2022 VEGETABLE CHEMICAL USE SURVEY

OMB No. 0535-0218 Approval Expires: 5/31/2025 Project Code: 136 SurveyID: 2069



NATIONAL AGRICULTURAL STATISTICS SERVICE

USDA/NASS National Operations Division 9700 Page Avenue, Suite 400 St. Louis, MO 63132-1547 Phone: 1-888-424-7828 FAX: 1-855-415-3687 Email: nass@usda.gov

ENTERPRISE

VERSION 01	POID		SUBTRACT	
		CC	ONTACT RECORD	
DATE	TIME			NOTES

INTRODUCTION:

[Introduced 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.

Н	Н	Μ	М
004			

□ 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.

BEGINNING TIME [MILITARY].....

CHANGE IN OPERATOR 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?

	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 2022 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

	3
S	CREENING
1. Did this operation have any of the target crops during	the 2022 crop year? [See page 5 for target crops.]
1 Yes – Continue 3 No – Write no	tes explaining the situation, then Go to Conclusion.
2. Are the day-to-day decisions for this operation (nam	le on label) made by — [Check one]
₁ one individual? [Go to Section A]	
₈ a hired manager? [Go to Section A]	
₂ partners? [Continue]	
 How many individuals are involved in the day-to-day partners, including the partner named on the label. In then go to Section A. Partners jointly operate land ar landlords and tenants as partners	dentify the other persons in this partnership below, nd share in decision making. Do not include
 Please identify the other person(s) in this partnership necessary corrections if names have already been er 	, then go to Section A. Verify partners' names and make ntered.
Check if verified POID	Check if verified POID
Name:	Name:
Address:	Address:
City: State: Zip:	
	eck if phone check if
Phone: () [Phone: ()
Check if verified POID	Check if verified POID
Name:	
Address:	Address:
City: State: Zip:	City: State: Zip:
	eck if phone check if cell phone
Phone: () [Phone: ()

L

LAND	OPERATED

4

Acres	O	perated
70103		perateu

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

801

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

1.	Ho	w many acres does this operation —	_	Acres
	0	own?	+	901
	a.	UW1?	ļ	•
	b.	rent or lease from others or use rent free? EXCLUDE land used on an animal unit month (AUM) basis	+	902
			ļ	•
		rent to others?	-	905
	C.			•
_			_	900
2.	[Ca	alculate item 1a + 1b - 1c.] Then the total acres operated are:		·

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 •_	
4.	Of the total acres operated, how many acres are vegetables? INCLUDE both target and non-target vegetables planted on the operation	803	

Α

TARGET CROPS & CODES

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

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

736 Peppers, Bell

742 Squash

	NEW YORK
613	Beans, Snap
808	Cabbage

oo oussage

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

738 Pumpkins

752 Watermelons

	WASHINGTON						
701	Asparagus						
632	Carrots						
766	Corn, Sweet						
824	Onions						
855	Peas, Green						
WISCONSIN							

WISCONSIN							
613	Beans, Snap						
808	Cabbage						
632	Carrots						
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 2022 crop year? EXCLUDE new plantings of vegetables not intended for harvest in 2022.

	1			r	
	1	2	3	4	5
L I N E			How many acres were planted for harvest in the 2022 crop year? (INCLUDE 2022 acres which were planted in other years.)	Were any commercial fertilizers applied to this crop?	Were any herbicides, insecticides, fungicides, etc. applied to this crop?
	_			Yes = 1	Yes = 1
	Сгор	Crop Code	Acres	No = 3	No = 3
01			11 •	12	13
02			11	12	13
03			11	12	13
04			11	12	13
05			11	12	13
06			11	12	13
07			11	12	13
08			11	12	13
09			11	12	13
10			11	12	13
11			11	12	13
12			11	12	13
13			 11 •	12	13
14			 11 	12	13
15			11	12	13
1.0			· · · · · · · · · · · · · · · · · · ·		

Table
001Office Use
Lines in TableLine 99199

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 2021 if they were part of the 2022 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 2022.
- 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:

В

6

NOTES

FERTILIZER APPLICATIONS

8

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.

<u>.</u>.....

 I need to record complete information on all commercial fertilizers applied to the target vegetables grown during the 2022 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.

	1	2	3	4	5	6	7	8	9	10
L – N E			N T R O G E N	P H O S P H A T E	P O T A S H	S U F U R	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?	How many times was it applied?
	Crop	Crop Code	N	P_2O_5	K ₂ O	S			Acres	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
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	23	33	34	36	37	40	41
17			31	32	33	34	36	37	40	41

299

Table

001

Office Use

Lines in Table

С

9 FERTILIZER APPLICATIONS

	1	2	3	4	5	6	7	8	9	10
L I N E			N I T R O G E N	P H O S P H A T E	P O T A S H	S U L F U R	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?	How many times was it applied?
	Crop	Crop Code	N	P ₂ O ₅	K ₂ O	S			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	23	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
				-	-	-		·	COMPLETION C	

COMPLETION CODE FOR FERTILIZER APPLICATIONS 1 Incomp/R 200 3 Valid Zero

С

10 PESTICIDE APPLICATIONS

[Enumerator Action: If pesticides were reported in Section B, column 5, 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 2022 crop year to each of the target vegetable crops you grew. Let's start with the first application to your crop since the 2021 crop year harvest.

INCLUDE all chemical applications to the target vegetable crops. Use supplemental tables if necessary. INCLUDE herbicides, insecticides, nematicides, 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	Tabl 001	е	399
	L	1	2	3 What products were applied to the [crop]?	4 Was this product bought in liquid or dry form?		5 uct bought Was this part	
Chemical Product Name	I N E	Сгор	Crop Code		[Enter L or [[lf line pi	tank mix? tank mix, enter number of first oduct in mix.]
	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 63	
	11			61			63	
	12			61			63	
	13			61			63	
	14			61			63	
	15						03	

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

 Line No.
 Pesticide Type
 Trade Name
 Form Purchased
 EPA Reg. No.

 (Herbicide, insecticide, fungicide, etc.)
 and Formulation
 (Liquid or Dry)

Codes for Column 8

			 Pounds Gallons Quarts Quarts Pints Ounces, Liqu Ounces, Dry 	, id	30 Grams 40 Kilograms 41 Liters 46 Spirals 47 Packets 50 Other (Specify:)
		R	7	8	9	10
L I N E	How much was applied per acre per application?	amo	at was the total ount applied per application?	[Enter unit code from above.]	How many acres were treated with this product	How many times was this product applied?
				Code	Acres	Number
01	65 •	73	·	74	77 •	79
02	65 •	73	•	74	77	79
03	65 •	73	•	74	77	79
04	65 •	73	•	74	77	79
05	65 •	73	•	74	77	79
06	65 •	73	•	74	77	79
07	65 •	73	•	74	77	79
08	65 •	73	•	74	77	79
09	65 •	73	•	74	77	79
10	65 •	73	•	74	77	79
11	65	73	•	74	77	79
12	65 •	73	 •	74	77	79
13	65 •	73		74	77	79
14	65 •	73		74	77	79
15	65 •	73		74	77	79

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

Line No.

Pesticide Type (Herbicide, insecticide, fungicide, etc.)

Γ

Trade Name and Formulation Form Purchased (Liquid or Dry)

EPA Reg. No.

12 PESTICIDE APPLICATIONS

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

13 PESTICIDE APPLICATIONS

			Codes for	Column 8	
	6 C	DR 7	8	9	11
L I N E	How much was applied per acre per application?	What was the total amount applied per application?	[Enter unit code from above.]	How many acres were treated with this product?	How many times was this product applied?
			Code	Acres	Number
16	65 •	73	74	77	79
17	65 •	73	74	77	79
18	65 •	73	74	77	79
19	65 •	73	74	77	79
20	65	73	74	77	79
21	65 •	73	74	77	79
22	65	73	74	77	79
23	65 •	73	74	77	79
24	65	73	74	77	79
25	65 •	73	74	77	79
26	65 	73	74	77	79
27	65 •	73	74	77	79
28	65 •	73	74	77	79
29	65 •	73	74	77	79
30	65 •	73	74	77	79
31	65 •	73	74	77	79
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.

Ε

14

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 5 on page 6?]

	$_{1}$ Yes – Continue $_{3}$	_ No – Go to ite	em 4			
				1		Code
1.	Was weather data used to assist in determining applications?			Yes=1 No=3	600	
2.	Were any biological pesticides such as Bt (<i>Bac</i> , as Courier, Intrepid, etc., neem or other natural manage pests?	l/biological based	d products sprayed or applied to	Yes=1 No=3	601	
3.	Were pesticides with different mechanisms of a purpose of keeping pests from becoming resist	action rotated or	tank mixed for the primary		602	
4.	In 2022, how were your vegetable acres	specifically and go to it				Code
	primarily scouted for insects, weeds, diseases, and/or beneficial organisms?		ting general observations while routine tasks. Enter code 2 and go to		608	
			ble acres were not scouted. Enter go to item 10.			
		L				Code
5.	Was an established scouting process used suc traps, etc., on any vegetable acres?			Yes=1 No=3	609	
6.	Was scouting for pests done on these vegetabl	le acres due to -	_	1		Code
	a. a pest advisory warning?			Yes=1 No=3	610	
	b. a pest development model?			Yes=1 No=3	611	
	1	2	3 [If column 2 = Yes, ask—] Who did the majority of the scouting for 1 Operator, partner or family member 2 An employee 3 Farm supply or chemical dealer 4 Independent crop consultant or co 5 Processor	er ommerci	ial sco	
7.	Were your vegetable acres scouted for —	Yes = 1 No = 3	6 Other: (specify: Code)
	a. weeds?	612	614			
	b. insects or mites?	615	617			
	c. disease?	618	620			

Ε

PEST MANAGEMENT PRACTICES

			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
12.	Were crop residues plowed down or removed to manage pests?	Yes=1 No=3	627
13.	Were crops rotated during the past three years for the purpose of managing pests?	Yes=1 No=3	628
14.	Were ground covers, mulches, or other physical barriers maintained to manage pest problems?	Yes=1 No=3	629
15.	Was a crop variety chosen because it had resistance to a specific pest?	Yes=1 No=3	630
16.	Was no-till or minimum till used to manage pests?	Yes=1 No=3	631
17.	Were planting locations planned to avoid infestation of pests?	Yes=1 No=3	632
18.	Were planting or harvesting dates adjusted to manage pests?	Yes=1 No=3	633
19.	Were row spacing or plant density adjusted to manage pests?	Yes=1 No=3	634
	Was a trap crop grown to help manage insects?	Yes=1 No=3	635
21.	Were any beneficial organisms such as insects, nematodes, or fungi applied or released to manage pests?	Yes=1 No=3	636
22.	Were floral lures, attractant repellants, pheromone traps, or other biological pest controls used on any vegetable acres?	Yes=1 No=3	637
23.	Were any vegetable acres cultivated for weed control during the growing season?	Yes=1 No=3	640
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
25.	Were equipment and implements cleaned after completing field work to reduce the spread of pests?	Yes=1 No=3	643
26.	Were any vegetable acres irrigated for the 2022 crop?	Yes=1 No=3	644
[lf i	tem 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?..... No=3

Yes=1 No=3

COMPLETION CODE for PEST MANAGEMENT PRACTICES					
1 Incomp/R	500				

15

CONCLUSION

L 11- : .

1. Survey Results: To receive the complete results of this survey on the release date, go to nass.usda.gov/resu	ults			
To have a brief summary emailed to you, please enter your email address:				
1095				
[Thank the respondent, then review this questionnaire.]				
	н	н	М	М
	0005			
Ending time [Military]				
	-	Office ne in		
	006			
				•

Record Use

[Did respondent use operation records to report —]		Code
Fertilizer data	Yes=1 No=3	026
Pesticide data	Yes=1 No=3	064

Supplement Use

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

	Number
	067
Fertilizer Supplements	
	068
Pesticide Supplements	

Contact Information

Operation Email: (if different from above)		Operation P	hone:				
9937		9936					check if
		()				cell phone
Respondent Name:	Respondent Phone: (if differe	nt from abov	re)				
9912	9911 ()		check if cell phone	9910 Date:	MM	DD	YYYY

				OFFICE US	E				
R. Unit	Ptr 1 S	r Ptr 2 Str	Ptr 3 Str	Ptr 4 Str	OPS	SSO 1	ADJ	ADJ Optional Use	
9921	9922	9923	9927	9928	923	9907	922	9906 9916	
Res	ponse	Resp	ondent	Mod	e	Enum.	POID		
1-Comp 2-R 3-Inac	990	1 1-Op/Mgr 2-Spouse 3-Acct/Bkpr	9902	2-PATI (tel) 3-PAPI (Face-to- Face)		9998	9989		
4-Office Hold	ffice Hold 4			,			Eval.		Change
		9-Other					9900	998	35