

MINNESOTA ANNUAL PESTICIDE AND FERTILIZER SURVEY

CLEAN COPY FOR CROP YEAR 2026 SURVEY COLLECTED SPRING OF 2027

OMB No.0535-0273
Approval Expires: X/X/XXXX
Project Code: 778 QID: 163695
SMetaKey: 3695



United States
Department of
Agriculture



NATIONAL
AGRICULTURAL
STATISTICS
SERVICE



MINNESOTA
DEPARTMENT OF
AGRICULTURE

USDA/NASS - MN
210 Walnut St., #833
Des Moines, IA 50309
Phone: 1-800-772-0825
FAX: 1-855-271-9802
e-mail: NASSRFOUMR@nass.usda.gov

Please make corrections to name, address and ZIP Code, if necessary.

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 and Statistical Efficiency Act of 2018, Title III of Pub. L. No. 115-435, codified in 44 U.S.C. Ch. 35 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 number is 0535-0273. The time required to complete this information collection is estimated to average 35 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.

The Minnesota Department of Agriculture, in cooperation with the National Agricultural Statistics Service (NASS), will conduct periodic surveys of major crop producers that collect information on pesticide and fertilizer use and pesticide use rates. Survey respondents are randomly selected, and the reported results are based on advanced standardized statistical analyses conducted by NASS nationwide. Your response is necessary to help provide the best statistics possible. If there are any questions, contact the Minnesota Department of Agriculture at (651) 201-6336.

1. Did this operation plant any [CROP1] or [CROP2] in 2026?

¹ Yes - Continue ³ No – Go to Conclusion

Section 2 – 2026 [Crop1] Crop Acres

2. How many acres of [Crop1] were planted for the 2026 crop year?

Acres

xxx

[If [Crop1] acres greater than zero, then continue, otherwise go to **Section 3.**]

3. How many acres of [Crop1] were treated with herbicides (week killer)?

Acres

xxx

4. How many acres of [Crop1] were treated with insecticides? (Exclude seed treatments).

xxx

5. How many acres of [Crop1] were treated with fungicides? (Exclude seed treatments).

xxxx

Section 3 – 2026 [CROP2] Crop Acres

6. How many acres of [CROP2] were planted for the 2026 crop year?

Acres

xxx

[If [CROP2] acres are greater than zero then continue, otherwise go to **Section 4.**]

7. How many acres of [CROP2] were treated with herbicides (week killer)?

Acres

xxx

8. How many acres of [CROP2] were treated with insecticides? (Exclude seed treatments)

xxx

9. How many acres of [CROP2] were treated with fungicides? (Exclude seed treatments)

xxxx

10. What percent of [Crop2] seeds were treated? xxx _____percent

If Q10 > 0, then go to Q11, else go to Section 4

11. Did your seed treatments on [Crop2] s include an insecticide?

- a. Yes
- b. No
- c. Do not know

12. If Q11=Yes, why does your seed treatment include an insecticide? (choose all that apply)

- a) To treat known soil pest problems
- b) To prevent possible soil pest problems
- c) To prevent possible above-ground pest problems (Ex. [Crop2] aphids)
- d) Insecticide treatment is part of the fungicide treatment package I use
- e) I do not choose the seed that is planted
- f) Other
- g) I don't know the reason why

13. If 12c selected, then, do you purchase insecticide seed treatments specifically with the intent of managing [Crop2] aphids?

- a. Yes
- b. No
- c. Occasionally
- d. Do not know

[If Herbicide, Insecticide or Fungicide type or quantity is unknown] May we call your dealer, co-op or applicator about the chemicals applied to your operation? Yes__ No__

If Yes, What is the name of the company? _____

Who should we contact for this follow up information? _____

Who should we contact at that company? _____

If Section 3, Q8> 0, then Continue, Else If Section 2, Q6>0 skip to Question 10, Else go to Question 11.

You reported insecticides were applied to your [Crop2] crop. The next questions will ask about those insecticide applications.

2. Where do you get your information when deciding which insecticide product to use (list all that apply)?
 - a. My Dealer/Coop/industry representative
 - b. Independent consultant
 - c. University extension
 - d. Other farmers
 - e. Internet
 - f. Other
3. How was the insecticide applied to your 2026 [Crop2] crop (choose all that apply)?
 - a. Farmer- ground application
 - b. Farmer- aerial application
 - c. Dealer- ground application
 - d. Dealer- aerial application
 - e. Other
4. Which insects were you targeting? (choose all that apply)
 - a. [Crop2] aphid,
 - b. Spider mites,
 - c. Others
 - d. Do not know

If 4a=[Crop2] aphid then ask questions 5,6,7,8, otherwise move to question 9

5. Who scouted your [Crop2] fields for aphids? (choose all that apply)
 - a. Farmer
 - b. Dealer
 - c. Crop consultant
 - d. Other than the above
 - e. Did not scout
 - f. Do not know
6. What threshold (aphids per plant) did you use for applying the insecticide for [Crop2] aphid (select one)?
 - a. Did not use thresholds
 - b. 1-30,
 - c. 31-50,
 - d. 51-100,
 - e. 101-150,
 - f. 151-200,
 - g. 201-250
 - h. Over 250
 - i. Do not know
7. Were records kept for [Crop2] aphid thresholds?
 - a. Yes, for all fields
 - b. Yes, for some fields
 - c. No
 - d. Do not know

8. What factors other than thresholds did you consider to make insecticide application for [Crop2] aphid (choose all that apply)?
 - a. Did not consider anything other than thresholds
 - b. Followed an Integrated Pest Management plan
 - c. Followed a calendar schedule
 - d. Followed advice from dealer
 - e. Followed advice from crop consultant
 - f. Followed other farmers
9. What factors other than cost and effectiveness were considered important when choosing an insecticide product (choose all that apply)?
 - a. Safety to the applicator
 - b. Safety to insect predators
 - c. Setbacks from water
 - d. Label language regarding bees
 - e. Weather
 - f. Aphid resistance
 - g. None
10. Were there any bee hives within 3 miles of any [Crop2] field when insecticide was applied?
 - a. Yes
 - b. No
 - c. Do not know
11. What setbacks from water, if any, were used?
 - a. No setbacks
 - b. Setbacks listed on the label
 - c. Label did not require setbacks from water
 - d. No water around the field
 - e. Do not know
12. What percentage of your [Crop2] seeds were treated with insecticide (for all [Crop2] acres)? (This question is placed at the end to avoid confusion with other insecticide application questions)
 - a. None
 - b. 1-25
 - c. 26-50
 - d. 51-75
 - e. 76-99
 - f. 100
 - g. Do not know

(Complete Integrated Pest Management Section if [Crop1] or [Crop2] insecticide acres were reported in Section 2, 3)

Integrated Pest Management

The next questions are intended for all crops with a focus on use of Integrated Pest Management for insect pests. Integrated Pest Management, or IPM, is an approach that uses multiple pest control tactics in order to minimize economic, environmental, and human health risks.

13. What is your primary source of information on Integrated Pest Management for insects?
 - a. University extension
 - b. Independent crop consultant
 - c. Seed or chemical company representative
 - d. Internet
 - e. Other farmers
 - f. Other
 - g. I do not get information about IPM for insects
14. Which of these Integrated Pest Management practices do you use for insect pest management (select all that apply)?
 - a. Biological control (Enum note: use of beneficial insects to kill pests)
 - b. Cultural control (Enum note: tillage, crop rotation, delayed planting)
 - c. Resistant or tolerant crop seed selection (Enum note: Bt traits, cultivar selection)
 - d. Physical control (Enum note: barriers around crops such as high and low tunnels)
 - e. Chemical control (Enum note: pesticides)

- f. Other
- g. I don't have pests to manage

15. What do you view as the primary challenge for implementing Integrated Pest Management?

- a. Cost
- b. Time
- c. Understanding of how to use Integrated Pest Management
- d. Other
- e. No Challenges, I currently use Integrated Pest Management.

16. If insecticide was used on your [Crop1], was the decision to use insecticide based on scouting results from the field where the applications were applied?

- a. Yes
- b. No
- a) Occasionally
- b) Insecticide was not used

17. If insecticide was used on your [Crop2], was the decision to use insecticide based on scouting results from the field where the applications were applied?

- a. Yes
- b. No
- c) Occasionally
- d) Insecticide was not used

18. Do you use pest update information from any of the following sources to make insect pest management decisions (choose all that apply)?

- a. Text alerts
- b. Postal mail
- c. Email
- d. Social media
- e. Websites and/or blogs
- f. Other
- g. I do not use pest updates to make management decisions

19. What factors do you consider when choosing an insecticide (list all that apply)?

- a. Insect resistance to certain insecticides
- b. Rotation of modes of action
- c. Toxicity of insecticide to bees
- d. Toxicity of insecticide to humans
- e. Prior experience with insecticide
- f. Cost of insecticide
- g. Other
- h. No insecticides are used

Section 6 – [Crop1] Fertilizer Management

I will now ask you about your fertilizer inputs on [Crop1] acres.

Did all your [Crop1] fields receive manure for the [2026] crop year?

1. Yes, all my [Crop1] fields received manure. Go to Section 7.
2. No, I have at least 1 [Crop1] field with no manure applied. - Continue

First on a [Crop1] field with no manure or compost applied in the fall of [2025] and no manure or compost applied anytime during the 2026 crop year.

Think about your largest [Crop1] field that you planted in 2026 without any manure.

All following questions will be in relation to that specific field.

A1. How many acres were in this field in 2026? _____

A2. Was this field irrigated? Yes No

A3. What was the crop grown on this field in 2025 before the 2026 [Crop1] crop? (Not including cover crop)

1 [Crop2] s

2 [Crop1]

3 alfalfa (any alfalfa mix)

4 small grains (oat, wheat, rye, barley)

99 other

A4. If [Crop1] [A3 (2)] What was the crop harvested from this field in the 2022 season, before the last two crops?

1 [Crop2] s

2 [Crop1]

3 alfalfa (any alfalfa mix)

4 small grains (oat, wheat rye, barley)

99 other

A5. What was the yield goal when planting this field in 2026? _____ bushels per acre.

A6. What was the average yield of this field over the past three [Crop1] crops? (or estimate if unknown) _____

A7. Was any commercial fertilizer applied to this [Crop1] field for the 2026 [Crop1] crop? Yes No

IF no go to Section 7.

A8. Was any commercial fertilizer applied with a variable rate or more than one rate such as by management zone or grid on this [Crop1] field? Yes No

If yes, please use a field average for all the fertilizer rate questions.

A9. What was the total units (actual pounds) of nitrogen per acre applied to this field from all sources and all applications?

A9. What type of fertilizer was used to supply the majority of the nitrogen applied to this field?

10 Anhydrous Ammonia

11 Urea (urea and coated urea such as ESN or Super U)

12 Liquid N (such as 28% or 32%)

13 Other

99 Unknown

A10. Did you use a nitrogen inhibitor or stabilizer on this field? Yes No DK

A11. If A10=Yes, then **What type of nitrogen inhibitor or stabilizer did you use? [NEW QUESTION 8-2-24]**

1. N-Serve

2. Instinct

3. Centuro

4. ESN

5. Other

I will now ask you for all your commercial fertilizer applications made to this field for the 2026 crop year, again including any 2025 fall applications of commercial fertilizer. Each individual application will be recorded separately, preferably as units per acre.

This will include all fall applications in 2025 and all 2026 applications including pre-plant applications, starter/planter applications and post plant applications.

[Crop1] Field

	Beginning with the first application, when was each commercial fertilizer applied? 1) In the Fall 2) Spring pre-plant 3) At Planting 4) Sidedress 5) Topdress 6) Irrigation	How many units per acre of each were applied? [Actual Pounds]				How was this product applied? 1) Broadcast - Incorporated 2) Broadcast - Not Incorporated 3) Injected 4) With planter 5) Sidedress - Incorporated 6) Sidedress - Not Incorporated 7) Irrigation 8) Topdress 9) Other
		[Enter Code]	N Nitrogen	P ₂ O ₅ Phosphate	K ₂ O Potash	
Application 1						
Application 2						
Application 3						
Application 4						
Application 5						
Application 6						

[If Fertilizer or Nutrient type or quantity is unknown] May we call your dealer, co-op or applicator to about the fertilizers and nutrients applied to your operation? Yes__ No__

If Yes, What is the name of the company? _____

Who should we contact at that company? _____

Section 7: [Crop1] Manure Management

[Crop1] Field with manure applied.

M1 Now I will ask about a [Crop1] field that was applied with manure for the 2026 growing season.

(1) Press Enter to continue

M2 How many of your 2026 [Crop1] acres received manure? _____ acres

[If 0, Skip to Section 8]

Think about your largest [Crop1] field you planted in 2026 with manure applied for the 2026 growing season, including the fall of 2025]. I will ask you questions about that specific field. All questions should be in relation to that field.

(1) Continue : Press Enter to continue

M5 How many acres are in the field? _____

M3 What was the crop planted on this field in 2025?

- (1) [Crop2] s
- (2) [Crop1]
- (3) Alfalfa (any alfalfa mix)
- (4) Small Grains (oats, wheat, rye, barley)
- (99) Other _____

M4 Was alfalfa the previous crop grown in 2025 before the 2026 [Crop1] crop you previously mentioned?

- (1) YES
- (3) NO

What was the yield goal when planting this field in 2026? _____ bushels per acre.

M6 What was the average yield of this field over the last 3 [Crop1] crops? (or estimate if unknown) _____

M7 Did the whole [Crop1] field receive manure?

- (1) YES
- (3) NO

M8 What is the **main** source of manure used on the field?

- (1) Dairy
- (2) Beef
- (3) Hog
- (4) Poultry
- (5) Other (goat, sheep, horse, etc.)
- (99) Don't Know

M9 Was the manure applied solid or liquid? Enumerator Note – If farmer reports both solid and liquid, probe by asking “Is the majority of manure applied as a liquid or solid?”

- (1) Solid
- (2) Liquid

If Solid, what was the rate applied in tons per acre? _____

If Liquid, what was the rate applied in gallons per acre? _____

What was the date manure application began? _____

M13 Did you use a nitrogen inhibitor or nitrogen stabilizer on this field?

- (1) YES
- (3) NO

If M13 = Yes, then Did you use Instinct in your manure?

- a. Yes
- b. No
- c. Do not know

M14 What is the total amount of 1st year available Nitrogen applied from the manure as units? (Actual pounds of nitrogen per acre). _____

M20 Was this manure from your own farm operation?

- (1) YES
- (3) NO

M21 When was the last time the manure was tested for nutrient content?

- (1) This year (include 2025 fall applications for the 2026 crop year)
- (2) Last 3 years
- (3) Over 3 years ago
- (4) Don't Test

M18 Did you also apply commercial fertilizers to this field for the 2026 crop year?

- (1) YES
- (3) NO

M19 What were the total units of Nitrogen applied per acre to this field from commercial fertilizers for 2026 crop year,

including all sources? Don't forget the starter may include Nitrogen as well as phosphorus or sulfur sources.

Section 8 – [CROP2] Fertilizer Management

I will now ask you about your fertilizer inputs on [Crop2] acres.

Did all your [Crop2] fields receive manure for the 2026 crop year?

1. Yes, all my [Crop2] fields received manure. Go to Section 9.
2. No, I have at least 1 [Crop2] field with no manure applied.

First on a [Crop2] field with no manure or compost applied in the fall of 2025 and no manure or compost applied anytime during the 2026 crop year.

Think about your largest [Crop2] field that you planted in 2026 without any manure.

All following questions will be in relation to that field.

A1. How many acres were in the largest field planted to [Crop2] s without manure in 2026? _____

A2. Was this field irrigated? Yes No

A3. What was the crop grown on this field in 2025 before the 2026 [Crop2] crop? (Not including cover crop)

- 1 [Crop2] s
- 2 [Crop1]
- 3 alfalfa (any alfalfa mix)
- 4 small grains (oat, wheat, rye, barley)
- 99 other

A4. What was the yield goal when planting this field in 2026? _____ bushels per acre.

A6. What was the average [Crop2] yield of this field over the past three [Crop2] crops? (or estimate if unknown) _____

A7. Was any commercial fertilizer applied to this [Crop2] field for the 2026 [Crop2] crop? Yes No
IF no go to **Section 9**.

A8. Was any commercial fertilizer applied with a variable rate or more than one rate such as by management zone or grid on this [Crop2] field? Yes No

If yes, please use a field average for all the fertilizer rate questions.

A9. What was the total units (actual pounds) per acre of nitrogen applied to this field from all sources and all applications on this field? _____

A9. What type of fertilizer was used to supply the majority of the nitrogen applied to this field?

- 10 Anhydrous Ammonia
- 11 Urea (urea and coated urea such as ESN or Super U)
- 12 Liquid N (such as 28% or 32%)
- 13 Other
- 99 Unknown

A10. Did you use a nitrogen inhibitor or stabilizer on this field? Yes, No DK

A11. [IF yes to A10] What type of nitrogen inhibitor or stabilizer did you use? [NEW QUESTION 8-2-24]

1. N-Serve
2. Instinct
3. Centuro
4. ESN
5. Other

I will now ask you for all your commercial fertilizer applications made this this field for the 2026 crop year, again including any 2025 fall applications of commercial fertilizer. Each individual application will be recorded separately, preferably as units per acre.

This will include all fall applications in 2025 and all 2026 applications including pre-plant applications, starter/planter applications and post plant applications.

[Crop2] Field

	Beginning with the first application, when was each commercial fertilizer applied? 1) In the Fall 2) Spring pre-plant 3) At Planting 4) Sidedress 5) Topdress 6) Irrigation	How many units per acre of each were applied? [Actual Pounds]				How was this product applied? 1) Broadcast - Incorporated 2) Broadcast - Not Incorporated 3) Injected 4) With planter 5) Sidedress - Incorporated 6) Sidedress - Not Incorporated 7) Irrigation 8) Topdress 9) Other
		[Enter Code]	N Nitrogen	P ₂ O ₅ Phosphate	K ₂ O Potash	
Application 1						
Application 2						
Application 3						
Application 4						
Application 5						
Application 6						

[If Fertilizer or Nutrient type or quantity is unknown] May we call your dealer, co-op or applicator about the fertilizer and nutrients applied to you operation? Yes__ No__

If Yes, What is the name of the company? _____

Who should we contact at the company? _____

Section 9: [Crop2] Manure Management

[Crop2] Field with manure applied.

M1 Now I will ask about a [Crop2] field that was applied with manure for the 2026 growing season.

(1) Press Enter to continue

M2 How many of your 2026 [Crop2] acres received manure? _____ acres

[If 0, Skip to Section 10]

Think about your largest [Crop2] field you planted in 2026 with manure applied for the 2026 growing season, including the fall of 2025. I will ask you questions about that specific field. All questions should be in relation to that field.

(1) Continue : Press Enter to continue

M5 How many acres are in your largest [Crop2] field applied with manure? _____

M3 What was the crop planted on this field in 2025?

(1) [Crop2] s

- (2) [Crop1]
 (3) Alfalfa (any alfalfa mix)
 (4) Small Grains (oats, wheat, rye, barley)
 (99) Other _____

M5. What was the yield goal when planting this field in 2026? _____ bushels per acre.

M6 What was the average yield of this field over the last 3 [Crop2] crops? (estimate if unknown) _____

M7 Did the whole [Crop2] field receive manure?

- (1) YES
 (3) NO

M8 What is the **main** source of manure used on the field?

- (1) Dairy
 (2) Beef
 (3) Hog
 (4) Poultry
 (5) Other (goat, sheep, horse, etc.)
 (99) Don't Know

M9 Was the manure applied solid or liquid? Enumerator Note – If farmer reports both solid and liquid, probe by asking “Is the majority of manure applied as a liquid or solid?”

- (1) Solid
 (2) Liquid

If Solid, what was the rate applied in tons per acre? _____

If Liquid, what was the rate applied in gallons per acre? _____

What was the date manure application began on your largest [Crop2] field? _____

M13 Did you use a nitrogen inhibitor or nitrogen stabilizer on this field?

- (1) YES
 (3) NO

[IF yes to A10] What type of nitrogen inhibitor or stabilizer did you use? [NEW QUESTION 8-2-24]

1. N-Serve
2. Instinct
3. Centuro
4. ESN
5. Other

M14 What is the total amount of 1st year available Nitrogen applied from the manure as units? (actual pounds of nitrogen per acre). _____

M20 Was this manure from your own farm operation?

- (1) YES
 (3) NO

M21 When was the last time you manure was tested for nutrient content?

- (1) This year (include 2025 fall applications for the 2026 crop year)

- (2) Last 3 years
- (3) Over 3 years ago
- (4) Don't Test

M18 Did you also apply commercial fertilizers to this field for the 2026 crop year?

- (1) YES
- (3) NO

M19 What were the total units of Nitrogen applied per acre to this field from commercial fertilizers for 2026 crop year, including all sources? Don't forget the starter may include Nitrogen as well as phosphorus or sulfur sources.

Section 10: Soil Sampling and Cover Crops – [All Survey Respondents]

What type of soil sampling did you do in the last 5 years on your farm? [Select all that apply]

- 1) Traditional
- 2) Grid
- 3) Zone
- 4) In-season Nitrate test
- 5) No soil sampling done

[if 4 was selected as an option in question above]

What soil nitrate test did you do use in 2026 or the fall of 2025? (select all that apply)

Respondent Name: _____	9911 Phone: _____	9910	MM	DD	YY
		Date:	__	__	__

This completes the survey. Thank you for your help.

Response		Respondent		Mode		Enum.	Eval.	Change	Office Use for POID			
1-Comp	9901	1-Op/Mgr.	9902	1-Mail	9903	9998	9900	9985	9989			
2-R		2-Sp		2-Tel					_____			
3-Inac		3-Acct/Bkpr		3-Face-to-Face					Optional Use			
4-Office Hold		4-Partner		4-CATI					9907	9908	9906	9916
5-R – Est		9-Oth		5-Web								
6-Inac – Est				6-e-mail								
7-Off Hold – Est				7-Fax								
				8-CAPI								
				19-Other								

S/E Name _____

How many of your 2026 [Crop2] acres were planted with a cover crop? _____

Survey Results: To receive the complete results of this survey when it is released, go to
<http://www.mda.state.mn.us/chemicals/pesticides/pesticideuse.aspx> and
<http://www.mda.state.mn.us/en/protecting/cleanwaterfund/gwdwprotection/nutrientmgmtssurvey.aspx>