

2015 FRUIT CHEMICAL USE SURVEY

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| | | |
|-----------------------------|----------------------|--------------------------|
| VERSION 01 | POID _____ | SUBTRACT _____ |
|-----------------------------|----------------------|--------------------------|

| CONTACT RECORD | | |
|----------------|------|-------|
| DATE | TIME | NOTES |
| | | |
| | | |
| | | |

INTRODUCTION:

[Introduce yourself, and ask for the operator. Rephrase in your own words.]

We are collecting information on chemical use and need your help to make the information as accurate as possible. The information you provide will be used for statistical purposes only. In accordance with the Confidential Information Protection provisions of Title V, Subtitle A, Public Law 107-347 and other applicable Federal laws, your responses will be kept confidential and will not be disclosed in identifiable form to anyone other than employees or agents. By law, every employee and agent has taken an oath and is subject to a jail term, a fine, or both if he or she willfully discloses ANY identifiable information about you or your operation. Response is **voluntary**.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0535-0218. The time required to complete this information collection is estimated to average 70 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

We encourage you to refer to your records during the interview.

| |
|--------------|
| 004 _____ |
|--------------|

BEGINNING TIME [MILITARY].

[Name, address and partners verified and updated if necessary.]

1. During 2015, were any crops (*including new plantings*), livestock or poultry on the total acres operated? (*Exclude crops produced by a tenant if [target] operator is landlord only.*) **YES** – [Go to item 5, page 2.] **NO**-[Continue.]

2. During 2015, did this operation sell any agricultural products or receive government agricultural payments? (*Exclude crops produced by a tenant if [target] operator is landlord only.*) **YES** - [Go to item 5, page 2.] **NO**-[Continue.]

3. During 2015, were any crops stored on the total acres operated? (*Exclude crops produced by a tenant if [target] operator is landlord only.*) **YES** - [Go to item 5, page 2.] **NO**-[Continue.]

4. During 2015, did this operation have any fruit acres which were operated by a **management firm**? **YES** - [Go to item 5, page 2.] **NO**-[Go to page 4.]

SCREENING

1. Did this operation have any of the target crops during the 2015 crop year?

YES - [Continue.]

NO - [Write notes explaining situation then go to "Conclusion" on back page.]

2. Are the day-to-day decisions for this operation (*name on label*) made by –
[Check one.]

partners? [Continue.]

3. **How many individuals are involved in the day-to-day decisions of this operation?**

[Enter the number of partners, including the partner named on the label.

Identify the other persons in this partnership below, then go to.]

(Partners jointly operate land and share in decision making. **Do not include** landlords and tenants as partners.)

NUMBER

| |
|--|
| |
|--|

| | |
|--|--|
| PARTNERS POID _____ | PARTNERS POID _____ |
| PARTNER NAME | PARTNER NAME |
| ADDRESS | ADDRESS |
| CITY STATE ZIP PHONE NUMBER | CITY STATE ZIP PHONE NUMBER |
| PARTNERS POID _____ | PARTNERS POID _____ |
| PARTNER NAME | PARTNER NAME |
| ADDRESS | ADDRESS |
| CITY STATE ZIP PHONE NUMBER | CITY STATE ZIP PHONE NUMBER |

TARGET CROPS & CODES

FLORIDA

313 Grapefruit
325 Oranges, All
336 Tangelos
339 Tangerines

NEW JERSEY

305 Blueberries
330 Peaches

OREGON

101 Apples
304 Blackberries
305 Blueberries
307 Cherries, Sweet
331 Pears
335 Raspberries

GEORGIA

305 Blueberries
330 Peaches

NEW YORK

101 Apples
308 Cherries, Tart
314 Grapes, All

SOUTH CAROLINA

330 Peaches

MICHIGAN

101 Apples
305 Blueberries
307 Cherries, Sweet
308 Cherries, Tart
330 Peaches

NORTH CAROLINA

101 Apples
305 Blueberries

TEXAS

313 Grapefruit
330 Peaches

CHANGE IN OPERATING STATUS

[ENUMERATOR NOTE: Skip this section if there is no change in operation name or operator.]

1. Has there been a change in operation name or operator?

NO - [Go to Enumerator Note below.]

YES - [Enter code 1, complete name and address information below for new operator, and read Enumerator Note].

| |
|-------------|
| CODE |
| 023 |

| |
|--|
| Operation Name _____ Operator Name _____ Address _____ _____ Phone (_____) _____ |
|--|

[ENUMERATOR NOTE: If the operation on the face page was in business part of the 2015 crop year, complete this questionnaire for the part of the year during which the operation did business, unless the operation has been taken over by a new operator. If the operator has changed midyear, please conduct this interview start to finish with the new operator after reading "Valid Substitution" rules in section 4 of the Interviewer's Manual.]

2. Has the operation printed on this questionnaire been combined or merged with any other farming operations?

Yes - [Go to "Conclusion".]

No - [Continue.]

CALIFORNIA SCREENING

1. What ID (*pesticide permit number*) does this operation use for reporting pesticide applications on the target crops' bearing acres to the County Agricultural Commissioners?

| COUNTY | |
|--------|--|
| | |

| NUMBER | | | | |
|--------|--|--|--|--|
| | | | | |

2. Is this ID used to report pesticide applications for any other operations?

YES - [Continue.] **NO** - [Go to item 3.]

a. What other operation(s) is this ID used to report for?

| | |
|--------------------|--------------------|
| Name _____ | Name _____ |
| Address _____ | Address _____ |
| Phone () _____ | Phone () _____ |

3. Does this operation use any **OTHER** ID's to report pesticide applications on the target crops' bearing acres to the County Agricultural Commissioners?

YES - [Continue.] **NO** - [Go to Section A, page 5.]

a. What are these other ID numbers?

| COUNTY | |
|--------|--|
| | |
| | |
| | |
| | |
| | |

| NUMBER | | | | |
|--------|--|--|--|--|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

b. Do you use any of these ID's to report pesticide applications for any other operation(s)?

YES - [Continue.] **NO** - [Go to Section A, page 5.]

(i) What other operation(s) use this ID for reporting? [*Identify operation and ID.*]

| | |
|--------------------|--------------------|
| Name _____ | Name _____ |
| Reporting ID _____ | Reporting ID _____ |
| Address _____ | Address _____ |
| Phone () _____ | Phone () _____ |

4. Do you employ a fruit management company to care for any of the targeted fruit crops?

YES - [Continue.] **NO** - [Go to Section A, page 5.]

a. What fruit management company do you employ?

| | |
|--------------------|--------------------|
| Name _____ | Name _____ |
| Address _____ | Address _____ |
| Phone () _____ | Phone () _____ |

A

LAND OPERATED

A

ACRES OPERATED

CODE

[Enumerator Action: *If acreage on the insert is verified as correct, enter code 1 in box 801, then skip to Section B. If acreage has changed, ask ALL questions.*]

| |
|-----|
| 801 |
|-----|

Now I would like to ask about the total acres operated under this land arrangement.

1. How many acres does this operation---

ACRES

a. Own? +

| | |
|-----|--------|
| 901 | . ____ |
|-----|--------|

b. Rent or lease from others or use rent free?
(**Exclude** land used on an animal unit month (AUM) basis.) +

| | |
|-----|--------|
| 902 | . ____ |
|-----|--------|

c. Rent to others? -

| | |
|-----|--------|
| 905 | . ____ |
|-----|--------|

2. [Calculate item 1a + 1b - 1c.] Then the total acres operated are: =

| | |
|-----|--------|
| 900 | . ____ |
|-----|--------|

a. Does this include the farmstead, all cropland, woodland, pasture land, wasteland, and government program land?

YES - [Continue.] **NO** - [Make corrections, then continue.]

The remaining questions in this survey refer to these [item 2] acres.

3. Of the total acres operated, how many acres are considered cropland, including land in hay, summer fallow, cropland idle, cropland used for pasture and cropland in government programs?

| | |
|-----|--------|
| 802 | . ____ |
|-----|--------|

4. Of the total acres operated, how many acres are in fruit?
(**Include** bearing and non-bearing acreage in trees, vineyards and bushes.)

| | |
|-----|--------|
| 803 | . ____ |
|-----|--------|

B

FRUIT ACREAGE

B

1. What **target fruit crops** were on these [Section A, item 4] acres during the 2015 crop year? (**Exclude** new plantings and other plantings which are not yet bearing.)

| | | | |
|------------------------------|--------------|------------|-----|
| OFFICE USE LINES IN TABLE | TABLE 001 | LINE 99 | 199 |
|------------------------------|--------------|------------|-----|

| L I N E | 1 | 2 | 3 | 6 | 7 | 8 |
|------------------|------|-----------|--|--|--|--|
| | CROP | CROP CODE | How many BEARING acres of [crop] did this operation have? ACRES | Were any herbicides, insecticides, fungicides, etc. applied to this crop? [YES = 1] | On what date did you complete harvest of your 2014 crop year [crop]? MM DD YY | On what date did you complete harvest of your 2015 crop year [crop]? MM DD YY |
| 01 | | | 11 . ____ | 13 | 14 | 15 |
| 02 | | | 11 . ____ | 13 | 14 | 15 |
| 03 | | | 11 . ____ | 13 | 14 | 15 |
| 04 | | | 11 . ____ | 13 | 14 | 15 |
| 05 | | | 11 . ____ | 13 | 14 | 15 |
| 06 | | | 11 . ____ | 13 | 14 | 15 |
| 07 | | | 11 . ____ | 13 | 14 | 15 |
| 08 | | | 11 . ____ | 13 | 14 | 15 |
| 09 | | | 11 . ____ | 13 | 14 | 15 |
| 10 | | | 11 . ____ | 13 | 14 | 15 |
| 11 | | | 11 . ____ | 13 | 14 | 15 |
| 12 | | | 11 . ____ | 13 | 14 | 15 |
| 13 | | | 11 . ____ | 13 | 14 | 15 |
| 14 | | | 11 . ____ | 13 | 14 | 15 |
| 15 | | | 11 . ____ | 13 | 14 | 15 |

CALIFORNIA CROP CODES

| | | | |
|---------------------|----------------------------|----------------------|----------------|
| 301 APPLES | GRAPES | 330 KIWIFRUIT | 341 PEARS |
| 303 APRICOTS | 424 RAISIN TYPE VARIETIES | 331 LEMONS | 342 PLUMS |
| 305 AVOCADOS | (include all uses for | 333 NECTARINES | 343 PRUNES |
| 312 CHERRIES, SWEET | Thompson Seedless variety) | 334 OLIVES | 349 TANGERINES |
| 316 DATES | 524 TABLE TYPE VARIETIES | 435 NAVEL ORANGES | |
| 318 FIGS | 624 WINE TYPE VARIETIES | 535 VALENCIA ORANGES | |
| 320 GRAPEFRUIT | | 340 PEACHES | |

B

FRUIT ACREAGE

B

| L I N E | CAL – EPA SITE LOCATION NUMBER <i>(if required)</i> | | | | | |
|------------------|--|--|--|--|--|--|
| 01 | | | | | | |
| 02 | | | | | | |
| 03 | | | | | | |
| 04 | | | | | | |
| 05 | | | | | | |
| 06 | | | | | | |
| 07 | | | | | | |
| 08 | | | | | | |
| 09 | | | | | | |
| 10 | | | | | | |
| 11 | | | | | | |
| 12 | | | | | | |
| 13 | | | | | | |
| 14 | | | | | | |
| 15 | | | | | | |

INCLUDES AND EXCLUDES

| | |
|--|--|
| <p>INCLUDE: TARGET CROPS ONLY. All commercial acreage equal to or greater than one tenth of a bearing acre. All bearing acreage for processing or fresh market. All bearing acreage for roadside stands, farmer's markets or U-pick sales. Bearing acreage not harvested due to weather, economic or other reasons. Crops planted in the fall of 2014 if they were part of the 2015 crop.</p> | <p>EXCLUDE: All crops grown in another state. Non-commercial orchard and vineyard acreage (<i>home garden</i>). All TARGET CROPS grown by institutional, experimental, research and university farms. Non-target fruits. Abandoned orchards and vineyards. New plantings and other plantings which are not yet bearing.</p> |
|--|--|

B

FRUIT ACREAGE

B

TABLE
001

OFFICE USE
LINES IN TABLE

LINE 99

199

1. What **target fruit crops** were on these [Section A, item 4] acres during the 2015 crop year? (**Exclude** new plantings and other plantings which are not yet bearing.)

| L I N E | 1 | 2 | 3 | 6 |
|------------------|------|-----------|--|--|
| | CROP | CROP CODE | How many BEARING acres of [crop] did this operation have? ACRES | Were any herbicides, insecticides, fungicides, etc. applied to this crop? [YES = 1] |
| 01 | | | 11 . ____ | 13 |
| 02 | | | 11 . ____ | 13 |
| 03 | | | 11 . ____ | 13 |
| 04 | | | 11 . ____ | 13 |
| 05 | | | 11 . ____ | 13 |
| 06 | | | 11 . ____ | 13 |
| 07 | | | 11 . ____ | 13 |
| 08 | | | 11 . ____ | 13 |
| 09 | | | 11 . ____ | 13 |
| 10 | | | 11 . ____ | 13 |
| 11 | | | 11 . ____ | 13 |
| 12 | | | 11 . ____ | 13 |
| 13 | | | 11 . ____ | 13 |
| 14 | | | 11 . ____ | 13 |
| 15 | | | 11 . ____ | 13 |

INCLUDE

- **TARGET CROPS ONLY.**
- All commercial bearing acreage equal to or greater than one tenth of an acre.
- All bearing acreage of **TARGET CROPS** for processing or fresh market.
- All bearing acreage of **TARGET CROPS** for roadside stands, farmer's markets or U-pick sales.
- Bearing acreage not harvested due to weather, economic or other reasons.
- Crops planted in the fall of 2008 if they were part of the 2009 crop.

EXCLUDE

- All crops grown in another state.
- Non-commercial orchard and vineyard acreage (home garden).
- Non-target fruits.
- New plantings and other plantings which are not yet bearing.
- **ALL TARGET CROPS** grown by institutional, experimental, research and university farms (abnormal farms).
- Abandoned orchards and vineyards.

NOTES: _____

WASHINGTON CROP CODES

| | | | |
|-----|------------------------|-----|----------------------|
| 301 | APPLES | 622 | GRAPES, JUICE |
| 309 | BLUEBERRIES | 624 | GRAPES, WINE |
| 312 | CHERRIES, SWEET | 341 | PEARS |
| 314 | CHERRIES, TART | 345 | RASPBERRIES |

FERTILIZER APPLICATIONS

Enumerator Note---

*If column 4 of the table in Section B is YES for any crops, continue with item 1.
If column 4 of the table in Section B is NO for all crops, go to Section, page 10.*

1. I need to record complete information on all commercial fertilizers applied to the bearing acres of **target fruit** grown during the 2015 crop year. Include all applications regardless of how they were applied (irrigation water, foliar applications, etc.). [Record amount of analysis of fertilizers applied or pounds of **actual plant nutrients** applied. Complete the table below (and any necessary supplemental fertilizer tables). Exclude micronutrients, lime, and gypsum.]

| | | |
|--------------------------------------|----------------------|-----|
| OFFICE USE LINES IN TABLE | TABLE 001 | 299 |
|--------------------------------------|----------------------|-----|

| LINE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|------|------|-----------|---------------|--|----------------------------|-------------|--|---|---|-------|
| | CROP | CROP CODE | NITROGEN N | PHOSPHATE P ₂ O ₅ | POTASH K ₂ O | SULFUR S | How much was applied per acre per application? [Leave this column blank if actual nutrients were reported.] | UNIT CODES 1 Pounds 12 Gallons 13 Quarts 15 Liquid Oz. 28 Dry Oz. 19 Actual Nutrients | How many acres was this applied to? [Include bearing acres only] | ACRES |
| 01 | | | 31 | 32 | 33 | 34 | 36 | 37 | 40 | 41 |
| 02 | | | 31 | 32 | 33 | 34 | 36 | 37 | 40 | 41 |
| 03 | | | 31 | 32 | 33 | 34 | 36 | 37 | 40 | 41 |
| 04 | | | 31 | 32 | 33 | 34 | 36 | 37 | 40 | 41 |
| 05 | | | 31 | 32 | 33 | 34 | 36 | 37 | 40 | 41 |
| 06 | | | 31 | 32 | 33 | 34 | 36 | 37 | 40 | 41 |
| 07 | | | 31 | 32 | 33 | 34 | 36 | 37 | 40 | 41 |
| 08 | | | 31 | 32 | 33 | 34 | 36 | 37 | 40 | 41 |
| 09 | | | 31 | 32 | 33 | 34 | 36 | 37 | 40 | 41 |
| 10 | | | 31 | 32 | 33 | 34 | 36 | 37 | 40 | 41 |
| 11 | | | 31 | 32 | 33 | 34 | 36 | 37 | 40 | 41 |
| 12 | | | 31 | 32 | 33 | 34 | 36 | 37 | 40 | 41 |
| 13 | | | 31 | 32 | 33 | 34 | 36 | 37 | 40 | 41 |
| 14 | | | 31 | 32 | 33 | 34 | 36 | 37 | 40 | 41 |
| 15 | | | 31 | 32 | 33 | 34 | 36 | 37 | 40 | 41 |
| 16 | | | 31 | 32 | 33 | 34 | 36 | 37 | 40 | 41 |
| 17 | | | 31 | 32 | 33 | 34 | 36 | 37 | 40 | 41 |

C

FERTILIZER APPLICATIONS

C

| LINE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|------|------|-----------|---------------|--|----------------------------|-------------|--|---|---|--------------------------------|
| | CROP | CROP CODE | NITROGEN N | PHOSPHATE P ₂ O ₅ | POTASH K ₂ O | SULFUR S | How much was applied per acre per application? [Leave this column blank if actual nutrients were reported.] | UNIT CODES 1 Pounds 12 Gallons 13 Quarts 15 Liquid Oz. 28 Dry Oz. 19 Actual Nutrients | How many acres was this applied to? [Include bearing acres only] | How many times was it applied? |
| | | | | | | | | | ACRES | NUMBER |
| 18 | | | 31 | 32 | 33 | 34 | 36 | 37 | 40 | 41 |
| 19 | | | 31 | 32 | 33 | 34 | 36 | 37 | 40 | 41 |
| 20 | | | 31 | 32 | 33 | 34 | 36 | 37 | 40 | 41 |
| 21 | | | 31 | 32 | 33 | 34 | 36 | 37 | 40 | 41 |
| 22 | | | 31 | 32 | 33 | 34 | 36 | 37 | 40 | 41 |
| 23 | | | 31 | 32 | 33 | 34 | 36 | 37 | 40 | 41 |
| 24 | | | 31 | 32 | 33 | 34 | 36 | 37 | 40 | 41 |
| 25 | | | 31 | 32 | 33 | 34 | 36 | 37 | 40 | 41 |
| 26 | | | 31 | 32 | 33 | 34 | 36 | 37 | 40 | 41 |
| 27 | | | 31 | 32 | 33 | 34 | 36 | 37 | 40 | 41 |
| 28 | | | 31 | 32 | 33 | 34 | 36 | 37 | 40 | 41 |
| 29 | | | 31 | 32 | 33 | 34 | 36 | 37 | 40 | 41 |
| 30 | | | 31 | 32 | 33 | 34 | 36 | 37 | 40 | 41 |
| 31 | | | 31 | 32 | 33 | 34 | 36 | 37 | 40 | 41 |
| 32 | | | 31 | 32 | 33 | 34 | 36 | 37 | 40 | 41 |
| 33 | | | 31 | 32 | 33 | 34 | 36 | 37 | 40 | 41 |
| 34 | | | 31 | 32 | 33 | 34 | 36 | 37 | 40 | 41 |
| 35 | | | 31 | 32 | 33 | 34 | 36 | 37 | 40 | 41 |
| 36 | | | 31 | 32 | 33 | 34 | 36 | 37 | 40 | 41 |
| 37 | | | 31 | 32 | 33 | 34 | 36 | 37 | 40 | 41 |
| 38 | | | 31 | 32 | 33 | 34 | 36 | 37 | 40 | 41 |
| 39 | | | 31 | 32 | 33 | 34 | 36 | 37 | 40 | 41 |
| 40 | | | 31 | 32 | 33 | 34 | 36 | 37 | 40 | 41 |

PESTICIDE APPLICATIONS

Now I have some questions about pesticide and chemical applications to your **bearing fruit acreage** before harvest. Please consider all applications made to trees, vineyards or bushes which occurred **after last season's harvest**.

1. Since last year's (2014) harvest, did you use **herbicides** on any of your bearing fruit acreage? YES NO

2. Since last year's (2014) harvest, did you use **insecticides, nematocides or miticides** on any of your bearing fruit acreage? YES NO

3. Since last year's (2014) harvest, did you use any **fungicides** on any of your bearing fruit acreage? YES NO

4. Since last year's (2014) harvest, did you use any other chemicals such as chemical thinners, growth regulators, microbial agents, pheromones, rodenticides, soil fumigants, etc. on any of your bearing fruit acreage? YES NO

5. **[ENUMERATION ACTION: If ALL items 1 – 4 are NO, go to Section E, page 14; else continue.]**

D

PESTICIDE APPLICATIONS

D

[ENUMERATOR NOTE: *If pesticides were reported in Section B, column 6, continue. Otherwise, skip to Section E.*]

6. Now I need to get complete information on all of the chemicals applied, including applications made by you and/or by custom applicators during the 2015 crop year to each of the **target fruit crops** you grew. **Let's start with the first application to your [crop] since the 2014 crop year harvest.**

[Complete the table for all chemical applications to the target fruit crops. Use supplemental tables if necessary.]

(Include herbicides, insecticides, nematocides, miticides, fungicides, chemical thinners, growth regulators, microbial agents, pheromones, rodenticides, and soil fumigants. Exclude seed treatments, foliar applications of nutrients, and applications made to fruits after harvest.)

| | | | | |
|------------------------------|-------|-----|------------|-----|
| OFFICE USE LINES IN TABLE | TABLE | 001 | LINE 99 | 399 |
|------------------------------|-------|-----|------------|-----|

| | L I N E | 1 CROP | 2 CROP CODE | 3 What products were applied to the [crop]? [Enter product code.] | 4 Was this product bought in liquid or dry form? [Enter L or D.] | 5 Was this part of a tank mix? [If tank mix, enter line number of first product in mix.] |
|--------------------------|------------------|---------------|-----------------------|---|--|---|
| CHEMICAL PRODUCT NAME | | | | | | |
| | 01 | | | 61 | | 63 |
| | 02 | | | 61 | | 63 |
| | 03 | | | 61 | | 63 |
| | 04 | | | 61 | | 63 |
| | 05 | | | 61 | | 63 |
| | 06 | | | 61 | | 63 |
| | 07 | | | 61 | | 63 |
| | 08 | | | 61 | | 63 |
| | 09 | | | 61 | | 63 |
| | 10 | | | 61 | | 63 |
| | 11 | | | 61 | | 63 |
| | 12 | | | 61 | | 63 |
| | 13 | | | 61 | | 63 |
| | 14 | | | 61 | | 63 |
| | 15 | | | 61 | | 63 |

[For pesticides not listed in Respondent Booklet, specify--]

| Line No. | Pesticide Type <small>(Herbicide, Insecticide, Fungicide, etc.)</small> | Trade Name and Formulation | Form Purchased <small>(Liquid or Dry)</small> | EPA Reg. No. |
|----------|--|-------------------------------|--|--------------|
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |

D

PESTICIDE APPLICATIONS

D

CODES FOR COLUMN 8

| | |
|-------------------|------------------------------------|
| 1 POUNDS | 30 GRAMS |
| 12 GALLONS | 40 KILOGRAMS |
| 13 QUARTS | 41 LITERS |
| 14 PINTS | 46 SPIRALS |
| 15 OUNCES, LIQUID | 47 PACKETS |
| 28 OUNCES, DRY | 50 OTHER (<i>Specify: _____</i>) |

| LINE | OR | | 8 [Enter unit code from above.] CODE | 9 What percent of the rows were covered? 100 All Rows 50 Every Other Row --- Other [Enter percent covered.] | 10 How many acres were treated with this product? [Include bearing acres only.] BEARING ACRES | 11 When was it applied? MM DD YY |
|------|---|---|--|--|--|--|
| | 6 How much was applied per acre per application? | 7 What was the total amount applied per application? | | | | |
| 01 | 65 . ____ | 73 . ____ | 74 | 75 | 77 . ____ | 83 |
| 02 | 65 . ____ | 73 . ____ | 74 | 75 | 77 . ____ | 83 |
| 03 | 65 . ____ | 73 . ____ | 74 | 75 | 77 . ____ | 83 |
| 04 | 65 . ____ | 73 . ____ | 74 | 75 | 77 . ____ | 83 |
| 05 | 65 . ____ | 73 . ____ | 74 | 75 | 77 . ____ | 83 |
| 06 | 65 . ____ | 73 . ____ | 74 | 75 | 77 . ____ | 83 |
| 07 | 65 . ____ | 73 . ____ | 74 | 75 | 77 . ____ | 83 |
| 08 | 65 . ____ | 73 . ____ | 74 | 75 | 77 . ____ | 83 |
| 09 | 65 . ____ | 73 . ____ | 74 | 75 | 77 . ____ | 83 |
| 10 | 65 . ____ | 73 . ____ | 74 | 75 | 77 . ____ | 83 |
| 11 | 65 . ____ | 73 . ____ | 74 | 75 | 77 . ____ | 83 |
| 12 | 65 . ____ | 73 . ____ | 74 | 75 | 77 . ____ | 83 |
| 13 | 65 . ____ | 73 . ____ | 74 | 75 | 77 . ____ | 83 |
| 14 | 65 . ____ | 73 . ____ | 74 | 75 | 77 . ____ | 83 |
| 15 | 65 . ____ | 73 . ____ | 74 | 75 | 77 . ____ | 83 |

[For pesticides not listed in Respondent Booklet, specify---]

| Line No. | Pesticide Type <i>(Herbicide, Insecticide, Fungicide, etc.)</i> | Trade Name and Formulation | Form Purchased <i>(Liquid or Dry)</i> | EPA Reg. No. |
|----------|--|-------------------------------|--|--------------|
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |

D

PESTICIDE APPLICATIONS

D

[ENUMERATOR ACTION: *If pesticides were reported in Section B, column 5, continue. Otherwise, skip to Section E.*]

6. Now I need to get complete information on all of the chemicals applied, including applications made by you and/or by custom applicators during the 2015 crop year to each of the **target vegetable crops** you grew. **Let's start with the first application to your [crop] since the 2014 crop year harvest.**

[Complete the table for all chemical applications to the target vegetable crops. Use supplemental tables if necessary.]

(Include herbicides, insecticides, nematocides, miticides, fungicides, chemical thinners, growth regulators, microbial agents, pheromones, rodenticides, and soil fumigants. Exclude seed treatments, foliar applications of nutrients, and applications made to vegetables after harvest.)

| | | |
|--------------------------------------|----------------------|-----|
| OFFICE USE LINES IN TABLE | TABLE 001 | 399 |
|--------------------------------------|----------------------|-----|

| | L I N E | 1 CROP | 2 CROP CODE | 3 What products were applied to the [crop]? <i>[Enter product code.]</i> | 4 Was this product bought in liquid or dry form? <i>[Enter L or D.]</i> | 5 Was this part of a tank mix? <i>[If tank mix, enter line number of first product in mix.]</i> |
|--|------------------|---------------|-----------------------|--|---|---|
| | 01 | | | 61 | | 63 |
| | 02 | | | 61 | | 63 |
| | 03 | | | 61 | | 63 |
| | 04 | | | 61 | | 63 |
| | 05 | | | 61 | | 63 |
| | 06 | | | 61 | | 63 |
| | 07 | | | 61 | | 63 |
| | 08 | | | 61 | | 63 |
| | 09 | | | 61 | | 63 |
| | 10 | | | 61 | | 63 |
| | 11 | | | 61 | | 63 |
| | 12 | | | 61 | | 63 |
| | 13 | | | 61 | | 63 |
| | 14 | | | 61 | | 63 |
| | 15 | | | 61 | | 63 |

[For pesticides not listed in Respondent Booklet, specify---]

| Line No. | Pesticide Type <i>(Herbicide, Insecticide, Fungicide, etc.)</i> | Trade Name and Formulation | Form Purchased <i>(Liquid or Dry)</i> | EPA Reg. No. |
|----------|--|-------------------------------|--|--------------|
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |

D

PESTICIDE APPLICATIONS

D

CODES FOR COLUMN 8

| | |
|-------------------|------------------------------------|
| 1 POUNDS | 30 GRAMS |
| 12 GALLONS | 40 KILOGRAMS |
| 13 QUARTS | 41 LITERS |
| 14 PINTS | 46 SPIRALS |
| 15 OUNCES, LIQUID | 47 PACKETS |
| 28 OUNCES, DRY | 50 OTHER (<i>Specify: _____</i>) |

| LINE | 6 | OR | 7 | 8 | 9 | 10 | 11 |
|------|--|----|--|---|---|--|--|
| | How much was applied per acre per application? | | What was the total amount applied per application? | [Enter unit code from above.] CODE | What percent of the rows were covered? 100 All Rows 50 Every Other Row --- Other [Enter percent covered.] | How many acres were treated with this product? [Include bearing acres only.] BEARING ACRES | How many times was it applied? NUMBER |
| 01 | 65 . ____ | | 73 . ____ | 74 | 75 | 77 . ____ | 79 |
| 02 | 65 . ____ | | 73 . ____ | 74 | 75 | 77 . ____ | 79 |
| 03 | 65 . ____ | | 73 . ____ | 74 | 75 | 77 . ____ | 79 |
| 04 | 65 . ____ | | 73 . ____ | 74 | 75 | 77 . ____ | 79 |
| 05 | 65 . ____ | | 73 . ____ | 74 | 75 | 77 . ____ | 79 |
| 06 | 65 . ____ | | 73 . ____ | 74 | 75 | 77 . ____ | 79 |
| 07 | 65 . ____ | | 73 . ____ | 74 | 75 | 77 . ____ | 79 |
| 08 | 65 . ____ | | 73 . ____ | 74 | 75 | 77 . ____ | 79 |
| 09 | 65 . ____ | | 73 . ____ | 74 | 75 | 77 . ____ | 79 |
| 10 | 65 . ____ | | 73 . ____ | 74 | 75 | 77 . ____ | 79 |
| 11 | 65 . ____ | | 73 . ____ | 74 | 75 | 77 . ____ | 79 |
| 12 | 65 . ____ | | 73 . ____ | 74 | 75 | 77 . ____ | 79 |
| 13 | 65 . ____ | | 73 . ____ | 74 | 75 | 77 . ____ | 79 |
| 14 | 65 . ____ | | 73 . ____ | 74 | 75 | 77 . ____ | 79 |
| 15 | 65 . ____ | | 73 . ____ | 74 | 75 | 77 . ____ | 79 |

[For pesticides not listed in Respondent Booklet, specify--]

| Line No. | Pesticide Type (Herbicide, Insecticide, Fungicide, etc.) | Trade Name and Formulation | Form Purchased (Liquid or Dry) | EPA No. |
|----------|---|----------------------------|-----------------------------------|---------|
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |

D

PESTICIDE APPLICATIONS

D

| CHEMICAL PRODUCT NAME | L I N E | 1 CROP | 2 CROP CODE | 3 What products were applied to the [crop]? [Enter product code.] | 4 Was this product bought in liquid or dry form? [Enter L or D.] | 5 Was this part of a tank mix? [If tank mix, enter line number of first product in mix.] |
|--------------------------|------------------|---------------|-----------------------|---|--|---|
| | 16 | | | 61 | | 63 |
| | 17 | | | 61 | | 63 |
| | 18 | | | 61 | | 63 |
| | 19 | | | 61 | | 63 |
| | 20 | | | 61 | | 63 |
| | 21 | | | 61 | | 63 |
| | 22 | | | 61 | | 63 |
| | 23 | | | 61 | | 63 |
| | 24 | | | 61 | | 63 |
| | 25 | | | 61 | | 63 |
| | 26 | | | 61 | | 63 |
| | 27 | | | 61 | | 63 |
| | 28 | | | 61 | | 63 |
| | 29 | | | 61 | | 63 |
| | 30 | | | 61 | | 63 |
| | 31 | | | 61 | | 63 |
| | 32 | | | 61 | | 63 |
| | 33 | | | 61 | | 63 |

[For pesticides not listed in Respondent Booklet, specify--]

| Line No. | Pesticide Type (Herbicide, Insecticide, Fungicide, etc.) | Trade Name and Formulation | Form Purchased (Liquid or Dry) | EPA Reg. No. |
|----------|---|-------------------------------|-----------------------------------|--------------|
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |

D

PESTICIDE APPLICATIONS

D

CODES FOR COLUMN 8

| | |
|-------------------|------------------------------------|
| 1 POUNDS | 30 GRAMS |
| 12 GALLONS | 40 KILOGRAMS |
| 13 QUARTS | 41 LITERS |
| 14 PINTS | 46 SPIRALS |
| 15 OUNCES, LIQUID | 47 PACKETS |
| 28 OUNCES, DRY | 50 OTHER (<i>Specify: _____</i>) |

| LINE | 6 | OR | 7 | 8 | 9 | 10 | 11 |
|------|--|----|--|---|--|--|--|
| | How much was applied per acre per application? | | What was the total amount applied per application? | [Enter unit code from above.] CODE | What percent of the rows were covered? 100 All Rows 50 Every Other Row -- Other [Enter percent covered.] | How many acres were treated with this product? [Include bearing acres only.] BEARING ACRES | How many times was it applied? NUMBER |
| 16 | 65 . ____ | | 73 . ____ | 74 | 75 | 77 . ____ | 79 |
| 17 | 65 . ____ | | 73 . ____ | 74 | 75 | 77 . ____ | 79 |
| 18 | 65 . ____ | | 73 . ____ | 74 | 75 | 77 . ____ | 79 |
| 19 | 65 . ____ | | 73 . ____ | 74 | 75 | 77 . ____ | 79 |
| 20 | 65 . ____ | | 73 . ____ | 74 | 75 | 77 . ____ | 79 |
| 21 | 65 . ____ | | 73 . ____ | 74 | 75 | 77 . ____ | 79 |
| 22 | 65 . ____ | | 73 . ____ | 74 | 75 | 77 . ____ | 79 |
| 23 | 65 . ____ | | 73 . ____ | 74 | 75 | 77 . ____ | 79 |
| 24 | 65 . ____ | | 73 . ____ | 74 | 75 | 77 . ____ | 79 |
| 25 | 65 . ____ | | 73 . ____ | 74 | 75 | 77 . ____ | 79 |
| 26 | 65 . ____ | | 73 . ____ | 74 | 75 | 77 . ____ | 79 |
| 27 | 65 . ____ | | 73 . ____ | 74 | 75 | 77 . ____ | 79 |
| 28 | 65 . ____ | | 73 . ____ | 74 | 75 | 77 . ____ | 79 |
| 29 | 65 . ____ | | 73 . ____ | 74 | 75 | 77 . ____ | 79 |
| 30 | 65 . ____ | | 73 . ____ | 74 | 75 | 77 . ____ | 79 |
| 31 | 65 . ____ | | 73 . ____ | 74 | 75 | 77 . ____ | 79 |
| 32 | 65 . ____ | | 73 . ____ | 74 | 75 | 77 . ____ | 79 |
| 33 | 65 . ____ | | 73 . ____ | 74 | 75 | 77 . ____ | 79 |

[For pesticides not listed in Respondent Booklet, specify--]

| Line No. | Pesticide Type (Herbicide, Insecticide, Fungicide, etc.) | Trade Name and Formulation | Form Purchased (Liquid or Dry) | EPA No. |
|----------|---|----------------------------|-----------------------------------|---------|
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |

PEST MANAGEMENT PRACTICES

Now I have some questions about pest management practices you may have used on any of the **total fruit acres** on this operation. (*Include bearing and non-bearing acreage of both target and non-target fruit crops grown.*)
By pests, we mean insects, weeds, and diseases.

YES - [Continue.]

No - [Go to item 5.]

CODE

1. Was weather data used to assist in determining either the need or when to make pesticide applications? **YES = 1**

2. Were any biological pesticides such as Bt (*Bacillus thuringiensis*), insect growth regulators (*Courier, intrepid, etc.*), neem or other natural/biological based products sprayed or applied to manage pests? **YES = 1**

3. Were pesticides with different mechanisms of action rotated or tank mixed for the primary purpose of keeping pests from becoming resistant to pesticides? **YES = 1**

4. In 2015, how were your fruit acres primarily scouted for insects, weeds, diseases and/or beneficial organisms?

- | |
|---|
| <p>1 By deliberately going to the fruit acres specifically for scouting activities. (<i>Enter code 1 and go to item 6.</i>)</p> <p>2 By conducting general observations while performing routine tasks. (<i>Enter code 2 and go to item 8.</i>)</p> <p>3 The fruit acres were not scouted. (<i>Enter code 3 and go to item 11.</i>)</p> |
|---|

.....

5. Was an established scouting process used (*systemic sampling, recording counts, insect traps, etc.*) on any fruit acres? **YES = 1**

6. Was scouting for pests done on these fruit acres due to---

a. a pest advisory warning? **YES = 1**

b. a pest development model? **YES = 1**

PEST MANAGEMENT PRACTICES

| 1 | 2 [If column 1 is YES, ask--] Who did the majority of the scouting for [column 1]— | |
|--|---|-------------|
| 7. Were your fruit acres scouted for --- | YES = 1 | CODE |
| a. weeds?..... | 612 | 614 |
| b. insects or mites?..... | 615 | 617 |
| c. disease?..... | 618 | 620 |

| | YES = 1 | CODE |
|--|----------------|-------------|
| 8. Were written or electronic records kept to track the activity or numbers of weeds, insects or diseases?..... | YES = 1 | 623 |
| 9. Was scouting data compared to published information on infestation thresholds to determine when to take measures to manage pests?..... | YES = 1 | 624 |
| 10. Was field mapping data used for making pest management decisions?..... | YES = 1 | 625 |
| 11. Were the services of a diagnostic laboratory used for pest identification or soil or plant tissue pest analysis?..... | YES = 1 | 626 |
| 12. Were crop residues (<i>including drops, rotting fruit and/or debris</i>) removed to manage pests?..... | YES = 1 | 627 |
| 13. Were ground covers, mulches, or other physical barriers maintained to manage pest problems?..... | YES = 1 | 629 |
| 14. Were any beneficial organisms (<i>insects, nematodes, fungi</i>) applied or released to manage pests?..... | YES = 1 | 636 |
| 15. Were floral lures, attractants, repellants, pheromone traps or other biological pest controls used on any fruit acres?..... | YES = 1 | 637 |
| 16. Were any fruit acres cultivated for weed control during the growing season?..... | YES = 1 | 640 |
| 17. Were field edges, lanes, ditches, roadways or fence lines chopped, mowed, plowed, or burned to manage pests on any fruit acres?..... | YES = 1 | 642 |
| 18. Were equipment and implements cleaned after completing field work to reduce the spread of pests?..... | YES = 1 | 643 |
| 19. Were any fruit acres irrigated for the 2015 crops?..... | YES = 1 | 644 |
| a. [If item 20 is YES, ask--] | | |
| Were water management practices (excluding chemigation) such as irrigation scheduling, controlled drainage, or treatment of retention water used to manage pests?..... | YES = 1 | 645 |

| COMPLETION CODE for FERTILIZER APPLICATIONS | |
|--|-----|
| 1 Incomp/R | 200 |
| 3 Valid Zero | |

| COMPLETION CODE for PESTICIDE APPLICATIONS | |
|---|-----|
| 1 Incomp/R | 300 |
| 3 Valid Zero | |

| COMPLETION CODE for PEST MANAGEMENT PRACTICES | |
|--|-----|
| 1 Incomp/R | 500 |

F MICROBIAL FOOD SAFETY PRACTICES F

The next few pages contain questions that ask about your operation's total produce acreage, in addition to the fruit covered previously, regardless of the state where that acreage is located. **Exclude** any acreage outside of the U.S. For the purposes of this part of the survey, produce **includes**: fruit, berries, vegetables, herbs, tree nuts, dry beans, peas and lentils, peanuts, sprouts, and mushrooms. These questions only ask about food safety practices with respect to microbial contamination.

1. In 2015, how many acres on your operation were used to grow **produce**? (**Include** each acre only once even if multiple crops were grown on it.)

| |
|-------|
| Acres |
| xxx |
| . _ |
2. Including multi-cropped acres, how many total acres of **produce** were grown on your operation in 2015?

| |
|-------|
| Acres |
| xxx |
| . _ |
3. What produce crops grown on your operation made up the most acreage in 2015, and how were they sold? Report the top five crops starting first with the one that made up the most acreage in row (a).

| 1 Crop | 2 Acres <small>(include multi-cropped acres) (Number)</small> | 3 Direct-to-Consumer Sales <small>(Percent)</small> | Non Direct-to-Consumer Sales | | | |
|-----------|---|---|---|---|---|-------------|
| | | | 4 Fresh market <small>(Percent)</small> | 5 Fresh-cut market <small>(Percent)</small> | 6 Processed market <small>(Percent)</small> | |
| xxx a. | xxx | xxx % | xxx % | xxx % | xxx % | 100% |
| xxx b. | xxx | xxx % | xxx % | xxx % | xxx % | 100% |
| xxx c. | xxx | xxx % | xxx % | xxx % | xxx % | 100% |
| xxx d. | xxx | xxx % | xxx % | xxx % | xxx % | 100% |
| xxx e. | xxx | xxx % | xxx % | xxx % | xxx % | 100% |

4. Over the last three years, 2012-2014, what was your operation's **average** annual gross value of all produce sales?

xxx

1 Less than \$25,000 4 \$500,000 to \$999,999 7 \$10,000,000 to \$19,999,999

2 \$25,000 to \$249,999 5 \$1,000,000 to \$4,999,999 8 \$20,000,000 to \$39,999,999

3 \$250,000 to \$499,999 6 \$5,000,000 to \$9,999,999 9 \$40,000,000 and above

[If the value of sales reported in Item 4 is less than \$500,000, continue; otherwise go to Item 6]

5. Over the last three years, 2012-2014, was your operation's average annual gross value of **food sales** (including your produce sales) less than \$500,000? Food includes articles used for food or drink for humans or other animals. xxx
1 Yes 3 No

6. In 2015, how many of your operation's produce acres were either certified organic or in transition to become certified?

| | |
|--------------------------|-------|
| None | Acres |
| <input type="checkbox"/> | xxx |
| | . _ |

7. In 2015, were **commercial** livestock located adjacent to your produce acreage on land:
 - a. You operate? (**Include** livestock on your produce acreage) xxx
1 Yes 3 No
 - b. Someone else operates? xxx
1 Yes 3 No

F MICROBIAL FOOD SAFETY PRACTICES

F

8. In 2015, which of the following activities were completed for your operation's produce and where were they done?

| 1 Activity | | 2 On your produce operation | 3 Off your produce operation | 4 Did you have an ownership interest in this activity? |
|--|-----|--------------------------------|---------------------------------|---|
| YES = 1 | | YES = 1 | YES = 1 | YES = 1 |
| a. U-Pick | xxx | xxx | | xxx |
| b. Harvest | xxx | xxx | | xxx |
| c. Field Pack | xxx | xxx | | xxx |
| d. Pack (other than field pack) | xxx | xxx | xxx | xxx |
| e. Cool | xxx | xxx | xxx | xxx |
| f. Wash | xxx | xxx | xxx | xxx |
| g. Hold/Store/Warehouse | xxx | xxx | xxx | xxx |
| h. Fresh Cut | xxx | xxx | xxx | xxx |
| i. Other processing (freezing, canning, juicing) | xxx | xxx | xxx | xxx |

9. Excluding any direct-to-consumer sales, do you sell your own produce to retailers, foodservice, wholesalers, terminal markets, etc, instead of letting another firm (shipper, sales agent, marketer, etc.) sell for you? xxx
 1 Yes 3 No

10. Do you have a food safety plan that covers your produce operation in 2015?

xxx

1 Yes – Continue 3 No – Go to Item 12

xxx

a. Is the food safety plan written? 1 Yes 3 No

11. In 2015, did your food safety plan cover all of your produce commodities?

xxx

1 Yes – Go to Item 12
 2 No – Continue

Plans

a. How many different food safety plans did you have for your produce commodities in 2015?

| |
|-----|
| xxx |
|-----|

12. Did you have any third party food safety audits that covered your produce operation in 2015?

xxx 1 Yes – Go to Item 13 3 No – Continue

N/A

Year (YYYY)

a. What was the most recent year you had a third party food safety audit that covered your produce operation? Then go to Item 16 . . .

| |
|-----|
| xxx |
|-----|

F MICROBIAL FOOD SAFETY PRACTICES

F

13. Which of the following types of microbial third party food safety audits covered your produce operation in 2015?

- a. Produce farm/ranch (field) audit. xxx 1 Yes 3 No
- b. Produce harvesting crew. xxx 1 Yes 3 No
- c. Produce packinghouse. xxx 1 Yes 3 No
- d. Produce cooler. xxx 1 Yes 3 No
- e. Other (Specify: xxx _____). xxx 1 Yes 3 No

14. How many of the following types of third party food safety audits covered your produce operation in 2015?

- | | None | Number |
|---|--------------------------|--------|
| a. Global Food Safety Initiative benchmark audit (Primus GFS, Safe Quality Food (SQF), Global Gaps, Canada Gap, British Retail Consortium (BRC)). | <input type="checkbox"/> | xxx |
| b. Other general private audit that is not benchmarked to the Global Food Safety Initiative (Primus, AIB, SCS, etc.). | <input type="checkbox"/> | xxx |
| c. Addendum to standard audit for a particular buyer or processor. | <input type="checkbox"/> | xxx |
| d. Stand-alone buyer-specific audit you pay for (excluding addendum). | <input type="checkbox"/> | xxx |
| e. California or Arizona Leafy Greens Marketing Agreement audit | <input type="checkbox"/> | xxx |
| f. California Cantaloupe Advisory Board food safety standard audit | <input type="checkbox"/> | xxx |
| g. Tomato Food Safety Audit Protocol | <input type="checkbox"/> | xxx |
| h. USDA audit service which may be administered by a State Department of Agriculture (GAP's, GHP's, Harmonized Gaps, or others). | <input type="checkbox"/> | xxx |
| i. Other (Specify: xxx _____). | <input type="checkbox"/> | xxx |

15. What was the total amount you paid for the third party food safety audits that covered your produce operation in 2015? (**Include** costs of belonging to CA and AZ LGMA and the CA Cantaloupe Advisory Board. **Exclude** the costs of preparing for audits and the costs of implementing changes afterwards. **Exclude** organic certification audits)

Dollars

| |
|-----|
| xxx |
|-----|

F MICROBIAL FOOD SAFETY PRACTICES

F

16. Which of the following types of water were used during the production, harvest, and post-harvest activities of your operation's produce in 2015? Use the response codes listed in the table at the bottom of the page.

| 1 Water Use YES = 1 | 2 | 3 | 4 | 5 |
|--|---|---|---|--|
| | What was the largest source (in terms of volume) of water used for this activity? (See column 2 code below) | How often did you test the water from this source in 2015 for microbial content (generic <i>E. coli</i> or other indicator)? If code 7 or 8, go to column 5. (See column 3 code below) | What water standard did you consider acceptable? (See column 4 code below) | What did you use to treat this water in 2015? (See column 5 code below) |
| a. Water used during production that does not touch the harvested part of the crop (furrow, drip, flood irrigation, etc.) | xxx | xxx | xxx | xxx |
| b. Water used during production that touches the harvested part of the crop (overhead irrigation; pesticide/fungicide applications; frost protection, etc.) | xxx | xxx | xxx | xxx |
| c. Water used for harvest and post-harvest activities (including packing) where water touches the produce or a food contact surface (hydrating, washing or cooling produce; cleaning food contact surfaces on tools or machinery) | xxx | xxx | xxx | xxx |

| RESPONSE CODES | | | |
|--|--|---|--|
| Column 2 Water Source Code | Column 3 Frequency of Testing During 2015 Code | Column 4 Water Test Standard Code | Column 5 Water Treatment Code |
| 1 Standing surface water (ponds, lakes, reservoirs) 2 Flowing surface water (rivers, canals, streams, irrigation ditches) 3 Ground water (wells) 4 Public water system with potable water 5 Treated waste water 6 Reclaimed tail water 7 Don't know 8 Other: (Specify: _____) | 1 Once a year 2 Once every four months 3 Once every three Months 4 Once every two months 5 Once every month 6 More often than once a month 7 Water is never tested 8 N/A – Rely on someone else's tests of this operation's water 9. Don't know 10 Other: (Specify: _____) | 1 Normal or expected range based on historic water samples 2 EPA Recreational Water Standard (1986 or 2012 standard) 3 Leafy Greens Marketing Agreement (LGMA) standard for water that does not touch the harvested part of the crop 4 Maximum of 1,000 <i>E. coli</i> CFU/mL 5 Maximum of 500 <i>E. coli</i> CFU/mL 6 EPA drinking water standard which is no generic <i>E. coli</i> 7 Reclaimed water standard 8. Don't know 9. Other: (Specify: _____) | 1 Chemical 2 Ultra violet light 3 Filtration 4 N/A – didn't treat 5 Don't know 6 Other (Specify: _____) |

F MICROBIAL FOOD SAFETY PRACTICES F

[If water tests were reported in Item 16, column 3 (codes 1, 2, 3, 4, 5, 6, 10), or water treatments in column 5 (codes, 1, 2, 3, 6) continue; otherwise go to Item 20]

For Items 17, 18, and 19, please consider all of the water sources used on your produce operation, not just the largest source of water.

17. How many total water tests for microbial contamination were conducted, or do you expect to have, conducted, on your produce operation in 2015? (**Include** all tests on **all** water sources). Number
xxx

18. What will be the total cost of all water tests on **all** water sources conducted for microbial contamination on your produce operation in 2015? (**Include** lab costs, material costs (vials, etc.), labor, and transportation costs.). Dollars
xxx

19. What will be the total costs in 2015 for water **treatments**? **Include** supplies, other treatment costs, and labor. None
Dollars
xxx

20. Were any of the following animal manure products applied to the produce acreage on your operation in 2015?

| 1 Manure Product | YES = 1 xxx | 2 Is the compost made using a method validated by a scientifically recognized, controlled microbial process that is actively managed and meets time/temperature requirements from EPA? xxx | 3 What documentation do you have to indicate the microbial content of your manure products or the process used to produce it? Check all that apply |
|---|----------------|--|--|
| a. Composted manure made on your farm | xxx | xxx 1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No 2 <input type="checkbox"/> Don't know | xxx <input type="checkbox"/> Time/temperature measurements xxx <input type="checkbox"/> Microbial testing results xxx <input type="checkbox"/> Other xxx <input type="checkbox"/> None |
| b. Composted manure purchased from others | xxx | xxx 1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No 2 <input type="checkbox"/> Don't know | xxx <input type="checkbox"/> Time/temperature measurements xxx <input type="checkbox"/> Microbial testing results xxx <input type="checkbox"/> Certificate of Conformance xxx <input type="checkbox"/> Certificate of Analysis xxx <input type="checkbox"/> Approved by an organic certifying agent xxx <input type="checkbox"/> Other xxx <input type="checkbox"/> None |
| c. Manure treated with a physical or chemical process (pasteurization, heat drying, alkali stabilization, etc.) | xxx | | xxx <input type="checkbox"/> Time/temperature measurements xxx <input type="checkbox"/> Microbial testing results xxx <input type="checkbox"/> Certificate of Conformance xxx <input type="checkbox"/> Certificate of Analysis xxx <input type="checkbox"/> Approved by an organic certifying agent xxx <input type="checkbox"/> Other xxx <input type="checkbox"/> None |
| d. Decomposed manure (stored or aged in stacks) | xxx | | xxx <input type="checkbox"/> Microbial testing results xxx <input type="checkbox"/> Other xxx <input type="checkbox"/> None |
| e. Raw manure | xxx | | xxx <input type="checkbox"/> Microbial testing results xxx <input type="checkbox"/> Other xxx <input type="checkbox"/> None |

21. In 2015, was a pre-harvest assessment of the produce acres done within 3 days of harvest in order to identify potential microbial contamination problems? xxx
1 Yes 3 No

F MICROBIAL FOOD SAFETY PRACTICES

F

22. How many days long was the produce **harvest** season in 2015?

| |
|-----|
| xxx |
|-----|

23. In 2015, did this operation pack or package any produce?

xxx 1 Yes - Continue 3 No – Go to Item 24

Days

a. How many days long was the produce **packing** season in 2015?

| |
|-----|
| xxx |
|-----|

b. In 2015, did this operation pack or package produce in the field?

xxx 1 Yes 3 No

c. In 2015, did this operation pack or package produce in a packing house or packing shed?

xxx 1 Yes – Continue 3 No – Go to item 24

d. Which of the following best describes the structures where this operation packed or packaged fresh produce in 2015? (Check all that apply)

- xxx
- 1 A floor, such as a concrete slab, driveway, parking lot, etc.
 - 2 A roof and a floor, such as a concrete slab
 - 3 A floor, roof, and some walls or screening but not an enclosed structure
 - 4 Enclosed structure with openings, such as unscreened doors or windows
 - 5 Completely enclosed structure
 - 6 Other (Specify: xxx _____)

24. Which of the following types of items that touched this crop during the 2015 season were used on this produce operation? How often were the items cleaned and sanitized? **Exclude** items used during harvest or postharvest if this crop was custom harvested or packed by someone else.

| 1 Item that TOUCHES the crop | 2 How often is this item cleaned ? [Use Frequency Code table below] (Code) | 3 How often is this item sanitized (disinfected) ? [Use Frequency Code table below] (Code) | 4 Does this item contain any food contact surface made of foam, paper, cardboard, wood, carpeting, or canvas? |
|---|--|--|--|
| a. Tools used for harvesting and/or field packing | xxx | xxx | xxx 1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No 2 <input type="checkbox"/> Don't know |
| b. Machinery used for harvesting and/or field packing | xxx | xxx | xxx 1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No 2 <input type="checkbox"/> Don't know |
| c. Tools used during packing or handling in a packing house | xxx | xxx | xxx 1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No 2 <input type="checkbox"/> Don't know |
| d. Fixed machinery and work surfaces in post-harvest handling (mechanical sorter, work surface, dunk tanks, flumes, etc.) | xxx | xxx | xxx 1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No 2 <input type="checkbox"/> Don't know |
| e. Reusable containers or bins used during harvest | xxx | xxx | xxx 1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No 2 <input type="checkbox"/> Don't know |
| f. Reusable containers or bins used only to transport the crop from the field to a packinghouse | xxx | xxx | xxx 1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No 2 <input type="checkbox"/> Don't know |

Frequency Code

1 - Daily 2 - Weekly 3 - Monthly 4 - Once a season 5 - N/A 6 - Never 7 – Other: (Specify _____)

F MICROBIAL FOOD SAFETY PRACTICES F

25. In 2015, what will be the total cost of cleaning and sanitizing the items in Item 25?
Include supplies and labor. None Dollars
xxx

26. In 2015, did your operation have a designated person with the primary responsibility for microbial food safety?
 xxx 1 Yes - Continue 3 No – Go to Item 27

a. What percent of this person’s daily time was spent on food safety in 2015? Percent
xxx

27. In 2015, how many other people (excluding the one reported in Item 26) were on your microbial food safety staff? **Exclude** managers and others who have only a small share of their time on food safety and are not primarily responsible for day-to-day food safety on your operation. **Exclude** people only involved in food quality or quality assurance activities.. Number
xxx

[If Item 27 equals zero, go to Item 28; otherwise continue.]
 a. Of the (item 27) people on your food safety staff, how many were working full time on microbial food safety during the season? Number
xxx

28. In 2015, did you hire an outside microbial food safety consultant to develop or implement your food safety plan? xxx 1 Yes 3 No

29. Which of the following types of people were used to harvest produce on your operation in 2015?

| | 1 | | | | |
|---|----------------|--|--|---|--|
| People | | 2 | 3 | 4 | 5 |
| | YES = 1 | How many of these people were used to harvest produce on your operation in 2015? (Number) | How many of these people were trained on microbial food safety by your operation in 2015? If contract crews are trained by someone else, exclude them. [If zero, go to column 5] (Number) | What was the average number of minutes of microbial food safety training that your operation provided for these people in 2015? (Number) | What were the total training costs for visual aids, signage, notebooks, software packages, and hired trainers (instead of your own staff trainers), etc. for these people? Include costs to instruct customers at u-pick operations about safety while on your operation. (Dollars) |
| a. Customer (e.g. Pick-your-own) | xxx | xxx | xxx | xxx | xxx |
| b. Unpaid labor including family and volunteers | xxx | xxx | xxx | xxx | xxx |
| c. Direct hire | xxx | xxx | xxx | xxx | xxx |
| d. Contract harvest crew | xxx | xxx | xxx | xxx | xxx |

F MICROBIAL FOOD SAFETY PRACTICES

F

30. During the 2015 produce harvest season, did your operation provide toilets or handwashing sinks within one-quarter mile of the produce field for those harvesting produce? **Include** portable facilities in the field, access to facilities in nearby buildings, and facilities for u-pick operations.

| 1 | | 2 | 3 |
|------------------------|-----|---|--|
| Facility | | During the 2015 produce harvest season, how many of each facility were provided to harvesters within one-quarter mile of the produce field? (Number) | For how many days were these facilities provided to people harvesting produce? (Number) |
| YES = 1 | | | |
| a. Toilet/Port-a-potty | xxx | xxx | xxx |
| b. Hand washing sink | xxx | xxx | xxx |

31. Which of the following methods were used on your produce operation **to reduce the potential of uncontrolled water runoff** into the produce fields in 2015? *Check all that apply.*

- xxx Ditch
- xxx Berm
- xxx Vegetative buffer strip
- xxx Evaporation pond
- xxx Retention system or retention pond
- xxx Drainage system
- xxx Other (Specify: xxx _____)

32. In 2015, did you monitor your field to check for potential animal intrusion? xxx 1 Yes 3 No

33. Which of the following methods were used on your produce operation **to reduce potential animal intrusion** into the produce fields in 2015? *Check all that apply.*

- xxx Put up fencing around the fields
- xxx Put up fencing around standing surface water
- xxx Remove animal harborage and attractants (removing excess brush, old equipment, and cull piles)
- xxx Trap or shoot animals
- xxx Employ animal deterrents such as noise makers (including gunfire), Mylar strips, fake owls or coyotes, and repellants
- xxx Clear a buffer zone around your field to increase your ability to detect animal intrusion
- xxx Other (Specify: xxx _____)

34. Have you heard of the Food Safety Modernization Act (FSMA) Proposed Rule for Produce Safety?

- xxx 1 Yes - Continue 3 No – Go to Section G

35. Which of the following sources have you used for information on the Food Safety Modernization Act (FSMA) Proposed Rule for Produce Safety? *Check all that apply.*

- xxx Produce/agricultural news
- xxx The FSMA legislation or proposed rules
- xxx FDA listening sessions, public meetings, webinar, or FSMA website
- xxx Produce Safety Alliance
- xxx University training/extension/education meetings
- xxx Commodity organization training/education meetings.
- xxx Neighbors or other growers
- xxx Other (Specify: xxx _____)

CONCLUSION

SURVEY RESULTS

1. To receive the complete results of this survey on the release date, go to www.nass.usda.gov/results/. Would you rather have a brief summary mailed to you at a later date? **YES = 1**

CODE

| |
|------|
| 9990 |
|------|

[Thank the respondent, then review this questionnaire.]

ENDING TIME [MILITARY].

| |
|-----|
| 005 |
|-----|

**OFFICE USE
TIME IN HOURS**

| |
|-----|
| 006 |
|-----|

SUPPLEMENT USE

Record the total number of supplements used to complete this interview.

NUMBER

Fertilizer Supplements.

| |
|-----|
| 067 |
|-----|

Pesticide Supplements.

| |
|-----|
| 068 |
|-----|

| Reported by: _____ | | | | 9910 M M D D Y Y | | | | 9911 Telephone: _____ | | | | |
|--------------------|------|-------------|------|---------------------|------|------|------|--------------------------|----------|----------------------------|--------|----------|
| Response | 9901 | Respondent | 9902 | Mode | 9903 | Enum | 9900 | Date | MM DD YY | R Unit | Change | Optional |
| 1-Comp | 9901 | 1- Op/Mgr | 9902 | 2-Tel | 9903 | 9998 | 9900 | 9910 | | 9921 | 9985 | 9906 |
| 2-R | | 2-Sp | | 3-Face-to - | | | | | | Office Use for POID | | |
| 3-Inac | | 3-Acct/Bkpr | | Face | | | | | | 99789 | | |
| 4-Office Hold | | 4-Partner | | | | | | 15 | | - - - - - | | |
| S/E Name | | | | | | | | | | | | |