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NRCS Conservation Practice Adoption and Motivation Pilot Study

Interviewer's Manual
Version 1: Crop Practices

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Chapter 1: NRCS Conservation Practice Adoption and Motivation

Background

The Conservation Practice Adoption and Motivation (CPAM) pilot survey is a reimbursable survey that the Natural Resource Conservation Service (NRCS) has contracted the National Agricultural Statistics Service (NASS) to collect. The information collected during the pilot survey which is being conducted with a small sample across four states will be used to make decisions going forward for a larger, national survey that will be conducted in 2022. The four states involved in the pilot study, Nebraska, Oregon, Oklahoma, and Pennsylvania, were chosen due to the diversity of agriculture within each state along with the contrast of agricultural practices between the states.

There are four different questionnaire versions for the CPAM pilot study:

- Version 1 – Crop Practices
- Version 2 – Confined Livestock Practices
- Version 3 – Grazing Practice
- Version 4 – Forestry Practices

The surveys conducted in each state will vary based on the agricultural and forestry enterprises within each state. The questionnaires are designed to obtain information about producer adoption of various conservation practices, past and present, participation in technical and financial assistance programs, and motivations for practice adoption or non-adoption (e.g., on-farm conservation, financial return, producer time and effort, and off-farm environmental benefits). The question format between all the versions is very similar, though the specific questions and practices are different for each version. There are some classification and demographic questions that are similar across versions to facilitate comparisons between versions.

Employer

You are an employee of the National Association of State Departments of Agriculture (NASDA). Work on this survey is covered by a cooperative agreement between NASDA and NASS. Introduce yourself as a NASDA employee working for the (your State) Field Office of the USDA, National Agricultural Statistics Service.

Responsibility

Accurate information collected directly from farmers and ranchers by trained interviewers provides the best possible information for developing a national survey for 2022. When you contact survey respondents, it is your responsibility to:

- obtain cooperation from selected operations,
- remind respondents of the confidential nature of the data,
- explain the uses of the data collected,
- collect quality data on survey items.

Once you have completed data collection, you are responsible for returning all completed questionnaires to your RFO in a timely manner and before the survey due date. Keep in mind the confidential nature of

the data you have collected. Protect the data and the respondent's personal information with utmost care and respect.

Survey Results

There will be no published results from the CPAM pilot study. Instead, the responses, along with the method of response, will be used to refine the survey questionnaires to reduce the time required to complete each survey and identify most efficient data collection method. By responding the operator will help create the foundation of the national survey by making data collection easier and more accurate. NASS and NRCS will review survey responses and use them to refine survey questions and identify the most effective mode of data collection.

The data collected will be for research and development purposes only. The sample size is much too small to draw any statistical conclusions. Because the sample size is small, however, it is important to obtain as many completed surveys as possible, maximizing the amount and diversity of information gathered in the pilot study. Most operations will be using only a subset of the practices asked about in each questionnaire version. In fact, there will be some practices that are in use on only a handful of operations, making it important that we collect as many pilot surveys as possible.

Chapter 2 – Terms and Definitions

AUM – Animal Unit Month, or the amount of forage required by an animal unit for one month. An animal unit is generally one mature cow of approximately 1,000 pounds and a calf as old as 6 months, or their equivalent. Animal unit equivalents vary somewhat according to kind and size of animals.

Conservation Stewardship Program - The Conservation Stewardship Program (CSP) helps producers build on their existing conservation efforts by providing technical and financial assistance to attain higher stewardship levels in an environmentally beneficial and cost-effective manner. For example, if you have been planting a cover crop, you may decide to try an enhancement for multi-species cover crop or implement a deep-rooted cover crop to break up soil compaction. Payments are annual to support ongoing improvements on the farm, as opposed to other programs that typically provide financial assistance for specific practices when the practice is completed.

Cover Crop - Cover crops are grasses, legumes, and other forbs that are planted for seasonal cover and other conservation purposes. They are used for managing soil fertility, soil quality, and controlling weeds, pests, and diseases.

Drainage Water Management Plan – Guides the process of managing the drainage volume and water table elevation by regulating the flow from a surface or subsurface agricultural drainage system. In this survey, we are interested in whether the producer has a written plan that they follow. Also see this short video on [drainage water management](#).

Financial Assistance – A payment or grant that helps defray the cost of installing or implementing conservation practices.

Edge of Field Structures – Establish permanent vegetation at field borders, adjacent to waterways, or in sensitive areas to reduce erosion, improve water or air quality, manage pests, or provide wildlife habitat.

- **Field Border** – A strip of permanent vegetation (grasses, legumes, forbs, or shrubs) established on one or more sides of a field.
- **Filter Strip** – An area of vegetation established for removing sediment, organic material, and other pollutants from runoff and wastewater. Filter strips are generally located at the lower edge(s) of a field and are designed to serve as a buffer between a field and environmentally sensitive areas such as streams, lakes, and wetlands.
- **Riparian Buffer** – Grasses, shrubs, trees or other vegetation planted along streams or other water bodies to help control erosion, filter runoff and keep water clean, or provide shade to moderate water temperature.

Highly Erodible Land Conservation - Highly erodible land (HEL) is cropland, hay land or pasture that can erode at excessive rates. It would contain soils that have an erodibility index of eight or more. Cropland identified as highly erodible is subject to highly erodible land conservation (HELIC) or "conservation compliance" requirements. Producers who receive farm program payments are required to have (and apply) a written soil conservation plan, prepared in accordance with Federal standards.

Nutrient Management Plan - A nutrient management plan guides the amount, source, placement, and timing of the application of plant nutrients and soil amendments (including manure) to meet crop yield goals while minimizing the loss of nutrients to surface and groundwater, reduce nitrogen emissions to air, and maintain physical, chemical, and biological condition of the soil. In this survey, we are interested in whether the producer has a written plan that they follow.

Irrigation Water Management Plan - lays out the process of determining and controlling the volume, frequency and application rate of irrigation water in a planned, efficient manner to improve irrigation water use efficiency, minimize soil erosion, protect surface and groundwater resources, manage salts in the crop root zone, manage air, soil, or plant micro-climate, or reduce energy use. In this survey, we are interested in whether the producer has a written plan that they follow.

Irrigation system improvements

- **Micro or Drip** – An irrigation system for frequent application of small quantities of water on or below the soil surface as drops, tiny streams, or miniature spray through emitters or applicators placed along a water delivery line.
- **Sprinkler** – A distribution system that applies water by means of nozzles operated under pressure.
- **Gravity or Flood** – Water is applied by gravity across the soil surface by flooding or small channels (i.e., basins, borders, paddies, furrows, rills, corrugations)
- **Sub Irrigation** – Water is made available to the crop root system by upward capillary flow through the soil profile from a controlled water table.

Pest Management Plan - A pest management plan is a site-specific combination of pest prevention, avoidance, monitoring, and suppression strategies to reduce plant pest pressure while mitigating risks to soil, water, air, plants, animal, and humans. A pest can include weeds, invertebrates (insects, mites, slugs, nematodes), or disease. In this survey, we are interested in whether the producer has a written plan that they follow.

Runoff Management Practices – Slow the movement of water over land, reduce erosion, protect or improve water quality, or store runoff for moisture conservation.

- Terrace - An earth embankment or a combination ridge and channel, constructed across the field slope, to slow the flow of runoff water and reduce erosion.
- **Grassed Waterway** - A constructed graded channel that is seeded to grass or other suitable vegetation. The vegetation slows the water to reduce erosion.
- **Grade Stabilization** - Grade stabilization structures are installed to stabilize the channel slope and control erosion to prevent gullies and headcuts. The practice is used in areas where structures are necessary to stabilize the site.
- **Water and Sediment Basin** – Also called a catch basin. An earth embankment or a combination ridge and channel constructed across the slope of a minor drainageway to reduce gully erosion, trap sediment, and manage runoff. The basin detains runoff and slowly releases it allowing sediment to settle. They generally use an underground outlet to control the release and carry the runoff in a pipe to a receiving stream or ditch.
- Contour Farming - Contour farming is using ridges, furrows, and roughness formed by tillage, planting and other farming operations at a grade near the contour to alter the velocity or the direction of water flow. In a properly designed contour farming system, the tillage furrows intercept runoff and allow more moisture to infiltrate into the soil.

Technical Assistance – Direct consultation with the farmer, rancher, or landowner that may include developing a conservation plan for the operation or the planning, design, and layout for structures (such as grassed waterways, terraces, waste storage facilities, fences, and livestock water facilities in pastures) and management practices (such as nutrient management, irrigation water management, grazing management, and forest stand improvement). Technical assistance does not include community workshops, internet resources, farm shows and conventions, and information not directly specific to your operation.

Tillage practices – [Conservation tillage](#) practices are on a spectrum from no-till (least disturbance) to reduced tillage, where the farmer is taking some steps to decrease tillage operations. The general goal is to reduce the number of times the soil is disturbed and manage plant residue to provide cover on the soil surface throughout the year. A good rule of thumb is to leave at least a third of the soil covered with plant residue.

- [No-till](#) – planting crops without tilling the soil. No-till does allow for incorporating nutrients, for example by knifing in fertilizer.
- **Strip-till** – limiting tillage to only in-row narrow tillage prior to planting and during planting.
- **Reduced tillage** – reducing the number and type of yearly tillage operations. Ridge-till and mulch till are two common types of reduced tillage.

Water Conveyance Structure – Used to transport water within an irrigation system. May include canals, laterals, or ditches.

Water Control Structure - Used to manage the direction or rate of flow, maintain a desired water surface elevation, or measure water. These may include flashboard risers, check dams, division boxes, pipe drop inlets, etc.

Wetland Conservation Practices – Wetlands are a valuable part of the natural landscape because they provide habitat for wildlife, reduce flooding, improve water quality, and increase groundwater recharge.

- [Wetland restoration](#) or enhancement occurs on a site that has historically been a wetland and has hydric soils.
- Wetland creation occurs on a site that had not previously been a wetland and does not have hydric soils.

Chapter 3 – Enumerator Procedures

Questionnaire

The Conservation Practice Adoption and Motivation Survey (CPAMS) has 4 different questionnaire versions. This manual contains information for version 1, crop practices. The questionnaire was developed in cooperation with the National Resource Conservation Service (NRCS) and is directed at finding out what conservation practices are currently being used or have been used in the past, whether technical or financial assistance was received, why operators choose to adopt the practice, and why they may have chosen to continue, expand, or discontinue the practice.

Method of Interviewing

The Conservation Practice Adoptions and Motivation Survey may be collected by mail, phone (CATI), fax, internet, or personal phone interview by Computer Assisted Personal Interview (CAPI). Currently there are no plans for in person interviews. All sampled operations will receive a copy of the questionnaire through the mail, with telephone follow-up by field enumerators via CAPI and associated Data Collection Centers (DCCs). Telephone enumerators at the DCCs will utilize the Blaise CATI (Computer Assisted Telephone Interview) instrument, which automatically delivers forms and manages call backs and appointments.

Operations assigned to CATI follow-up will receive a letter and a copy of the questionnaire in the mail. The operator may choose to complete and return the questionnaire by mail or complete the questionnaire online at agcounts.usda.gov. If the operation reports data by either of these methods, they will become ineligible for calling through CATI.

Some operations will be held for Regional Field Office enumeration and will be collected by telephone, mail, fax, or field phone interview.

Burden Statement

Federal regulations require that all questionnaires used by agencies of the Federal government provide a burden statement – an estimate of the average time required to complete the questionnaire. This regulation is administered by the Office of Management and Budget (OMB), which has the duty of approving and overseeing all government data collection efforts. The public may respond to the Office of Management and Budget regarding any aspect of a survey.

The burden statement appears on the front page of each version of the CPAMS Questionnaire. The average time indicated on the burden statement represents the average completion time estimated for completion. If respondents ask, "How long will this take?" note the burden statement average time requirement and never directly contradict it. However, you may provide additional information, such as, "The official average for this survey is 60 minutes, but the interviews I have been doing in this area are averaging around 30 - 45 minutes."

SAMPLE BURDEN STATEMENT

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 to this survey 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 0535-0264. 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.

Confidentiality

Reports received from individual operations remain confidential and are used only for research and development purposes for the larger national survey that will be conducted in 2022. There will be no data published using the information collected during the CPAMS pilot study.

It is your responsibility to inform the respondent that this is a voluntary survey and assure them their report is confidential. A respondent has the right to know under what authority the information is being collected, the purpose for the information collected, and how information about their operation will be used. See your NASDA handbook for additional information regarding confidentiality.

Completing the Interview

The primary operator for the targeted operation, or a partner, should be your first point of contact. The person on the operation who is most familiar with conservation practices will be best able to provide the information that is being asked in the CPAMS questionnaire.

Encourage respondents to have any records of conservation contracts or easements on hand, or other records that involve the use of conservation practices such as written plans. Using records makes for more reliable reporting.

Make sure you are familiar with and understand the questionnaire. Review the survey letter, survey instructions, and other materials. Prepare an introduction and be prepared to answer questions about the survey purpose, uses of the data, and items on the questionnaire.

Ask questions in the order they appear on the questionnaire. Do not skip questions unless instructions printed on the questionnaire allow you to do so. Read statements and questions fully and exactly as written.

Following are examples of the type of instructions that you may find on the questionnaire.

Enumerator Instructions

Enumerator instructions may be included with some questions. Enumerator instructions are provided to you so that you will complete the questionnaire correctly. Enumerator instructions are enclosed in square brackets. They should not be read to the respondent.

Example:

[Verify name and mailing address of this operation. Make any corrections necessary (including the correct operation name) on the label and continue.]

“Include” and “Exclude” Statements

“Include” and “exclude” statements appear with many questions. “Include” and “exclude” statements are provided to help you and the respondent clarify the meaning of the question. Read the “include/exclude” statements so that the meaning of the question is clear.

“Skip” Instructions

Sometimes you may encounter questions which instruct you to skip a question or section based on a particular response. Follow the “skip” instructions when they appear with questions. If the interview is being completed via CATI or CAPI, the instrument is programmed to automatically “skip” when appropriate.

Example:

Note that depending on the response (“Yes” or “No”), you may continue or skip to the next question or next section.

201 Yes - Go to Item 2

3 No - Complete Items 1a and 1b below, then go to Section 4 - Nutrient Management on page 9

Sometimes you will need to probe to get an adequate answer to a question, for example, when the answer isn’t precise enough or if you think the respondent didn’t understand the question. Probing is important to verify unusual data or correct misreported data. Be careful that you don’t appear to be questioning or challenging the respondent’s answers, but clarifying an answer given.

Reference Dates

The CPAMS questionnaire asks about different reference periods such as previous year, within the last 15 years, or at any time in the past. Be sure to read the questions carefully and only refer to the date referenced for each question.

Important Reminders

As you complete the questionnaire:

Make good notes. This is especially important when you find unusual situations.

Record your answers in whole numbers (no decimals) and pay attention to if the question is asking for acres or percentages.

When completing a paper questionnaire, make all entries clear and easy to read. Use a black #2 lead pencil. Do not use ink or a mechanical pencil, as questionnaires will be scanned.

Answers must be written entirely within the box or space provided (including YES and NO check boxes). If the answer to a question is “none”, enter a dash (--) NOT a zero unless specified by the instructions.

Call Back Procedures

Plan each phone call for a different time of day or early evening. Use the following instructions as a guide.

First Attempt

If the operator or partner is not present, but is expected shortly, make an appointment to call back at a later time or, if interviewing in person, wait for the interview. It is very important for you to keep the appointment or to call back if it cannot be kept.

If the operator or partner will not be available until after the survey is over, interview a knowledgeable person such as a spouse, son, daughter, or hired person. Try to interview the person most knowledgeable about the farming operation.

Follow-up Attempts

If a follow-up call is required after the first attempt, try again to interview the operator or partner. If they are still unavailable, set up an appointment if possible.

Final Attempt

If the operation is assigned for CATI enumeration, your supervisor will determine the number of attempts for call-backs.

Refusals

There are always respondents reluctant to provide information and some will refuse completely. When a refusal occurs, note the reason why the operator refused. If possible, try to determine if the operation is still in business and what commodities (crops, livestock, etc.) are produced. Do not become discouraged when you get a refusal. On the next interview, continue to greet the operator with an easy, friendly manner.

Supervision

All questions regarding data collection should be directed to your NASDA supervisor. Contact your supervisor with questions or problems as soon as they arise. Your supervisor or Regional Field Office may contact some of your respondents after you interview them as part of a Quality Check.

Materials

Materials used in the Conservation Practice Adoption and Motivations Survey are listed below. Your supervisor is responsible for furnishing all necessary materials. Notify your supervisor if you are running low on supplies.

All Enumerators

- Interviewer's Manual
- Blank questionnaires
- Black lead pencils
- Copy of Survey Letter
- Copy of EDR Instructions

Field Enumerators

- CAPI iPad
- NASDA Identification Card
- Motor Vehicle Accident Report Kit
- NASDA Employee Handbook

Survey Response Rate

A minimum 80% response rate is required by OMB and is expected from all Regional Field Offices.

Feedback

Everyone involved in the survey is encouraged to recommend changes to clarify or improve survey materials and procedures. Forward all recommendations to the CPAMS administrator in your Regional Field Office, who will forward them to the Survey Administrator in HQ. This will be very important due to the nature of the pilot survey and feedback is greatly welcomed.

Chapter 4 – Operation Identification and Screening

Operation Identification – Name and Address Labels

Operator

The person responsible for the day-to-day decisions for the land operated is considered the operator and is listed on the label. The operator could be the owner, hired manager, cash tenant, or share tenant. If land is rented or worked on shares, the tenant or renter is the operator.

Farm Name

A farming operation may or may not have a farm name listed on the label. If the farm does not have a farm name, the operation will be listed under an individual operator. If the respondent indicates the operation has a farm or ranch name, ask the respondent if this name should appear on the label. This will help the Regional Field Office know whether to update the label for future surveys and can be checked against the List Sampling Frame to identify potential duplication.

Names such as "The Old Smith Place," "Jones Farm," etc., should not be included if they are used only to identify different parcels of land in the respondent's operation. The farm or ranch should do business and be known by the operation name.

Name and Address Labels

Here is an example of a questionnaire name and address label. The format of the label in your Regional Field Office may differ from this example but will contain the same basic information.

BARCO B BA BAR BARCO B BA BARCO B C		
State, POID, Tract, Survey ID numbers		
CASI Respondent Survey Code,	Strata, Sequence #	
Operation Name,	District, County	
Operator Name,	ODStatus, Supervisor, Enumerator	
Address		
City, State, Zip-Zip4		

SURVEY CODE = 11-22222221-AA1AAA	71	10000
RIVER VALLEY FARM	20	129
JOHN SMITH	00	307 359
12345 RIVER RD		
OURTOWN DE 12590-4582		

Target Operation

The ‘target’ of this CPAM survey pilot study is going to be the sampled operation. Regardless of other operating arrangements; partnerships, multiple operations, managed operations, etc., the target will be the operation that is listed on the label and the land (owned and leased) that it operates. The respondent should be the person most involved in the conservation practice decision making. If all operators are equally involved in the conservation practice decisions, then any one of them can respond.

Operation Target Examples

Example 1. Individual Target Name on label.

```
BARCO B BA BAR BARCO B BA BARCO B C
10 300123890 01 01 2315 125698 00
SURVEY CODE=10-300123891-GMX78Q 71 10000
                                20 129
DENNIS R. SCOTT                    00 307 359
12345 RIVER RD
OURTOWN DE 12590-4582
```

In the example above, there is no operation name listed, so the target will be Dennis R. Scott. **You should collect data for Dennis R. Scott’s agriculture operation.** If Dennis is involved in more than one operation, you should collect data only for the operation for which he is the individual operator.

Example 2. Combination of Names with Individual Target Name on Label.

```
BARCO B BA BAR BARCO B BA BARCO B C
10 300123890 01 01 2315 125698 00
SURVEY CODE=10-300123891-GMX78Q 71 10000
    BILL & JOE FORD                    20 129
    BILL FORD                          00 307 359
    12345 RIVER RD
    OURTOWN DE 12590-4582
```

In example 2, the operation name is Bill & Joe Ford, so the target will be the partnership by the name of Bill & Joe Ford. **You should collect data for the partnership named on the label only.** Bill or Joe may also be involved in a different operation, or even jointly in an operation by a different name, but you will only want to complete the survey for the Bill & Joe Ford operation.

Example 3. Operation Name and Target Name on label.

```
BARCO B BA BAR BARCO B BA BARCO B C
10 300123890 01 01 2315 125698 00
SURVEY CODE=10-300123891-GMX78Q 71 10000
WINDY ACRES FARM                20 129
RALPH DEAN                       00 307 359
12345 RIVER RD
OURTOWN DE 12590-4582
```

In example 3, the operation name is Windy Acre Farm, so Windy Acres Farm is the target. **You should collect data only for Windy Acres Farm, and no other operations.** The operator, Ralph Dean, may be involved in other operations, but you will want to collect data only for the land operated (owned and leased) by Windy Acres Farm.

Chapter 5 – Questionnaire

Face Page and Screening

On the front page, after confirming the address or making updates is a screener questions that will determine if the operator is in-scope for the survey. The following needs to be true in order to collect the survey:

- Operation was in business for any time during 2020
- Operation harvested at least 0.1 acre of field crops, fruits, vegetables, or hay
- Operation was not exclusively a greenhouse, nursery or Christmas tree farm, mushroom farm, or maple syrup farm

If the operation meets all the conditions, then it is considered in-scope for the CPAM survey, and you would proceed to Section 1. If any of the conditions are not met, then you would ask 1a. to assess the status of the operation before moving to Section 15 on the back page of the questionnaire.

We will not be doing any substitution for the CPAM survey, so if the operation has been turned over to someone else, collect the contact information and then conclude the survey.

Section 1 – Land Use and Livestock

The purpose of Section 1 is to collect some operational data for the entire operation in order to classify the operation later for comparison of operations of different sizes and types. This section contains questions about land use, conservation programs, livestock inventories, and organic production.

Questions 1-2

For land use, there are questions about land owned, rented or leased, along with land rented out to get the total acres operated on January 1, 2021. Some things to watch:

- Owned land should include all land owned by the operation, not just cropland.
- Land rented or leased, again should include all acres that the operations pays to rent or rents on a share basis or flexible arrangement. This includes any land leased on a short-term basis or AUM basis as of January 1, 2021.
- Land rented to others needs to include any land (owned or leased) that is rented or leased by another operator or operation.
- Calculate a total by following this formula: Owned land + rented land – land rented to others = total land operated on January 1, 2021.

Questions 3-4

Once the total land operated is established you will need to further establish, of the total acres, how many are cropland, grazing land or pasture, woodland not pastured, and other land. The sum of the items in question 3 should equal the total land reported in question 2. The acres reported in question 4 should be accounted for in question 3a.

Question 5

This question asks about the livestock inventories on the operation on January 1, 2021, or as close an approximation as can be had. The inventories of interest are beef cows, milk cows, other cattle (steers, heifers that have not calved, calves, bulls, feeder cattle, etc.), hogs and pigs, and poultry.

Question 6

This question is to find out if the operation produced organic products according to the USDA National Organic Program (NOP) standards or if the operation is in the process of transitioning to the USDA NOP in order to sell their production as certified organic. Only if the operation has at least some of their production in the USDA NOP they would answer yes.

Section 2 – Technical Assistance

Technical assistance (See Terms and Definitions in Chapter 3) is available from a number of different sources. This section is devoted to finding out which sources of technical assistance the operation has used in the past. Federal agencies such as NRCS provide technical assistance, but there may be other state or local conservation agencies, university extension services, or even advisors that can be hired.

Question 1

The respondent may or may not have received technical assistance (TA) in the past. If they have received TA, they will answer Question 1a. TA from universities should be included in the State or local resources. If the respondent is unsure about where a TA source falls in the 3 categories, make a note and it can be researched later.

Regardless of whether the respondent or their operation received or sought out any technical assistance, they should provide their agreement or disagreement with each of the statements in question 1b.

Section 3 – Cover Crops

Cover crops are planted primarily for managing soil fertility, soil quality and controlling weeds, pests, and diseases. Species often used for cover crops are small grains (rye, winter wheat, oats), clover, radishes, turnips, and other crops or mixtures of crops.

Conservation Reserve Program (CRP) acres should not be included as that is a separate program.

Question 1: Ask if the operator has used cover crops at any time on any portion of their operation. This can be on acres that they no longer operate but have in the past. Even if cover crops were used just a single time, it will be important that the operator is screened correctly.

If the answer is 'yes', they have used cover crops in the past, skip over 1a and 1b and go directly to question 2.

If the answer is 'no', complete the table for 1a and 1b. Item 1a asks the respondent to assess the importance of a series of conservation, financial, and other factors in deciding not to use cover crops. Item 1b asks the respondent to write in any additional reason (not listed in the table) that was important or very important in deciding not to use cover crops. After completing 1a and 1b, go to section 4 on page 9.

Question 2 and all sub-questions are about cover crops planted in 2020. If the respondent did not plant any cover crop in 2020, answer 'no' to question 2 then move to question 3 on page 6.

If the respondent did plant a cover crop on any of their acres in 2020, then you will answer 'yes' to question 2 and proceed to ask 2a i-v.

For 2a.ii. there is a limited number of characters allowed, so try to list crops in order of acreage planted before or after a cover crop to capture the greatest number of acres that had a cover crop before and after.

Question 3 and all the sub-questions are about the first-year cover crops were used on the respondent's operation and his or her reasons for using a cover crop for the first time.

Question 3: Ask for the 4-digit year, such as 2005, when a cover crop was first used.

Question 3a: What percentage of the respondent's cropland (at that time) that had a cover crop planted during the first year, not to exceed 100%.

Question 3a.i. asks about conservation compliance (also known as Highly Erodible Land Conservation). For the first year of cover crop use, ask whether the cover crop(s) helped satisfy conservation compliance requirements on highly erodible land. On land designated as highly erodible land (HEL), an approved soil conservation system must be applied to retain eligibility for farm commodity payments, crop insurance premium subsidies, and other agriculture-related programs.

Question 3b is about technical or financial assistance that the respondent may have received in the first-year cover crops were used. If the respondent received technical expertise for planning or implementation that was provided by (or reimbursed by) federal, state, local government, check 'yes' for technical assistance. If the respondent received financial assistance, from any source, to help defray the cost of implementing the pest management plan, check 'yes' for financial assistance.

Respondents who respond 'yes' for financial assistance should also provide the number of acres where financial assistance was received and the percentage of actual cover crop cost covered by financial assistance. If no financial assistance was received, the last two columns of the table should be left blank. Question 3b.i. asks what percentage of financial assistance was from a federal source such as NRCS. If all financial assistance was from a non-federal source (a state or local government, for example), enter a 0 for the percent and move to question 3c on page 7.

Question 3c asks the respondent to assess the importance of a series of conservation, financial, and other factors in deciding to use cover crops for the first time. Question 3d should be completed if there is an additional factor, not contained in the table, that was important to the respondent in deciding to start using cover crops. There is a limit on the number of characters available so be concise in your description.

Question 4 asks the respondent whether cover crop use was expanded after the first year. If the respondent has expanded the use of cover crops since the year reported in question 3, then check 'yes' and ask question 4a and all the sub-questions. If the operator never expanded their use of cover crops, answer 'no' and move on to question 5 on page 8.

Question 4a asks for information on technical and financial assistance received for expanded use of cover crops after the initial year (covered in 3b). Respondents who check 'yes' for financial assistance should also provide the number of acres where financial assistance was received and the percentage of actual cover crop cost covered by financial assistance. If no financial assistance was received, then the last two columns of the table should be left blank. Question 4a.i. asks what percentage of financial assistance was from a federal source such as NRCS. If all financial assistance was from another source, enter a 0 for the percent and move to question 4a.ii.

Question 4a.ii asks the respondent to assess the importance of a series of factors in deciding to expand the use of cover crops.

Question 5 asks about the last year that a cover crop was used. If the respondent already reported cover crops on their operation in 2020 (question 2), put 2020 in the cell and then go to Section 4 on page 9. Do the same thing if they respond that they planted a cover crop in 2021.

If the last year that a cover crop was used is 2019 or earlier, then ask question 5a. If the respondent does not plan to use cover crops at all in the next 3 years, check 'no' and ask 5b. If the respondent does plan to use cover crops again in the next 3 years, then check 'yes' and go to section 4 on page 9.

Question 5b should only be completed if the respondent hasn't used a cover crop since 2019 or earlier **and** has no plans to use a cover crop in the next 3 years. Question 5b asks the respondent to assess the importance of a series of factors in deciding to stop using cover crops.

Section 4 – Nutrient Management

Question 1 asks whether the respondent used any of the listed nutrient or fertility practices during 2020. The operation may use many different practices so be sure the respondent understands they can select all the practices they used in 2020.

Question 2 asks if the respondent has followed a written nutrient management plan (see terms and definitions in Chapter 3) at any time on the current operation. If the answer is 'yes' (the respondent has followed a written nutrient management plan), go to question 3 on page 10.

If the answer is 'no', complete the table for 2a and 2b. Item 2a asks the respondent to assess the importance of a series of conservation, financial, and other factors in deciding not to follow a written nutrient management plan. Item 2b asks the respondent to write in any additional reason (not listed in the table) that was important or very important in deciding not to follow a written nutrient management plan. After completing 2a and 2b, go to section 5 on page 12.

Question 3 asks whether the respondent followed a written nutrient plan in 2020. If the respondent **did not** follow a written nutrient management plan in 2020, answer 'no' then move to question 4. If the respondent **did** follow a written nutrient management plan in 2020, answer 'yes' and ask sub-questions 3a-3c.

Question 4 and all sub-questions are about the first year the respondent followed a nutrient management plan on cropland. Question 4 establishes the first year the respondent used a written nutrient management plan. Make sure that the year recorded in question 4 is the four-digit year, such as 2005, not just 05. Question 4a is asking about the written nutrient management plan, even though written is not specified.

Question 4b is about technical or financial assistance that the respondent may have received in the first year a written nutrient management plan was used. If the respondent received technical expertise for planning or implementation that was provided by (or reimbursed by) federal, state, local government, check 'yes' for technical assistance. If the respondent received financial assistance, from any source, to help defray the cost of implementing the pest management plan, check 'yes' for financial assistance.

Respondents who respond 'yes' for financial assistance should also provide the number of acres covered by the nutrient management plan (where financial assistance was received) and the percentage of actual nutrient management costs covered by financial assistance. If no financial assistance was received, then the last two columns of the table should be left blank. For question 4b.i. ask if any of the financial assistance was from a federal source such as NRCS. If the financial assistance was from a non-Federal (e.g., State, local, or private) source, enter a 0 for the percent and move to question 4c.

Question 4c. asks the respondent to assess the importance of a series of conservation, financial, and other factors in deciding to use a written nutrient management plan for the first time. Question 4d. should be completed if there is an additional factor, not contained in the table, that was important or very important to the respondent in deciding to start using a written nutrient management plan. There is a limit on the number of characters available so be concise in your description.

Question 5 asks if the respondent has expanded the percent of cropland covered by the written nutrient management plan since the first year it was used. If the respondent has expanded the nutrient management plan to cover a larger percent of cropland, check ‘yes’ and ask questions 5a and 5b. If the operator never expanded nutrient management plan, answer ‘no’ and move on to question 6.

Question 5a gathers information on technical and financial assistance received for expanding the portion of cropland covered by a written nutrient management plan **after** the initial year identified in question 4.

If no financial assistance was received for expanding coverage, then the last two columns of the table should be left blank. Question 5a.i. asks if any of the financial assistance was from a federal source such as NRCS. If the financial assistance was from a non-Federal (e.g., State, local, or private) source, enter a 0 for the percent and move to question 5b.

Question 5b asks the respondent to assess the importance of a series of factors in deciding to expand the percentage of cropland acres managed under the written nutrient management plan.

Question 6 asks about the last year that a written nutrient management plan was used. If the respondent already reported that they used their written nutrient management plan in 2020, put 2020 in the cell and go to Section 5 on page 12. Do the same thing if they respond that they followed a written nutrient management plan in 2021.

If the last year that a written nutrient management plan was used is 2019 or earlier, ask question 6a. If the respondent does not plan to follow a written plan in any of the next 3 years, check ‘no’ and ask question 6b. If the respondent does plan to use a written nutrient management plan again in the next 3 years, check ‘yes’ and go to section 5 on page 12.

The table for question 6b. should only be completed if the respondent hasn’t used a written nutrient management plan since 2019 or earlier does not plan to follow a written plan in any of the next 3 years. Question 6b. asks the respondent to assess the importance of a series of factors in deciding to stop using a written nutrient management plan for cropland.

Section 5 – Pest Management

Question 1 asks if the respondent used any of the listed pest management practices during 2020. The operation may use many different practices so be sure that the respondent understands that they can select all the practices that they used in 2020.

Question 2 asks if the respondent has followed a written pest management plan (see terms and definitions in Chapter 3) at any time on the current operation. If the answer is ‘yes’ (the respondent has followed a written pest management plan), go to question 3 on page 13.

If the answer is ‘no’, complete the table for 2a. and 2b. Item 2a. asks the respondent to assess the importance of a series of conservation, financial, and other factors in deciding not to follow a written pest

management plan. Item 2b. asks the respondent to write in any additional reason (not listed in the table) that was important or very important in deciding not to follow a written nutrient management plan. After completing 2a. and 2b., go to Section 6 on page 16.

Question 3 asks if the respondent followed a written pest management plan in 2020. If the respondent **did not** follow a written pest management plan in 2020, answer ‘no’ and go to question 4. If the respondent **did** follow a written pest management plan in 2020, answer ‘yes’ and ask question 3a.

Question 4 and all sub-questions are about the first year the respondent followed a pest management plan on cropland. Question 4 establishes the first year that the respondent used a written pest management plan. Make sure that the year recorded in question 4 is the four-digit year, such as 2005, not just 05. Question 4a. is asking about the written pest management plan, even though written is not specified.

Question 4b. is about technical or financial assistance that the respondent may have received in the first year a written pest management plan was used. If the respondent received technical expertise for planning or implementation that was provided by (or reimbursed by) federal, state, local government, check ‘yes’ for technical assistance. If the respondent received financial assistance, from any source, to help defray the cost of implementing the pest management plan, check ‘yes’ for financial assistance.

Respondents who check ‘yes’ for financial assistance should also provide the number of acres covered by the pest management plan (where financial assistance was received) and the percentage of actual pest management costs covered by financial assistance. If no financial assistance was received, then the last two columns of the table should be left blank. For question 4b.i. asks if any of the financial assistance was from a federal source such as NRCS. If the financial assistance was from a non-Federal (e.g., State, local, or private) source, enter a 0 for the percent and move to question 4c.

Question 4c. asks the respondent to assess the importance of a series of conservation, financial, and other factors in deciding to use a written pest management plan for the first time. Question 4d. should be completed if there is an additional factor, not contained in the table, that was important or very important to the respondent deciding to start using a written pest management plan. There is a limit on the number of characters available so be concise in your description.

Question 5 asks if the respondent has expanded the percent of cropland covered by the written pest management plan since the first year it was used. If the respondent has expanded the pest management plan to cover a larger percent of cropland, answer ‘yes’ and ask questions 5a. and 5b. If the operator never expanded pest management plan, answer ‘no’ and move on to question 6.

Question 5a. gathers information on technical and financial assistance received for expanding the portion of cropland covered by a written pest management plan after the initial year identified in question 4.

Respondents who check ‘yes’ for financial assistance should also provide the number of acres covered by the pest management plan (where financial assistance was received) and the percentage of actual pest management costs covered by financial assistance.

If no financial assistance was received for expanding pest management, then the last two columns of the table should be left blank. For question 5a.i. asks if any of the financial assistance was from a federal source such as NRCS. If the financial assistance was from a non-Federal source, enter a 0 for the percent and move to question 5a.ii.

Question 5b. asks the respondent to assess the importance of a series of factors in deciding to expand the percentage of cropland acres managed under the written pest management plan.

Question 6 asks about the last year that a written pest management plan was used. If the respondent already reported that they used their written pest management plan in 2020, put 2020 in the cell and go to Section 6 on page 16. Do the same thing if they respond that they followed a written pest management plan in 2021.

If the last year that a written pest management plan was used is 2019 or earlier, ask question 6a. If the respondent does not plan to follow a written plan at all in the next 3 years, check ‘no’ and ask question 6b. If the respondent does plan to use a written pest management plan again in the next 3 years, check ‘yes’ and go to section 6 on page 16.

The table for 6b. should only be completed if the respondent hasn’t used a written pest management plan since 2019 or earlier and does not plan to follow a written plan in the next 3 years. Question 6b. asks the respondent to assess the importance of a series of factors in deciding to stop using a written pest management plan on cropland.

Section 6 – Tillage Practices

Question 1 asks if the operator has used conservation tillage practices (no-till, strip-till, or reduced tillage) at any time on any portion of their operation. This can be on acres that they no longer operate but have in the past. Even if conservation tillage was used a single time, it will be important that the operator is screened correctly.

If the respondent has never used conservation tillage, complete the table for 1a. and 1b. Item 1a asks the respondent to assess the importance of a series of conservation, financial, and other factors in deciding not to use conservation tillage. Item 1b. asks the respondent to write in any additional reason (not listed in the table) that was important or very important in deciding not to use conservation tillage. After completing 1a. and 1b. go to section 7 on page 20.

If the respondent has used conservation tillage in the past, skip questions 1a. and 1b. and go directly to question 2.

Question 2 and all sub-questions are about conservation tillage in 2020. If the respondent did not use conservation tillage in 2020, answer ‘no’ to question 2 then move to question 3 on page 17.

If the respondent did use conservation tillage on any of their acres in 2020, answer ‘yes’ to question 2 and proceed to ask 2a. For 2a. the sum of the cropland percentages should be no greater than 100%. In the case of double cropping, land is in conservation tillage only if conservation tillage is used all for crops grown. Land should be counted as no-till only if all crops are grown without tillage. Fertilizer application with narrow knives is not considered tillage.

Question 3 all the sub-questions are about the first year that any form of conservation tillage was used. Question 3 and all the sub-questions are targeting the first year, along with the decision to use conservation tillage for the first time.

Question 3 established the first year when conservation tillage was used anywhere in the respondent’s operation. A 4-digit year, such as 2005, is required. Question 3a, asks for the percentage of the cropland where conservation tillage was used during the first year, not to exceed 100%.

Question 3a.i. asks about conservation compliance (also known as Highly Erodible Land Conservation).

For the first year of conservation tillage use, ask whether conservation tillage helped satisfy conservation compliance requirements on highly erodible land. On land designated as highly erodible land (HEL), an approved soil conservation system must be applied to retain eligibility for farm commodity payments, crop insurance premium subsidies, and other agriculture-related programs.

Question 3b. is about technical or financial assistance that the respondent may have received in the first-year conservation tillage was used. If the respondent received technical expertise or information for planning or implementation that was provided by (or reimbursed by) federal, state, local government, check 'yes' for technical assistance. If the respondent received assistance to help defray the cost of adoption, from any source, check 'yes' for financial assistance.

Respondents who check 'yes' for financial assistance should also provide the number of acres covered by the conservation tillage (where financial assistance was received) and the percentage of actual conservation tillage costs covered by financial assistance.

If no financial assistance was received, then the last two columns of the table should be left blank. For question 3b.i. ask if any of the financial assistance was from a federal source such as NRCS. If the financial assistance was from a non-federal source (e.g., state, local, private), enter a 0 for the percent and move to question 3c.

Question 3c asks the respondent to assess the importance of a series of conservation, financial, and other factors in deciding to use conservation tillage for the first time. Question 3d should be completed if there is an additional factor not contained in the table that the respondent found to be important or very important in their decision to start using conservation tillage. There is a limit on the number of characters available so be concise in your description.

Question 4 asks if the respondent has expanded the percent of cropland covered by conservation tillage since the first year it was used. If the respondent has expanded the conservation tillage to cover a larger percent of cropland after the year reported in question 3, check 'yes' and ask questions 4a and 4b. If the operator never expanded conservation tillage, answer 'no' and move on to question 5 on page 19.

Question 4a gathers information on technical and financial assistance received for expanding the portion of cropland covered by conservation tillage after the initial year identified in question 3.

Respondents who check 'yes' for financial assistance should also provide the number of acres covered by the conservation tillage (where financial assistance was received) and the percentage of actual conservation tillage costs (such as updates to machinery) covered by financial assistance .

If no financial assistance was received for expanding conservation tillage, then the last two columns of the table should be left blank. For question 4a.i. asks if any of the financial assistance was from a federal source such as NRCS. If the financial assistance was from a non-Federal source, enter a 0 for the percent and move to question 4b.

Question 4b asks the respondent to assess the importance of a series of factors in deciding to expand the percentage of cropland where conservation tillage is used.

Question 5 asks about the last year that a conservation tillage was used. If the respondent already reported using conservation tillage on their operation in 2020, put 2020 in the cell and go to Section 7 on page 20. Do the same thing if they respond that they used conservation tillage in 2021.

If the last year that conservation tillage was used is 2019 or earlier, ask question 5a. If the respondent does not plan to use conservation tillage at all in the next 3 years, check 'no' and ask 5b. If the respondent does plan to use conservation tillage again in the next 3 years, then you will check 'yes' for question 5a and go to section 7 on page 20.

The table for 5b should only be completed if the respondent hasn't used conservation tillage since 2019 or earlier and has no plans to use conservation tillage in the next 3 years. Question 5b asks the respondent to assess the importance of a series of factors in deciding to stop conservation tillage.

Section 7 – Drainage Water Management

Question 1 establishes if the sampled operation has any drainage systems in place, such as tile, ditches, etc. If the respondent does not have a drainage system on any cropland, answer 'no' and go to section 8 on page 24. If the sampled operation does have a drainage system of any size on any cropland answer 'yes' and continue to questions 1a. and 1b.

Question 1a. asks what percentage of the respondent's cropland has any type of drainage system. The answer should reflect the cropland acres that are impacted by the drainage system, not just the area that the system is in.

Question 1b. asks if the drainage system has a water control structure such as flashboard risers, check dams, division boxes, pipe drop inlets, etc. If there is no water control structure anywhere within the drainage system, skip the rest of the section and go to Section 8 on page 24. If the answer is 'yes' for either manually operated or automated/remotely controlled, continue by asking 1c. and 1d.

Question 2 asks respondents about the objective of drainage water control structures. These structures may have more than one objective, so select all that apply. If there is another object that is not listed, it can be entered in the space provided, but be concise with your answer as there is a limit on the response size.

Question 3 is a screening question that asks if the respondent has used a written drainage water management plan at any time on the current operation that was developed with assistance from a government agency, private consultant, or some other expert. If the answer is 'yes', go to question 4.

If the answer is no, complete the table for 3a. and 3b. Item 3a. asks the respondent to assess the importance of a series of conservation, financial, and other factors in deciding not to use a written drainage water management plan. Item 3b. asks the respondent to write in any additional reason (not listed in the table) that was important or very important in deciding not to use a written drainage water management plan. Upon completing 3a. and 3b. go to section 8 on page 24.

Question 4 asks if the operation followed a written drainage water management plan in 2020.

Question 5 establishes the first year the respondent used a written drainage water management plan. Make sure that the year recorded in question 5 is the four-digit year, such as 2005, not just 05. Question 5a. is asking about the written drainage water management plan, even though written is not specified.

Question 5b. is about technical or financial assistance that the respondent may have received in the first year a written drainage water management plan was used. If the respondent received technical expertise for planning or implementation that was provided by (or reimbursed by) federal, state, local government, check 'yes' for technical assistance. If the respondent received financial assistance, from any source, to

help defray the cost of implementing the written drainage water management plan, check 'yes' for financial assistance.

Respondents who check 'yes' for financial assistance should also provide the number of acres covered by the drainage water management plan (where financial assistance was received) and the percentage of actual drainage water management costs covered by financial assistance.

If no financial assistance was received, then the last two columns of the table should be left blank. Question 5b.i. asks if any of the financial assistance was from a federal source such as NRCS. If the financial assistance was from a non-Federal (e.g., State, local, or private) source, enter a 0 for the percent and move to question 5c.

Question 5c. asks the respondent to assess the importance of a series of conservation, financial, and other factors in deciding to use a written drainage water management plan for the first time.

Question 5d. should be completed if there is an additional factor, not contained in the table, that was important or very important to the respondent deciding to start using a written drainage water management plan. There is a limit on the number of characters available so be concise in your description.

Question 5e asks what percentage of the respondent's drained cropland had any type of drainage water management system in 2020. The answer should reflect the cropland acres that are impacted by the drainage water management system, not just the area that the system is in.

Question 6 asks if the respondent has expanded the percent of cropland drained by the drainage water management plan since the first year it was used. If the operation has expanded the acreage affected by the drainage water management plan to cover a larger percent of cropland, check 'yes' and ask questions 6a. and 6b. If the operator never expanded the drainage water management acreage, answer 'no' and move on to question 7 on page 23.

Question 6a. gathers information on technical and financial assistance received for expanding the portion of drained cropland covered by a drainage water management plan after the initial year established in question 5.

Respondents who respond 'yes' for financial assistance should also provide the number of drained cropland acres covered by the drainage water management plan (where financial assistance was received) and the percentage of actual drainage water management costs covered by financial assistance.

If no financial assistance was received for expanding drainage water management, then the last two columns of the table should be left blank. Question 5a.i. asks if any of the financial assistance was from a federal source such as NRCS. If the financial assistance was from a non-Federal source, enter a 0 for the percent and move to question 6b.

Question 6b. asks the respondent to assess the importance of a series of factors in deciding to expand the percentage of drained cropland acres managed under the drainage water management plan.

Question 7 asks about the last year that a written drainage water management plan was followed. If the respondent already reported using their written drainage water management plan in 2020, put 2020 in the cell and go to Section 8 on page 24. Do the same thing if they respond that they followed a written drainage water management plan in 2021.

If the last year that a written drainage water management plan was followed is 2019 or earlier, ask question 7a. If the respondent does not plan to follow a written drainage management plan at all in the next 3 years, check ‘no’ and ask 7b. If the respondent does plan to follow a written drainage water management plan again in the next 3 years, check ‘yes’ and go to section 8 on page 24.

The table for 7b. should only be completed if the respondent hasn’t followed a written drainage water management plan since 2019 or earlier and has no plans to use a written plan in the next 3 years. Question 5b asks the respondent to assess the importance of a series of factors in deciding to stop using their written drainage water management plan.

Section 8 – Runoff Management Practices

Question 1 establishes if the sampled operation has any runoff management practices in place to slow the movement of water and reduce erosion on any land owned (first column) or land leased (second column). The practices or structures are terraces, grassed waterway, grade stabilization, water and sediment basin, and contour farming.

If the sampled operation does have at least one practice in place, go to question 2.

If the respondent has never used runoff management practices (on owned or leased land), complete the table for 1a. and 1b. Item 1a. asks the respondent to assess the importance of a series of conservation, financial, and other factors in deciding not to use runoff management practices. Item 1b. asks the respondent to write in any additional reason (not listed in the table) that was important or very important in deciding not to use runoff management practices. After completing 1a. and 1b., go to section 9 on page 26.

Question 2 asks if the respondent had any runoff management practice or improvement still in use on any land specifically leased by the operation during 2020. If the answer is ‘yes’, ask whether the lease requires maintenance of these practices. If the answer is ‘no’ (which should match the response in the second column of question 1), move to question 3.

Question 3 is a table that asks respondents about runoff management structures on land they own and about any technical or financial assistance they received.

The first column asks if the operation installed or improved any of the structures. Keep in mind that the structure may have been in place already when the land was purchased or leased, so the first column is really getting at whether the respondent’s operation installed, upgraded, or rebuilt structures.

The second column asks if the respondents operation received any technical assistance for any of the practices or structures installed, upgraded, or rebuilt. If the respondent received technical expertise for planning or implementation that was provided by (or reimbursed by) federal, state, local government, check ‘yes’ for technical assistance.

The third column asks if the respondents operation received any financial assistance for any of the practices or structures installed, upgraded, or rebuilt. If the respondent received financial assistance, from any source, to help defray the cost of implementing the written drainage water management plan, check ‘yes’ for financial assistance.

Respondents who check 'yes' for financial assistance should also provide the number of acres where financial assistance was received (in column 4) and the percentage of actual costs covered by financial assistance (in column 5). Acreage should be the number of acres in the field(s) where the practices or structures were installed, upgraded, or rebuilt. If no financial assistance was received for any practice, then the last two columns of the table should be left blank.

Question 3a. asks if any of the financial assistance was from a federal source such as NRCS. If the financial assistance was from another source, enter a 0 for the percent and move to question 3b.

Question 3b. asks the respondent to assess the importance of a series of conservation, financial, and other factors in deciding to install, upgrade, or rebuild any of the practices/structures listed in question 3.

Question 3c. should be answered if there any reasons not addressed in 3b. as to why the operation installed, upgraded, or rebuilt any of the listed practices or structures.

Section 9 – Edge of Field Structures

Question 1 establishes if the sampled operation has any edge of field structures in place on any land owned (first column) or land leased (second column). The practices or structures are field borders, filter strips, or riparian buffers. If the respondent answers that no, they don't have any of the structures in place (owned or leased), then continue with 1a. and 1b.

If the sampled operation does have at least one practice in place, go to question 2.

If the respondent has never used edge of field structures (on owned or leased land), complete the table for 1a. and 1b. Item 1a. asks the respondent to assess the importance of a series of conservation, financial, and other factors in deciding not to use edge of field structures. Item 1b. asks the respondent to write in any additional reason (not listed in the table) that was important or very important in deciding not to use edge of field structures. After completing 1a. and 1b. go to section 10 on page 28.

Question 2 asks if the respondent had any edge of field structure still in use on any land specifically leased by the operation during 2020. If the answer is 'yes', ask whether the lease requiring maintenance of these structures. If the answer is 'no' (which should match the response in the second column of question 1) move to question 3.

Question 3 is a table that asks respondents about edge of field structures on land they own and about any technical or financial assistance they received.

The first column asks if the operation installed, upgraded, or rebuilt any of the structures. Keep in mind that the structure may have been in place already when the land was purchased or leased, so the first column is really getting at whether the respondent's operation installed, upgraded, or rebuilt structures.

The second column asks if the respondents operation received any technical assistance for any of the structures installed, upgraded, or rebuilt. If the respondent received technical expertise for planning or implementation that was provided by (or reimbursed by) federal, state, local government, check 'yes' for technical assistance.

The third column asks if the respondents operation received any financial assistance for any of the structures installed, upgraded, or rebuilt. If the respondent received financial assistance, from any source,

to help defray the cost of implementing the written drainage water management plan, check 'yes' for financial assistance.

Respondents who check 'yes' for financial assistance should also provide the number of acres where financial assistance was received (in column 4) and the percentage of actual costs covered by financial assistance (in column 5). Acreage should be the number of acres in the field(s) next to structures that were installed, upgraded, or rebuilt. If no financial assistance was received for any practice, then the last two columns of the table should be left blank.

Question 3a. asks if any of the financial assistance was from a federal source such as NRCS. If the financial assistance was from another source, enter a 0 for the percent and move to question 3b.

Question 3b. asks the respondent to assess the importance of a series of conservation, financial, and other factors in deciding to install, upgrade, or rebuild any of the practices/structures listed in question 3.

Question 3c. should be answered if there any reasons not addressed in 3b. as to why the operation installed, upgraded, or rebuilt any of the listed practices or structures.

Section 10 – Wetland Conservation Practices

Question 1 asks whether the sampled operation has any land that is under a special easement or contract that could influence how it is required to treat certain portions of the land that it operates. The operation could be involved in more than one of the programs protecting wetlands, so be sure to ask each one.

Question 2 establishes if the sampled operation has any land currently in a practice to conserve or increase wetlands either on land that is owned (first column) or land leased (second column). The practices can be to restore or enhance existing wetlands or create new wetlands.

If the sampled operation has at least one practice in place, you will move on to question 2.

If the respondent answers that 'no', they don't have any of the practices in place on owned or leased land, go to 2a. and 2b. Item 2a. asks the respondent to assess the importance of a series of conservation, financial, and other factors in deciding not to use wetland conservation practices. Item 2b. asks the respondent to write in any additional reason (not listed in the table) that was important or very important in deciding not to use wetland conservation practices. After completing 2a. and 2b. go to section 11 on page 29.

Question 3 asks if the respondent has any wetland conservation practices still in use on any land specifically leased by the operation during 2020. If the answer is 'yes', ask whether the lease requires maintenance of these practices (3a.). If the answer is 'no' (which should match the response in the second column of question 2), go to question 4.

Question 4 is a table that asks about wetland conservation practices on land they own and about any technical or financial assistance they received.

The first column asks if the operation installed, upgraded, or rebuilt any of the structures necessary for restoring or creating wetlands. Keep in mind that the structure may have been in place already when the land was purchased or leased, so the first column is really getting at whether the respondents operation installed, upgraded, or rebuilt structures.

The second column asks if the respondents operation received any technical assistance for any of the structures installed, upgraded, or rebuilt to restore or create wetlands. If the respondent received technical expertise for planning or implementation that was provided by (or reimbursed by) federal, state, local government, check 'yes' for technical assistance.

The third column asks if the respondents operation received any financial assistance for any of the structures installed, upgraded, or rebuilt. If the respondent received financial assistance, from any source, to help defray the cost of implementing the written drainage water management plan, check 'yes' for financial assistance.

Respondents who check 'yes' for financial assistance should also provide the number of acres where financial assistance was received (in column 4) and the percentage of actual costs covered by financial assistance (in column 5). Acreage should be the number of acres in the field(s) next to the structures that were installed, upgraded, or rebuilt. If no financial assistance was received for any practice, then the last two columns of the table should be left blank.

Question 4a. asks if any of the financial assistance was from a federal source such as NRCS. If the financial assistance was from another source, enter a 0 for the percent and move to question 4b.

Question 4b. asks the respondent to assess the importance of a series of conservation, financial, and other factors in deciding to install, upgrade, or rebuild any of the practices/structures listed in question 4.

Question 4c. should be answered if there any reasons not addressed in 4b. as to why the operation installed, upgraded, or rebuilt any of the listed practices or structures.

Question 5 asks whether the respondent's operation ever included wetland practice(s) when the contract or easement protecting these practices expired. Question 5a. asks whether the respondent chose to maintain or remove the practices after the contract or easement expired.

If the responded removed the practices, question 5b. asks the respondent to assess the importance of a series of conservation, financial, and other factors in deciding to remove the wetland practice.

Question 5c. asks what percentage of acres on the operation (owned or leased) had wetland conservation practices in 2020. Respondents should supply the number of acres in tracts (fields) where wetland practices are located.

Question 6 asks what year the respondent first installed or upgraded a wetland conservation practice. This would be any installations or upgrades performed by the sampled operation, not any that would have been done prior to the operation taking ownership or leasing the land. Please be sure to use a 4-digit year such as 2005.

Question 6a. should only include the proportion of cropland specifically designated for wetland conservation practices.

Section 11 – Irrigation Management and System Improvements

Question 1 is the main screener to determine if the respondent's operation includes irrigated land. If the sampled operation does not have any irrigation equipment, go to Section 12. If the sampled operation has used any irrigation equipment at any time on cropland continue to ask the questions in Section 11.

Question 1a. asks what percentage of the operation cropland was irrigated in 2020. This is not just asking about the presence of equipment, but the actual act of irrigating the cropland. Enter a 0 if there was no irrigation in 2020, even if irrigation equipment is in place.

Question 1b. lists a number of irrigation practices used to determining when and how much to irrigate. A respondent may use a combination of different practices, so make it clear that the question is asking for all methods used currently or at any time in the past.

Question 2 asks if the respondent ever used a written irrigation water management plan on his or her operation at any time, based on the definition of a written water management plan, and prepared with assistance from a government agency, private consultant, or other technical expert.

If the answer is yes, a written irrigation water management plan was followed on the operation at some point in time, answer 'yes' and proceed to Question 3 on page 32.

If the answer is no, the operation has never followed a written irrigation water management plan, then ask 2a. and 2b. Item 2a. asks the respondent to assess the importance of a series of conservation, financial, and other factors in deciding not to use a written irrigation water management plan. Item 2b. asks the respondent to write in any additional reason (not listed in the table) that was important or very important in deciding not to use a written plan. After 2b. has been completed, follow the skip instruction to go to Section 12 on page 36.

Question 3 asks if a written irrigation water management plan (that meets the definition in question 2) was followed in 2020.

If a written irrigation water management plan was not followed in 2020, answer 'no' and move on to Question 4.

If a written plan was followed in 2020, answer 'yes' and proceed to question 3a: What percentage of all irrigated cropland followed the written irrigation water management plan. The written plan may not cover all cropland that was irrigated, so be clear that the respondent should include only the portion of total irrigated cropland that was irrigated following the written irrigation water management plan.

Question 4 and the sub-questions that follow are about the first year the respondent followed a written irrigation water management plan. Report the first year as a 4-digit year such as 2005.

Questions 4a. is asking what percentage of the total cropland, not just the irrigated cropland, was the written irrigation water management plan used. For example, if the operation has 1,000 acres of cropland, and 200 acres irrigated, and 100 irrigated acres that followed the written irrigation water management plan, then the answer would be 10%.

Question 4b. is about technical or financial assistance that the respondent may have received in the first year a written irrigation water management plan was used. If the respondent received technical expertise for planning or implementation that was provided by (or reimbursed by) federal, state, local government, check 'yes' for technical assistance. If the respondent received financial assistance, from any source, to help defray the cost of implementing the irrigation water management plan, check 'yes' for financial assistance.

Respondents who check 'yes' for financial assistance should also provide the number of acres covered by the irrigation water management plan (where financial assistance was received) and the percentage of

actual irrigation water management costs covered by financial assistance. If no financial assistance was received, then the last two columns of the table should be left blank.

For question 4b.i. ask if any of the financial assistance was from a federal source such as NRCS. If the financial assistance was from a non-Federal (e.g., State, local, or private) source, enter a 0 for the percent and move to question 4c.

Question 4c. asks the respondent to assess the importance of a series of conservation, financial, and other factors in deciding to use a written irrigation water management plan for the first time. Question 4d. should be completed if there is an additional factor, not contained in the table, that was important or very important to the respondent deciding to start using a written pest management plan. There is a limit on the number of characters available so be concise in your description.

Question 5 asks if the respondent has expanded the percent of total cropland (not just irrigated land) included in the written irrigation water management plan since the first year of adoption. If the respondent has expanded the amount of cropland since the year reported in question 4, check 'yes' and ask question 5a. and the sub-question along with 5b. If the operator never expanded their irrigation water management plan, you will answer 'no' and move on to question 6.

Question 5a. gathers information on technical and financial assistance received for expanding the portion of cropland covered by a written irrigation water management plan after the initial year identified in question 4.

Respondents who check 'yes' for financial assistance should also provide the number of acres covered by the irrigation water management plan (where financial assistance was received) and the percentage of actual irrigation water management costs covered by financial assistance.

If no financial assistance was received for expanding irrigation water management, then the last two columns of the table should be left blank. For question 5a.i. asks if any of the financial assistance was from a federal source such as NRCS. If the financial assistance was from a non-Federal source, enter a 0 for the percent and move to question 5b.

Question 5b. asks the respondent to assess the importance of a series of factors in deciding to expand the percentage of cropland acres managed under the written irrigation water management plan.

Question 6 asks about the last year that a written irrigation water management plan was followed. If the respondent already reported that they used a written plan on their operation in 2020, you will put 2020 in the cell and then go to question 7 on page 34. Do the same thing if they respond that they followed a plan in 2021.

If the last year that a written irrigation water management plan was used is 2019 or earlier, ask question 6a. If the respondent does not plan to follow a written irrigation water management plan at all in the next 3 years, check 'no' and ask 6b. on the next page. If the respondent does plan to use conservation tillage again in the next 3 years, check 'yes' and go to question 7 on page 34.

The table for 6b. should only be completed if the respondent hasn't followed a written irrigation water management plan since 2019 or earlier and has no plans to follow a plan in the next 3 years. The table asks the respondent to assess the importance of a series of factors in deciding to stop using irrigation water management plan.

Question 7 establishes what irrigation systems are in place on the sampled operation, whether on owned land or leased land, and whether any of the irrigation systems were installed new or upgraded in the last 15 years. The irrigation facilities on the sampled operation should be classified into one of the four categories on either the owned or rented land.

If none of the irrigation systems in place have been installed or upgraded in the last 15 years, either on owned or rented land, then skip to Question 8 on the next page.

Question 7a. asks about technical assistance or financial assistance that the respondent may have received when installing new irrigation system or upgrading an existing system.

If the respondent received technical expertise for planning or implementation that was provided by (or reimbursed by) federal, state, local government, check 'yes' for technical assistance. If the respondent received financial assistance, from any source, to help defray the cost of irrigation system installation or upgrade, check 'yes' for financial assistance. This should be limited to assistance specific to any irrigation equipment purchases or installation.

Respondents who check 'yes' for financial assistance should also provide the number of acres covered by the irrigation newly installed or upgraded irrigation systems (where financial assistance was received) and the percentage of actual installation or upgrade costs covered by financial assistance. If no financial assistance was received, then the last two columns of the table should be left blank.

For question 7a.i. asks if any of the financial assistance was from a federal source such as NRCS. If the financial assistance was from another source, enter a 0 for the percent and move to question 8.

Question 8 asks about specific irrigation water supply systems such as irrigation pipeline, water conveyance structure, pumping plants, or water control structures that have been installed or upgraded in the past 15 years. The first column of the table is for new systems that have been installed by the sampled operation. The second column is for system upgrades to existing systems that were already in place 15 years ago. The last column is for any changes to the irrigation water supply systems that may have happened over the last 15 years such as regular maintenance, repairs, or improvements.

Question 8a. is a table that corresponds to the table for question 8. So if there was no new irrigation system installed or upgraded (first and second columns of the table in question 8) in the last 15 years, you should still ask this table because the operation may have received technical assistance without actually installing the new system or upgrades. But if there were any irrigation water supply systems reported as being installed or upgraded in question 8 then you need to find out if the operation received any technical or financial assistance, along with how much financial assistance they received. For question 8a.i. the survey is asking if any of the financial assistance was from a federal source such as NRCS. If the financial assistance was from another source, enter a 0 for the percent and move to Section 12 on page 36.

Section 12 – Conservation Stewardship Program

Question 1 is a screener to determine if the sampled operation (not the respondent) has ever been enrolled in the Conservation Stewardship Program (CSP). If the answer is 'yes', continue by asking questions 1a. If the answer is 'no', the operation has never been enrolled in CSP, move on to Section 13 on page 37.

Question 1a. is another screener to see if the sampled operation ever received any financial assistance through CSP specifically for the enhancement of a practice.

The practices eligible for the financial assistance through CSP are listed in question 1b. If the operation has not received any financial assistance, proceed to Section 13 on the next page. If they have, go through the practices listed in the table for 1b., and record the acres and what percentage of the cost of the practice was offset by the financial assistance from CSP.

Section 13 – Demographics

Questions 1 – 5 will be used to classify the operator. If there is more than one operator involved with the operation, collect the demographics of the principal operator if possible. If there is no principal operator or more than one principal operator, then collect the demographics of the person who would be making a majority of the conservation practice decisions.

Question 6 transitions to ask specifically about the legal status of the sampled operation. There are 4 options; family or individual, partnership, corporation, or other. Based on the selection of the operating arrangement, you will then ask the additional questions for the legal status if there are any.

Section 14 – Value of Sales

These questions are for classification and to establish the size and type of operation that was sampled.

Question 1 asks about the gross value of sales for the operation in 2020 including all agricultural products sold, agricultural products produced but not sold, government payments, and the landlord's share of the production (if any). The respondent is directed to choose which of the nine categories the operation falls into for 2020.

Question 2 asks the respondent to place the sampled operation in one of sixteen different operation types based on the of largest value of sales for 2020. If the respondent says that two different operation types are equal, then have them choose which operation type is most representative of their operation in other ways.

Section 15 – Conclusion

Question 1 is to be filled out if the sampled operation is no longer in business and the business has been sold or turned over to someone else. Do your best to collect the operation name, operator's name, address, and phone number. If possible, find out if the operation was in business on June 1, 2020.

Question 2 can be comments that are related to anything on the survey, changes in the operation, or anything else that was communicated to you, such as reason for refusal.

At the end of the survey try and collect the operation email, the best phone number, the respondent's name, and the respondent's phone number if different from the operation phone number. Fill out the date in the correct month/day/year format. Conclude the survey by thanking the respondent for their time.