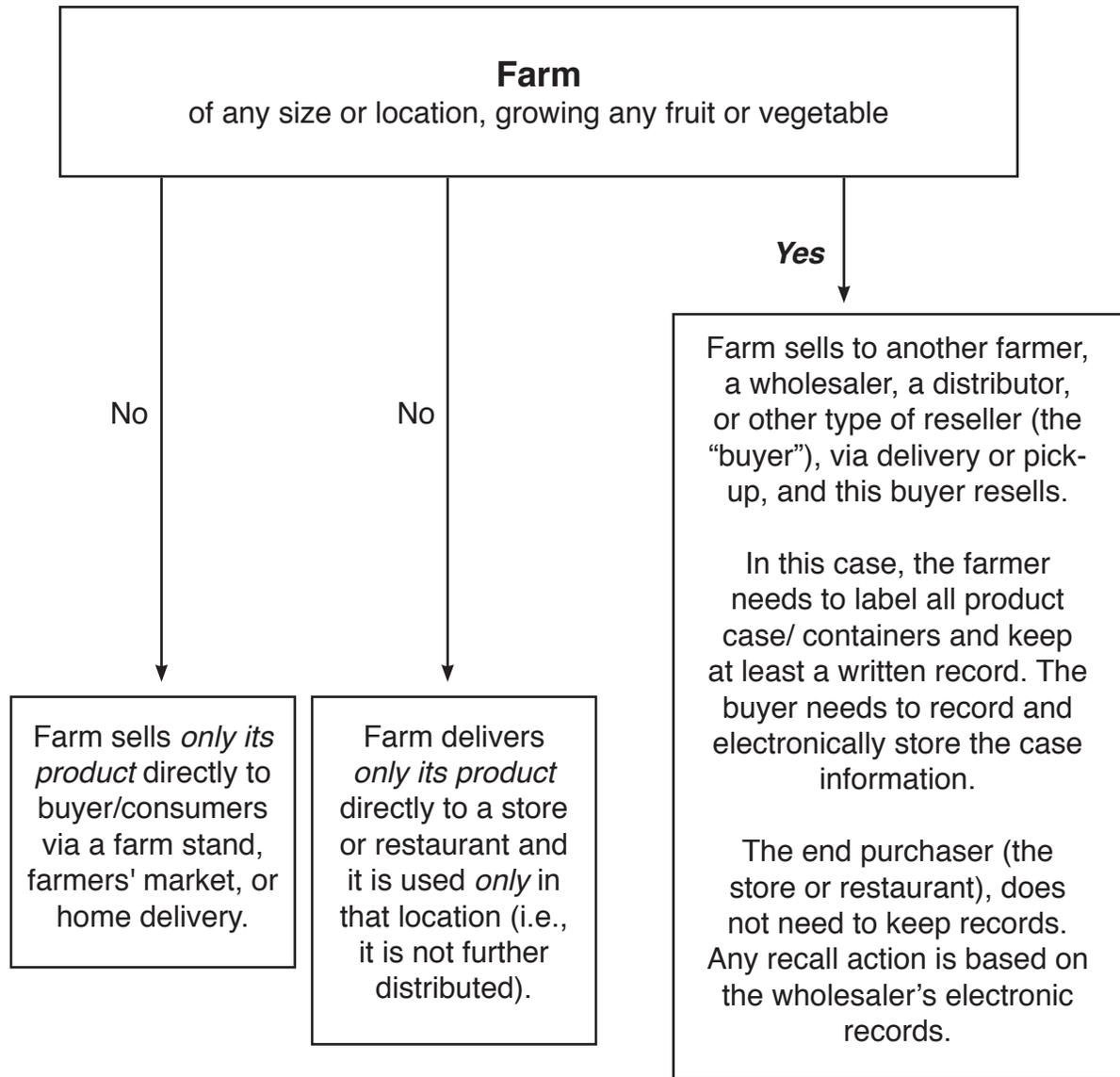
Growers obtain a unique Company Prefix number from the GS1 corporation (www.gs1.com). The minimum cost is \$750, with an annual renewal fee. This initial cost and the annual renewal fee increase with the number of GTINs required and the brand owner's gross revenue. For example, a farm with \$1 million in annual gross revenue with a first-year fee in the \$4,000 range for X number of GTINs should expect to pay more in fees if either number (GTINs or revenues) increases. Typically, however, a small farm would need only one unique Company Prefix number, and then specific GTINs for each commodity.

Option 2: Grower sells under brand name's number

A grower uses the GS1 number obtained by another business, such as a wholesaler or other buyer (the “brand owner”), whom the grower supplies. Other options include a nationwide small-farm brand available from top10produce.com (total annual cost is currently \$280 per farm).

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Who has to follow the PTI?



Note: for Hawai'i's farm food safety audits, regardless of the PTI requirements, ALL farms will need to label their products with the farm name and address, product name, quantity, date of harvest, and field harvested. Including information on product quality (if applicable) and Country of Origin Labeling (COOL) is encouraged.

Example of a case label

| | |
|---|-----------------------------|
| L & J Farms 1 Bumpy Road Honolulu, HI 96822 808-808-0007 | Product of U.S.A. Hawaii |
| GREEN ONIONS | Lot # 022208ABC |
| 50 - Bunches | |
|  | |
| (01)10614141000415 (10)022208ABC | |
| (GTIN) Global Trade Item Number | Lot Number |

In this example, 614141 is the unique Company Prefix, obtained from GS1, for the farm or brand owner (this varies from 6 to 9 digits). The product code is 00041, designating the grower's green onion crop. The product code is assigned by the brand owner and thus will not be standardized across the industry or the world.

The grower decides how to code the lots. This number, up to 20 alpha-numeric characters, is recorded in a written or electronic log at the farm, along with other harvest information.

The numbers in parentheses are Application Identifiers, standard codes the scanner software needs to receive the prefix, product, and lot data following. The first 1 in the GTIN signifies that the GTIN is for a produce company; the 0 following is a code operation signal; the concluding 5 is a "check digit." If the prefix number is longer than 6 digits, the product code will have correspondingly fewer digits than the one illustrated, so that the GTIN will always be 14 digits.

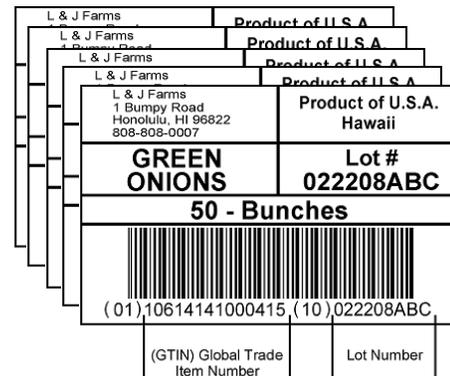
How labels are generated or obtained

There are four options for a farm to obtain labels: (1) the grower orders labels from a label company; (2) the grower has a printing company e-mail labels to be printed out at the farm's office; (3) the grower prints his labels, using his own GTINs, a computer, special software, a printer, and label stock; (4) a buyer might provide you with pre-printed labels.

Predicting your need for labels

If a grower is buying pre-printed labels, he/she will need to predict how many case/box/carton/sack units of a specific product will be harvested over, say, a 3-month period. This determines how many "lots" (hereinafter, *packets*) of labels will be needed. Each packet of labels can be used on only *one* day, but each day more than one packet of labels can be used. For example, a grower predicts he will, on average, need to order packets of 10 labels for the 10 boxes of basil to be harvested on any one day. If he orders packets of 10 labels from a printer

A packet of 5 labels for green onions



The labels shown here are not actual size; they have been scaled down from their original, PMA-approved size of 3¼ x 2⅝ inches. Minimum font size is 18 pt. The label shown contains more information than is currently required by Milestone #5 of the PTI (brand owner, product, and lot/batch). Label courtesy of Agri Label & Tag, LLC, www.agrilabeltag.com.

and then harvests 10 boxes of basil, he uses one packet of labels. If, however, he has 10 preprinted labels and harvests only 8 boxes of basil that day, 2 labels from the opened packet must be thrown away. If he harvests 11 boxes, using up the first packet of 10, he must open a new packet of 10 labels, use 1 label, and discard the remaining 9 unused labels. See page 4 for some examples of the use of label packets with harvested crops.

Record your harvest and the lot code in the farm's traceability log book

Now that you have harvested a product, and each case, carton, box, or sack of that product has been shipped, the following *must* be recorded in your log book (see page 5 for examples of harvest records):

- date of harvest
- product name (*matches 5-digit code on case label*)
- field(s) harvested
- lot number (*matches code on case label*)
- buyer name

Example: Ordering and using packets of labels shed pack*

Order pre-printed labels

For each specific commodity harvest on any ONE day, you will need a specific number of packets of pre-printed labels.

Green onion example

Anticipating a daily harvest of up to 50 cases of green onions, you have ordered packets of labels that each contain 50 labels. The actual harvests amount to the quantities shown in the field diagram below.

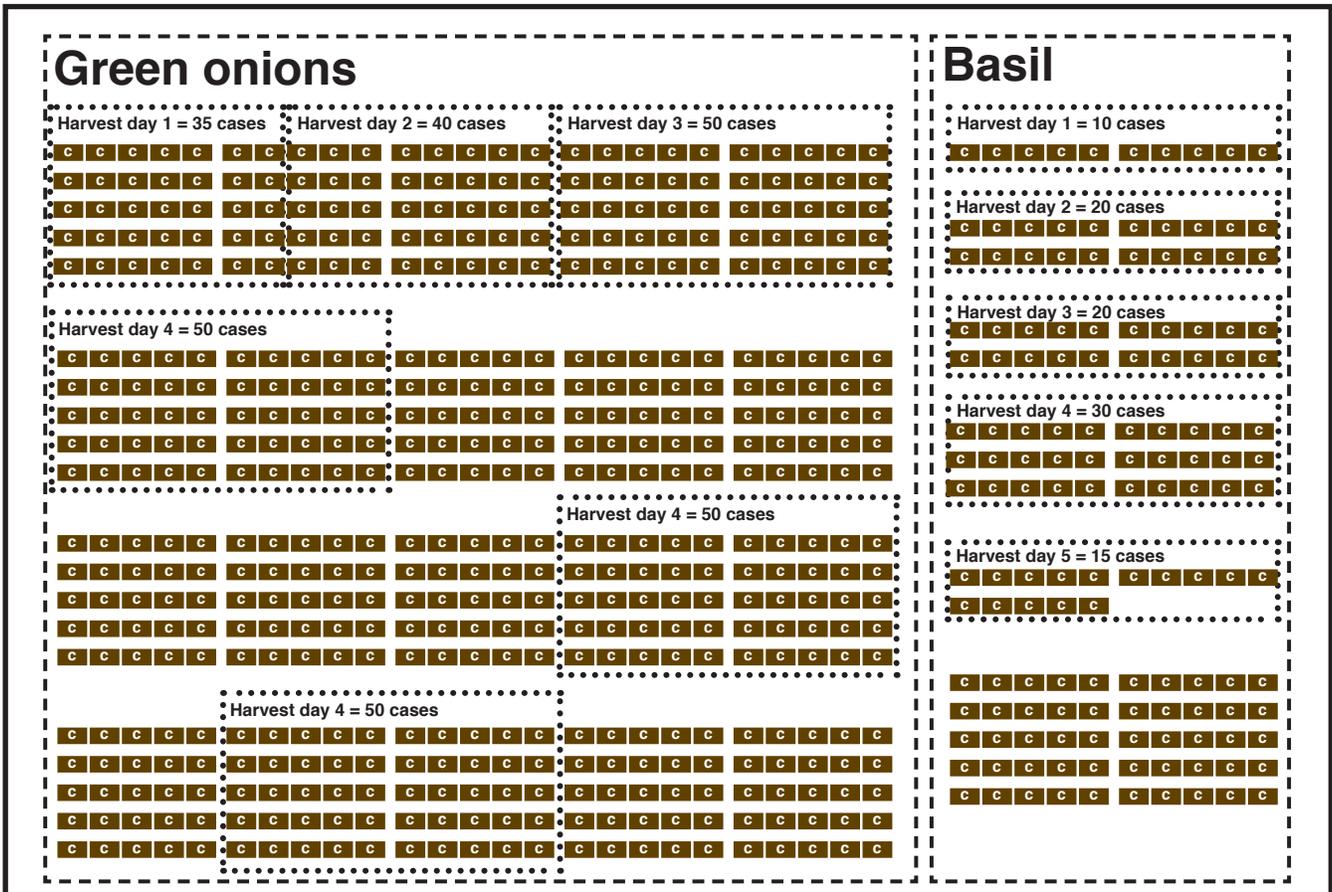
- Harvest day 1: use 35 labels of one 50-label packet, throw away* 15 labels.
- Harvest day 2: use 40 labels of one 50-label packet, throw away* 10 labels.
- Harvest day 3: use 50 labels of one 50-label packet, throw away* 0 labels.
- Harvest day 4: use 150 labels (three 50-label packets), throw away* 0 labels.
- Total packets of 50 labels ordered: 1 + 1 + 1 + 3 = 6 packets

Basil example

- Harvest day 1: use 10 labels (one 10-label packet), throw away* 0 labels.
- Harvest day 2: use 20 labels (two 10-label packets), throw away* 0 labels.
- Harvest day 3: use 20 labels (two 10-label packets), throw away* 0 labels.
- Harvest day 4: use 30 labels (three 10-label packets), throw away* 0 labels.
- Harvest day 5: use 15 labels (from two 10-label packets), throw away* 5 labels.
- Total packets of 10 labels ordered: 1 + 2 + 2 + 3 + 2 = 10 packets

*** For "field pack" different rules apply**
 For field packing, you would not need to throw away any labels, because the extra labels could be used on the following pack date.

C = 1 case/carton/box/sack



Recordkeeping

A brand owner keeps the GTIN records current electronically. The grower's records can be on paper for now, but the lot number is encoded in the barcode and will be recorded at each stop along the supply chain.

Example of an on-farm produce *traceability log book* sheet for green onion harvests

| Date of harvest | Product harvested | Fields harvested | Lot numbers | Sold to | Date shipped |
|-----------------|-------------------|------------------|-------------|---------------------|--------------|
| 1/22/2011 | Green onions | 1, 2 | 022208ABC | Kalani Fine Produce | 1/22/2011 |
| 1/24/2011 | Green onions | 2, 3 | 022208ABD | Sunrise Wholesale | 1/26/2011 |
| 2/1/2011 | Green onions | 4, 5 | 022208ABE | Lucky Suppliers | 2/2/2011 |
| 2/3/2011 | Green onions | 6, 7 | 022208ABF | Vancouver Traders | 2/4,5/2011 |
| " | " | 14, 15 | 022208ABG | " | " |
| " | " | 17, 18 | 022208ABH | " | " |
| | | | | | |
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| | | | | | |

Example of a *computer record* for a wholesaler, or when one farmer buys product from other farmers, then resells

| Date of purchase | Product purchased | Supplying farmer | Company Prefix and lot numbers | I then resold to | Date shipped |
|------------------|-------------------|------------------|--------------------------------|---------------------------|--------------|
| 1/22/2011 | Bok choy | 1st Generation | 786543245-086753PUY | Kalani Fine Produce | 1/22/2011 |
| 1/27/2011 | Sweet corn | New Era Farm | 345721986-098764AOQ | John's Take Out | 1/27/2011 |
| 2/1/2011 | Mangoes | Heavenly Fruit | 137630985-013597XER | Lucky's North Shore Grill | 2/2/2011 |
| 2/14/2011 | Spinach | 1st Generation | 786543245-086753PIR | Ono Warehouse | 2/15/2011 |
| | | | | | |
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Questions frequently asked by small-scale growers about the PTI

- Q. Is this labeling program voluntary, or is it mandated by the state or federal government?
- A. It is a voluntary program driven by the private sector, but federal agencies (FDA, FSIS, and USDA) have been in on discussions during its formulation. It is not known at this point whether the Produce Traceability Initiative will become part of federal requirements.
- Q. What or who is GS1 (www.gs1.com)?
- A. GS1 is a global not-for-profit organization that has exclusive rights to provide the traceability numbers (GTINs) required for compliance with the PTI.
- Q. In which markets will buyers be requiring me, as a grower, to start labeling my product with a GTIN?
- A. If you are selling to a wholesaler, who then resells or distributes to a store or restaurant, you will eventually need to label your cases/boxes/cartons with a GTIN barcode. If *you* deliver directly to a grocery store or restaurant, you will not need GTINs. (See the diagram on page 5.)
- Q. They talk about “brand”; what does that mean for me as a small-scale grower?
- A. A business entity that has applied to GS1 for a company prefix is the “brand owner.” The brand owner assigns the GTINs. The brand owner “protects” the grower under the brand owner’s legal umbrella.
- Q. What if I sell and deliver to vendors in Chinatown; will I need GTINs?
- A. If the vendor is a wholesaler, the PTI applies and you will need GTINs. If they are a single store and *you* deliver to the back-end of the store, PTI does not apply.
- Q. What if I sell to customers directly at my farm, roadside stand, or at a farmers market; do I need to label products with GTINs?
- A. Most likely no, but we need to see what Congress mandates in new food safety legislation.
- Q. What does the Perishable Agricultural Commodities Act (PACA) mean for me?
- A. In general, any person who buys or sells a total of more than 2000 pounds of fresh or frozen fruits or vegetables in any given day is required to be licensed under PACA. Wholesalers, processors, truckers, grocery wholesalers, and food-service firms may be in this category.
- A person who negotiates the sale of such quantities of fruits or vegetables on behalf of another person is required to be licensed on the first transaction. A person operating in this capacity may be considered to be a commission merchant, broker, or a growers’ agent. A broker handling only *frozen* fruits and/or vegetables, however, is not subject to the PACA licensing requirements until the invoice value of total negotiated sales exceeds \$230,000 in a calendar year.
- A person selling at retail is subject to a PACA license once the invoice cost of fresh or frozen fruit and vegetable purchases exceeds \$230,000 in a calendar year.
- To apply for a license, obtain more specific information about licensing requirements, or find out if a firm is a licensee, call 800-495-7222.
- Q. What type of system and equipment will buyers, such as wholesalers, retailers, and Chinatown vendors, need to record GTIN data from incoming produce suppliers (farmers and wholesalers)?
- A. A barcode scanner, computer, and special software may be needed to scan and store the data from the case’s label. Vendors of these include www.redlineforproduce.com and others. Best practices for wholesalers can be found at www.producetraceability.org.
- Q. Will growers ever need to have their own electronic record-keeping technology under this program?
- A. Yes, that is the plan; the deadline is some time in 2012. However, benchmark dates can and do change.

Q. What if I sell my produce to another farmer who bundles vegetables from various growers for sale to a wholesaler, retailer, etc.; what are my responsibilities, and what are their responsibilities, relative to labeling?

A. The “bundling” entrepreneur (the “repacker”) will need his own GS1 number, or he can use GTINs assigned by the brand owner that include the brand owner’s GS1 Prefix number. The repacker will need electronic data storage capabilities, rather than simple paper records (see the example on p. 4).

Q. Our farm sells by the pallet, with X cases to the pallet. Is giving the entire pallet one lot number on one label sufficient?

A. No. PTI is a case-level trace-back system, so each case must have its own label.

Q. Is there an official site for the PTI, and where can more best practice information be found?

A. At www.producetraceability.org and the GS1 site: <http://tinyurl.com/yj95sh2>

Other Q&A on the PTI program can be found at the Produce Marketing Association’s website, <http://tinyurl.com/ycapvdl>.

Notes

Disclaimer

Mention of a company or organization is to provide an example and is not an endorsement or recommendation in preference to others that may also be suitable.

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**College of Tropical Agriculture
and Human Resources**
University of Hawai'i at Mānoa