

# 2024 VEGETABLE CHEMICAL USE SURVEY

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**NATIONAL  
 AGRICULTURAL  
 STATISTICS  
 SERVICE**

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## ENTERPRISE

<b>VERSION</b> 01	<b>POID</b> _____	<b>SUBTRACT</b> _____
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### 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 pest management practices and need your help to make the information as accurate as possible. The information you provide will be used for statistical purposes only. Your responses will be kept confidential and any person who willfully discloses any identifiable information about you or your operation is subject to a jail term, a fine, or both. This survey is conducted in accordance with the Confidential Information Protection provisions of Title V, Subtitle A, Public Law 107-347 and other applicable Federal laws. For more information on how we protect your information please visit: <https://www.nass.usda.gov/confidentiality>. 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 is 0535-0218. The time required to complete this information collection is estimated to average 60 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 farm records during the interview.

H H M M
004 1 5 0 0

BEGINNING TIME [MILITARY].....

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

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.

## CHANGE IN OPERATOR STATUS

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[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?

023  Yes – Continue

No – Go to Enumerator Note below.

Operation Name _____
Operator Name _____
Address _____ _____
Phone ( _____ ) _____ <input type="checkbox"/> Check if cell phone

[Enumerator Note: If the operation on the face page was in business part of the 2024 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

### SCREENING

1. Did this operation have any of the target crops during the 2024 crop year? [See page 5 for target crops.]

1  Yes – Continue

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

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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

1  one individual? [Go to Section A]

8  a hired manager? [Go to Section A]

2  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 Section A. Partners jointly operate land and share in decision making. Do not include landlords and tenants as partners.....]

Number

\_\_\_\_\_  
\_\_\_\_\_

4. Please identify the other person(s) in this partnership, then go to Section A. Verify partners' names and make necessary corrections if names have already been entered.

Check if verified POID \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: (\_\_\_\_) \_\_\_\_\_  check if cell phone

Check if verified POID \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: (\_\_\_\_) \_\_\_\_\_  check if cell phone

Check if verified POID \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: (\_\_\_\_) \_\_\_\_\_  check if cell phone

Check if verified POID \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: (\_\_\_\_) \_\_\_\_\_  check if cell phone

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 —

a. own?.....

Acres

+ 901 80.0

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

+ 902 520.0

c. rent to others?.....

- 905 .

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

= 900 600.0

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

1  Yes - Continue

3  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? INCLUDE land in hay, summer fallow, cropland idle, cropland used for pasture, and cropland in government programs.....

802 580.0

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

803 300.0



## TARGET CROPS & CODES

### FLORIDA

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

### 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

### INDIANA

738 Pumpkins  
 752 Watermelons

### MICHIGAN

701 Asparagus  
 613 Beans, Snap  
 798 Cucumbers  
 742 Squash

### MINNESOTA

766 Corn, Sweet  
 855 Peas, Green

### NEW JERSEY

701 Asparagus  
 736 Peppers, Bell  
 742 Squash

### 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

### OHIO

738 Pumpkins

### OREGON

613 Beans, Snap  
 766 Corn, Sweet  
 824 Onions  
 855 Peas, Green  
 742 Squash

### PENNSYLVANIA

613 Beans, Snap  
 738 Pumpkins

### TEXAS

808 Cabbage  
 798 Cucumbers  
 824 Onions  
 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

VEGETABLE ACREAGE

1. What target vegetable crops were on these [Section A, item 4] acres during the 2024 crop year? EXCLUDE new plantings of vegetables not intended for harvest in 2024.

		Table 001
Office Use Lines in Table		
Line 99	199	3

LINE	1	2	3		4	
	Crop	Crop Code	How many acres were planted for harvest in the 2024 crop year? (INCLUDE 2024 acres which were planted in other years.) Acres		Were any herbicides, insecticides, fungicides, etc. applied to this crop? Yes = 1 No = 3	
01	Snap Beans	613	11	15 .0	13	1
02	Asparagus	201	11	50 .0	13	1
03	Squash	242	11	15 .0	13	1
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 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 2023 if they were part of the 2024 crop.
  - Double cropping
- EXCLUDE
- All crops grown in another state.
  - All crops grown in greenhouses, hothouses, and home gardens.
  - Plantings of crops not intended for harvest in 2024.
  - New plantings and other plantings which are not yet bearing (asparagus).
  - 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.

Notes: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**NOTES**

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[Enumerator Action: If pesticides were reported in Section B, column 4, continue. Otherwise, go to Section E.]

1. 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 2024 crop year to each of the target vegetable crops you grew. Let's start with the first application to your crop since the 2023 crop year harvest.

INCLUDE 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
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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.]
Dual Magnum	01	Snap Beans	613	61 40245	L	63
Basagran	02	Snap Beans	613	61 40502	L	63 2
Raptor	03	Snap Beans	613	61 40987	L	63 2
Mustang Maxx	04	Snap Beans	613	61 11354	L	63
Warrior II	05	Snap Beans	613	61 11167	L	63
Baythroid	06	Snap Beans	613	61 11046	L	63
Curbit EC	07	Squash	742	61 40232	L	63 >
Command 3	08	Squash	742	61 40673	L	63 >
Manzate Prostick	09	Squash	742	61 >0021	D	63
Zapro	10	Squash	742	61 70792	L	63 10
Brawo 720	11	Squash	742	61 20994	L	63 10
Mustang Maxx	12	Squash	742	61 11354	L	63 10
Orandi Opti	13	Squash	742	61 20999	L	63 13
Actara	14	Squash	742	61 10871	D	63 13
Previcur Flex	15	Squash	742	61 20463	L	63 15

[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.
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____



**PESTICIDE APPLICATIONS**

D

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 (Specify: _____)

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 1.25	73	74 14	77 15.0	79 1
02	65 1.00	73	74 14	77 15.0	79 1
03	65 4.00	73	74 15	77 15.0	79 1
04	65 2.50	73	74 15	77 15.0	79 1
05	65 1.33	73	74 15	77 15.0	79 1
06	65 1.25	73	74 15	77 15.0	79 1
07	65 1.50	73	74 13	77 15.0	79 1
08	65 1.00	73	74 13	77 15.0	79 1
09	65 2.50	73	74 1	77 15.0	79 1
10	65 14.00	73	74 15	77 15.0	79 2
11	65 1.33	73	74 14	77 15.0	79 2
12	65 2.50	73	74 15	77 15.0	79 2
13	65 2.00	73	74 12	77 15.0	79 2
14	65 3.00	73	74 28	77 15.0	79 2
15	65 .75	73	74 14	77 15.0	79 2

[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.

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.]
Bravo 220	16	Squash	742	61 70994	L	63 15
Mustang Maxx	17	Squash	742	61 11354	L	63 15
Strategy	18	Asparagus	701	61 40939	L	63 18
Dual Magnum	19	Asparagus	701	61 40745	L	63 18
Reflex	20	Asparagus	701	61 40365	L	63 18
Sandea	21	Asparagus	701	61 40945	D	63
Manzate Prostick	22	Asparagus	701	61 70721	D	63 22
Kocide 3000	23	Asparagus	701	61 70867	D	63 22
Quintec	24	Asparagus	701	61 71100	<del>L</del> L	63 24
Manzate Prostick	25	Asparagus	701	61 70721	D	63 24
Quintec	26	Asparagus	701	61 71100	L	63 26
Manzate Prostick	27	Asparagus	701	61 70721	D	63 26
Mustang Maxx	28	Asparagus	701	61 11354	L	63 26
Torino	29	Asparagus	701	61 70805	L	63 29
Manzate Prostick	30	Asparagus	701	61 70721	D	63 29
Actara	31	Asparagus	701	61 10871	D	63 29
	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.
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

PESTICIDE APPLICATIONS

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

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
16	65 1.33	73 .	74 14	77 15.0	79 2
17	65 2.50	73 .	74 15	77 15.0	79 2
18	65 1.00	73 .	74 13	77 50.0	79 1
19	65 1.50	73 .	74 14	77 50.0	79 1
20	65 1.00	73 .	74 14	77 50.0	79 1
21	65 .50	73 .	74 28	77 50.0	79 1
22	65 2.50	73 .	74 1	77 50.0	79 1.
23	65 .75	73 .	74 1	77 50.0	79 1
24	65 5.00	73 .	74 15	77 50.0	79 2
25	65 2.50	73 .	74 1	77 50.0	79 2
26	65 5.00	73 .	74 15	77 50.0	79 2
27	65 2.50	73 .	74 1	77 50.0	79 2
28	65 3.00	73 .	74 15	77 50.0	79 2
29	65 3.40	73 .	74 15	77 50.0	79 2
30	65 2.50	73 .	74 1	77 50.0	79 2
31	65 2.50	73 .	74 1	77 50.0	79 2
32	65 .	73 .	74 .	77 .	79 .
33	65 .	73 .	74 .	77 .	79 .

COMPLETION CODE for PESTICIDE APPLICATIONS

1 Incomp/R	300
3 Valid Zero	

[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.
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____



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

[Enumerator Action: Were pesticide applications reported in Section B, column 4 on page 6?]

Yes – Continue

No – Go to item 4

<p>1. Was weather data used to assist in determining either the need or when to make pesticide applications?.....</p>	<p>Yes=1 No=3</p>	<p>Code 600 1</p>
<p>2. Were any biological pesticides such as Bt (<i>Bacillus thuringiensis</i>), insect growth regulators, such as Courier, Intrepid, etc., neem or other natural/biological based products sprayed or applied to manage pests?.....</p>	<p>Yes=1 No=3</p>	<p>Code 601 3</p>
<p>3. Were pesticides with different mechanisms of action rotated or tank mixed for the primary purpose of keeping pests from becoming resistant to pesticides?.....</p>	<p>Yes=1 No=3</p>	<p>Code 602 1</p>

<p>4. In 2024, how were your vegetable acres primarily scouted for insects, weeds, diseases, and/or beneficial organisms?.....</p>	<p>1 By deliberately going to the vegetable acres specifically for scouting activities. Enter code 1 and go to item 5.</p> <p>2 By conducting general observations while performing routine tasks. Enter code 2 and go to item 7.</p> <p>3 The vegetable acres were not scouted. Enter code 3 and go to item 10.</p>	<p>Code 608 1</p>
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<p>5. Was an established scouting process used such as systemic sampling, recording counts, insect traps, etc., on any vegetable acres?.....</p>	<p>Yes=1 No=3</p>	<p>Code 609 1</p>
<p>6. Was scouting for pests done on these vegetable acres due to —</p>		<p>Code</p>
<p>a. a pest advisory warning?.....</p>	<p>Yes=1 No=3</p>	<p>Code 610 1</p>
<p>b. a pest development model?.....</p>	<p>Yes=1 No=3</p>	<p>Code 611 3</p>

1	2	3
<p>7. Were your vegetable acres scouted for —</p>	<p>Yes = 1 No = 3</p>	<p>[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: _____)</p> <p style="text-align: right;">Code</p>
<p>a. weeds?.....</p>	<p>612 1</p>	<p>614 3</p>
<p>b. insects or mites?.....</p>	<p>615 1</p>	<p>617 3</p>
<p>c. disease?.....</p>	<p>618 1</p>	<p>620 3</p>



E

## PEST MANAGEMENT PRACTICES

E

		Code
8.	Were written or electronic records kept to track the activity or numbers of weeds, insects, or diseases?.....	Yes=1 No=3 623 1
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 3
10.	Was field mapping data used for making pest management decisions?.....	Yes=1 No=3 625 1
11.	Were the services of a diagnostic laboratory used for pest identification or soil or plant tissue pest analysis?.....	Yes=1 No=3 626 3
12.	Were crop residues plowed down or removed to manage pests?.....	Yes=1 No=3 627 1
13.	Were crops rotated during the past three years for the purpose of managing pests?.....	Yes=1 No=3 628 1
14.	Were ground covers, mulches, or other physical barriers maintained to manage pest problems?...	Yes=1 No=3 629 3
15.	Was a crop variety chosen because it had resistance to a specific pest?.....	Yes=1 No=3 630 1
16.	Was no-till or minimum till used to manage pests?.....	Yes=1 No=3 631 3
17.	Were planting locations planned to avoid infestation of pests?.....	Yes=1 No=3 632 1
18.	Were planting or harvesting dates adjusted to manage pests?.....	Yes=1 No=3 633 3
19.	Were row spacing or plant density adjusted to manage pests?.....	Yes=1 No=3 634 1
20.	Was a trap crop grown to help manage insects?.....	Yes=1 No=3 635 3
21.	Were any beneficial organisms such as insects, nematodes, or fungi applied or released to manage pests?	Yes=1 No=3 636 3
22.	Were floral lures, attractant repellants, pheromone traps, or other biological pest controls used on any vegetable acres?.....	Yes=1 No=3 637 3
23.	Were any vegetable acres cultivated for weed control during the growing season?.....	Yes=1 No=3 640 3
24.	Were field edges, lanes, ditches, roadways, or fence lines chopped, mowed, plowed, or burned to manage pests on any vegetable acres?.....	Yes=1 No=3 642 3
25.	Were equipment and implements cleaned after completing field work to reduce the spread of pests?.....	Yes=1 No=3 643 1
26.	Were any vegetable acres irrigated for the 2024 crop?.....	Yes=1 No=3 644 1
[If item 26 = Yes, ask —]		
a.	Were water management practices, excluding chemigation, such as irrigation scheduling, controlled drainage, or treatment of retention water used to manage pests?.....	Yes=1 No=3 645 1

## COMPLETION CODE for PEST MANAGEMENT PRACTICES

1 Incomp/R

500

**NOTES**

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**NOTES**

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