

## MSU & USDA Corn and Soybean Grower Survey

### **USDA Burden Statement:**

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0536-0073, expiration date 04/30/2025. The time to complete this information collection is estimated to be 60 minutes.

### **USDA Assurance of Confidentiality:**

The information you provide will be used for statistical purposes only. Your response 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.

If you have any questions about the purpose, procedures, or any other issues related to this research you may contact Sophia Tanner at [CropSurvey@usda.gov](mailto:CropSurvey@usda.gov).

### **Michigan State University Participant Information and Consent**

You are being asked to participate in a research study about corn and soybean crops being conducted by the Michigan State University and the United States Department of Agriculture (USDA). You must be at least 18 years old to participate, and the study takes up to 60 minutes to complete.

Participation is completely voluntary. You have the right to say no. You may choose not to answer specific questions or to stop participating at any time. Any responses you provide are confidential. By starting the survey, you indicate your voluntary agreement to participate.

If you have questions or concerns about this study, please contact Professor Frank Lupi, Michigan State University, Justin S. Morrill Hall of Agriculture, 446 West Circle Drive, Room 205, East Lansing, MI 48824, lupi@msu.edu, 517-432-3883. If you have questions or concerns about your role and rights as a research participant or would like to register a complaint about this study, you may contact, anonymously if you wish, the Michigan State University's Human Research Protection Program at 517-355-2180, or e-mail irb@msu.edu or regular mail at 4000 Collins Road, Suite 136, Lansing, MI 48910.

Acknowledgement: I have read and understand the information on this page, and I agree to participate in the survey.

- I agree.
- I do not agree.

A.0 Are you the main decision maker for annual crop management on your farm?

- Yes
- No

*[If no, end survey]*

A.0a In 2023, did your farm have at least one field in a corn rotation or soybean rotation?

- Yes
- No

*[If no, end survey]*

### **Section A: Information on Farms**

A.1 What state is most of your cropland located in? \_\_\_\_\_

A.2 What county is most of your cropland located in? \_\_\_\_\_

A.3 How many acres of cropland do you operate?

- Owned \_\_\_\_\_ acres
- Rented in \_\_\_\_\_ acres

A.4 Do you farm organically on any of your fields?

- Yes
- No

A.5 Does your operation earn at least 5% of your farm revenue in a typical year from grazing livestock?

- Yes
- No

A.6 Does your operation earn at least 5% of your farm revenue in a typical year from fed livestock (not grazing)?

- Yes

- No

## **Section B: Cover Crop Practice in Farmer's Largest Field**

*[NOTE on this field selection question: In this ICR we test two variations of the field selection question. Version 1 asks about the largest field. Version 2 identifies if they use cover crops and if they get paid by a USDA cover crop program, and if so, asks about their largest such field. We will vary this across respondents. This will allow us to enhance the effectiveness of the final survey.]*

*[Version 1 field selection]*

B.0.a.1 In this section, we will ask about the largest field that was in a rotation in 2023 that included corn or soybean.

Please give a name for that field that we can use in this survey.

\_\_\_\_\_ Field name

B.0.a.2 Did this field have an EQIP or CSP contract for cover cropping?

- Yes
- No

*[Version 2 field selection]*

In this section, we will ask about a specific field on your farm based on your past experience.

B.0.b.1 Do you currently have an EQIP or CSP contract for cover cropping?

- Yes
- No

B.0.b.2 [If No to B.0.b.1] Have you ever had an EQIP or CSP contract for cover cropping?

- Yes
- No

B.0.b.3 [If Yes to B.0.b.1 or B.0.b.2] Did the cover cropping contract include a field that was in a rotation in 2023 that included corn or soybean?

- Yes
- No

B.0.b.4 [If Yes to B.0.b.3] For reference in this survey, what is the name of the largest such field?

\_\_\_\_\_ Field name

B.0.b.5 [If No to B.0.b.2 or B.0.b.3] For reference in this survey, what is the name of your largest field that was in a rotation in 2023 that included corn or soybean?

\_\_\_\_\_ Field name

Possible answers for B.0.b.1-B.0.b.3

B.0.b.1	B.0.b.2	B.0.b.3	intended question
Yes		Yes	B.0.b.4
No	Yes	Yes	B.0.b.4
No	No		B.0.b.3
Yes		No	B.0.b.3
No	Yes	No	B.0.b.3

B.1 How many acres of cropland are in this field? \_\_\_\_\_ acres

B.2 Do you own or rent this field? (If both, what describes most the acres?)

- Own
- Rent

B.2.1 If the landowner is willing, how long do you expect to keep managing this field?

- 0-5 years
- 6-10 years
- Longer than 10 years

B.3 How would you describe the most common soil texture on this field?

- Sand
- Loamy sand
- Sandy loam
- Sandy clay loam
- Loam
- Silt loam
- Silt
- Silty clay loam
- Clay
- Clay loam
- Sandy clay
- Silty clay

B.4 What is the average slope of this field?

- Nearly level 0 – 2%
- Even, moderate grade 3 – 9%
- Variable, moderate grade
- Even, steep grade over 10%
- Variable, steep grade

B.5 What tillage system do you use on this field?

- Continuous no-till (no tillage operations at any time)
- Continuous conservation or reduced tillage (vertical, ridge, strip, or mulch in all years)
- Chisel tillage in all years
- Continuous moldboard plow tillage in all years
- Mix of no-till and conservation tillage in different years
- Mix of reduced and moldboard or chisel tillage in different years
- Other\_\_\_\_\_

B.6 Which of the following most accurately reflects your crop rotation on this field?

- Corn | corn (continuous corn)
- Corn | soybean (2-year rotation)
- Corn | soybean | wheat (no double cropping, 3-year rotation)
- Corn | wheat | soybean (double cropping, 2-year rotation)
- Other rotation (please describe below):

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B.7 What is the last crop you harvested on this field?

- Corn
- Soybean
- Wheat
- Other: \_\_\_\_\_

B.8 In the most recent past growing period, how many herbicide applications did you make to this field?

	<b>None</b>	<b>1</b>	<b>2</b>	<b>More than 2</b>
Pre-emergence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Post-emergence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

B.9 Was this field under a federal crop insurance policy in 2023?

- Yes
- No

B.10 Is this field certified organic, or are you seeking organic certification?

- Yes
- No

### **Cover crop history**

In this survey, cover crops refer to the non-cash crops planted primarily for managing soil fertility, soil quality, and controlling weeds, pests and diseases.

B.11 To confirm, have you ever planted a cover crop on this field (called *Name*)?

- Yes
- No

If you answered **Yes**,

B.11a When did you first try cover crops on this field?

- Less than 2 years ago
- 3-5 years ago
- 6-10 years ago
- More than 10 years ago

B.11b What was the most recent year you planted cover crops on this field?

\_\_\_\_\_

B.11c In that year, what cover crop species did you plant? \_\_\_\_\_

B.11d In that year, what cash crop did your cover crop follow?

- Corn
- Soybean
- Wheat
- Other\_\_\_\_\_

B.11e In that year, how did you terminate your cover crop? \_\_\_\_\_

- Herbicide application only
- Herbicide application + tillage
- Herbicide application + roller/crimper
- Tilled into the soil, no herbicide application
- Roller/crimper, no herbicide application
- Winter-kill
- Other \_\_\_\_\_

B.11.e.1 [If response indicated termination with herbicide] What herbicide did you use to terminate the cover crop? (Please answer all that are relevant)

- Atrazine
- Glyphosate
- 2,4-D
- Other (specify)\_\_\_\_\_

[If B.11=Yes]

B.12 If you have planted cover crops, have you ever grazed a cover crop on this field?

- Yes
- No

If **No**, why not? (Select all that apply)

- I don't have grazing livestock



- o I don't have neighbors with grazing livestock
- o The field doesn't have fencing or other livestock enclosure
- o The field doesn't have a water source for livestock
- o Other\_\_\_\_\_

B.13

- When you think about use of cover crops on this field, how important to you are the following benefits to planting cover crops for your field?

	Not at all important	Slightly important	Moderately important	Important	Extremely important
Improve soil health	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Decrease erosion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Decrease fertilizer needs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Weed control	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reduce nutrient lost to lakes and streams	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Carbon sequestration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- When you think about use of cover crops on this field, how important to you are the following barriers to planting cover crops for your field?

	Not at all important	Slightly important	Moderately important	Important	Extremely important
Cost	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Difficulty terminating cover crop	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Overall management time	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cash crop yield risk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Suitable equipment not available	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Herbicides cost or availability	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

B.14.1 [If corn in rotation] If you were to grow corn after a cover crop, would you expect the corn yield to be lower, higher, or unchanged under the following conditions?

	Over 5% lower	3-5% lower	1-2% lower	Unchanged	1-2% higher	3-5% higher	Over 5% higher
Conditions favorable for cover cropping							

In <b>typical</b> conditions							
Conditions <b>unfavorable</b> for cover cropping							

B.14.2 [If soybean in rotation] If you were to grow soybean after a cover crop, would you expect the soybean yield to be lower, higher, or unchanged under the following conditions?

	Over 5% lower	3-5% lower	1-2% lower	Unchange d	1-2% higher	3-5% higher	Over 5% higher
Conditions <b>favorable</b> for cover cropping							
In <b>typical</b> conditions							
Conditions <b>unfavorable</b> for cover cropping							

### **Section C: Cover crop contracts**

In this section, we will show you contracts that would pay you to adopt specific cover cropping practices on the field identified in Section B. The features of each contract might be different in any of the following ways:

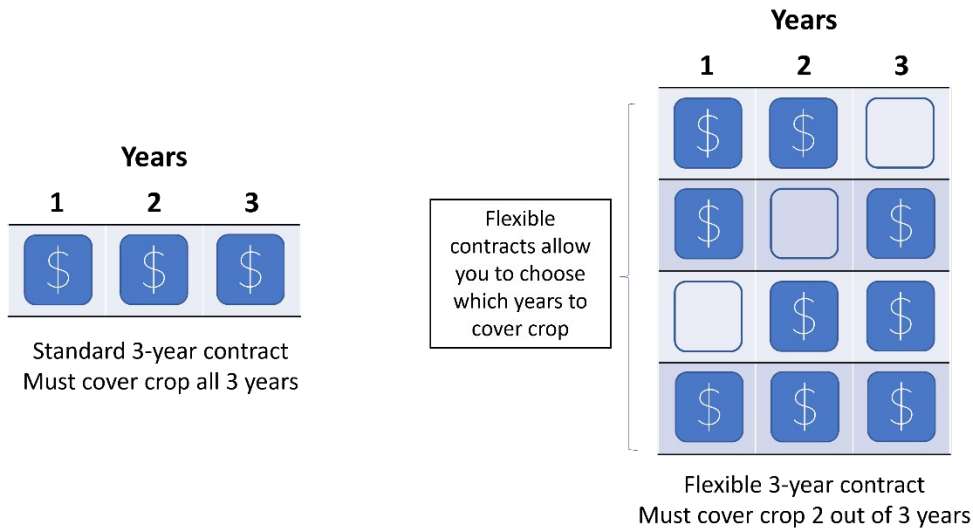
- Contract length and flexibility
- Cover crop seed mix
- Timing of cover crop termination and cash crop planting
- Time it takes to apply for the contract
- Contract application location
- Professional advice before and after planting
- Contract processing time
- Payment provider
- Per acre payment
- [Signing bonus](#)

The next part of the survey reviews the contract features.

### Contract length and flexibility

- Some contracts require cover cropping every year.
  - Other flexible contracts only require cover cropping in a minimum number of years (for example, 2 of 3 years).
  - Payments are made for each year that cover crops are planted.
- Note: in the event of extreme circumstances that prevent planting, all contracts will allow you to apply for a contract extension.

The example below shows two different 3-year contracts.



C.1 Please rate how desirable the following are as possible attributes of a conservation contract:

	Not desirable	Somewhat desirable	Very desirable
Single-year contract	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Multiple-year contract	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Flexibility about the years you must plant cover crops	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Planting cover crops every year of the contract	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Cover crop seed mix

- Cover crop contracts may allow for the planting of a single species or may require a multi-species mix that includes both a grass and a legume.

C.2 Which of the following categories of cover crops have you planted on this field and on your farm in the past?

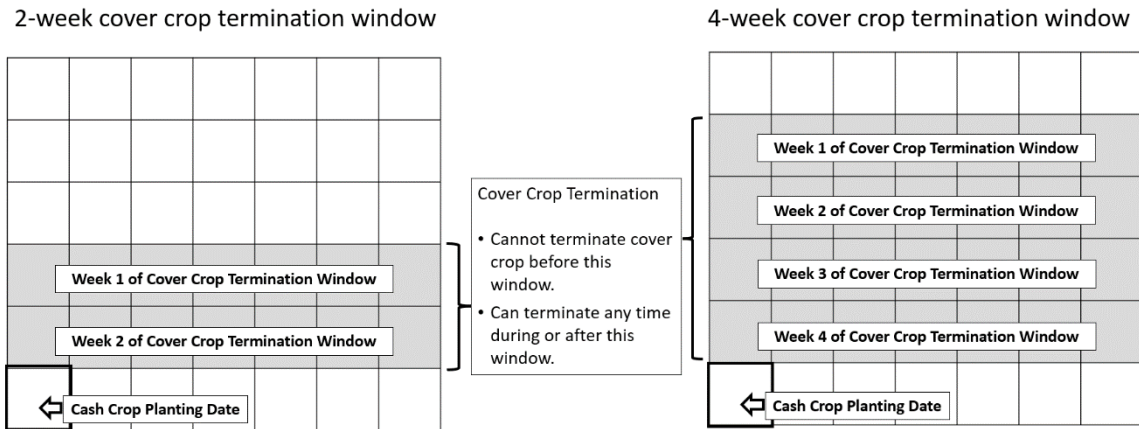
	On this field?		On some of your other fields?	
	Yes	No	Yes	No
A single species grass cover crop	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A single species legume cover crop	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A multi-species cover crop mix with 2-3 species	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A multi-species cover crop mix with more than 3 species	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

C.3 Are you aware that cover crop mixes with a legume contribute nitrogen to the soil?

- Yes
- No

### Timing of cover crop termination and cash crop planting

- A cover crop termination window is the period of time before planting the cash crop that a contract allows cover crops to be terminated.
- Some contracts require that the cover crop be terminated within the two weeks before planting the cash crop.
- Other contracts allow termination of the cover crop up to four weeks before planting the cash crop.
- For all contracts, terminating at or after planting the cash crop is allowed.



C.4 How challenging do you think it would be to terminate a cover crop in a two-week window versus a four-week window prior to cash crop planting?

	Much more challenging	Somewhat more challenging	Not more challenging
This field	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Many fields with cover crops	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### **Time it takes to apply for the contract**

- Some contracts employ a streamlined enrollment paperwork process that can be completed in 1 hour, while others may take 2 hours or 3 hours.
- This is the total time you would spend to complete all paperwork to apply and enroll in the contract.
- It does not include additional management time that you might spend to comply with contract requirements.

### **Contract application location**

Contract application will be completed in one of the following ways:

- The enrollment paperwork for some contracts can be completed through a website, **or**
- Some contracts require a program staff member to visit your farm to complete the enrollment paperwork, **or**
- Other contracts require you to visit to your local county seat to complete the enrollment paperwork.

C.5 About how long does it take you to drive one-way to your county seat?

- Less than 30 minutes
- 30 to 45 minutes
- 45 minutes to an hour
- Over an hour
- I don't know where my county seat is

**Professional advice before and after planting**

- All contracts provide some technical assistance to help you comply with contract requirements.
- In some contracts, this includes a cover crop agronomist, while others use a general agronomist.
  - General agronomist with private company
  - Cover crop agronomist with Extension
  - General agronomist with Extension
  - Cover crop agronomist with NRCS
  - General agronomist with NRCS

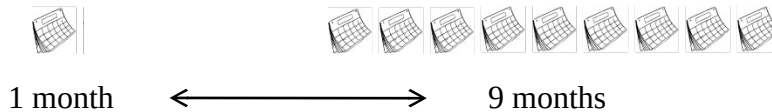
C.6 Have you ever received technical assistance or advice from ...

	Yes	No
General agronomist with private company	<input type="checkbox"/>	<input type="checkbox"/>
Cover crop agronomist with Extension	<input type="checkbox"/>	<input type="checkbox"/>
General agronomist with Extension	<input type="checkbox"/>	<input type="checkbox"/>
Cover crop agronomist with NRCS	<input type="checkbox"/>	<input type="checkbox"/>
General agronomist with NRCS	<input type="checkbox"/>	<input type="checkbox"/>

**Contract processing time**

- Processing time is the number of months it takes for the application to be processed and your field to be officially enrolled in the contract.
- Different contracts may have different processing times that vary from 1 to 9 months:

Range of possible processing times in contracts



**Payment provider**

- Payment provider is the organization that gives you the payment.
- The paperwork burden and application process will not be affected by the type of payment provider.
- These are the potential providers:
  - USDA
  - State government



- Private agribusiness
- Non-governmental organizations

### **Per acre payment**

- You will receive a payment in the years you plant cover crops.
- In years that you cover crop, you will receive the payment after the cover crop is terminated (typically April or May).
- If you sign a contract but do not plant cover crops in a particular year, you will not be paid in that year.
- The per acre payment is based on the field enrolled. The larger the enrolled field is, the larger the total payment will be.
- For years when cover crops are planted, the payment will be equal to:

$$\text{Payment rate (\$/acre)} \times \text{acres in this field}$$

### **Signing bonus**

- The signing bonus is a one-time payment when you sign the contract. It does not depend on the acres planted to cover crops.

*[NOTE on enrollment questions: In this ICR we test two layouts of the enrollment question. Version 1 of the enrollment question shows two cover crop contracts side by side and asks respondents to choose between them. Version 2 shows a single cover crop contract and asks respondents whether they would enroll in it.*

*The “levels” (i.e., the payment rate, the processing time, the contract length, etc.) of contract features will vary across respondents; for a full list of the possible levels of each feature, please see **Appendix A**.*

*The full survey will vary cover crop contracts across questions and across respondents in a way that is determined by an experimental design. For the cognitive interviews, we will select the levels of contract features that are most important to test. For example, we may test versions with a very high or very low payment as a way of examining whether the price caused thought processes to differ.*

*In the last 3-5 interviews, we plan to ask respondents to take a complete version of the survey which has 5 sequential enrollment questions. Please see **Appendix B** for 5 enrollment questions in the style of Version 1. If Version 2 appears to be better for respondents, we will test a survey that poses a single contract in each question rather than a choice between them.]*

### Version 1: Two options vs not enrolling in any option

Please consider the following two cover crop contracts that would pay you each year you plant cover crops that would be available for your field (called ZZZ).

- Please consider your choice carefully, because the overall survey results will be shared with policy makers crafting future cover crop programs.

The details and responsibilities of the contracts are described below.

	<b>Contract A</b>	<b>Contract B</b>
Cover crop seed mix	Single species	Multi-species mix (includes a grass and a legume)
Contract length and flexibility	Must cover crop 3 out of 3 years	Must cover crop at least 2 out of 3 years
Timing of cover crop termination and cash crop planting	2-week termination period	4-week termination period
Application time and location	2 hours via <b>a website</b>	3 hours at <b>your county seat</b>
Professional advice before and after planting	Cover crop agronomist with Extension	General agronomist with NRCS
Contract processing time	2 months	3 months
Payment provider	Private agribusiness	USDA
Per acre payment	<b>\$25</b> per acre	<b>\$60</b> per acre
<a href="#">Signing bonus</a>	<b>\$250</b>	<b>\$250</b>

Think about these as real contracts for your farm, and whether you would choose to enroll in one of them. If you would not choose either one, then choose neither.

C.7 Would you enroll your field (called ZZZ) in Contract A, Contract B, or neither?

- Contract A
- Contract B
- Neither

**Version 2: A single option vs not enrolling in any (alternative non-table list)**

Please consider the following cover crop contract that would pay you each year you plant cover crops that would be available for your largest field you identified in section B.

- Please consider your choice carefully, because the overall survey results will be shared with policy makers crafting future cover crop programs.

The details and responsibilities of the contract are described below.

**Cover crop seed mix:** Single species

**Contract length and flexibility:** Must cover crop 3 out of 3 years

**Timing of cover crop termination and cash crop planting:** 2-week termination period

**Application time and location:** 2 hours via a website

**Professional advice before and after planting:** General agronomist with private company

**Contract processing time:** 2 months

**Payment provider:** USDA

**Per acre payment:** \$25 per acre

**Signing bonus:** \$250

Think about these as real contracts for your farm, and whether you would choose to enroll in one of them.

C.7 Would you enroll your field (called ZZZ) in this cover crop contract?

- Yes
- No

**Section D: Farmers' Attitude toward Environmental Protection through Agricultural Practice**

The next two questions ask about the importance of some issues. First we ask about the importance to **your farm**, and then we ask the importance to **other people in the nation**.

D.1 How important to **your farm** are these environmental issues? Please mark one for each row.

	<b>Not at all important</b>	<b>Slightly important</b>	<b>Moderately important</b>	<b>Important</b>	<b>Extremely important</b>
Financial cost of nutrient losses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Water quality impacts of nutrient losses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Soil erosion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Soil organic matter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Carbon sequestration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Soil water holding capacity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nitrogen fixing crops to replace some nitrogen fertilizer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

D.2 How important to **other people in the nation** are these environmental issues? Please mark one for each row.

	<b>Not at all important</b>	<b>Slightly important</b>	<b>Moderately important</b>	<b>Important</b>	<b>Extremely important</b>
Water quality impacts of nutrient losses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Soil erosion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Soil organic matter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Carbon sequestration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Soil water holding capacity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nitrogen fixing crops to replace some nitrogen fertilizer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Section E: General background information

### Farm and cover crops practice

E.1 Across your entire farm, apart from your largest field you identified in section B, do you have any other fields where you are currently using any of the following cover crop systems?

I have fields that have ...	Yes	No
Continuous or nearly continuous use of cover crops (every year if possible)	<input type="checkbox"/>	<input type="checkbox"/>
Rotational cover crop use (at regular intervals in my crop rotation)	<input type="checkbox"/>	<input type="checkbox"/>
Occasional cover crop use (depends on weather, price, time, etc.)	<input type="checkbox"/>	<input type="checkbox"/>

E.2 What best describes your level of whole-farm experience with cover crops?

- I have never tried them and am not interested in trying them
- I have never tried them and would consider trying them
- I have tried them in the past and will not keep using them
- I have tried them and am still deciding if I will continue using them
- I use them and will likely continue using them
- I use them and will continue using them

E.3 Which of the following implements does your farm operation own? (Select all that apply)

- A seed drill (e.g., no-till drill)
- A roller/crimper
- A boom sprayer or highboy

E.4 [If you have ever used cover crops] What was the first year you planted a cover crop **anywhere** on your **farm**?

- Less than 2 years ago
- 3-5 years ago
- 6-10 years ago
- More than 10 years ago

E.5 What was the most recent year you planted a cover crop **anywhere** on your **farm**?

\_\_\_\_\_

E.6 [If you have ever used cover crops] Which of the following methods have you used to plant cover crops **anywhere** on your **farm**? (Select all that apply)

- Broadcast and incorporated the cover crop seed
- Broadcast the cover crop seed without incorporating it
- Aerially seeded or “flew on” the cover crop seed
- Drilled the cover crop seed
- Used a row crop planter other than a drill to plant the cover crop
- Used a high-clearance seeder (e.g., a Hagie or a highboy) to seed the cover crop into a standing cash crop
- Other

E.7 [If you have ever used cover crops] Which of the following methods have you used to terminate cover crops **anywhere** on your **farm**? (Select all that apply)

- Herbicide application only
- Herbicide application + tillage
- Herbicide application + roller/crimper
- Tilled into the soil, no herbicide application
- Roller/crimper, no herbicide application
- Winter-kill
- Other \_\_\_\_\_

E.8 Compared to no cover crops, how does planting cover crops typically affect how many times you apply herbicides?

	I apply herbicides <b>fewer</b> times	I apply herbicides about the <b>same</b> number of times	I apply herbicides <b>more</b> times
Herbicide use on cash crop			
Total herbicide use for cash crop and cover crop			

E.9 Apart from the field you identified in section B, did you receive any financial incentive payment or crop insurance discount to plant cover crops in the past 10 years? (Select all that apply)

- No
- Yes, federal program(s)
- Yes, state or local program(s)
- Other\_\_\_\_\_

E.10 Have you interacted with the following organizations in any of the following ways in the past 10 years?

	NRCS		Extension partners		State or local staff (including SWCD)	
	Yes	No	Yes	No	Yes	No
Had a video call with	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
In-person meeting at the local office	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
In-person meeting at your farm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Talked to the staff in other ways	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

E.11 How favorable is your view of the following organizations as providers of cover crop contracts?

	Unfavorable	Somewhat unfavorable	Neutral	Somewhat favorable	Favorable
USDA	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
State government	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Private agribusiness	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Non-governmental organizations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

E.12 Based on your knowledge and experience of following organizations, how likely are you to get technical assistance or advice from the following in the future?

	Not likely	Likely	Very likely
USDA	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
State government	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Private agribusiness	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Non-governmental organizations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
University Extension	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

E.13 Was any cropland you manage enrolled in any federal, state, or local conservation program in 2023?

	<b>Yes</b>	<b>No</b>
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Environmental Quality Incentives Program (EQIP)	<input type="checkbox"/>	<input type="checkbox"/>
Conservation Stewardship Program (CSP)	<input type="checkbox"/>	<input type="checkbox"/>
Conservation Reserve Program (CRP)	<input type="checkbox"/>	<input type="checkbox"/>
Federal crop insurance	<input type="checkbox"/>	<input type="checkbox"/>
Other Federal, State, local program	<input type="checkbox"/>	<input type="checkbox"/>

E.14 How long have you been farming? \_\_\_\_\_ years

E.15 What portion of your household's adjusted gross income was earned through farming activities?

- Less than 25%
- 25% to 49%
- 50% to 74%
- 75% or more

E.16 What is your age? \_\_\_\_\_ years

E.17 What is your sex?

- Male
- Female
- Prefer not to respond
- Other \_\_\_\_\_

E.18 Are you of Hispanic, Latino, or Spanish origin?

- No
- Yes (Mexican, Mexican Am., Chicano)
- Yes (Puerto Rican)
- Yes (Cuban)
- Yes, other \_\_\_\_\_

E.19 What is your race? (Select all that apply)

- White
- Black or African American
- American Indian or Alaska Native
- Asian

- Native Hawaiian or other Pacific Islander
- Other\_\_\_\_\_

E.20 Have you ever served on active duty in the U.S. Armed Forces, Reserves or National Guard?

- Never served in the military
- Only on active duty for training in the Reserves or National Guard
- Now on active duty
- On active duty in the past 10 years, but not now
- On active duty more than 10 years ago

E.21 Which category best describes your education?

- Less than high school
- High school diploma
- Some college, no degree
- Associate's degree
- Bachelor's degree
- Master's degree or other professional degree beyond a bachelor's
- Doctorate degree

[*The confidentiality reminder*] The following questions are for summary purposes only. Your individual answers are confidential.

E.22 What was your farm operation's gross cash income in 2022?

- Less than \$350,000
- \$350,000 to \$999,999
- Above \$1,000,000

## **Appendix A: Contract Features**

The possible levels of all contract features are described below.

### **Cover crop seed mix**

- Single species
- Multi-species mix (includes a grass and a legume)

### **Contract length and flexibility**

Must cover crop...

- 1 year
- 3 out of 3 years
- 2 out of 3 years
- 5 out of 5 years
- 3 out of 5 years
- 10 out of 10 years
- 7 out of 10 years

### **Timing of cover crop termination and cash crop planting**

- 2-week termination period
- 4-week termination period

### **Application time and location**

- 1 hour via **a website**
- 2 hours via **a website**
- 1 hour for a program staff member **visit to your farm**
- 2 hours for a program staff member **visit to your farm**
- 2 hours at **your county seat**
- 3 hours at **your county seat**

### **Contract processing time**

- 1, 3, or 9 months

### **Professional advice before and after planting**

- General agronomist with private company
- Cover crop agronomist with Extension
- General agronomist with Extension
- Cover crop agronomist with NRCS
- General agronomist with NRCS

**Payment provider**

- USDA
- State government
- Private agribusiness
- Non-governmental organization

**Per acre payment**

- 5, 25, 40, 60, 80, 100, 120, or 199 \$/acre/year

**Signing bonus**

- 0 \$, 250 \$, 500 \$

## Appendix B: Five Enrollment Questions (Not updated)

The levels are placeholders and will be changed in the future.

Q1 (Shown in questionnaire)

	<b>Contract A</b>	<b>Contract B</b>
Cover crop seed mix	Single species	Multi-species mix (includes a grass and a legume)
Contract length and flexibility	Must cover crop 3 out of 3 years	Must cover crop at least 2 out of 3 years
Timing of cover crop termination and cash crop planting	2-week termination period	4-week termination period
Application time and location	2 hours for you to <b>visit a website</b>	3 hours for you to <b>visit to your county seat</b>
Contract processing time	2 months	3 months
Professional advice before and after planting	General agronomist with private company	General agronomist with NRCS
Payment provider	Private agribusiness	USDA
Per acre payment	<b>\$25</b> per acre	<b>\$60</b> per acre
Signing bonus	<b>\$250</b>	<b>\$250</b>

Q2

	<b>Contract A</b>	<b>Contract B</b>
Cover crop seed mix	Multi-species mix (includes a grass and a legume)	Multi-species mix (includes a grass and a legume)
Contract length and flexibility	Must cover crop 1 year	Must cover crop at least 7 out of 10 years
Timing of cover crop termination and cash crop planting	4-week termination period	4-week termination period
Application time and location	2 hours for you to <b>visit a website</b>	1 hour for you to <b>visit a website</b>
Contract processing time	3 months	1 month
Professional advice before and after planting	General agronomist with NRCS	Cover crop agronomist with NRCS
Payment provider	State government	USDA
Per acre payment	<b>\$5</b> per acre	<b>\$40</b> per acre
Signing bonus	<b>\$250</b>	<b>\$500</b>

## Q3

	<b>Contract A</b>	<b>Contract B</b>
Cover crop seed mix	Single species	Single species
Contract length and flexibility	Must cover crop at least 3 out of 5 years	Must cover crop 10 out of 10 years
Timing of cover crop termination and cash crop planting	4-week termination period	2-week termination period
Application time and location	2 hours for a program staff member to <b>visit to your farm</b>	2 hours for you to <b>visit a website</b>
Contract processing time	2 months	3 months
Professional advice before and after planting	General agronomist with Extension	Cover crop agronomist with Extension
Payment provider	Private agribusiness	Non-governmental organization
Per acre payment	<b>\$120</b> per acre	<b>\$25</b> per acre
Signing bonus	<b>\$0</b>	<b>\$250</b>

## Q4

	<b>Contract A</b>	<b>Contract B</b>
Cover crop seed mix	Single species	Multi-species mix (includes a grass and a legume)
Contract length and flexibility	Must cover at least 2 out of 3 years	Must cover crop 5 out of 5 years
Timing of cover crop termination and cash crop planting	2-week termination period	4-week termination period
Application time and location	3 hours for you to <b>visit to your county seat</b>	2 hours for a program staff member to <b>visit to your farm</b>
Contract processing time	9 months	2 months
Professional advice before and after planting	Cover crop agronomist with Extension	Cover crop agronomist with NRCS
Payment provider	Private agribusiness	State government
Per acre payment	<b>\$100</b> per acre	<b>\$199</b> per acre
Signing bonus	<b>\$0</b>	<b>\$0</b>

Q5

	<b>Contract A</b>	<b>Contract B</b>
Cover crop seed mix	Multi-species mix (includes a grass and a legume)	Single species
Contract length and flexibility	Must cover crop at least 3 out of 5 years	Must cover crop 1 year
Timing of cover crop termination and cash crop planting	2-week termination period	2-week termination period
Application time and location	1 hour for you to <b>visit a website</b>	3 hours for you to <b>visit to your county seat</b>
Contract processing time	2 months	1 month
Professional advice before and after planting	General agronomist with Extension	General agronomist with NRCS
Payment provider	USDA	State government
Per acre payment	<b>\$5</b> per acre	<b>\$40</b> per acre
Signing bonus	<b>\$0</b>	<b>\$500</b>