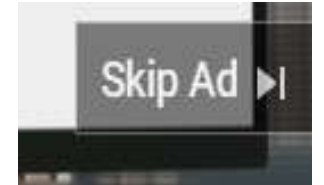


2026 Veg. Chem Use – Training Videos

- Please click the videos below to access each video.
Corresponding slides are found when you scroll down here.
- Once you start a video, if an advertisement appears, please wait a few seconds and click “Skip Ad” to proceed to the video.



Topic	Length (minutes)
<u>Introduction and Purpose</u>	4
<u>Face Page & Screening</u>	3
<u>Sec. A – Land Operated</u>	2
<u>Sec. B – Veg. Acreage – CA only</u>	11
<u>Sec. B – Veg. Acreage – All other states</u>	6
<u>Sec. C – Fertilizer Applications</u>	16
<u>Sec. D – Pesticide Applications</u>	9
<u>Sec. E – Pesticide Applications</u>	8

2026 Veg. Chem. Use - Presentations

[Introduction - 3](#)

[Face Page & Screening - 9](#)

[Sec. A – Land Operated - 15](#)

[Sec. B – Field Characteristics - 20](#)

[Sec. C – Fertilizer Applications - 38](#)

[Sec. D – Pesticide Applications - 66](#)

[Sec. E – Pest Management - 87](#)



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Introduction to the Vegetable Chemical Use Survey (VCUS)

Tani Ayewa



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National Agricultural Statistics Service



Background

- NASS began collecting agricultural pesticide and fertilizer use data in 1990 in response to the Water Quality Initiative passed by Congress.
- Along with NASS, several other USDA agencies collect and analyze agricultural chemical use and residue data.
 - The aggregation of these data form the basis of the USDA Pesticide Data Program (PDP)
- The Food Quality Protection Act (FQPA) which was implemented in 1996 and requires the EPA to conduct a review of tolerance levels for re-registration of pesticide products also relies on the USDA PDP.



Purpose

- To collect fertilizer usage, pesticide usage, and pest management practices from producers of targeted crops.
 - Evaluate water quality
 - Assess food safety
 - Study potential human exposure to pesticide residues
 - Review tolerance levels for re-registration of pesticide products



Why do we need the data?

- Growers can show how they manage chemical applications responsibly.
- To establish facts about chemical use and lessen concern relating to marketing and exports.
- Actual usage data used in the decision-making process for product registration, re-registration, and product alternatives.
- Answer questions about food supply & safety and water quality.



Data Users

- Growers
- News media
- Processors
- Foreign buyers
- Food and Drug Administration
- Agricultural Marketing Service
- Economic Research Service
- Environmental Protection Agency



Thank you!



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Vegetable Chemical Use Survey Face Page & Screening



Kate Jackson
Heartland Region

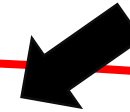


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Face Page

Remember to read this statement to the target



During the screening phase of the Vegetable Chemical Use Survey conducted in June and July, your operation was found to be growing or intending to grow vegetables this year. I now need to verify some of the information collected during the screening survey.

Verify operation name and operator on label and/or screener.

- If no changes, go to Section A, page 4.
- If changed, continue to Change in Operating Status on next page.



Follow the skip pattern



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Change in Operator Status

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

023 1 ☐ Yes – Continue

3 ☐ No – Go to Enumerator Note below.

Operation Name _____
Operator Name _____
Address _____

Phone (_____) _____ ☐ Check if cell phone

[Enumerator Note: If the operation on the face page was in business part of the yyyy 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?

1 ☐ Yes – Go to Conclusion

3 ☐ No – Continue



Substitution Rules

- **Substitution Allowed:**

- The new operator can report all chemical data for the entire yyyy crop year.

AND

- The new operator did not merge or combine the operation on the label with any other target vegetable acres held previously.

- **Substitution NOT Allowed:**

- The new operator had existing target vegetable acreage, and it is being combined with the newly acquired acreage under one operation.



Screening

1. Did this operation have any of the target crops during the yyyy crop year? [See page 5 for target crops.]

₁ ☐ Yes – Continue

₃ ☐ No – Write notes explaining the situation, then Go to Conclusion.



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Thank you!



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Section A - Land Operated

Kyle Nelson



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Total Acres in Operating Arrangement

4		
A	LAND OPERATED	A
Acres Operated		
[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, pastureland, wasteland, and government program land?		
1 ☐ Yes – Continue 3 ☐ No – Make corrections, then continue.		



Cropland Acreage

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

802

Question 3

EXCLUDE:

- Pasture and rangeland that has never been tilled.
- Government program acres planted to trees. These acres are woodland.
- Woodland and wasteland.



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Vegetable Acreage

4. Of the total acres operated, how many acres are vegetables? INCLUDE both target and non-target vegetables planted on the operation.....

803

Question 4

INCLUDE:

- All bearing & non-bearing vegetable acres
- All target and non-target vegetable acres
- Crops planted in the Fall of **previous year**, if they were part of the **current** crop year

EXCLUDE:

- Acreage planted as a home garden
- Vegetable acres grown in another State
- Vegetable acres grown for seed or commercial transplanting
- Vegetables grown in greenhouses and hothouses
- All mushrooms, potatoes, sweet potatoes, and dry beans



Thank you!



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Section B – Vegetable Acreage



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Outline

- Inclusion and Exclusion Criteria for Vegetable acreage
- Target Crop and their respective commodity codes
- What to include in Section B and how enumerators & supervisors should respond
- Example Exercise



Inclusion Criteria for Section B

Target Crops Only

- All acreage of target crops for processing or fresh market.
- All acreage equal to or greater than one tenth of an acre.
- All bearing acreage of target crops for roadside stands, farmer's markets or U-pick sales.
- Crops planted in the fall of ***previous year*** if they were part of the ***current year*** crop.
- Double cropping



Exclusion Criteria for Section B

- All crops grown in another state.
- All crops grown in greenhouses, hothouses, and home gardens.
- Plantings of crops not intended for harvest in ***current year***.
- New plantings and other plantings which are not yet bearing.
- All vegetables grown for commercial transplanting.
- All mushrooms, potatoes, dry beans, sweet potatoes.
- All vegetable acreage grown for seed only.
- All vegetable acres grown by institutional, experimental, research and university farms.
- Non-target vegetables.



Target Crop & Codes

FLORIDA

613	Beans, Snap
808	Cabbage
766	Corn, Sweet
798	Cucumbers
736	Peppers, Bell
742	Squash
770	Tomatoes
752	Watermelons

MINNESOTA

766	Corn, Sweet
855	Peas, Green

PENNSYLVANIA

613	Beans, Snap
738	Pumpkins

NEW JERSEY

701	Asparagus
736	Peppers, Bell
742	Squash

TEXAS

808	Cabbage
798	Cucumbers
824	Onions
752	Watermelons



Target Crop & Code

GEORGIA

613	Beans, Snap
808	Cabbage
766	Corn, Sweet
798	Cucumbers
824	Onions
736	Peppers, Bell
742	Squash
752	Watermelons

ILLINOIS

613	Beans, Snap
738	Pumpkins

NEW YORK

613	Beans, Snap
808	Cabbage
766	Corn, Sweet
824	Onions
738	Pumpkins
742	Squash

NORTH CAROLINA

798	Cucumbers
736	Peppers, Bell
738	Pumpkins
742	Squash
752	Watermelons

WASHINGTON

766	Corn, Sweet
824	Onions
855	Peas, Green

WISCONSIN

613	Beans, Snap
808	Cabbage
766	Corn, Sweet
798	Cucumbers
855	Peas, Green



Target Crop & Code

INDIANA

738 Pumpkins

752 Watermelons

OHIO

738 Pumpkins

MICHIGAN

701 Asparagus

613 Beans, Snap

798 Cucumbers

742 Squash

OREGON

613 Beans, Snap

766 Corn, Sweet

824 Onions

855 Peas, Green

742 Squash



B

VEGETABLE ACREAGE

1. What target vegetable crops were on these [Section A, item 4] acres during the current crop year? EXCLUDE new plantings of vegetables not intended for harvest in current year.

L I N E	1	2	3	4	5
	Crop	Crop Code	How many acres were planted for harvest in the current crop year? (INCLUDE acres which were planted in other years.) Acres	Were any commercial fertilizers applied to this crop? Yes = 1 No = 3	Were any herbicides, insecticides, fungicides, etc. applied to this crop? Yes = 1 No = 3
01			11 _____	12	13
02			11 _____	12	13
03			11 _____	12	13





Here's an Example!

- In the current year, a farmer from Wisconsin grew and harvested cabbage, cucumbers and sweet corn on their 200-acre property. There were 20 acres of cabbage, 35 acres of cucumbers, & 45 acres of sweet corn planted for harvest during this past year. There were no pesticides applied for cabbage and sweet corn. However, pesticides were applied for the cucumbers.
- How would you fill out Section B of this questionnaire?



B

VEGETABLE ACREAGE

- What target vegetable crops were on these [Section A, item 4] acres during the current crop year? EXCLUDE new plantings of vegetables not intended for harvest in current year.

L I N E	1	2	3	4	5
	Crop	Crop Code	How many acres were planted for harvest in the 2026 crop current (INCLUDE acres which were planted in other years.) Acres	Were any commercial fertilizers applied to this crop? Yes = 1 No = 3	Were any herbicides, insecticides, fungicides, etc. applied to this crop? Yes = 1 No = 3
01	Cabbage	808	11 20.0	12 3	13 1
02	Cucumbers	798	11 35.0	12 1	13 1
03	Sweet Corn	766	11 45.0	12 3	13 1

WISCONSIN	
613	Beans, Snap
808	Cabbage
766	Corn, Sweet
798	Cucumbers
855	Peas, Green



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California - Pacific Region
Vegetable Chem Use Survey

California's Version of Section B



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California Crop Codes

613 Beans, Snap	766 Corn, Sweet	728 Lettuce, Other	770 Tomatoes
808 Cabbage	798 Cucumbers	824 Onions	752 Watermelons
709 Cantaloupes	723 Garlic	736 Peppers, Bell	
632 Carrots	730 Honeydew	738 Pumpkins	
715 Celery	725 Lettuce, Head	742 Squash	

Additional crops found in the respondent booklet...

705 Broccoli	714 Cauliflower	759 Spinach
--------------	-----------------	-------------



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1. What target vegetable crops were on these [Section A, item 4] acres during the current crop year? EXCLUDE new plantings of vegetables not intended for harvest current. . . .

Table 001	
Office Use Lines in Table	
Line 99	199

LINE	1	2	3	4	5	6	7
	Crop	Crop Code	How many acres of [crop] did this operation have? Acres	Were any commercial fertilizers applied to this crop? Yes = 1 No = 3	Were any herbicides, insecticides, fungicides, etc. applied to this crop? Yes = 1 No = 3	On what date did you complete harvest of your 2025 crop year [crop]? MM DD YY	On what date did you complete harvest of your 2026 crop year [crop]? MM DD YY
01			11 . ____	12	13	14	15
02			11 . ____	12	13	14	15
03			11 . ____	12	13	14	15

L I N E	CAL - EPA SITE LOCATION NUMBER (if required)					
01						
02						
03						
04						



Now...another example



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Here's another example!

- In 2026, a California farmer grew and harvested watermelon, cantaloupes, and honeydew on their 200-acre property during 2026. There were 60 acres of watermelon, 69 acres of cantaloupes, & 71 acres of honeydew planted for harvest during this past year. Fertilizer was applied to all crops. There were no pesticides applied for watermelon and cantaloupes. However, pesticides were applied for the honeydew.
- The 2025 completed harvest: 08/16/25
- The 2026 completed harvest: 7/29/26
- How would you fill out Section B of this questionnaire?



1. What target vegetable crops were on these [Section A, item 4] acres during the 2026 crop year? EXCLUDE new plantings of vegetables not intended for harvest in 2026.

L I N E	1	2	3	4	5	6	7
	Crop	Crop Code	How many acres of [crop] did this operation have? Acres	Were any commercial fertilizers applied to this crop? Yes = 1 No = 3	Were any herbicides, insecticides, fungicides, etc. applied to this crop? Yes = 1 No = 3	On what date did you complete harvest of your 2025 crop year [crop]? MM DD YY	On what date did you complete harvest of your 2026 crop year [crop]? MM DD YY
01	Watermelon	752	11 60.0	12 1	13 3	14 08/16/25	15 07/29/26
02	Cantaloupes	709	11 69.0	12 1	13 3	14 08/16/25	15 07/29/26
03	Honeydew	730	11 71.0	12 1	13 1	14 08/16/25	15 07/29/26
04			11 .	12	13	14	15



Thank you for your time!

Our big takeaways:

- Follow your skip codes- especially in the tables
- Be familiar with the terms and questionnaire before you start calling
- Please take good notes



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Section C— Fertilizer Applications

The objective of this section is to record all fertilizers used on the target vegetable crops.



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Section Purpose

- Identify applications of fertilizers to the target vegetable crop(s) during the crop year.
- The data provided in this section of the questionnaire will be summarized by applications of nitrogen (N), phosphate (P₂O₅), potash (K₂O), and sulfur (s).



Getting Started In Section C

C

FERTILIZER APPLICATIONS

C

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 D, page 10.

1. I need to record complete information on all commercial fertilizers applied to the target vegetables grown during the current crop year. INCLUDE all applications regardless of how they were applied such as irrigation water, foliar applications, etc. Record amount of an 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
------------------------------	--------------	-----



Fertilizer Applications Table

LINE	1 Crop	2 Crop Code	3 N I T R O G E N N	4 P H O S P H A T E P ₂ O ₅	5 P O T A S H K ₂ O	6 S U L F U R S	7 What quantity was applied per acre? [Leave this column blank if actual nutrients were reported.]	8 Unit Codes 1 Pounds 12 Gallons 13 Quarts 15 Liquid Oz. 28 Dry Oz. 19 Actual Nutrients	9 To how many acres was this applied? Acres	10 How many times was it applied? Number
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



Fertilizer is made up of 2 things:

- **Actual Nutrients**

- N: Nitrogen
- P: Phosphorus
- K: Potassium
- S: Sulfur
- And many others

- **Carrier Material**

- Filler - other stuff



Example Nutrients to grow a crop

- 105 pounds of Nitrogen per acre
- 35 pounds of Phosphorus per acre
- 55 pounds of Potassium per acre



2 Ways to Record Nutrient or Fertilizer Applications:

- Percent Analysis – most common & preferred**

- Pounds of Actual Nutrients**

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	What quantity was applied per acre? [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	To how many acres was this applied? Acres	How many times was it applied? Number
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



2 Ways to Record Nutrient or Fertilizer Applications:

- Percent Analysis – most common & preferred

- **A Complete Product**

- Pounds of Actual Nutrients

- **Individual Ingredients Of A Complete Product**



2 Ways to Record Nutrient or Fertilizer Applications:

- **Percent Analysis - A Complete Product**

- Urea 46-0-0
- 10-34-0
- MAP 11-52-0
- DAP 18-46-0

- **Pounds of Actual Nutrients - Individual Ingredients**

- Nitrogen
- Phosphorus
- Potassium
- Sulfur



It is written with numbers and dashes

- 26 - 5 - 10

N - P - K

- First number listed is Nitrogen
- Second number listed is Phosphorus
- Third number listed is Potassium
- If a Fourth number is present: 26 - 5 - 10 - 7 that is Sulfur



Numbers represent the Percentage

- 26-5-10
- For any given quantity of this fertilizer,
 - 26% of it will be Nitrogen
 - 5% of it will be Phosphorus
 - 10% of it will be Potassium
 - The remaining 59% will be carrier material



Percent Analysis Method

- 150 Pounds of 26-5-10:
 - $150 \text{ lbs.} \times 26\% = 39 \text{ pounds Nitrogen}$
 - $150 \text{ lbs.} \times 5\% = 8 \text{ pounds of Phosphorus}$
 - $150 \text{ lbs.} \times 10\% = 15 \text{ pounds of Potassium}$
 - The rest will be carrier material
 - $150 \text{ lbs.} \times 59\% = 88 \text{ pounds of carrier material}$



Peanut M&Ms



46%



54%



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Peanut M&Ms vs Urea



46%



54%



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Snickers



18%



46%



36%



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Snickers vs DAP



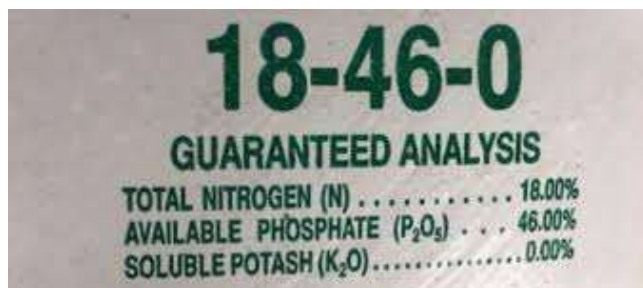
18%



46%



36%



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Sprite



10%



34%



56%



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Sprite vs 10-34-0



10%



34%



56%

10-34-0	
Guaranteed Analysis	
Total Nitrogen (N).....	10%
Available Phosphate (P ₂ O ₅).....	34%



Lemonade



32%



68%



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Lemonade vs UAN 32-0-0



32%



68%

32%

UAN SOLUTION



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Percent Analysis

LINE	1	2	3	4	5	6	7	8
	Crop	Crop Code	NITROGEN N	PHOSPHATE P ₂ O ₅	POTASH K ₂ O	SULFUR S	What quantity was applied per acre? [Leave this column blank if actual nutrients were reported.]	Unit Codes 1 Pounds 12 Gallons 
01	Cabbage	808	31 11	32 52	33	34	36 85.0	37 1
02	Onions	824	31 10	32 34	33	34	36 5.0	37 12
03	Squash	742	31	32	33 60	34	36 120.0	37 1



Percent Analysis Method

- 10-34-0 11-52-0 18-46-0 28-0-0 46-0-0 82-0-0 0-0-60
- If you add the N-P-K together, it will not be greater than 85
 - If Sulfur is included in the mix, then this does not hold true.



Pounds of Actual Nutrients

LINE	1	2	3	4	5	6	7	8
	Crop	Crop Code	NITROGEN N	PHOSPHATE P ₂ O ₅	POTASH K ₂ O	SULFUR S	What quantity was applied per acre? [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
01	Squash	742	31 10	32 44	33 72	34	36 .__	37 19
02			31	32	33	34	36 .__	37
03			31	32	33	34	36 .__	37



2 Ways to Record Nutrient or Fertilizer Applications:

- **Percent Analysis – most common & preferred**

- 5 gallons of 10-34-0
- 85 pounds of 11-52-0
- 120 pounds of 0-0-60

Complete Product

- **Pounds of Actual Nutrients**

- 10 pounds of Nitrogen
- 44 pounds of Phosphorus
- 72 pounds of Potassium

Ingredients of a Product



2 Ways to Record – Columns 3 & 4

- **Percent Analysis – most common & preferred**

- 5 gallons of 10-34-0
- 85 pounds of 11-52-0
- 120 pounds of 0-0-60
- **Column 7 must be complete**
- **Column 8 must be complete**

- **Pounds of Actual Nutrients**

- 10 pounds of Nitrogen
- 44 pounds of Phosphorus
- 72 pounds of potassium
- **Column 7 must be blank**
- **Column 8 must be coded 19**

7	8
What quantity was applied per acre?	Unit Codes
[Leave this column blank if actual nutrients were reported.]	1 Pounds
	12 Gallons
	13 Quarts
	15 Liquid Oz.
	28 Dry Oz.
	19 Actual Nutrients
36	37
.	

QUIZ TIME

Here we see an example of 100 pounds of potassium nitrate.
What is the percentage of nitrogen in potassium nitrate?

L I N E	1	2	3	4	5	6	7	8
	Crop	Crop Code	N	P ₂ O ₅	K ₂ O	S	What quantity was applied per acre? [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
01	Onions	824	31 13	32 0	33 44	34 0	36 100	37 1



QUIZ TIME

Here we see an example of 100 pounds of potassium nitrate.
What is the percentage of nitrogen in potassium nitrate?

L I N E	1	2	3	4	5	6	7	8
	Crop	Crop Code	N I T R O G E N N	P H O S P H A T E P ₂ O ₅	P O T A S H K ₂ O	S U L F U R S	What quantity was applied per acre? [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
01	Onions	824	313	320	3344	340	36100	371

Answer = 13



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Thank You!

- Ensure Fertilizer applications data is recorded correctly



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Section D – Pesticide Applications

Kyle Nelson



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Section D – Pesticide Applications

Include:

- All applications to target crops after the previous harvest through the current crop year.
- Custom applications
- Spot Treatments and partial field applications
- Applications made by aircraft
- Herbicides, Insecticides, Nematicides, Miticides, Fungicides, Chemical Thinners, Growth Regulators, Microbial Agents, Pheromones, Rodenticides, and Soil Fumigants
- Biological and Botanical Pesticides, such as *Bacillus Thuringiensis* (BT)



Section D – Pesticide Applications

Exclude:

- Fertilizers (anything with an N-P-K-S analysis) and manure
- Adjuvants and surfactants (wetting agents and spreaders)
- Seed Treatments
- Applications to fences, canals, ditch banks, and ponds.



Pesticide Table

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.]
	01			61		63
	02			61		63
	03			61		63

L I N E	6 How much was applied per acre per application?	OR 7 What was the total amount applied per application?	8 [Enter unit code from above.] Code	9 How many acres were treated with this product? Acres	10 How many times was this product applied? Number
01	65 • ____	73 • ____	74	77 • ____	79
02	65 • ____	73 • ____	74	77 • ____	79
03	65 • ____	73 • ____	74	77 • ____	79



Pesticide Table – Product Name

Chemical Product Name	L I N E	1	2	3	4	5
		Crop	Crop Code	What products were applied to the [crop]? [Enter product code.]	Was this product bought in liquid or dry form? [Enter L or D.]	Was this part of a tank mix? [If tank mix, enter line number of first product in mix.]
DIAZINON AG500	01			61		63
	02			61		63
	03			61		63



Pesticide Table – Col. 1-2

Chemical Product Name	LINE	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.]
DIAZINON AG500	01	Onions	624	61		63
	02			61		63
	03			61		63



Pesticide Table – Col. 3

D	I	11315	DIAZINON 50W	66222-10			
L	I	11326	DIAZINON AG500	66222-9			
L	I	10638	DIAZINON AG600	66222-103	3	4	5
Chemical Product Name		LINE	Crop	Crop Code	What products were applied to the [crop]? [Enter product code.]	Was this product bought in liquid or dry form? [Enter L or D.]	Was this part of a tank mix? [If tank mix, enter line number of first product in mix.]
DIAZINON AG500		01	Onions	624	61 11326		63
		02			61		63
		03			61		63



Pesticide Table – Col. 4

D	I	11315	DIAZINON 50W	66222-10
L	I	11326	DIAZINON AG500	66222-9
L	I	10638	DIAZINON AG600	66222-103

				3	4	5
Chemical Product Name	LINE	Crop	Crop Code	What products were applied to the [crop]? [Enter product code.]	Was this product bought in liquid or dry form? [Enter L or D.]	Was this part of a tank mix? [If tank mix, enter line number of first product in mix.]
DIAZINON AG500	01	Onions	624	61 11326	L	63
	02			61		63
	03			61		63



Pesticide Table – Col. 5

		1	2	3	4	5
Chemical Product Name	L I N E	Crop	Crop Code	What products were applied to the [crop]? [Enter product code.]	Was this product bought in liquid or dry form? [Enter L or D.]	Was this part of a tank mix? [If tank mix, enter line number of first product in mix.]
DIAZINON AG500	01	Onions	624	61 11326	L	63
	02			61		63
	03			61		63



Pesticide Table – Col. 6 & 8

LINE	6	OR	7	8	Codes for Column 8	
	How much was applied per acre per application?		What was the total amount applied per application?	[Enter unit code from above.]	Acres	Number
01	65 3 . 0 0		73 _____	74 13	77 _____	79 _____
02	65 _____		73 _____	74 _____	77 _____	79 _____
03	65 _____		73 _____	74 _____	77 _____	79 _____

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 (Specify: _____)



Col. 6 & 8 Alternative

LINE	6	OR	7	8	Codes for Column 8	
	How much was applied per acre per application?		What was the total amount applied per application?	[Enter unit code from above.]	Acres	Number
01	65 •____		73 18 . 0 0	74 13	77 •____	79
02	65 •____		73 •____	74	77 •____	79
03	65 •____		73 •____	74	77 •____	79

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 (Specify:_____)



Col. 6 & 7 – DO NOT....

LINE	6 OR 7		8	Codes for Column 8	
	How much was applied per acre per application?	What was the total amount applied per application?	[Enter unit code from above.]	Acres	Number
01	65	73	13	77	79
02	65	73	74	77	79
03	65	73	74	77	79

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 (Specify: _____)



Pesticide Table – Col. 9

L I N E	6	OR	7	8	9	10
	How much was applied per acre per application?		What was the total amount applied per application?	[Enter unit code from above.] Code	How many acres were treated with this product? Acres	How many times was this product applied? Number
01	65 3 . 0 0	73	• ____	74 13	77 6 . 0	79
02	65 • ____	73	• ____	74	77 • ____	79
03	65 • ____	73	• ____	74	77 • ____	79



Pesticide Table – Col. 10

L I N E	6 OR 7		8	9	10
	How much was applied per acre per application?	What was the total amount applied per application?	[Enter unit code from above.] Code	How many acres were treated with this product? Acres	How many times was this product applied? Number
01	65 3 . 0 0	73 • ____	74 13	77 6 . 0	79 1
02	65 • ____	73 • ____	74 • ____	77 • ____	79
03	65 • ____	73 • ____	74 • ____	77 • ____	79



Pesticide Table

- One application of Diazinon AG500, not mixed with other pesticides, sprayed across six acres of Onions at a rate of 3 quarts of product per acre.

Chemical Product Name	LINE	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.]
DIAZINON AG500	01	Onions	624	61 11326	L	63
	02			61		63
	03			61		63

LINE	6 How much was applied per acre per application?	OR 7 What was the total amount applied per application?	8 [Enter unit code from above.] Code	9 How many acres were treated with this product? Acres	10 How many times was this product applied? Number
01	65 3 .0 0	73 .	74 13	77 6 .0	79 1
02	65 .	73 .	74	77 .	79
03	65 .	73 .	74	77 .	79



Pesticide Table: Tank Mix

Chemical Product Name	LINE	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.]
DIAZINON AG500	01	Onions	624	61 11326	L	63
	02			61		63
	03			61		63

LINE	6 How much was applied per acre per application?	OR 7 What was the total amount applied per application?	8 [Enter unit code from above.] Code	9 How many acres were treated with this product? Acres	10 How many times was this product applied? Number
01	65 3 .0 0	73 .	74 13	77 6.0	79 1
02	65 .	73 .	74	77 .	79
03	65 .	73 .	74	77 .	79



Pesticide Table: Tank Mix

L	I	11148	LAMBDA CY EC INSECTICIDE	70506-120
L	I	11404	LAMBDA SELECT	86869-5
L	I	11362	LAMBDA-CY AG	83222-42
L	I	11405	LAMBDA-CYHALOTHRIN 1 EC INSECTICIDE	228-708

Chemical Product Name	LINE	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.]	6 How much was applied per acre per application?	OR	7 What was the total amount applied per application?	8 [Enter unit code from above.] Code	9 How many acres were treated with this product? Acres	10 How many times was this product applied? Number
DIAZINON AG500	01	Onions	624	61 11326	L	63 1	65 3 .0 0		73 .	74 13	77 6.0	79 1
LAMBDA-CY AG	02	Onions	624	61 11362	L	63 1	65 3 .2 0		73 .	74 15	77 6.0	79 1
	03			61		63			73	74	77	79



Pesticide Table: Tank Mix

- One application of Diazinon AG500 at a rate of 3 quarts per acre tank mixed with Lambda-Cy Ag at a rate of 3.2 fluid ounces per acre sprayed across six acres of Onions.



Chemical Product Name	LINE	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.]
DIAZINON AG 500	01	Onions	624	61 11326	L	63 1
LAMBDA-CY AG	02	Onions	624	61 11362	L	63 1
	03			61		63

LINE	6 How much was applied per acre per application?	OR	7 What was the total amount applied per application?	8 [Enter unit code from above.] Code	9 How many acres were treated with this product? Acres	10 How many times was this product applied? Number
01	65 3 .0 0	73	. ____	74 13	77 6.0	79 1
02	65 3 .2 0	73	. ____	74 15	77 6.0	79 1
03	65 . ____	73	. ____	74	77 . ____	79



Pesticide Table: Unknown Product

[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.
3	Fungicide	Theia Fungicide	D	94713-2

Chemical Product Name	LINE	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.]
DIAZINON AG500	01	Onions	624	61 11326	L	63 1
LAMBDA-CY AG	02	Onions	624	61 11362	L	63 1
THEIA FUNGICIDE	03	Onions	624	61	D	63

LINE	6 OR 7		8	9	10
	How much was applied per acre per application?	What was the total amount applied per application?	[Enter unit code from above.] Code	How many acres were treated with this product? Acres	How many times was this product applied? Number
01	65 3.00	73 .	74 13	77 6.0	79 1
02	65 3.20	73 .	74 15	77 6.0	79 1
03	65 5.00	73 .	74 1	77 6.0	79 1



Pesticide Table: Out of Space

- If you run out of rows in the pesticide table on the questionnaire, use a pesticide supplement to continue to fill out the section.
- Do not carry tank mixes across tables. All products within the same tank mix should be on the same table. It is OK to leave one or more blank lines at the bottom of a table to accommodate this situation.



Helpful Hints for Section D

- Record keeping requirements can help the respondent report pesticide applications.
- Do not record the spray volume applied to the field, only the volume of the actual product that is applied.
- Ask the respondent to clarify if the product was in a liquid or dry state when it was purchased, not how it was applied.
- If you cannot determine the product or formulation from the operator's records, try to find an EPA registration number for the product.





Section E – Pest Management Practices

Tani Ayewa



United States Department of Agriculture
National Agricultural Statistics Service



Section E: Purpose

- To provide data about pest management practices that growers use on their crops.
- Alternative to pesticides
- Practices which improve the effectiveness of pesticides



Section E: Pest Management

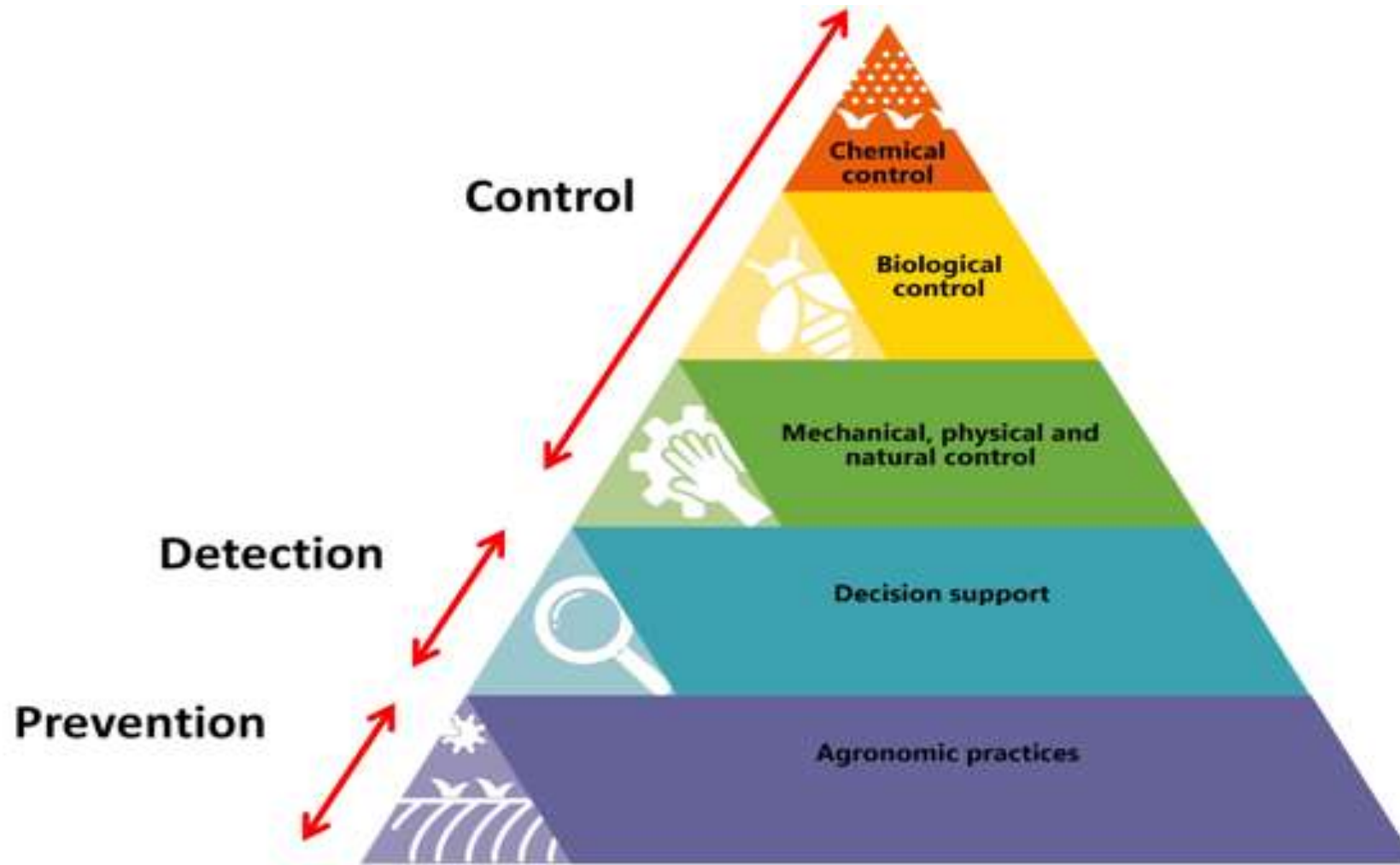
- What do we define as Pests?
 - Weeds
 - Insects
 - Diseases



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National Agricultural Statistics Service



Section E: Pest Management



Filling out the Questionnaire

- Pay Attention to Skip Codes

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

1 By deliberately going to the vegetable acres specifically for scouting activities. Enter code 1 and go to item 5.

2 By conducting general observations while performing routine tasks. Enter code 2 and go to item 7.

3 The vegetable acres were not scouted. Enter code 3 and go to item 10.

Code

608



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National Agricultural Statistics Service



“Were your vegetable acres scouted for...”

1	2	3
7. Were your vegetable acres scouted for —	Yes = 1 No = 3	[If column 2 = Yes, ask—] Who did the majority of the scouting for [column 1]? 1 Operator, partner or family member 2 An employee 3 Farm supply or chemical dealer 4 Independent crop consultant or commercial scout 5 Processor 6 Other: (specify: _____) Code
a. weeds?.....	612	614
b. insects or mites?.....	615	617
c. disease?.....	618	620



Specific Practices of Managing Pests

		Code
8. Were written or electronic records kept to track the activity or numbers of weeds, insects, or diseases?.....	Yes=1 No=3	623
9. Was scouting data compared to published information on infestation thresholds to determine when to take measures to manage pests?.....	Yes=1 No=3	624
10. Was field mapping data used for making pest management decisions?.....	Yes=1 No=3	625
11. Were the services of a diagnostic laboratory used for pest identification or soil or plant tissue pest analysis?.....	Yes=1 No=3	626



Section E: Key Points

- Remember how we define pest for this survey
- Be careful with your skip codes
- Leave detailed notes
- If you have questions, ask them



Conclusion



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Starting/Ending Time

CONCLUSION								
[Enumerator Note: Thank the respondent, then review this questionnaire.]								
Ending time.....								
					Office Use Only			
					Ending Time (Military)		OR	Total Hours
Hours	Minutes	Hours	Minutes					
0005			0008					

If the interview took more than one day, then make notes outside the box so that total elapsed time can be calculated.



Record & Supplement Use

Record Use

[Did respondent use operation records to report —]

Fertilizer data.....

Yes=1
No=3

Code

026

Pesticide data.....

Yes=1
No=3

027

Supplement Use

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

Fertilizer Supplements.....

Number

067

Pesticide Supplements.....

068

This won't
appear on
California's
Questionnaire



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Contact Information

Contact Information			
Operator Email:		Operator Phone:	
9929	9917 Check to receive results by email ☐	9918 () _____	check if cell phone ☐
Operation Email: (if different from above)		Operation Phone: (if different from above)	
9937	9920 Check to receive results by email ☐	9936 () _____	check if cell phone ☐
Respondent Name:		Respondent Phone (if different from above)	
9912	9911 () _____	check if cell phone ☐	9910 MM DD YY Date: _ _ _ _



Conclusion

- Be sure to fill out the bottom of the back page!

This completes the survey. Thank you for your help.									
OFFICE USE									
R. Unit	Ptr 1 Str	Ptr 2 Str	Ptr 3 Str	Ptr 4 Str	OPS	SSO 1	ADJ	Optional Use	
9921	9922	9923	9927	9928	923	9907	922	9906	9916
Response		Respondent		Mode		Enum.	POID		
1-Comp 2-R 3-Inac 4-Office Hold	9901	1-Op/Mgr 2-Spouse 3-Acct/Bkpr 4-Partner 9-Other	9902	2-PATI (tel) 3-PAPI (Face-to-Face)	9903	9998	9989		
							Eval.		Change
							9900		9985



Thank you!



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