Overview & Importance of CEAP

Evelyn Steglich, NRCS

Who is NRCS?

- Natural Resources Conservation Service
- **Our Mission**: We deliver conservation solutions so agricultural producers can protect natural resources and feed a growing world.
- USDA's primary private lands conservation agency
- Focused on the American farmer, through one-on-one, personalized advice, we work voluntarily with producers and communities to find the best solutions to meet their unique conservation goals

What is NRI?

- National Resources Inventory
- Conducted by NRCS in cooperation with Iowa State University's Center for Survey Statistics and Methodology
- Collects and produces scientifically credible information on the status, condition, and trends of land, soil, water, and related natural resources on the nation's non-federal lands
- Allows for regular resource appraisals on the effectiveness of soil and water conservation practices, irrigation techniques, and agricutural technologies, techniques, and practices

What is CEAP?

- A multi-agency effort led by the Natural Resources Conservation Service (NRCS) to quantify the effects of conservation practices across the nation's working lands.
- Findings are used to guide conservation program development
- Support conservationists, agricultural producers, and partners in choosing the most effective conservation actions and making informed management decisions backed by data and science

Purpose of CEAP

- Quantify the benefits of conservation on working lands that is implemented both voluntarily and through financial and technical assistance
- Helps NRCS:
  - Evaluate conservation effects
  - Identify potential improvements to programs or priorities
  - Set targeted, measurable goals for the future

History of CEAP

2002 — **CEAP is initiated** to strengthen accountability for conservation program funding provided through the 2002 Farm Bill

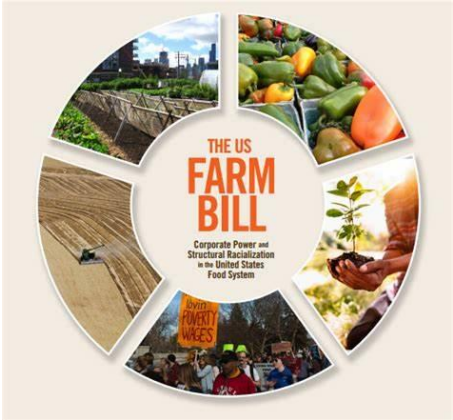
2003-2006 — **CEAP I Survey** is administered

2011 — **Chesapeake Bay Special Emphasis Survey** is administered. Compared results to CEAP I survey results to establish trends.

2012 — **Western Lake Erie/Des Moines Special Emphasis Survey** is administered. Compared results to CEAP I survey results to establish trends.

2013-2016 — **CA Central Valley & St. Francis Special Emphasis Surveys** administered in 2013 & 2014 and added to CEAP II survey results. **CEAP II Survey** administered in 2015 & 2016

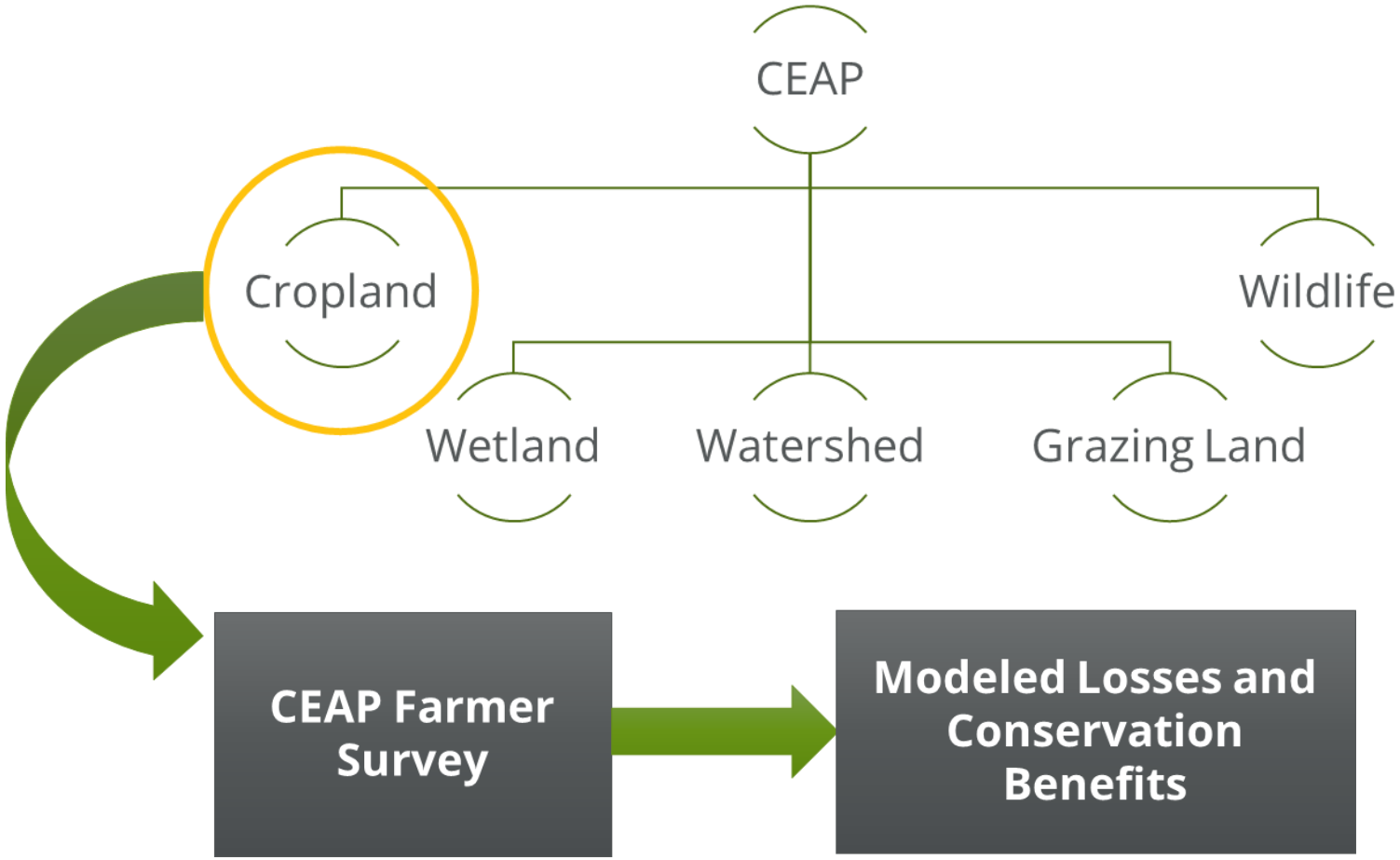
2024-2026 — **CEAP III Survey** administered



Why is CEAP Important?

- **Community:** Gives producers an opportunity to provide a complete and accurate picture of the conservation practices they use to improve the production and sustainability of croplands.
- **Science:** Establishes the scientific understanding of effects of conservation practices and agricultural land management at the regional and watershed scale
- **Policy:** Provides policymakers with valuable information needed to prioritize programs and practices that producers can use to address resource concerns

CEAP Cropland Assessment



How is Farmer Survey Data Used

- **Status & Trends:** Provides a 3-year snapshot of the conservation and management practices carried out at the surveyed point
- **Predictive Models:** CEAP pairs the survey data with the Agricultural Policy/Environmental eXtender (**APEX**) cropping system model to estimate edge-of-field sediment and nutrient losses:
  - Cropping system management : crops, tillage, fertilizer, irrigation, pesticides
  - Conservation practice adoption

How Do We Estimate Conservation Benefits?

- Simulate the management and practices as reported by the farmers
  - Estimate current sediment, nutrient losses, & carbon trends
  - Compare changes over time
- Simulate the same points with removal of all conservation practices
  - Compare to the reported scenario to determine the benefits provided by current conservation practice implementation
- Simulate implementation of additional conservation practices based on site-specific characteristics
  - Compare to the reported scenario to determine the potential benefits that could be realized if additional conservation practices were installed

What are the Reported Outcomes?

- How did the use of conservation practices change between the CEAP surveys?
  - Structural practices and conservation tillage
  - Conservation crop rotations
  - Use of cover crops in rotations
  - Irrigation (water sources, application method, efficiency, amount)
  - Nutrient management (rate, timing, and method)
  - Manure application trends (rate, timing, and method)

What are the Reported Outcomes?

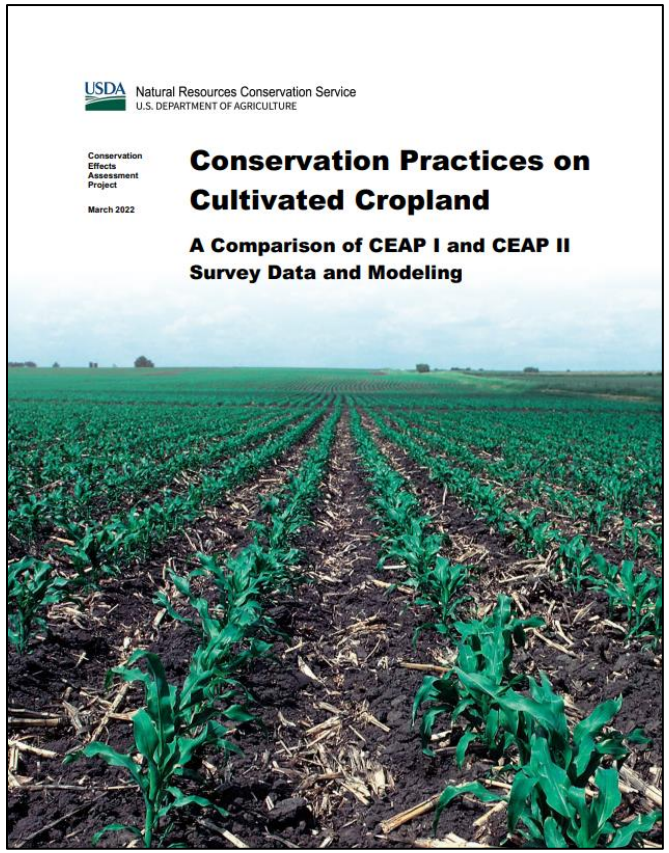
- How did conservation adoption affect resource concerns
  - Erosion (water and wind)
  - Sediment loss
  - Surface nitrogen loss
  - Subsurface nitrogen loss
  - Total phosphorus loss
  - Soluble phosphorus loss
  - Soil Carbon trends

How Are CEAP Findings Used?

- **Cropland farmers** can use CEAP findings to inform on-the-ground decisions related to conservation tillage, cover crops, irrigation, nutrient management, etc.
- **NRCS and conservation partners** use CEAP data to evaluate regional and national conservation outcomes to guide future efforts and initiatives

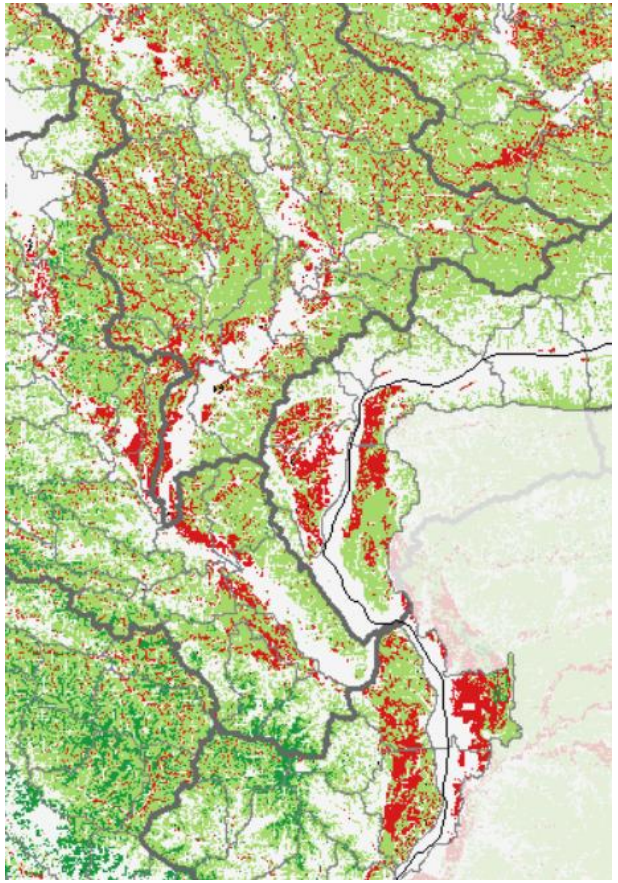
How Are Findings Distributed?

- National Report
- As a result of these findings, NRCS launched a Nutrient Management Task Force to discuss next steps
  - Revitalized the push for 4Rs of nutrient management (right **s**ource, right **m**ethod of application, right **r**ate, and right **t**iming) with site-specific **a**ssessment
  - SMART Nutrient Management Informational



How Are Findings Distributed?

- Regional reports by CEAP Production Regions
- State-specific informational pages provided to State NRCS conservationists and other state agricultural agencies
- Combined with other conservation planning data to help NRCS conservationists target areas in need of additional conservation measures



Why Participate in the Survey?

- Survey responses are **completely confidential**, and will never be used individually

- NRCS is **non-regulatory**
  - We're not looking to point fingers or catch "bad actors" and the data we collect will never be used that way

- We're not in the business of selling anything!
  - The survey is a data collection implement and you won't be contacted or influenced to operate differently

Why Participate in the Survey?

- Participation is a chance to tell your story

- Findings help inform the technical and financial assistance programs delivered by NRCS
  - Your responses may help dedicate more money to conservation programs or make them more tailored to farmer needs

- Findings help improve the effectiveness of voluntary conservation practice implementation

Questions?

Evelyn Steglich, NRCS
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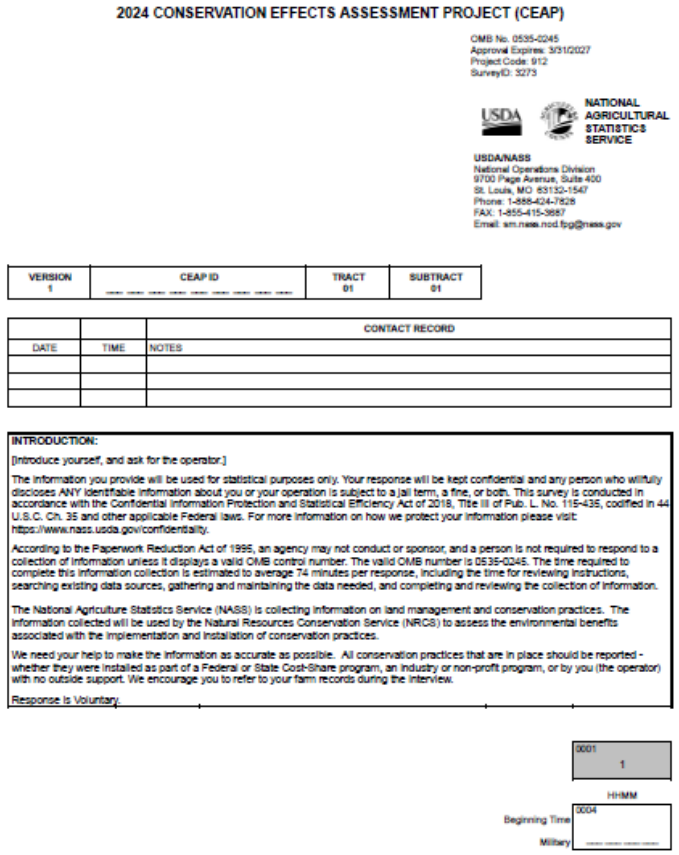
Face Page, Section A: Field Characteristics, and Section B: Conservation Plan

Jessica Lemenager

Northwest Region

Face Page



2024 CONSERVATION EFFECTS ASSESSMENT PROJECT (CEAP)

OMB No. 0535-0245
Approval Expires: 3/31/2027
Project Code: 912
SurveyID: 3273

USDA NATIONAL AGRICULTURAL STATISTICS SERVICE

USDA/NASS
National Operations Division
9700 Page Avenue, Suite 400
St. Louis, MO 63132-1547
Phone: 1-888-424-7828
FAX: 1-855-415-3887
Email: sm.nass.nod.fpg@nass.gov

VERSION	CEAP ID	TRACT	SUBTRACT
1		01	01

		CONTACT RECORD
DATE	TIME	NOTES

INTRODUCTION:

[Introduce yourself, and ask for the operator.]

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. For more information on how we protect your information please visit: https://www.nass.usda.gov/confidentiality.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB number is 0535-0245. The time required to complete this information collection is estimated to average 74 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The National Agriculture Statistics Service (NASS) is collecting information on land management and conservation practices. The information collected will be used by the Natural Resources Conservation Service (NRCS) to assess the environmental benefits associated with the implementation and installation of conservation practices.

We need your help to make the information as accurate as possible. All conservation practices that are in place should be reported - whether they were installed as part of a Federal or State Cost-Share program, an industry or non-profit program, or by you (the operator) with no outside support. We encourage you to refer to your farm records during the interview.

Response is Voluntary.

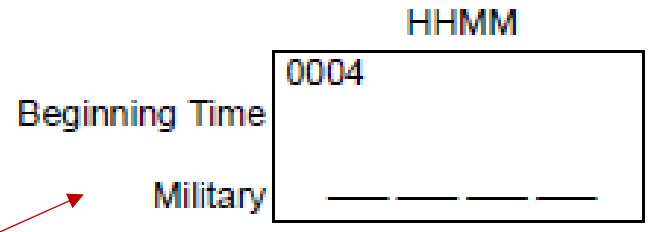
0001
1

HHMM

Beginning Time 0004

Military

No PII in the questionnaire!



What is the Selected Field?

- continuous area of land devoted to one crop or land use
- includes areas not cropped (e.g. grassed waterways)
- may include adjoining areas that are in conservation practices (e.g. field borders, buffer strips, etc.)

A FIELD CHARACTERISTICS — SELECTED FIELD A

1. In 20xx, how many acres in the selected field and conservation area containing the sample point were:

		Acres
a. planted or cropped, EXCLUDING greenhouse and nursery crops (selected field)?	+	0017 .___
b. in field borders, grassed waterways, buffers, and other uses associated with conservation practices but not cropped?	+	0018 .___
c. idle cropland or summer fallow (selected field)?	+	0019 .___
d. greenhouse and nursery crops?	+	0020 .___
e. pasture (selected field)?	+	0021 .___
f. continuous conservation cover (selected field)?	+	0016 .___
g. non-ag (such as dwellings, buildings, structures, roads, woodland and wasteland not in a conservation practice)?	+	0022 .___
		Acres
2. The TOTAL acres in the selected field and conservation area (1a + 1b + 1c +1d + 1e + 1f + 1g) are	=	0023 .___

← Hay, cover crops

Land Tenure

3. During 2024, was any portion of the selected field and/or conservation area of interest enrolled in the continuous Conservation Reserve Program (CRP), the Farmable Wetland Program (FWP), or in the Conservation Reserve Enhancement Program (CREP)?

	Code
☐ Yes — Enter 1	0732
☐ No — Enter 3	

4. Are the acres in the selected field certified organic or transitioning into certified organic production, as determined by the USDA National Organic Program (NOP) standards? ...

Yes, Certified Organic = 1
Yes, Transitioning = 2
No = 3

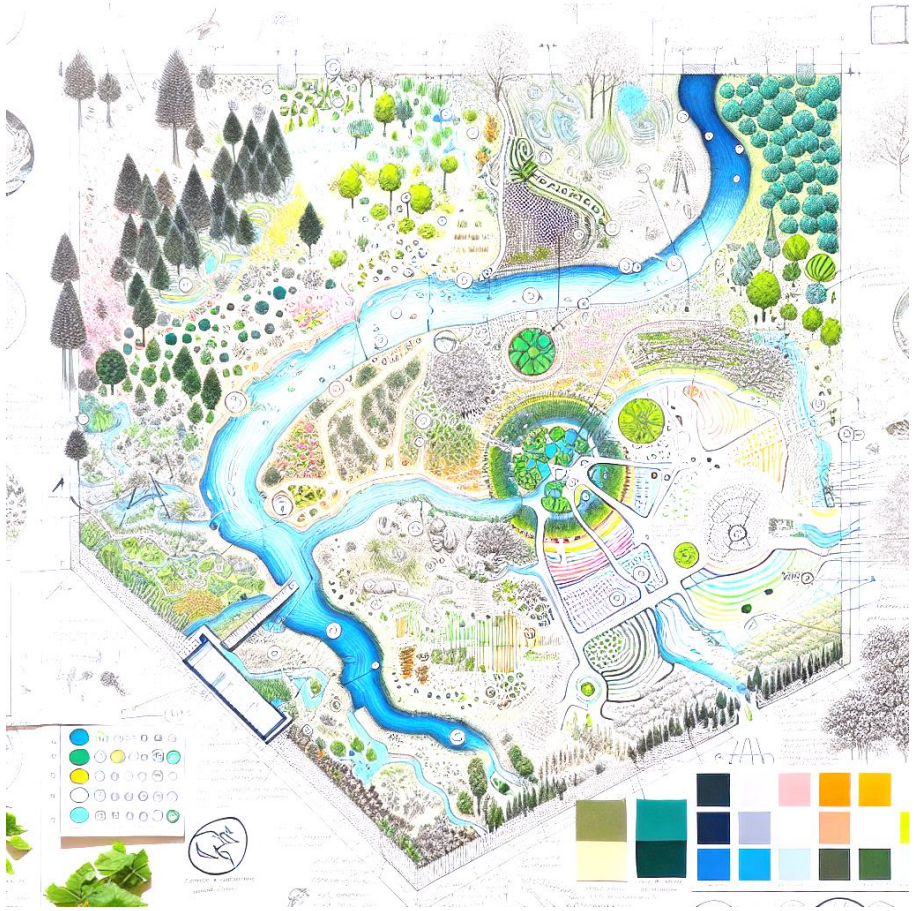
20XX	20XX	20XX
3382	3381	3380

5. Were the majority of the acres in this field (reported in Items 1a or 1c) .....

1	Owned by this operation?
2	Rented for fixed CASH payment?
3	Rented for a flexible CASH payment?
4	Rented for a SHARE of the crop?
5	Rented for some combination of CASH and a SHARE of the crop?
6	Used RENT-FREE?
7	Not operated?

20XX	20XX	20XX
0504	0503	0502

Section B: Conservation Plan



Section B: Training Objectives

- Understand what “counts” as a written conservation plan
- Define the terms: Cost Share, Incentive Payment, and Technical Assistance
- Know who may assist the producer in the development of conservation practices
- Know which conservation programs can provide assistance with plans and practices

B CONSERVATION PLAN — SELECTED FIELD/CONSERVATION AREA B

1. Do you have a written Conservation Plan(s) for the selected field and/or conservation area?

   [A "written plan" is a plan prepared in accordance with Federal, State, and/or Conservation District standards.]

This INCLUDES a Conservation Plan, Conservation Compliance (HEL) Plan, or Conservation Plan written as a result of participating in a conservation program, such as:

- Conservation Stewardship Program (CSP)
- Conservation Reserve Program (CRP)
- Conservation Reserve Enhancement Program (CREP)
- Environmental Quality Incentive Program (EQIP)
- Farmable Wetland Program (FWP)
- Agricultural Conservation Easement Program (ACEP)
- Regional Conservation Partnership Program (RCPP)

	Code
☐ Yes — [Enter 1 and continue with Item 1a.]	
☐ Don't Know — [Enter 2, then go to Item 2.]	
☐ No — [Enter 3, then go to Item 2.]	0701

Written Plan

a. Does the written plan include any of the following? (Select all that apply.)		Code
i. Practices to reduce soil erosion	Yes = 1 No = 3	0702
ii. Nutrient management plan practices	Yes = 1 No = 3	0703
iii. Pest management plan practices	Yes = 1 No = 3	0704
iv. Irrigation water management plan practices	Yes = 1 No = 3	0705
v. Wildlife habitat enhancement practices	Yes = 1 No = 3	0706
vi. Manure management and handling practices	Yes = 1 No = 3	0771
vii. Agricultural water management plan that meets state or local requirements	Yes = 1 No = 3	0742
viii. Soil health management plan practices	Yes = 1 No = 3	0785

Incentive Payments

2. Did you receive cost share or incentive payments in ! for any conservation practices implemented on this field and/or conservation area?

[Be sure to include payments for establishing grassed waterways and filter strips or riparian buffers on or adjoining the field.]

	Code
☐ Yes — [Enter 1 and continue.] ☐ No — [Enter 3, then go to Item 3.]	0707

a. If Yes, for what program? (Select all that apply.)

		Code
i. CSP	Yes = 1 No = 3	0786
ii. CRP	Yes = 1 No = 3	0708
iii. CREP	Yes = 1 No = 3	0787
iv. EQIP	Yes = 1 No = 3	0710
v. FWP	Yes = 1 No = 3	0788

		Code
vi. ACEP	Yes = 1 No = 3	0789
vii. RCPP	Yes = 1 No = 3	0790
viii. State Programs	Yes = 1 No = 3	0711
ix. Other	Yes = 1 No = 3	0712

(Specify) 0791 _____

Plan Assistance

3. Did you receive any help or assistance with the development of:

   a. Conservation Plan for this field/conservation area?
   [Ask only if there is a written conservation plan for this field, Item 1 = 1 (Yes).]

   0780 1 ☐ Yes 3 ☐ No

   b. Conservation practices currently in place on this field/conservation area?

   0781 1 ☐ Yes 3 ☐ No

Answer this question ONLY if they have a WRITTEN conservation plan (Question 1).

1. Do you have a written Conservation Plan(s) for the selected field and/or conservation area?
   [A "written plan" is a plan prepared in accordance with Federal, State, and/or Conservation District standards.]

This INCLUDES a Conservation Plan, Conservation Compliance (HEL) Plan, or Conservation Plan written as a result of participating in a conservation program, such as:

- Conservation Stewardship Program (CSP)
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- Conservation Reserve Enhancement Program (CREP)
- Environmental Quality Incentive Program (EQIP)
- Farmable Wetland Program (FWP)
- Agricultural Conservation Easement Program (ACEP)
- Regional Conservation Partnership Program (RCPP)

☐ Yes — [Enter 1 and continue with Item 1a.]
☐ Don't Know — [Enter 2, then go to Item 2.]
☐ No — [Enter 3, then go to Item 2.] .....

Code
0701 1

Plan Assistance

c. If Yes to Item 3a or 3b, please identify who provided the assistance for the development of the Conservation Plan and/or conservation practice(s) on the field/conservation area.

INCLUDE:

- assistance for planning, installing, maintaining, or using conservation practices or systems for this land.
- grassed waterways and filter strips or riparian buffers on or adjoining this field.
- assistance from any source whether paid for or free.

Source	Select all that apply Yes = 1	Were you charged for the service? Yes = 1	Which of these was your PRIMARY source of assistance Select only 1 Yes = 1
NRCS ..... FSA	0714	0720	0726
Conservation District	0715	0721	0727
Technical Service Providers (NRCS certified)	0716	0722	0728
Private Consultant (Not NRCS certified)	0747	0760	0762
Trade Organizations	0751	0761	0763
University Extension	0717	0723	0729
State Agencies	0718	0724	0730
Other ..... (Specify) 0792 _____	0719	0725	0731

Conservation Practices

4. In 2024, did the selected field and/or conservation area have any of the following conservation practices? [May or may not be included in the conservation plan.]

Enumerator Action : If the respondent reports "Yes" to any practice, complete the additional questions about that practice. Otherwise, Go to the next practice.

a. Terraces?	Yes = 1 No = 3	1328	
i. Were these terraces? (1 = primarily grassed, 2 = primarily cropped)	Code	1329	
b. Riparian (stream side) forest buffer?	Yes = 1 No = 3	1333	
i. Width of buffer	Feet	3320	
ii. Species (1 = evergreen, 2 = deciduous, 3 = mixed)	Code	3321	
c. Riparian (stream side) herbaceous non-woody plants buffer?	Yes = 1 No = 3	1334	
i. Width of buffer?	Feet	3322	
ii. Is the buffer maintained, for example, by fertilizing, mowing, or repairing any gullies?	Yes = 1 No = 3	3323	
iii. Is the buffer designed to capture —			
(a) sediment?	Yes = 1 No = 3	3330	
(b) nutrients?	Yes = 1 No = 3	3331	
(c) pesticide residue?	Yes = 1 No = 3	3332	

Wildlife and Wetlands

5. Have you modified or added any conservation practices for the selected field SPECIFICALLY to improve the quality of fish or wildlife (including pollinators) habitat?

☐ Yes = 1 ☐ No = 3 ☐ Not Applicable = 4

Code 3364

6. Do you manage the vegetative cover for wildlife (including pollinators) purposes?

☐ Yes = 1 ☐ No = 3 ☐ Not Applicable = 4

Code 3370

7. Have you installed practices to restore, enhance, or create wetlands?

☐ Yes = 1 ☐ No = 3 ☐ Not Applicable = 4

Code 0799

Thank you!

Section C: Cropping History and Conservation Practices

Logan Bradley-Trietsch

Goals of Section C

Big Picture:

- **3-year** cropping history on the **selected field**

Learning Objectives:

- Define **crop** year vs **calendar** year
- How to record a **crop rotation plan**
- Correctly record **cover crops**

Calendar Year vs Crop Year

- **Calendar** Year- begins Jan 1 and ends Dec 31
- **Crop** Year- year in which the crop was **harvested/terminated**
  - Vegetables- report when harvest ended

Examples:

Crop	Planted	Harvested/Terminated	Crop Year
Corn	Spring 2025	Fall 2025	
Winter Wheat	September 2023	May 2024	
Rye (cover crop)	November 2022	Herbicide burndown April 2023	
Vegetable	October 2024	Between Dec 2024 – Feb 2025	

Calendar Year vs Crop Year

- **Calendar** Year- begins Jan 1 and ends Dec 31
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Examples:

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Winter Wheat	September 2023	May 2024	**2024**
Rye (cover crop)	November 2022	Herbicide burndown April 2023	**2023**
Vegetable	October 2024	Between Dec 2024 – Feb 2025	**2025**

Definitions

- **Double Cropping**- harvesting two crops on the same land in the same crop year
- **Cover Crop**- crop grown to cover and/or enrich the soil
- **Strip Cropping-** strips of different crops
- **Nurse Crop-** annual crop used to assist the establishment of a perennial crop
  - Include a detailed comment

Q1 - Cropping History Table

C CROPPING HISTORY & CONSERVATION PRACTICES — SELECTED FIELD

1. Now I'd like to ask you about the field where the point is located and obtain the cropping and land use history for the past 3 years. (Please include all crops planted for cover crop, double crop, multiple crop, replanting of same crop and if strip cropped, all crops in the strip crop scheme. [Use a separate column for each use of the field in each year.])

		1	2	3
Let's begin with the 20XX crop year. What was/were the:		**Current Year**	**Current Year**	**Current Year**
Crop(s) planted or Land Use?	Crop			
a. Crop(s) code or Land Use Code. [See Respondent. Booklet pgs. 4 - 7 for codes.]	Code	1005	1037	1069
b. Intended use of Crop(s). [See Respondent Booklet pg. 7 for codes.]	Code	1006	1038	107(

- Record all crops grown **in order of planting** during the crop year
  - include cover crops, double cropping, replanting same crop
- Corn for **ethanol**- crop code = 192, intended use = 11 (biomass)
- For more than 3 crops planted, use **cropping history supplement**

SECTION C, ITEM 1, Line b

	Intended Use
1	Dual (Grain/Grazing)
2	Grain
3	Grazing Only
4	Cover Crop
5	Other (Specify) _____
6	Hay
7	Human Consumption or Use
8	Silage/Haylage
9	Seed Only
10	Nurse Crop
11	Biomass
12	Non-Bearing, Idle Land or Summer Fallow
13	Wildlife
14	Cut for Dry Hay and Silage

Question 1c-e

c.	Acres planted? [Include previous planted crops.]	Acres	1007 .___	1039 .___	1071 .___
d.	Date planted, transplanted, or established? (MM DD YY)	Date	1008 __ __ __ __ __ __	1040 __ __ __ __ __ __	1072 __ __ __ __ __ __
e.	Row Width (for row crops)?	Inches	1011 .___	1043 .___	1075 .___

- **c:** Acres Planted
  - If all/part of the field is **prevented planting**, enter the total number of acres and leave a note
- **d**: Date Planted
  - **Include** previously planted crops (hay, perennials)
  - If planting occurred over several days, select the day on which at least half of the field was planted
  - If a cover crop was **interseeded**, leave a comment
- **e**: Row Width
  - If **broadcast** planting was used, leave blank with a note

Question 1j-n

j. Was this crop irrigated?	Yes = 1 No = 3	1029	1061	1093
k. EXPECTED yield/acre at planting (yield goal)?	Number	1012 .___	1044 .___	1076 .___
(1) Unit: [See Respondent Booklet pg. 7 for codes]	Code	1013	1045	1077
l. Acres harvested?	Acres	1015 .___	1047 .___	1079 .___
(1) Date harvested? (MM DD YY)	Date	1016 _ _ _ _ _ _	1048 _ _ _ _ _ _	1080 _ _ _ _ _ _
m. ACTUAL yield at harvest/acre?	Number	1017 .___	1049 .___	1081 .___
(1) Unit: [See Respondent Booklet pg. 7 for codes.]	Code	1018	1050	1082
n. Acres Abandoned or NOT harvested?	Acres	1019 .___	1051 .___	

- **k/m**: EXPECTED vs ACTUAL yield
  - Ensure harvest **unit codes** on lines **k1** and **m1** are correct
- **n**: Include cover crops not harvested for grain/forage

Code	Unit
1	Pounds
2	Cwt (hundredweight)
3	Tons
4	Bushels
5	Other
6	Barrels
13	Quart
23	50-lb bag
24	Peck

Pg. 7 respondent booklet

Question 1o-t

o.	Was the grass vegetation, straw, or stubble harvested?	Yes = 1 No = 3	1020	1052	1084
p.	Was the field grazed? [If Yes — Enter 1 and continue. If No — Enter 3, then Go to Item t.]	Yes = 1 No = 3	1023	1055	1087
q.	What type of livestock grazed the field (primarily)? [See Respondent Booklet pg. 7 for codes.]	Code	1024	1056	1088
r.	Regardless of ownership, how many head of _____ grazed this field BEFORE harvest or termination?	Head	1025	1057	1089
	(1) How many TOTAL days was the field grazed BEFORE harvest or termination?	Days	1026	1058	1090
s.	Regardless of ownership, how many head of _____ grazed this field AFTER harvest or termination?	Head	1027	1059	1091
	(1) How many TOTAL days was the field grazed AFTER harvest or termination?	Days	1028	1060	
t.	Was any forage intentionally left behind for wildlife use, cover, and/or shelter?	Yes = 1 No = 3	2610	2611	

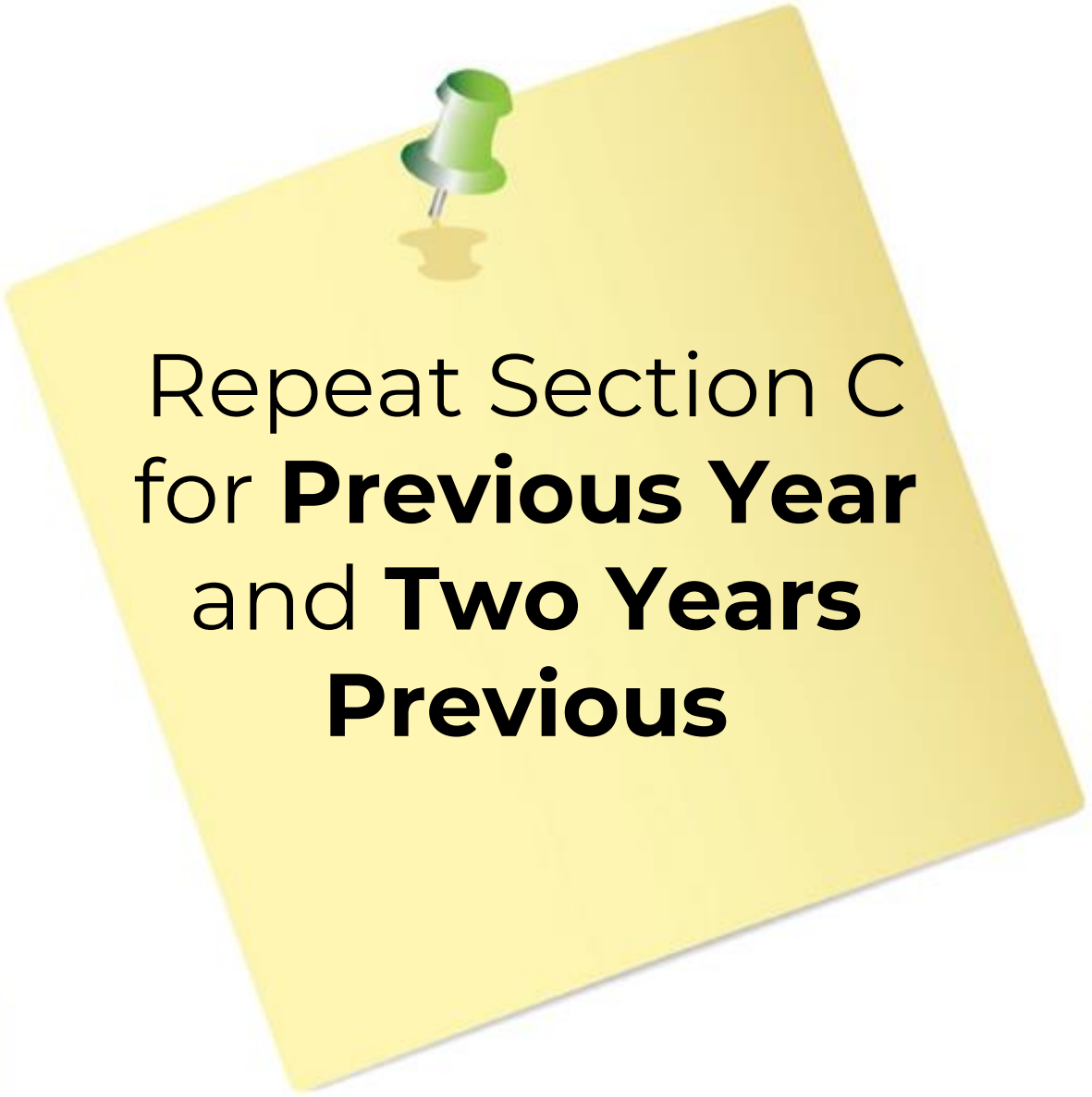
- **q**: Use livestock codes from respondent booklet
- **r(1)/s(1)**: Can record number of days after interview

SECTION C, ITEM 1, Line q

Livestock

1 - Cattle
2 - Sheep
3 - Goats
4 - Horses
6 - Bison
7 - Llamas
8 - Elk
9 - Chickens
10 - Deer
99 - Other (Specify) _____

Pg. 7 respondent booklet

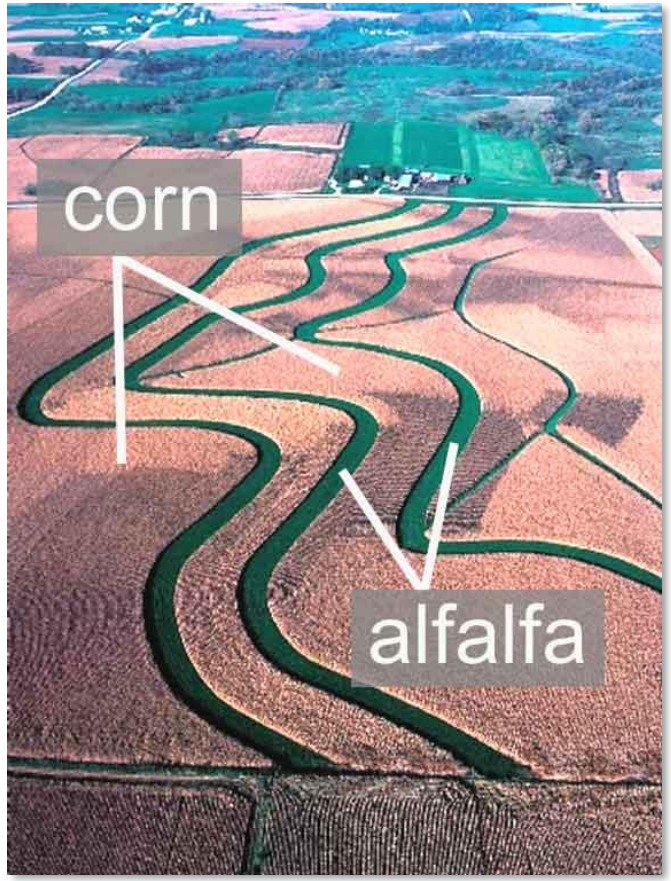

Repeat Section C
for **Previous Year**
and **Two Years**
Previous

Special Cases – Multiple Harvests of Same Crop

- If the crop is harvested more than once, record the date of the **last harvest** on line l(1)
- Do **not** record the date of **gleaning** operations as the final harvest date
- If the primary crop is a grain, and straw or stubble is also harvested, the date of the **grain** harvest should be recorded in Section C
- Record the **total** yield for all harvests
  - If 3 cuttings of hay are expected and each cutting is expected to yield 1.5 tons/acre, then the expected yield is 3 × 1.5 = 4.5 tons/acre

Special Cases – Strip Cropping

- Determine if the field arrangement is strip cropping
- If field is strip cropped:
  - Record all information for each crop
  - If two or more strips are planted to the same crop, **add up** and **record the total acreage in the strips** for each crop
  - Check that Section B – Question 4(q) is marked "1" for strip cropping
  - Include a comment that the field is strip cropped



Special Cases – Vegetables

- If 3 or fewer vegetables, fill out Section C same as other crops
- If **more than 3** vegetables in the **current** crop year, then use Section C supplement
- If **more than 3** vegetables in the **previous/two years previous** crop year, then:
  - include only the first 3 planted crops
  - add a note explaining that later crops in the same year are skipped.

Special Cases – Idle Land

If land was **idle** in previous year or 2 years previous, record lines:

- **a**: Land use code = 670 (pg. 5 resp. booklet)
- **b**: intended use = 12 (pg. 7 resp. booklet - idle land)
- **c**: number of acres
- **i** and **o**-**t** (as applicable)

Skip lines **d**-**h** and **j**-**n**

		1
Let's continue with the 20XX crop year.		**20XX**
Did you make day-to-day farming/ranching decisions for this field in **20XX**? If Yes — Continue. If No — Go to page 9.	Yes = 1 No = 3	0010 **1**
What was/were the :		
Crop(s) planted or Land Use?	Crop	**Idle**
a. Crop(s) code or Land Use Code. [See Respondent Booklet pgs. 4 - 7 for codes.]	Code	1101 **670**
b. Intended use of Crop(s). [See Respondent Booklet pg. 7 for codes.]	Code	1102 **12**
c. Acres planted? [Include previous planted crops.]	Acres	1103 **40 .0**
d. Date planted, transplanted, or established? (MM DD YY)	Date	1104 — — — — — —

Crop Rotation Plan

2. Do you have a planned crop rotation for this field?

1343 1 [X] Yes — Continue 3 [ ] No — Go to Item 3.

a. Let's record your crop rotation plan. Use the crop codes from the Respondent Booklet pgs. 4-7. Use multiple codes to capture strip cropping, double cropping, and cover crops in a planned rotation.

Enter the crop name and crop code for the crops in rotation [only use as many years as are in the rotation scheme.]	Crops	Crop Code	Crop Code	Crop Code
i. 1st year of rotation **Current Year**		1344	1351	1358
ii. 2nd year of rotation **Previous Year**		1345	1352	1359
iii. 3rd year of rotation **2 Years Prev.**		1346	1353	1360
iv. 4th year of rotation **3 Years Prev.**		1347	1354	1361
v. 5th year of rotation **4 Years Prev.**		1348	1355	1362
vi. 6th year of rotation **5 Years Prev.**		1349	1356	1363

Cover Crops – Q3

3. Was a cover crop planted on this field for the **20XX, 20XX, or 20XX** crop years?

1471 1 ☐ Yes — Continue 3 ☐ No — Go to Item 4.

		20XX	20XX	20XX
a. When was the cover crop planted?	MM DD YY	1472 ———	1483 ———	1571 ———
b. What type of cover crop was planted? (Enter code)	1 Wheat 2 Ryegrass 3 Rye 4 Other small grain /winter annual 5 Legume (clover, cowpeas, etc.). 6 Other 7 Mixed	1473	1491	1572

Crop code = 127 **Crop code = 218**

Cover Crops – Q3 (cont.)

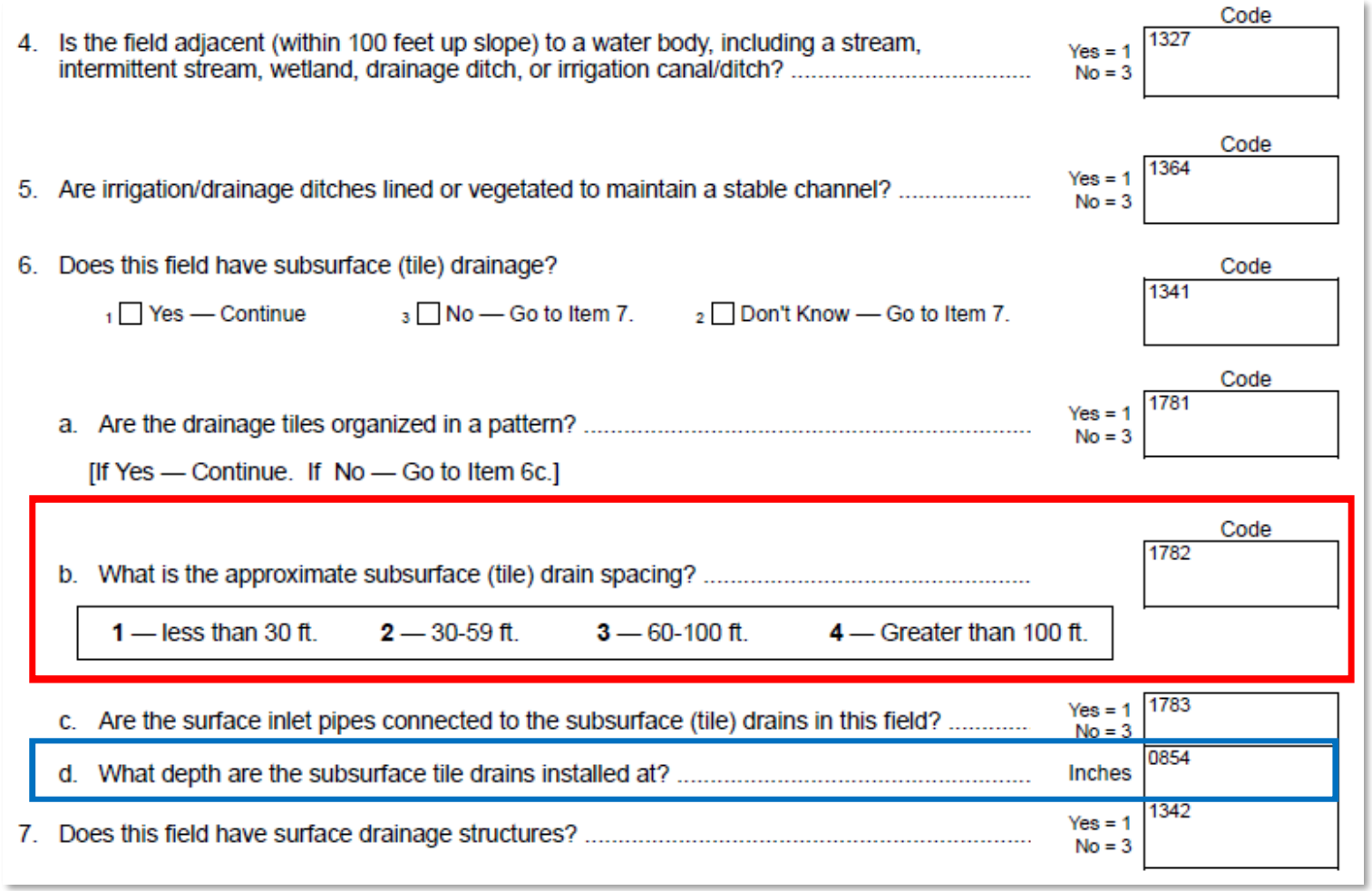
3. Was a cover crop planted on this field for the **20XX, 20XX, 20XX** crop years?

1471 1 ☐ Yes — Continue 3 ☐ No — Go to Item 4.

		20XX	**20XX**	**20XX**
a. When was the cover crop planted?	MM DD YY	1472 _ _ _ _ _ _	1483 _ _ _ _ _ _	1571 _ _ _ _ _ _
b. What type of cover crop was planted? (Enter code)	1 Wheat; 2 Ryegrass; 3 Rye; 4 Other small grain /winter annual; 5 Legume (clover, cowpeas, etc.); 6 Other; 7 Mixed	1473	1491	1572
c. What was the primary intended benefit of the cover crop? (Enter code)	1 Soil fertility; 2 Soil quality; 3 Soil cover; 4 Controlling weeds, insects, & diseases; 5 Carbon sequestration; 6 Other	0836	0837	0838
d. Did you apply commercial fertilizer for the benefit of the cover crop?	Yes = 1 No = 3	0839	0840	0841
e. Did you apply manure for the benefit of the cover crop?	Yes = 1 No = 3	0842	0843	0844
f. Did you apply pesticides for the benefit of the cover crop?	Yes = 1 No = 3	0845	0846	0847
g. Did you irrigate the cover crop?	Yes = 1 No = 3	0848	0849	0850
h. Was the cover crop grazed?	Yes = 1 No = 3	0851	0852	0853
i. When was the cover crop terminated?	MM DD YY	1481 _ _ _ _ _ _	1492 _ _ _ _ _ _	1573 _ _ _ _ _ _
j. How was the cover crop terminated? (Enter code)	1 Herbicide; 2 Mowed; 3 Harvested for forage; 4 Tilled in; 5 Rolled/crimped; 6 Harvested for grain; 7 Burned (fire); 8 Winter kill	1482	1493	1581

Drainage

- **6b**: usually 20-80 ft. apart
- **6d**: typically installed at 30-40 in.



		Code
4. Is the field adjacent (within 100 feet up slope) to a water body, including a stream, intermittent stream, wetland, drainage ditch, or irrigation canal/ditch?	Yes = 1 No = 3	1327
5. Are irrigation/drainage ditches lined or vegetated to maintain a stable channel?	Yes = 1 No = 3	1364
6. Does this field have subsurface (tile) drainage? 1 ☐ Yes — Continue 3 ☐ No — Go to Item 7. 2 ☐ Don't Know — Go to Item 7.		1341
a. Are the drainage tiles organized in a pattern? [If Yes — Continue. If No — Go to Item 6c.]	Yes = 1 No = 3	1781
b. What is the approximate subsurface (tile) drain spacing? **1** — less than 30 ft. **2** — 30-59 ft. **3** — 60-100 ft. **4** — Greater than 100 ft.		1782
c. Are the surface inlet pipes connected to the subsurface (tile) drains in this field?	Yes = 1 No = 3	1783
d. What depth are the subsurface tile drains installed at?	Inches	0854
7. Does this field have surface drainage structures?	Yes = 1 No = 3	1342

Final Reminders

- 1 = Yes, 3 = No
- Actions should match what is on the **field ops** and **pesticide** tables
- Pay attention to **skip** instructions
- Fill in **previous years'** info even if operator says it's the same
- Check that crop codes for each year **carry through** the rest of the questionnaire
- Record **small grains/cover crops** in correct **crop year** (year of harvest/termination)
- Reference your Interviewer's Manual for more details

Section D - Commercial Fertilizer Application

Learning Objectives

- Recognize the difference between percent analysis and pounds of actual nutrients
- Record fertilizer or nutrients in table correctly
- Ensure fertilizer application is recoded for the correct crop in the correct crop year

Section Purpose

- Identify nutrients or fertilizer used to produce the commodity of interest on the selected field.
- Fertilizer application data is used to analyze water quality and agricultural productivity issues and policies.
- NRCS will use this section to estimate commercial fertilizer losses from farm fields.

Getting Started In Section D

D **COMMERCIAL FERTILIZER APPLICATION** — SELECTED FIELD **D**

1. Were commercial FERTILIZERS applied to the field for:		Code	Completion Code
a. The 2025 crop?	Yes = 1 No = 3	0221	0234
b. The 2024 crop?	Yes = 1 No = 3	0235	0233
c. The 2023 crop?	Yes = 1 No = 3	0237	0232

Code Yes=1 if Applied Fertilizers and No=3

Completion Code Blank = Data present for this section
1 = Data incomplete or refused
3 = Valid zero data for this crop year

Phosphorus Questions

Is Phosphorus Level Too High to apply any more Phosphorus in 2025?

		Code
2. Is your soil phosphorus level elevated to a point where no additional phosphorus nutrients can be applied to this field for the 2025 crop year?	Yes = 1 No = 3	0247
3. Were phosphorus nutrients applied to this field as either fertilizer or manure prior to 2023 to supply phosphorus for subsequent years of the crop rotation? 1 ☐ Yes — Enter 1, then Continue. 3 ☐ No — Enter 3, then Go to Item 4		Code 0248
a. When were the phosphorus nutrients applied?		0249 MM DD YY — — — — — —

Phosphorus applied ***prior to 2023*** to "bank" nutrients to be used in subsequent years.

Information Used to Make Fertilizer Application Decisions

4. What types of information did you use to inform fertilizer application decisions?		Code
a. Fertilizer costs	Yes = 1 No = 3	855
b. Current weather conditions	Yes = 1 No = 3	856
c. Mid to long-term weather forecasts	Yes = 1 No = 3	857
d. Crop market prices	Yes = 1 No = 3	858
e. Nutrient Management Plan (right source, method, rate, and timing for the specific field conditions)	Yes = 1 No = 3	859
f. Availability of application equipment	Yes = 1 No = 3	860

Soil Amendments & Soil or Tissue Tests

Lime or Gypsum applied?

		2025	2024	2023
5. In which of the following years (2025, 2024, and/or 2023) were soil amendments other than nutrients (such as lime or gypsum) added to this field? ..... [If Yes — Continue for that year. If No — for all years, Go to Item 6.]	Yes = 1 No = 3	0283	0285	0287
a. Were the amendments added to address pH, soil structure, or micronutrient-related problems?	Yes = 1 No = 3	0284	0286	0288

6. Were any of the following types of soil or tissue tests performed to determine nutrient need on this field?		Code
a. Pre-plant or pre-sidedress nitrate-nitrogen test	Yes = 1 No = 3	0272
b. Deep soil profile nitrate-nitrogen test (greater than one foot deep)	Yes = 1 No = 3	0273
c. Leaf petiole or leaf tissue tests	Yes = 1 No = 3	0274
d. Post-harvest stalk test	Yes = 1 No = 3	0275
e. Chlorophyll analysis (for example leaf color charts, chlorophyll meters, optical sensors, or remote aerial sensing)	Yes = 1 No = 3	0276

Various Tests performed besides the ***standard soil test***.

GPS Used On Field

		2025	2024	2023
7. In which of the following years (2025, 2024, and/or 2023) was Global Positioning System (GPS) device used to georeference and/or produce a map of the soil properties of this field (such as soil nitrate levels, pH, etc.)?	Yes = 1 No = 3	1299	1310	1321

[If Yes — Any crop year, Continue.]

[If No — All crop years, Go to Item 8.]

Map of Soil Properties

		2025	2024	2023
a. Was the map based on random sampling?	Yes = 1 No = 3	0277	0279	0281
b. Was the map based on grid sampling?	Yes = 1 No = 3	0278	0280	0282
c. Was the map based on an instrument that measured electrical conductivity of the soil?	Yes = 1 No = 3	1301	1312	1323
8. Was yield monitoring data used to adjust fertilizer application rates within the field?	Yes = 1 No = 3	0861	0862	0863
9. Was in-soil application fertilizer placement (distance from root zone) adjusted for optimal plant availability?	Yes = 1 No = 3	0864	0865	0866
10. Was remote sensing used to monitor nutrient needs? [Remote sensing is the use of satellites or aircraft (planes, drones, etc.) to scan a field to obtain information about the plant or soil conditions within the field.]	Yes = 1 No = 3	0867	0868	0869

What is Included

- Nutrient or fertilizer applied in the previous fall for current crop year
- Nutrient or fertilizer applied during the summer if field was fallow
- Applications made by custom applicators
- Nitrogen applied with herbicides to make the herbicide more effective
- Fertilizers included in tank mixes of pesticides reported in section F

What is Excluded

- Exclude micro-nutrients such as iron, zinc, and boron
- Exclude manure here, but record manure applications in section E
- Exclude lime and gypsum

Nutrient or Fertilizer Applications Table

LINE	1 Crop Year	2 Primary crop for which nutrients were intended	3 Crop Code [Enter crop code from Respondent Booklet pgs. 4 - 7.]	4 MATERIALS USED Enter actual pounds of plant nutrients applied per acre and indicate "19" in column 6 (leave column 5 blank). If only fertilizer analysis is known, enter percent analysis in this column, quantity applied per acre in column 5, and the material code in column 6. [Show Common Fertilizers in Respondent Booklet pgs. 8 - 9.]				5 What quantity was applied per acre? [Leave the column blank if pounds of actual nutrients were reported in column 4.]	6 Enter material unit. 1 Pounds 3 Tons 12 Gallons 13 Quarts 19 Pounds of actual nutrients
				Nitrogen N	Phosphorus P_2O_5	Potassium K_2O	Sulfur S		Code
01	28 25			31	32	33	34	36	37
02	28 25			31	32	33	34	36	37
03	28 25			31	32	33	34	36	37

Main Crop
Not
Cover Crop

Fertilizer is made up of 2 things:

- **Actual Nutrients**
  - N: Nitrogen
  - P: Phosphorus
  - K: Potassium
  - S: Sulfur
  - And many others
- **Carrier Material**
  - Filler - other stuff

Example Nutrients to grow a crop

- 105 pounds of Nitrogen per acre
- 35 pounds of Phosphorus per acre
- 55 pounds of Potassium per acre

2 Ways to Record Nutrient or Fertilizer Applications:

- **<u>Percent Analysis – most common & preferred</u>**

- **<u>Pounds of Actual Nutrients</u>**

LINE	1 Crop Year	2 Primary crop for which nutrients were intended	3 Crop Code [Enter crop code from Respondent Booklet pgs. 4 - 7.]	4 MATERIALS USED Enter actual pounds of plant nutrients applied per acre and indicate "19" in column 6 (leave column 5 blank). If only fertilizer analysis is known, enter percent analysis in this column, quantity applied per acre in column 5, and the material code in column 6. [Show Common Fertilizers in Respondent Booklet pgs. 8 - 9.]				5 What quantity was applied per acre? [Leave the column blank if pounds of actual nutrients were reported in column 4.]	6 Enter material unit. 1 Pounds 3 Tons 12 Gallons 13 Quarts 19 Pounds of actual nutrients
				Nitrogen N	Phosphorus P_2O_5	Potassium K_2O	Sulfur S		Code
01	28 25			31	32	33	34	36	37
02	28 25			31	32	33	34	36	37
03	28 25			31	32	33	34	36	37

2 Ways to Record Nutrient or Fertilizer Applications:

- Percent Analysis – most common & preferred
  - **A Complete Product**

- Pounds of Actual Nutrients
  - **Individual Ingredients Of A Complete Product**

2 Ways to Record Nutrient or Fertilizer Applications

- **Percent Analysis - A Complete Product**
- Urea 46-0-0
- 10-34-0
- MAP 11-52-0
- DAP 18-46-0

- **Pounds of Actual Nutrients - Individual Ingredients**
- Nitrogen
- Phosphorus
- Potassium
- Sulfur

Percent Analysis

- 26 - 5 - 10

  N - P - K
- First number listed is Nitrogen (N)
- Second number listed is Phosphorus (P)
- Third number listed is Potassium (K)
- If a fourth number is present: 26 - 5 - 10 - 7 that is Sulfur (S)

Numbers Represent the Percentage

- 26-5-10
- For any given quantity of this fertilizer,
  - 26% of it will be Nitrogen
  - 5% of it will be Phosphorus
  - 10% of it will be Potassium
  - The remaining 59% will be carrier material

Percent Analysis Method

- 150 Pounds of 26-5-10:
  - 150 lbs. x 26% = 39 pounds Nitrogen
  - 150 lbs. x 5% = 8 pounds of Phosphorus
  - 150 lbs. x 10% = 15 pounds of Potassium
  - The rest will be carrier material
  - 150 lbs. x 59% = 88 pounds of carrier material

Peanut M&Ms

46%

54%

Peanut M&Ms vs Urea

46%

54%

Snickers

18%

46%

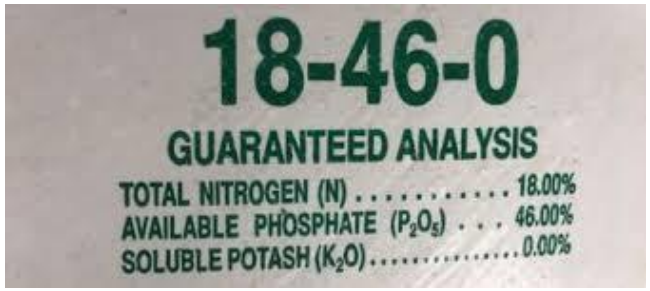
36%

Snickers vs DAP

18%

46%

36%



Sprite

10%

34%

56%

Sprite vs 10-34-0

10%

34%

56%

10-34-0	
Guaranteed Analysis	
Total Nitrogen (N)	10%
Available Phosphate (P_2O_5)	34%

Lemonade

32%

68%

Lemonade vs UAN 32-0-0

32%

UAN SOLUTION

32%

68%

Percent Analysis

LINE	1 Crop Year	2 Primary crop for which nutrients were intended	3 Crop Code [Enter crop code from Respondent Booklet pgs. 4 - 7.]	4 MATERIALS USED Enter actual pounds of plant nutrients applied per acre and indicate "19" in column 6 (leave column 5 blank). If only fertilizer analysis is known, enter percent analysis in this column, quantity applied per acre in column 5, and the material code in column 6. [Show Common Fertilizers in Respondent Booklet pgs. 8 - 9.]				5 What quantity was applied per acre? [Leave the column blank if pounds of actual nutrients were reported in column 4.]	6 Enter material unit. 1 Pounds 3 Tons 12 Gallons
				Nitrogen N	Phosphorus P_2O_5	Potassium K_2O	Sulfur S		Code
01	28 25	Corn	188	31 11	32 52	33	34	36 85	37 1
02	28 25	Corn	188	31 10	32 34	33	34	36 5	37 12
03	28 25	Corn	188	31	32	33 60	34	36 120	37 1

Percent Analysis Method

- 10-34-0 11-52-0 18-46-0 28-0-0 46-0-0 82-0-0 0-0-60
- If you add the N-P-K together, it will not be greater than 85
  - If Sulfur is included in the mix, then this does not hold true.

Pounds of Actual Nutrients

LINE	1 Crop Year	2 Primary crop for which nutrients were intended	3 Crop Code [Enter crop code from Respondent Booklet pgs. 4 - 7.]	4 MATERIALS USED Enter actual pounds of plant nutrients applied per acre and indicate "19" in column 6 (leave column 5 blank). If only fertilizer analysis is known, enter percent analysis in this column, quantity applied per acre in column 5, and the material code in column 6. [Show Common Fertilizers in Respondent Booklet pgs. 8 - 9.]				5 What quantity was applied per acre? [Leave the column blank if pounds of actual nutrients were reported in column 4.]	6 Enter material unit. 19 Pounds of actual nutrients
				Nitrogen N	Phosphorus P_2O_5	Potassium K_2O	Sulfur S		Code
01	28 25			31 10	32 44	33 72	34	36	37 19
02	28 25			31	32	33	34	36	37
03	28 25			31	32	33	34	36	37

2 Ways to Record Nutrient or Fertilizer Applications:

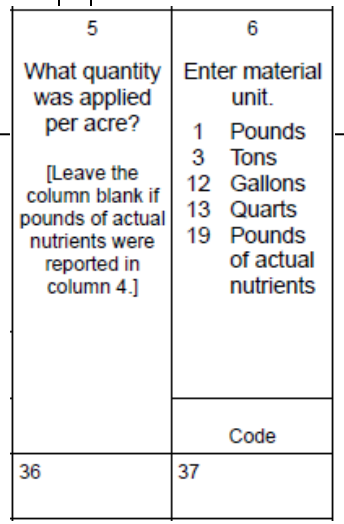
- **<u>Percent Analysis – most common & preferred</u>**
  - 5 gallons of 10-34-0
  - 85 pounds of 11-52-0
  - 120 pounds of 0-0-60

- **<u>Pounds of Actual Nutrients</u>**
  - 10 pounds of Nitrogen
  - 44 pounds of Phosphorus
  - 72 pounds of Potassium

2 Ways to Record Nutrient or Fertilizer Applications:

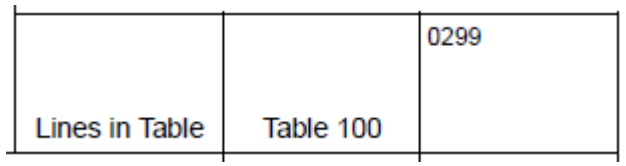
- **<u>Percent Analysis – most common & preferred</u>**
  - 5 gallons of 10-34-0
  - 85 pounds of 11-52-0
  - 120 pounds of 0-0-60
  - **Column 3 must be complete**
  - **Column 4 must be coded 1 or 12**

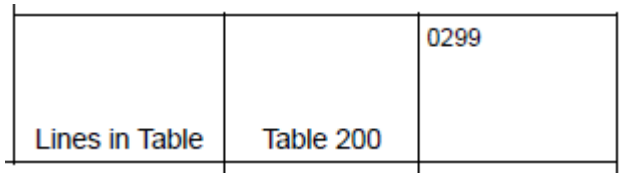
- **<u>Pounds of Actual Nutrients</u>**
  - 10 pounds of Nitrogen
  - 44 pounds of Phosphorus
  - 72 pounds of potassium
  - **Column 3 must be blank**
  - **Column 4 must be coded 19**

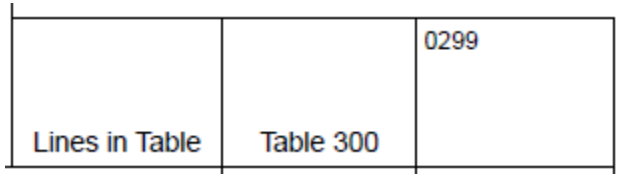


5	6
What quantity was applied per acre? [Leave the column blank if pounds of actual nutrients were reported in column 4.]	Enter material unit. 1 Pounds 3 Tons 12 Gallons 13 Quarts 19 Pounds of actual nutrients
	Code
36	37

Lines In Table Box







Lines in Table box (IC 0299) must be filled out with the number of lines in the table for each crop year.

APPLICATION CODES FOR COLUMN 8	PRODUCT USED TO SLOW BREAKDOWN OF NITROGEN FOR COLUMN 11	FERTILIZER FORM FOR COLUMN 12
1 Broadcast, ground without incorporation 2 Broadcast, ground with incorporation 3 Broadcast by aircraft 4 In seed furrow 5 In irrigation water (fertigation) 6 Chiseled/injected or knifed in 7 Banded/side-dressed on the soil surface 8 Foliar or directed spray	1 Nitrification inhibitor 2 Urease inhibitor 3 Chemical-coated fertilizers (such as sulfur-coated and polymer-coated urea) 4 Other Inhibitors (specify) 0907 _____ 5 None	1 Ammonia-based 2 Not ammonia-based

LINE	7 When was this applied? MM DD YY	8 How was this applied? [Enter code from box above.]	9 How many acres were treated in this application? Acres	10 Was variable rate technology (VRT) used? [Include "on-the-go" sensing.] Yes = 1 No = 3	11 Nitrogen slow-breakdown product [Enter code from box above.] Ask Only if Nitrogen (Column 4) was applied	12 Fertilizer form [Enter code from box above.]	NOTES
01	30 _ _ _ _ _ _	39	40 . _	29	26	27	
02	30 _ _ _ _ _ _	39	40 . _	29	26	27	
03	30 _ _ _ _ _ _	39	40 . _	29	26	27	

Column 8:
Anhydrous use Code 6

Column 12:
Respondent Booklet:
Ammonia in product name.

Section Summary

- Know the difference between percent analysis and pounds of actual nutrients
- Record fertilizer or nutrients correctly in the table
- Application dates should fall between the harvest of the previous crop year and the harvest of the current crop year

Thank You!

- Be sure to follow all skips
- Answer YES=1 NO=3
- Ensure Nutrients and Fertilizer applications data is recorded correctly

CEAP Section E
Manure Applications

Shaylind Nance

Section E: PURPOSE

- Farm Bill emphasizes nutrient management plans
  - Necessary to estimate land available to receive manure applications

- NRCS uses Section E to estimate manure nutrient additions and losses

Section E Objectives

- Learn how to complete the manure application chart
- Become familiar with questions that have answers that need to be compatible throughout the section as well as the survey

E **MANURE APPLICATIONS** — SELECTED FIELD E

1. Was manure or manure compost applied to this field for the [ ] crop year?

Manure application includes solids and effluents from waste lagoons, waste holding ponds, and waste runoff storage ponds. (Include commercially prepared manure.)

[Probe for applications made in the fall of [ ] (and those made earlier if this field was fallow) for the [ ] crop years.]

1 ☐ Yes — [Enter 1 and continue.]

3 ☐ No — [Enter 3, then Go to SECTION F.].....

2. Now I need to record information for each manure applica

LINE	1 Crop Year YY	2 Primary crop for which nutrients were intended	3 Crop Code [Enter crop code from Respondent Booklet pgs. 4 - 7.] Code	4 What quantity of manure was applied per acre?	5 Unit (column 4 only) 1 Pounds 3 Tons 4 Bushel 12 Gallons 14 Acre - inches Code	Code	Code	Code	Code
01	42 __ __			44 .__	45	46	47	48	59
02	42 __ __			44 .__	45	46	47	48	59

Include:

- manure produced on the operation
- manure purchased from other farms
- manure obtained with compensation
- commercially prepared manure or compost products
- biosolids, such as municipal solids and food wastes
- manure, prepared manure, and biosolids applied to the selected field in the fall of the previous year for the following crop year

MANURE APPLICATIONS — SELECTED FIELD

1. Was manure or manure compost applied to this field for the [ ] crop year?

Manure application includes solids and effluents from waste lagoons, waste holding ponds, and waste runoff storage ponds. (Include commercially prepared manure.)

[Probe for applications made in the fall of [ ] (and those made earlier if this field was fallow) for the [ ] crop years.]

1 ☐ Yes — [Enter 1 and continue.]

3 ☐ No — [Enter 3, then Go to SECTION F.]

Code 0418 **3**

2. Now I need to record information for each manure application.

Lines in Table	Table 001	0599

LINE	1 Crop Year YY	2 Primary crop for which nutrients were intended	3 Crop Code [Enter crop code from Respondent Booklet pgs. 4 - 7.] Code	4 What quantity of manure was applied per acre?	5 Unit (column 4 only) 1 Pounds 3 Tons 4 Bushels 12 Gallons 14 Acre - inches Code	6 Where was the manure produced? 1 On this operation 2 Purchased 3 Obtained at no cost off the operation 4 Obtained with compensation 5 Commercially prepared manure Code	7 How was the manure handled? 1 Solid 2 Liquid 3 Slurry Code	8 Was manure tested before application 1 Yes 2 Don't Know (DK) 3 No Code	9 Nitrogen 1 Nitrification inhibitor 2 Urease inhibitor 3 None Code
01	42 __ __			44 .__	45	46	47	48	59
02	42 __ __			44 .__	45	46	47	48	59

Go to SECTION F

MANURE APPLICATIONS — SELECTED FIELD

1. Was manure or manure compost applied to this field for the [ ] crop year?

Manure application includes solids and effluents from waste lagoons, waste holding ponds, and waste runoff storage ponds. (Includ commercially prepared manure.)

[Probe for applications made in the fall of [ ] (and those made earlier if this field was fallow) for the [ ] crop years.]

1 ☑ Yes — [Enter 1 and continue.]

3 ☐ No — [Enter 3, then Go to SECTION F.].....

Code 0418 **1**

Lines in Table	Table 001	0599

2. Now I need to record information for each manure application.

LINE	1 Crop Year YY	2 Primary crop for which nutrients were intended	3 Crop Code [Enter crop code from Respondent Booklet pgs. 4 - 7.] Code	4 What quantity of manure was applied per acre?	5 Unit (column 4 only) 1 Pounds 3 Tons 4 Bushels 12 Gallons 14 Acre - inches Code	6 Where was the manure produced? 1 On this operation 2 Purchased 3 Obtained at no cost off the operation 4 Obtained with compensation 5 Commercially prepared manure Code	7 How was the manure handled? 1 Solid 2 Liquid 3 Slurry Code	8 Was manure tested before application? 1 Yes 2 Don't Know (DK) 3 No Code	9 Nitrogen inhibitor applied with manure 1 Nitrification inhibitor 2 Urease inhibitor 3 None Code
01	42 __ __			44 .__	45	46	47	48	59
02	42 __ __			44 .__	45	46	47	48	59

Q2: Details on each manure application

- The table is split across two pages
- If the Operator doesn't know many details, find out type of animal that produced the manure, when it was applied, and on how many acres
- If Operator says manure application was dry and liquid
  - Split into two lines
    - Dry: lbs/tons/bushels per acre
    - Liquid or Slurry: gallons/ac or acre-inches

E **MANURE APPLICATIONS** — SELECTED FIELD E

1. Was manure or manure compost applied to this field for the [ ] crop year?

Manure application includes solids and effluents from waste lagoons, waste holding ponds, and waste runoff storage ponds. (Includ commercially prepared manure.)

[Probe for pplications made in the fall of [ ] (and those made earlier if this field was fallow) for the [ ] crop years.]

1 ☑ Yes — [Enter 1 and continue.]

3 ☐ No — [Enter 3, then Go to SECTION F.].....

Code 0418 **1**

2. Now I need to record information for each manure application.

Lines in Table	Table 001	0599

LINE	1 Crop Year YY	2 Primary crop for which nutrients were intended	3 Crop Code [Enter crop code from Respondent Booklet pgs. 4 - 7.] Code	4 What quantity of manure was applied per acre?	5 Unit (column 4 only)	6 Where was the manure produced?	7 How was the manure handled?	8 Was manure tested before application?	9 Nitrogen inhibitor applied with manure
					1 Pounds 3 Tons	1 On this operation 2 Purchased	1 Solid 2 Liquid	1 Yes 2 Don't	1 Nitrification inhibitor
01	42 __ __			44					
02	42 __ __			44 .__					

Be Careful!
Make sure gives per acre NOT Total manure applied
(total tons divided by acres = rate per acre)

E **MANURE APPLICATIONS** — SELECTED FIELD E

1. Was manure or manure compost applied to this field for the [ ] crop year?

Manure application includes solids and effluents from waste lagoons, waste holding ponds, and waste runoff storage ponds. (Includ commercially prepared manure.)

[Probe for pplications made in the fall of [ ] (and those made earlier if this field was fallow) for the [ ] crop years.]

1 ☑ Yes — [Enter 1 and continue.]

3 ☐ No — [Enter 3, then Go to SECTION F.].....

Code 0418 **1**

Lines in Table	Table 001	0599

2. Now I need to record information for each manure application.

- If more than 1 source, put where majority acquired
- If answer "1 produced on op" MUST answer Q6 and Q7 (pg 22)

LINE	1 Crop Year YY	2 Primary crop for which nutrients were intended	3 Crop Code [Enter crop code from Respondent Booklet pgs. 4 - 7.] Code	4 What quantity of manure was applied per acre?	5 Unit (column 4 only) 1 Pounds 3 Tons 4 Bushels 12 Gallons 14 Acre - inches Code	6 Where was the manure produced? 1 On this operation 2 Purchased 3 Obtained at no cost off the operation 4 Obtained with compensation 5 Commercially prepared manure Code	7 How the ma… hand 1 So… 2 Liquid 3 Slurry Code	… Know (DK) 3 No Code	… 2 Urease inhibitor 3 None Code
01	42 __ __			44 .__	45	46	47	48	59
02	42 __ __			44 .__	45	46	47	48	59

Example-Table Page 1

LINE	1 Crop Year YY	2 Primary crop for which nutrients were intended	3 Crop Code [Enter crop code from Respondent Booklet pg. 4.] Code	4 What quantity of manure was applied per acre?	5 Unit (column 4 only) 1 Pounds 3 Tons 4 Bushels 12 Gallons 14 Acres/ Inch Code	6 Where was the manure produced? 1 On this operation 2 Purchased 3 Obtained at no cost off the operation 4 Obtained with compensation 5 Commercially prepared manure Code	7 How was the manure handled? 1 Solid 2 Liquid 3 Slurry Code	8 Was manure tested before application? 1 Yes 2 Don't Know (DK) 3 No Code	9 Nitrogen inhibitor applied with manure 1 Nitrification inhibitor 2 Urease inhibitor 3 None Code
01	43 24	Corn, silage	189	44 7 000	45 12	46 1	47 2	48 1	59 3

- Yes, Manure Analysis so will fill out Column 10 and 11

Example-Table Page 2

Manure Analysis Test Reporting Example 1

LINE	10 Results from manure analysis test OR actual amount of nutrients applied [Leave this column blank if column 8=2 or 3.]			11 Unit (column 10 only) [Enter code from box above.]	12 Major source of manure [Enter code from box above.]	13 Was manure composted before application? 1 Yes 2 DK 3 No	14 Composting Method? [Leave this column blank if column 13 = 2 or 3.] 1 Windrow 2 Static pile 3 In-Vessel 4 Other	15 When was this applied?	16 How was this applied? [Enter code from box above.]	17 How many acres were treated in this application?
	Nitrogen N	Phosphorus P_2O_5	Potassium K_2O	Code	Code	Code	Code	MM DD YY	Code	Acres
01	49 25.0 0	50 12.00	51 11.00	52 121	53 2	54 3	55	05 15 YY	57 3	58 100.0

CODES FOR UNIT COLUMN 11

15 lbs/acre-inch

19 lbs of actual nutrients/acres

29 % by weight

31 lbs/ton

121 lbs/1000 gallons

CODES FOR APPLICATION COLUMN 16

1 Dry broadcast, without incorporation

2 Dry broadcast, with incorporation

3 Liquid broadcast, without incorporation

4 Liquid broadcast, with incorporation

5 Chiseled/injected or knifed in

6 Furrow or basin irrigated

7 Sprinkler irrigated

Example-Table Page 2

Manure Analysis Test Reporting Example 2

LINE	10 Results from manure analysis test OR actual amount of nutrients applied [Leave this column blank if column 8=2 or 3.]			11 Unit (column 10 only) [Enter code from box above.]	12 Major source of manure [Enter code from box above.]	13 Was manure composted before application? 1 Yes 2 DK 3 No	14 Composting Method? [Leave this column blank if column 13 = 2 or 3.] 1 Windrow 2 Static pile 3 In-Vessel 4 Other	15 When was this applied?	16 How was this applied? [Enter code from box above.]	17 How many acres were treated in this application?
	Nitrogen N	Phosphorus P_2O_5	Potassium K_2O	Code	Code	Code	Code	MM DD YY	Code	Acres
01	49 2.50	50 1.20	51 1.10	52 29	53 2	54 3	55	56 05 15 YY	57 3	58 100.0

CODES FOR UNIT COLUMN 11

15 lbs/acre-inch

19 lbs of actual nutrients/acres

29 % by weight

31 lbs/ton

121 lbs/1000 gallons

CODES FOR APPLICATION COLUMN 16

1 Dry broadcast, without incorporation

2 Dry broadcast, with incorporation

3 Liquid broadcast, without incorporation

4 Liquid broadcast, with incorporation

5 Chiseled/injected or knifed in

6 Furrow or basin irrigated

7 Sprinkler irrigated

Example-Table Page 2

Actual Amount of Nutrients Reporting Example

- 1 Yes: Answer 14
- 2 DK: Skip 14
- 3 No: Skip 14

	10 Results from manure analysis test OR			11 Unit (column	12 Major source of manure [Enter code from box above.]	13 Was manure composted before application ? 1 Yes 2 DK 3 No	14 Composting Method? [Leave this column blank if column 13 = 2 or 3.] 1 Windrow 2 Static pile 3 In-Vessel 4 Other	15 When was this applied?	16 How was this applied ? [Enter code from box above.]	17 How many acres were treated in this application ?
	Nitrogen N	Phosphorus P_2O_5	Potassium K_2O	Code	Code	Code	Code	MM DD YY	Code	Acres
01	49 175.00	50 84.00	51 77.00	52 19	53 2	54 3	55	56 05 15 YY	57 3	58 100.0

CODES FOR UNIT COLUMN 11

15 lbs/acre-inch

19 lbs of actual nutrients/acres

29 % by weight

31 lbs/ton

121 lbs/1000 gallons

CODES FOR APPLICATION COLUMN 16

1 Dry broadcast, without incorporation

2 Dry broadcast, with incorporation

3 Liquid broadcast, without incorporation

4 Liquid broadcast, with incorporation

5 Chiseled/injected or knifed in

6 Furrow or basin irrigated

7 Sprinkler irrigated

3. Were the manure application rates to this field influenced by State or local restrictions, by your conservation plan, Nutrient Management Plan (NMP), or Comprehensive Nutrient Management Plan (CNMP)? [If Yes — Enter 1 and continue. If No — Enter 3, then Go to Item 4.] .....

Code 0419: **1**

a. What nutrient requirement basis was used to determine these manure applications? .....

1 Nitrogen
2 Phosphorus

Code 0420: **1**

b. What was the soil test phosphorus level in the field before the manure application occurred? .....

Soil Test P: 0459

Unit Codes:
1 mg/Kg P
2 ppm P
3 lbs/acre

Code 0460

4. Was the use of commercial fertilizers adjusted on this field in
[If Yes — Enter 1 and continue. If No — Enter 3, then Go to

a. Was commercial nitrogen reduced? .....

b. Was commercial phosphorus reduced? .....

5. How often do you plan to apply manure to this field in future years? .....

1 No plans
2 At least
3 4 times
4 Twice a
5 Once a
6 Once every 2 years
7 Once every 3 years or more

- A nitrogen-based manure rate is a higher rate than a phosphorus-based rate.
- **The rate is based on soil test Phosphorus level**.
- High soil test P level = P based manure rate.

3. Were the manure application rates to this field influenced by State or local restrictions, by your conservation plan, Nutrient Management Plan (NMP), or Comprehensive Nutrient Management Plan (CNMP)? [If Yes — Enter 1 and continue. If No — Enter 3, then Go to Item 4.] .....

Code: 0419 — **1**

a. What nutrient requirement basis was used to determine these manure applications? .....

1	Nitrogen
2	Phosphorus

Code: 0420 — **1**

b. What was the soil test phosphorus level in the field before the manure application occurred? .....

Soil Test P: 0459

1	mg/Kg P
2	ppm P
3	lbs/acre

Code: 0460

4. Was the use of commercial fertilizers adjusted on this field in years when manure was applied? [If Yes — Enter 1 and continue. If No — Enter 3, then Go to Item 5.] .....

Code: 0421

a. Was commercial nitrogen reduced? ..... Yes = 1, No = 3 — 0422

b. Was commercial phosphorus reduced? ..... Yes = 1, No = 3 — 0423

5. How often do you plan to apply manure to this field in future years? .....

1	No plans to apply manure again
2	At least once per month
3	4 times per year
4	Twice a year
5	Once a year
6	Once every 2 years
7	Once every 3 years or more

Code: 0424

3. Were the manure application rates to this field influenced by State or local restrictions, by your conservation plan, Nutrient Management Plan (NMP), or Comprehensive Nutrient Management Plan (CNMP)? [If Yes — Enter 1 and continue. If No — Enter 3, then Go to Item 4.] .....

Code: 0419 **3**

a. What nutrient requirement basis was used to determine these manure applications? .....

1 Nitrogen
2 Phosphorus

Code: 0420 **1**

b. What was the soil test phosphorus level in the field before the manure application occurred? .....

Soil Test P: 0459

Unit Codes:
1 mg/Kg P
2 ppm P
3 lbs/acre

Code: 0460

4. Was the use of commercial fertilizers adjusted on this field in years when manure was applied? [If Yes — Enter 1 and continue. If No — Enter 3, then Go to Item 5.] .....

Code: 0421 **1**

a. Was commercial nitrogen reduced? ..... Yes = 1 No = 3 — 0422 **1**

b. Was commercial phosphorus reduced? ..... Yes = 1 No = 3 — 0423 **1**

5. How often do you plan to apply manure to this field in future years? .....

1 No plans to apply manure again
2 At least once per month
3 4 times per year
4 Twice a year
5 Once a year
6 Once every 2 years
7 Once every 3 years or more

Code: 0424 **5**

Should have been reported in Item 2 column 6.

6. Was any manure applied to the selected field produced on this operation?

Enumerator Action: Manure applied on this field that was produced on this operation should have been reported in Item 2, column 6.

☐ Yes — [Enter 1 and continue.]

☐ No — [Enter 3, then Go to Section F.] .....

Code 0425

7. For each form of manure applied to this field, what type of storage and/or treatment system is used for the bulk of that manure?.....

Solid	Slurry	Liquid
1 stacking slab (open storage) 2 covered slab 3 manure pack 4 barn, shed or house 5 other (specify) 0870 _____ 6 none	7 concrete or steel tank, basin or pit 8 earthen storage facility 9 other (specify) 0871 _____	10 single stage lagoon 11 single stage holding pond 12 2-stage lagoon system with the 2nd stage being a lagoon 13 2-stage lagoon system with the 2nd stage being a holding pond 14 run off storage pond used only for collection of open-lot run off 15 other (specify) 0872 _____

LINE	1 Crop Year YY	2 Primary crop for which nutrients were intended	3 Crop Code [Enter crop code from Respondent Booklet pg. 4.] Code	4 What quantity of manure was applied per acre?	5 Unit (column 4 only) 1 Pounds 3 Tons 4 Bushels 12 Gallons 14 Acres/ Inch Code	6 Where was the manure produced? 1 On this operation 2 Purchased 3 Obtained at no cost off the operation 4 Obtained with compensation 5 Commercially prepared manure Code	7 How was the manure handled? 1 Solid 2 Liquid 3 Slurry Code	8 Was manure tested before application? 1 Yes 2 Don't Know (DK) 3 No Code	9 Nitrogen inhibitor applied with manure 1 Nitrification inhibitor 2 Urease inhibitor 3 None Code
01	42 22	Corn, silage	189	44 7,000	45 12	46 1	2	48 1	59 3

6. Was any manure applied to the selected field produced on this operation?

Enumerator Action: Manure applied on this field that was produced on this operation should have been reported in Item 2, column 6.

☐ Yes — [Enter 1 and continue.]

☐ No — [Enter 3, then Go to Section F.] .....

Code

0425 **1**

7. For each form of manure applied to this field, what type of storage and/or treatment system is used for the bulk of that manure?.....

Solid	Slurry	Liquid
1 stacking slab (open storage) 2 covered slab 3 manure pack 4 barn, shed or house 5 other (specify) 0870 _____ 6 none	7 concrete or steel tank, basin or pit 8 earthen storage facility 9 other (specify) 0871 _____	10 single stage lagoon 11 single stage holding pond 12 2-stage lagoon system with the 2nd stage being a lagoon 13 2-stage lagoon system with the 2nd stage being a holding pond 14 run off storage pond used only for collection of open-lot run off 15 other (specify) 0872 _____

LINE	1 Crop Year YY	2 Primary crop for which nutrients were intended	3 Crop Code [Enter crop code from Respondent Booklet pg. 4.] Code	4 What quantity of manure was applied per acre?	5 Unit (column 4 only) 1 Pounds 3 Tons 4 Bushels 12 Gallons 14 Acres/ Inch Code	6 Where was the manure produced? 1 On this operation 2 Purchased 3 Obtained at no cost off the operation 4 Obtained with compensation 5 Commercially prepared manure Code	7 How was the manure handled? 1 Solid 2 Liquid 3 Slurry Code	8 Was manure tested before application? 1 Yes 2 Don't Know (DK) 3 No Code	9 Nitrogen inhibitor applied with manure 1 Nitrification inhibitor 2 Urease inhibitor 3 None
01	42 22	Corn, silage	189	44 7,000	45 12	46 1	47 2	48 1	

LIQUID

6. Was any manure applied to the selected field produced on this operation?

Enumerator Action: Manure applied on this field that was produced on this operation should have been reported in Item 2, column 6.

☐ Yes — [Enter 1 and continue.]

☐ No — [Enter 3, then Go to Section F.] .....

Code 0425 **1**

7. For each form of manure applied to this field, what type of storage and/or treatment system is used for the bulk of that manure?.....

Solid	Slurry	Liquid
1 stacking slab (open storage) 2 covered slab 3 manure pack 4 barn, shed or house 5 other (specify) 0870 _____ 6 none	7 concrete or steel tank, basin or pit 8 earthen storage facility 9 other (specify) 0871 _____	10 single stage lagoon 11 single stage holding pond 12 2-stage lagoon system with the 2nd stage being a lagoon 13 2-stage lagoon system with the 2nd stage being a holding pond 14 run off storage pond used only for collection of open-lot run off 15 other (specify) 0872 _____

6. Was any manure applied to the selected field produced on this operation?

Enumerator Action: Manure applied on this field that was produced on this operation should have been reported in Item 2, column 6.

☐ Yes — [Enter 1 and continue.]

☐ No — [Enter 3, then Go to Section F.] .....

Code 0425: **1**

7. For each form of manure applied to this field, what type of storage and/or treatment system is used for the bulk of that manure?.....

Solid	Slurry	Liquid
1 stacking slab (open storage)	7 concrete or steel tank, basin or pit	10 single stage lagoon
2 covered slab	8 earthen storage facility	11 single stage holding pond
3 manure pack	9 other (specify)	12 2-stage lagoon system with the 2nd stage being a lagoon
4 barn, shed or house	0871 _____	13 2-stage lagoon system with the 2nd stage being a holding pond
5 other (specify)		14 run off storage pond used only for collection of open-lot run off
0870 _____		15 other (specify)
6 none		0872 _____

Q8: Was a Methane Digester Used?

Methane digesters are used to reduce GHG (Greenhouse Gas Emissions) and a way to capture methane for energy co-generation on-site.

		Code
8.	For liquid manure stored in lagoon, is a methane digester being used? ..... Yes = 1 No = 3	0873

Q9: Bulking agents

Bulking agents are sometimes added to **aid housing, storing, handling and composting**.

9.	Were bulking agents (e.g., straw, wood chips, and/or other materials) in addition to existing bedding material added to manure in housing, storage, or during composting?	Yes = 1 No = 3	0874

Reminders

- Each Manure Application on a Separate Line.
- Sampled Field Only
- Use Consistent Crop Codes
- Include Applications From Fall of Previous Year for Following Crop Year
- IM for More Details and Definitions
- Follow Skip Patterns
- Supplements are used if there has been more than 10 applications
- (non-PII) Comments are welcome!

Thank You!

Sections F & G: Pesticide Applications & Management Practices

Stephen Habets

Learning Objectives

- Gain familiarity with terms related to pest management.
- Learn how to fill out the table in Section F.
- Understand the importance of getting the EPA numbers for unknown products
- Learn when and how to use a supplement.

Section F: Pesticide Applications

The purpose of this section is to identify pesticides used to produce crops on the targeted field over the past 3 years

What is a Pest?

- **Q1** - Products applied to control weeds, insects, or diseases?
  - Include herbicides, insecticides, fungicides, bio-control agents, seed treatments, and other conventional or organic products
- If none used, go to Section G

F **PEST CONTROL APPLICATIONS — SELECTED FIELD** **F**

		20XZ	20XY	20XX
1. In which of the following years (2025, 2024, and/or 2023) were any products applied to this field to control weeds, insects, or diseases? [INCLUDE herbicides, insecticides, fungicides, bio-control agents, bio-pesticides, seed treatments, and other conventional or organic products.]	Yes = 1 No = 3	0315	0345	0346
Enumerator Action: If pesticides applied in any year, continue. Complete table for only year(s) specified, else Go to SECTION G.	Completion Code	0344	0343	0342

Mechanisms of Action (MOAs)

- A **mechanism of action** describes HOW the chemical kills the pest
- **Q4** – Rotation: Two different MOAs applied separately during the season or in separate crop years
- **Q5** – Tank Mix: Two different MOAs applied simultaneously
- Answer for this crop year and the past two crop years

4. Were pesticides with different mechanisms of action ROTATED for the PRIMARY PURPOSE of keeping pests from becoming resistant to pesticides?	Yes = 1 No = 3	0875
5. Were pesticides with different mechanisms of action TANK MIXED for the PRIMARY PURPOSE of keeping pests from becoming resistant to pesticides?	Yes = 1 No = 3	0876

Enumerator Action Items

Enumerator Action: For questions 3 - 8 regarding pesticide applications, please report activities done in 20xx, 20xx, or 20xx		Code
3. Did you alter any of your pesticide applications specifically to protect honey bees and/or native pollinators? (For example, utilize an IPM program that specifically protects pollinators, only apply insecticides outside of the bloom period, only apply insecticides at night, etc.)	Yes = 1 No = 3	0348
4. Were pesticides with different mechanisms of action ROTATED for the PRIMARY PURPOSE of keeping pests from becoming resistant to pesticides?	Yes = 1 No = 3	0875
5. Were pesticides with different mechanisms of action TANK MIXED for the PRIMARY PURPOSE of keeping pests from becoming resistant to pesticides?	Yes = 1 No = 3	0876
6. Did you select and plant crop seeds that had been commercially treated with fungicides or insecticides?	Yes = 1 No = 3	0349
7. Did you apply practices to reduce potential drift, runoff, or leaching?	Yes = 1 No = 3	0877
8. Did you use precision technology such as GPS, variable rate application, or smart or robotic sprayers?	Yes = 1 No = 3	0878

Pest Control Application Factors

9. Other than cost and product effectiveness, which of the following factors did you consider in determining which pest control product to use in 2024?

Source		Code
a. Potential health risk to applicator or farm worker?	Yes = 1 No = 3	0352
b. Risk to populations of beneficial organisms (earthworms, bees, ladybugs, etc)?	Yes = 1 No = 3	0353
c. Risk to natural resources (drinking water, wildlife, fish, etc.)?	Yes = 1 No = 3	0354
d. Pest resistance management?	Yes = 1 No = 3	0355
e. Crop safety?	Yes = 1 No = 3	0356
f. Impacts on soil health?	Yes = 1 No = 3	0879
g. None?	Yes = 1 No = 3	0880

Only answer "yes=1" if all above are "No"

Pesticide Application Table

- Item 10a/b/c: Details on three years of applications
- Include pesticides in tank mixes with Sec. D fertilizer
- Crop Years pre-printed; hand-write on supplements
- Show the operator the respondent booklet for:
  - Crop Codes – Column 3
  - Product Codes – Column 4

PRODUCT NAME	. LINE	1 Crop Year	2 Primary crop for which control agent was intended.	3 Crop Code [Enter crop code from Respondent Booklet pgs. 4 - 7.]	4 What products were applied to this field? [Enter product code from Respondent Booklet pgs. 10 - 36.]	5 Was this product bought in liquid or dry form? [Enter L or D.]	6 Was this part of a tank mix? [If tank mix, enter line number of first product in mix.]

Missing Product Codes

- Product(s) not listed in the respondent booklet?
  - Use the lines below the tables

Line	Pest Control Product Type (*Herbicide, Insecticide, Fungicide, etc.*)	EPA No. or Tradename and Formulation	Form Purchased (Liquid or Dry)	Where Purchased [*Ask only if EPA No. cannot be reported.*]
6	*Insecticide*	*Danitol 2.4 EC, EPA # 59639-35*	*Liquid*	
16	*Fungicide*	*Regulator II*	*Liquid*	*Midland Chem*

Application Rates

- **Column 8:** Per Acre
- **Column 9:** Per Application
  - Use for spot treatments or when rates per acre vary
- Record the amount of concentrated product, not spray volume
- Add two zeroes after the decimal point when using whole numbers

8	OR	9	10
How much was applied per acre per application?		What was the total amount applied per application in this field?	[Enter unit code] (col. 8 or 9 only) 1 Pounds 12 Gallons 13 Quarts 14 Pints 15 Liquid Ounces 28 Dry Ounces 30 Grams 40 Kilograms 41 Liters Code
65 **13.00**		73	74 **28**
65		73 **5.00**	74 **14**

Tank Mixes

- When two or more products are applied with a single application
- Tank mix lines must be in the same table (do not carry over into a supplement)
- Columns 2, 3, 6, 7, 11, 12, 13 all must match for a given tank mix

Tank Mixes

PRODUCT NAME	LINE	1 Crop Year	2 Primary crop for which control agent was intended.	3 Crop Code [Enter crop code from Respondent Booklet pgs. 4 - 7.]	4 What products were applied to this field? [Enter product code from Respondent Booklet pgs. 10 - 36.]	5 Was this product bought in liquid or dry form? [Enter L or D.]	6 Was this part of a tank mix? [If tank mix, enter line number of first product in mix.]
Powerflex	**01**	60 25	**Wheat**	**125**	61 **40071**	**D**	63
Atrazine 4L	**02**	60 25	**Corn**	**188**	61 **40136**	**L**	63 **2**
Express	**03**	60 25	**Corn**	**188**	61 **40310**	**D**	63 **2**

LINE	7 When was this applied? MM DD YY	8 How much was applied per acre per application?	OR 9 What was the total amount applied per application in this field?	10 [Enter unit code] (col. 8 or 9 only) 1 Pounds, 12 Gallons, 13 Quarts, 14 Pints, 15 Liquid Ounces, 28 Dry Ounces, 30 Grams, 40 Kilograms, 41 Liters — Code	11 How was this product applied? [Enter code from box above.] — Code	12 Was this product applied to the entire field, to only a portion of the field, or as a spot treatment? 1 Entire field, 2 Part of field, 3 Spot Treatment, 4 Entire field plus borders and buffers — Code	13 How many acres in this field were treated with this product? — Acres
01	83 **09 22 25**	65 **2.00**	73	74 **28**	76 **6**	84 **1**	77 **150.0**
02	83 **05 11 25**	65	73 **1.00**	74 **14**	76 **8**	84 **1**	77 **150.0**
03	83 **05 11 25**	65 **0.13**	73	74 **15**	76 **8**	84 **1**	77 **150.0**

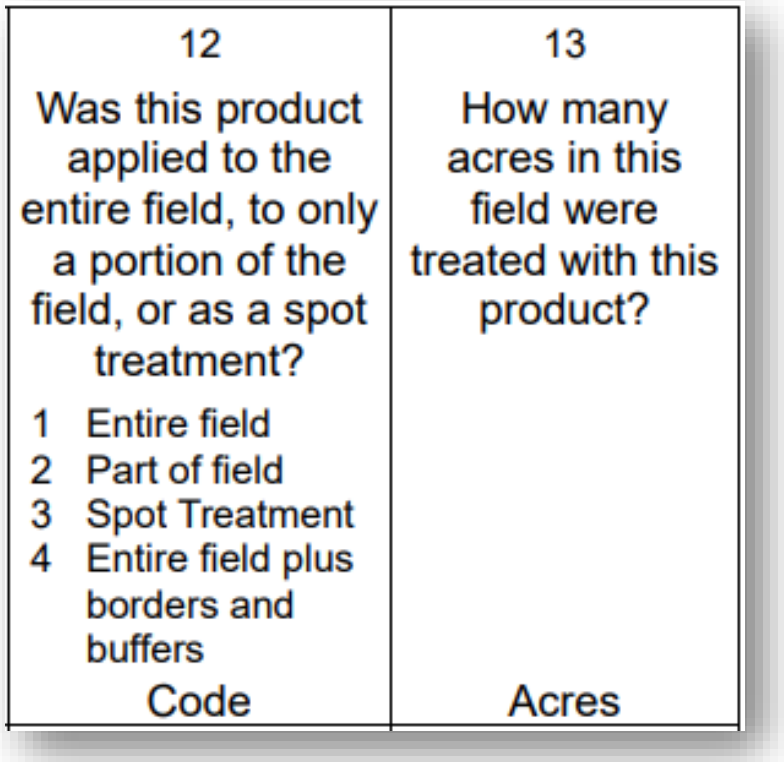
Pesticide Application Table

- Refer to the table at the top of page for Application Method (Column 11)

APPLICATION CODES FOR COLUMN 11			
4	Seed furrow	21	Broadcast, ground, incorporated
5	Chemigation (in irrigation water)	31	Broadcast, by aircraft
6	Chisel/injected or knifed in	32	Broadcast, foliar, by aircraft
8	Direct spray, foliar	71	Banded/side dressed
10	Seed treatment by producer prior to planting	73	Banded/side-dressed, foliar
11	Broadcast, ground, not incorporated	76	T-Banded (combo of banded and injected)
13	Broadcast, ground, foliar	77	Broadcast, by drone
		78	Broadcast, foliar, by drone

Strip Cropping

- How do you record Strip Cropping?
  - List both crops on **separate lines** with the same application information
  - Enter “2” in **Column 12** for both crops to indicate an application on part of the field
  - Enter number of acres for each application in **Column 13**



12	13
Was this product applied to the entire field, to only a portion of the field, or as a spot treatment? 1 Entire field 2 Part of field 3 Spot Treatment 4 Entire field plus borders and buffers	How many acres in this field were treated with this product?
Code	Acres

Supplements

- More than 15 lines in your table? Time for a supplement!
- Make sure to put the 9 digit poid where it says “CEAP ID”

VERSION	CEAP ID	TRACT	SUBTRACT	TABLE
1	_ _ _ _ _ _ _ _ _	01	01	_ _ _

INCLUDE: herbicides, insecticides, fungicides, defoliants, growth regulators, microbial agents, miticides, nematicides, rodenticides, soil fumigants, and seed treatments. INCLUDE biological and botanical pest control	EXCLUDE: fertilizers and adjuvants, (e.g. wetting agents, stickers, spreaders, etc.).	10X = 2025 20X = 2024 30X = 2023

						Lines in Table	0399
PRODUCT NAME	LINE	1 Crop Year	2 Primary crop for which control agent was intended.	3 Crop Code [Enter crop code from Respondent Booklet pgs. 4 - 7.]	4 What products were applied to this field? [Enter product code from Respondent Booklet pgs. 10 - 36.]	5 Was this product bought in liquid or dry form? [Enter L or D.]	6 Was this part of a tank mix? [If tank mix, enter line number of first product in mix.]
	01	60 _ _			61		63
	02	60 _ _			61		63

Supplements

- Each supplement can only record one year of extra lines.
- Table number indicates the year and count of supplements.
- Example: you have 2 supplements for the previous crop year.
  - Supplement 1= 201
  - Supplement 2= 202

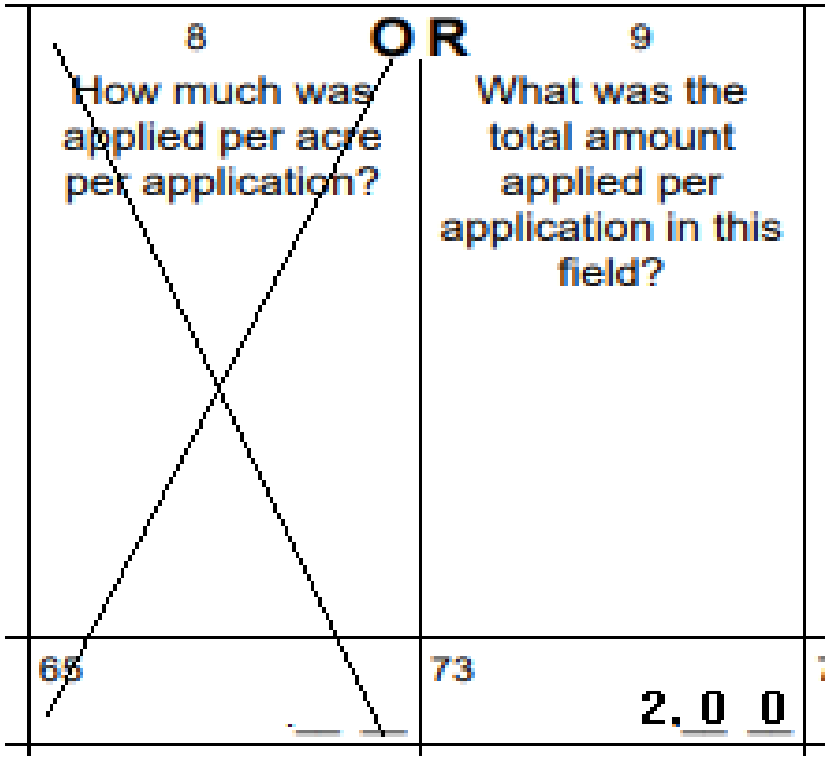
VERSION	CEAP ID	TRACT	SUBTRACT	TABLE
1	_ _ _ _ _ _ _ _ _ _	01	01	_ _ _

INCLUDE: herbicides, insecticides, fungicides, defoliants, growth regulators, microbial agents, miticides, nematicides, rodenticides, soil fumigants, and seed treatments. INCLUDE biological and botanical pest control	EXCLUDE: fertilizers and adjuvants, (e.g. wetting agents, stickers, spreaders, etc.).	10X = 2025 20X = 2024 30X = 2023

						Lines in Table	0399
PRODUCT NAME	LINE	1 Crop Year	2 Primary crop for which control agent was intended.	3 Crop Code [Enter crop code from Respondent Booklet pgs. 4 - 7.]	4 What products were applied to this field? [Enter product code from Respondent Booklet pgs. 10 - 36.]	5 Was this product bought in liquid or dry form? [Enter L or D.]	6 Was this part of a tank mix? [If tank mix, enter line number of first product in mix.]
	01	60 _ _			61		63
	02	60 _ _			61		63

Wrapping up Section F

- Complete the remaining tables for the 2 previous years
- Verify any spot treatments
  - Must complete Column 9
  - Do NOT enter rate per acre (Column 8)



Section G: Pest Management Practices

The purpose of this section is to collect information on the use of IPM (Integrated Pest Management) techniques to control pests in the selected field in the current reference year

What is Integrated Pest Management(IPM)?

- An environmentally responsible approach to control pests that combines physical, biological, cultural and chemical methods

- IPM practices may be used even if pesticides are not applied

- An integrated pest management approach can:
  - Be an alternative to pesticide use
  - Reduce the number of pesticide applications needed
  - Reduce the toxicity of the pesticides used by producers
  - Improve the effectiveness of the pesticides applied

Scouting

1. During 20XX how was this field primarily scouted for pests and/or beneficial organisms? .....

		Code
1	By conducting general observations while performing routine tasks. [Enter 1, then Go to Item 3.]	
2	By deliberately going to the field specifically for scouting activities. [Enter 2, then Go to Item 2.]	1701
3	This field was not scouted for pests. [Enter 3, then Go to Item 8.]	

3. Was scouting for pests done in this field due to:

		Code
a.	a pre-determined schedule or calendar? ..... Yes = 1 No = 3	1773
b.	a pest development model based on degree days, maximum or minimum temperatures, or wetness? ..... Yes = 1 No = 3	1703
c.	a pest advisory warning? ..... Yes = 1 No = 3	1704

Q5: What Was the Field Scouted For?

1	2	3	4
	Yes = 1 No = 3 Code	If Column 2 = Yes, Ask— Who did the majority of the scouting for Column 1 — 1 Operator, partner or family member 2 An employee 3 Farm supply or chemical dealer 4 Independent crop consultant or commercial scout Code	If Column 2 = Yes, Ask— Based on the scouting report and compared to published threshold level, rate the pest pressure as — 1 Low 2 Medium 3 High Code
a. weeds?	1705	1709	1774
b. insects or mites?	1706	1710	1775
c. diseases?	1707	1711	1776
d. other (specify) 0881 _____	1708	1712	1777

Pest Management Practices

10. Did you conduct any of the following activities for the crops grown in 2024 SPECIFICALLY for the purpose of managing pests or reducing the spread of pests —

			Code
a.	remove, plow down, or burn any crop or crop residue?	Yes = 1 No = 3	1717
b.	alter crop rotation?	Yes = 1 No = 3	1718
c.	maintain ground covers, mulches, or other physical barriers?	Yes = 1 No = 3	1719
d.	use no-till or reduced till?	Yes = 1 No = 3	1720
e.	adjust spacing or plant density?	Yes = 1 No = 3	1721
f.	chop, spray, mow, plow, or burn field edges, lanes, ditches, roadways, or fence lines?	Yes = 1 No = 3	1723
g.	clean equipment and field implements after completing field work?	Yes = 1 No = 3	1725
h.	cultivate for weed control during the growing season?	Yes = 1 No = 3	1727
i.	choose not to plant a crop in certain areas of the field to avoid a specific pest?	Yes = 1 No = 3	1779
j.	adjust planting or harvesting dates?	Yes = 1 No = 3	1730

Knowledge Check

- What is the EPA number (not pesticide code) for Huskie Complete herbicide?
  - A: 41216
  - B: 264-1023
  - C: 264-1135
  - D: 40065

Section F & Section G Concluded

- EPA numbers are preferred when the product code is uncertain or not in the Respondent Booklet
- Pay attention to application dates and tank mixes
- Some pesticides may be applied prior to the planting date
- Refer to the Interviewer's Manual or Questionnaire to learn more about Section F and G

Section H: Irrigation

Jake Bowers
Upper Midwest Region

Section H: Training Objectives

- Understand the basic types of irrigation systems used on crop fields;
- Understand the difference between “gravity” and “pressure” systems;
- Properly code the type of irrigation used;
- Identify characteristics of the irrigation system(s) used on the selected field for the crop years of interest; and
- Describe terms and practices associated with irrigation and water management (IWM)

Gravity vs. Pressure Systems

Gravity irrigation systems convey and distribute water at the field level by means of flooding.

Pressure systems convey water to the field and distribute water through a series of pressurized pipes and nozzles.

Irrigation System Type Codes

Section H, Item 1a

IRRIGATION SYSTEM TYPE CODES

	Pressure Systems
1	Hand-move
2	Solid or Permanent Set
3	Side Roll or Wheel Line
4	Center Pivot or Linear Move with impact sprinklers
5	Center Pivot or Linear Move low pressure spray nozzles below the tower and suspended above ground level
6	Center Pivot or Linear Move with spray or bubbler nozzles discharging on or near the ground
7	Big Gun
8	Low-Flow Irrigation (drip, trickle, or micro spray)
9	Other (Specify: _____)

	Gravity Systems
10	Siphon-Tube System from unlined ditches
11	Siphon-Tube System from lined ditches
12	Portal System from unlined ditches
13	Portal System from lined ditches
14	Any Poly-Pipe System
15	Gated-Pipe (not poly-pipe)
16	Improved Gated Pipe (surge flow or cablegation, not poly-pipe
17	Sub irrigation
18	Open discharge from well, pump, border large scale turned structures or large alfalfa valves
19	Other (Specify: _____)

- Irrigation system type codes: Respondent Booklet on page 38 to complete Section H, Question 1.

Pressure System Types

Hand Move

Solid Set

Wheel Line

Pressure System Types

Center Pivot with impact sprinkler

Center Pivot with low pressure nozzles

Center Pivot with spray or Bubbler near ground

Pressure System Types

Big Gun

Pressure System Types

Micro-drip

Subsurface Drip

Drip Tape

Micro-spray

Low-Flow Irrigation

Gravity System Types

Unlined Ditch with
Siphon Tubes

Lined Ditch with
Siphon Tubes

Poly Pipe

Gravity System Types

Gated Pipe

Improved Gated Pipe

Open Discharge

Type of Irrigation System Used

Eunumerator Action: Confirm if Irrigation was utilized on the selected field, Section C. Cropping History and Conservation Practices, Item j = Yes on pages 7,8,9. If no Irrigation was reported for any crop years in SECTION C, Go to SECTION I.

1. Now, I have some questions about the irrigation of this field for the [years of irrigation] crops(s).

   a. What type of irrigation system(s) were used to irrigate this field?
   [Show System Type Codes in RESPONDENT BOOKLET pg. 38. If more than 1 system was used, enter System Type Code for the system most-used during the irrigation season as the Primary System and the next most-used system during the season as the Secondary System. If only 1 type of system was used, report under the Primary System and then skip to 1b.]

	20xx SYSTEM TYPE	20xx SYSTEM TYPE	20xx SYSTEM TYPE
i. Primary Irrigation System ..... Code	1505	1506	1507
ii. Secondary Irrigation System ..... Code	1511	1513	1515

   b. Were any major changes made to the way the field was irrigated during the period from 20xx to 20xx (INCLUDE irrigation system type, source of water, and major changes to scheduling or monitoring)? ..... Yes = 1, No = 3 — 1593

Enumerator Action: If an irrigation system reported in 1a for any year is a gravity system (code 10 - 19) then continue; else , Go to Item 4.

If Irrigation System was a Gravity System

2. What gravity irrigation system source was used? .....

1	furrow
2	border
3	basin
4	contour levee
5	meadow or wild flood

	20xx	20xx	20xx
Primary System Code	1508	1509	1510
Secondary System Code	1517	1518	1519

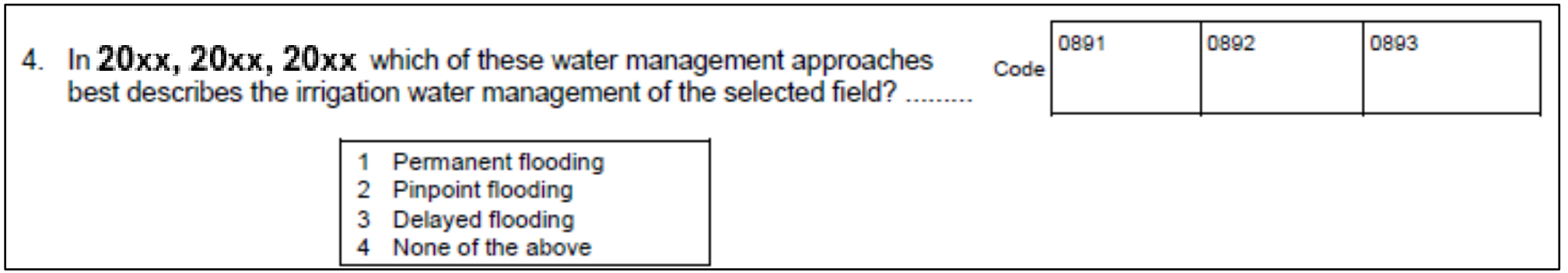
- Choose gravity irrigation system source used.
- Code Primary and Secondary System for corresponding years.

If Irrigation System was a Gravity System

3. In which of the following years (20xx, 20xx, 20xx)		20xx	20xx	20xx
a. Did you use mid-season drainage?	Yes = 1 No = 3	0882	0883	0884
b. Did you practice winter flooding?	Yes = 1 No = 3	0885	0886	0887
c. Did you practice alternate wetting and drying?	Yes = 1 No = 3	0888	0889	0890

- Mid-season drainage
- Winter Flooding
- Alternate wetting/drying

Water Management Approaches



4. In 20xx, 20xx, 20xx which of these water management approaches best describes the irrigation water management of the selected field? .....

Code | 0891 | 0892 | 0893 |

1 Permanent flooding
2 Pinpoint flooding
3 Delayed flooding
4 None of the above

- **Permanent Flooding** - when a field is flooded for the duration of the growing season.
- **Pinpoint Flooding** – when a field, or paddy, is flooded prior to seeding.
- **Delayed Flooding** – when seed is planted or broadcast onto dry seed bed, then water is flush onto the field.

Irrigation Water Runoff

Section H, Item 5.....

IRRIGATION RUNOFF CODES	
1	Retained at the end of the field with no re-use
2	Retained at the end of the field and re-used to irrigate on the farm
3	Collected in evaporation ponds on the farm
4	Drained from the farm
5	There is no runoff

5. Irrigation runoff from the field is primarily? .....
[See Respondent Booklet pg. 38 for codes.]

	20xx	20xx	20xx
Code	1536	1537	1538

- Irrigation runoff codes: Respondent Booklet on page 38.
- Ask how water runoff was handled from the field during each crop year.

Irrigation Application Amount

		20xx	20xx	20xx
6. If the amount of water applied is known, what was the total amount of water applied?	Inches per Acre	3407	3408	3409

		Amount / Acre
7. If there is a limit on water availability or supply for this field, what is the maximum annual application amount? [If no maximum annual application amount, enter 99.]	Inches	1541

- Ask the Total amount of water in Inches per Acre for crop years of interest.
- Ask if there is a maximum annual application amount. Record in Inches per Acre.

Water Testing – Salinity & Nitrogen

		Code
8.	Has the irrigation water supply been tested for either nitrogen content or salinity? [If Yes — Continue. If No — Go to Question 9.] ..... Yes = 1 No = 3	1542

Please provide the following information for the last test performed on this field:	Salinity Test Value	Unit 1 ppm 2 mg/L 3 microseimens/cm	Nitrate-Nitrogen (NO_3 - N) Test Value	Unit 1 ppm 2 mg/L
a. Surface water	1543	1544	1547	1548
b. Ground water	1545	1546	1549	1550

Salinity Units

1= Parts/Million (ppm)
2= Milligrams/Liters (mg/L)
3= Microseimens/cm

Nitrate-Nitrogen (NO_3-N) Units

1= Parts/ Million (ppm)
2= Milligrams/Liters (mg/L)

If Irrigation System was a Pressure System

Enumerator Action:	If irrigation system reported in Item 1a, for any year, is a pressure system (Code 1 - 9), then Continue, else Go to Item 10.

		Code
9.	Did you take steps to evaluate or improve the uniformity of water application of your pressure system?	Yes = 1 No = 3 → 1551

- Read the Enumerator Action.
- Code “1” for “Yes” or “3” for “No”.

General System Information

10. Which of the following are sources of your irrigation water? (Select all that apply)

		Code
a. Well	Yes = 1 No = 3	1552
b. Irrigation district	Yes = 1 No = 3	1553
c. River or stream	Yes = 1 No = 3	1554
d. Other Specify: 0894 _____	Yes = 1 No = 3	1555

[If Item 10b = 1, Continue, Else — Go to Item 12.]

11. Which one of the following best describes how you receive your water from the irrigation district?

		Code
a. I receive it when it's my turn	Yes = 1 No = 3	1556
b. I receive it by calling one or more days ahead of when I want it	Yes = 1 No = 3	1557
c. I receive it anytime I want it	Yes = 1 No = 3	1558

12. Does the source of your water limit your selection of irrigation methods, such as a conversion to a pressurized system?

	Code
Yes = 1 No = 3	1559

Determining When to Irrigate

13. Which of the following are ways you decide when to irrigate? (Select all that apply)		Code
a. When plants appear dry or stressed	Yes = 1 No = 3	1560
b. When indicated by the calendar or schedule of field operations	Yes = 1 No = 3	1561
c. When water is available	Yes = 1 No = 3	1562
d. On the soil surface appearance or feel, or current climate observations	Yes = 1 No = 3	1563
e. When a target "dryness" value, such as inches depleted, centibars of tension, percent remaining, etc, from soil moisture monitoring devices is reached	Yes = 1 No = 3	1564
f. When a target water use value, such as inches of evapotranspiration (ET) since last irrigation, from root zone water budget and current weather data (California Irrigation Management Information System (CIMIS)) is reached	Yes = 1 No = 3	1568
g. When a target measured plant stress level, such as pressure bomb, canopy temperature, etc., is reached	Yes = 1 No = 3	1569

Determining How Long to Irrigate

14. Which of the following are ways you decide how long to apply water at each field location (e.g., set time for manually moved or fixed systems, or speed of automated pressure systems, like a center-pivot)? (Select all that apply)

		Code
a. Observe when the right amount of time has passed, the furrows or border checks appear to be adequately wet, or the water has reached the end of the field	Yes = 1 No = 3	1574
b. Run times based on past experience and schedule of required field operations	Yes = 1 No = 3	1575
c. When the target amount of water (inches or gallons) is applied, the system moves automatically or manually, or is shutoff. (May be calculated from the run time and flow rate.) ...	Yes = 1 No = 3	1576
d. Field collected data such as from an observation well or soil moisture probe	Yes = 1 No = 3	0895

Determining Amount of Water to Apply

15. Which of the following are ways you determine how much water is applied?
(Select all that apply)

		Code
a. Irrigation district record, report, or bill	Yes = 1 No = 3	1579
b. A flow measuring device	Yes = 1 No = 3	1580
c. Measuring the flows to the field	Yes = 1 No = 3	1582
d. Measuring the flows at the water supply	Yes = 1 No = 3	1583
e. The runtime plus a known system application rate	Yes = 1 No = 3	1584
f. A pump test flow rate and runtime	Yes = 1 No = 3	1585

Water Removed by Crop

		Code
16. Do you know how much water the crop(s) removed from the soil? ..... [If Yes, Continue. If No, Go to Item 18.]	Yes = 1 No = 3	1587
17. How did you determine how much water the crop(s) removed from the soil? (Select all that apply)		Code
a. The current (real time) climate-based measurements such as CIMIS	Yes = 1 No = 3	1588
b. Historic ET data through CIMIS, Cooperative Extension publications, etc	Yes = 1 No = 3	1589
c. Tracking root zone soil moisture changes with electronic probes or other devices	Yes = 1 No = 3	1590

Evapotranspiration – How much water the crop used from the soil.

Other Reasons for Irrigating

18. In addition to replacing water used by the crop, which of the following were reasons you irrigated? (Select all that apply)

		Code
a. Pre-planting irrigation to refill root zone	Yes = 1 No = 3	1592
b. Apply moisture for seed germination and emergence	Yes = 1 No = 3	1594
c. Freeze protection or crop cooling	Yes = 1 No = 3	1595
d. To apply fertilizer or other chemicals	Yes = 1 No = 3	1596
e. Ground water recharge	Yes = 1 No = 3	1597

- Chemigation – applying fertilizer or chemicals through the irrigation system.
- Ground Water Recharge – pumping water into an aquifer for later use.

Improving Water Applications

Section H, Item 19

PRACTICES TO IMPROVE WATER USE APPLICATIONS

1	Ditch Improvement	8	Field Borders/Run Off Control
2	Water Leveling	9	Angle Dikes
3	Pipe Drop	10	Stale Seed Bed
4	Overflow Gate	11	Tail Water Recovery
5	Furrow Dams (check dam)	12	Alternating Row Furrows
6	Underground Pipes	13	Irrigation Scheduling
7	Water measurement and/or flow		

19. If other practices were used to improve water applications, what were the three primary practices?

List up to three practices. [See Respondent Booklet pg. 38 for codes.]

1565	1566	1567

- Codes for primary practices: Respondent Booklet on page 38.

Other General Irrigation Information

		Code
20. During and after each irrigation, do you defer grazing animals from the field until soil is no longer saturated?	Yes = 1 No = 3	3410
21. Do you manage irrigation to address salinity problems in this field?	Yes = 1 No = 3	1539

- Grazing animals in wet fields after irrigation = erosion issues
- Salinity problems – results from ground water evaporating on the fields surface after it is used for irrigating.

Section H Completion Codes

Completion Code for Irrigation			
1 = Inaccessible/Refusal 3 = Valid Zero	**20xx**	**20xx**	**20xx**
	1504	1503	1502

Blank = Data present for this section.

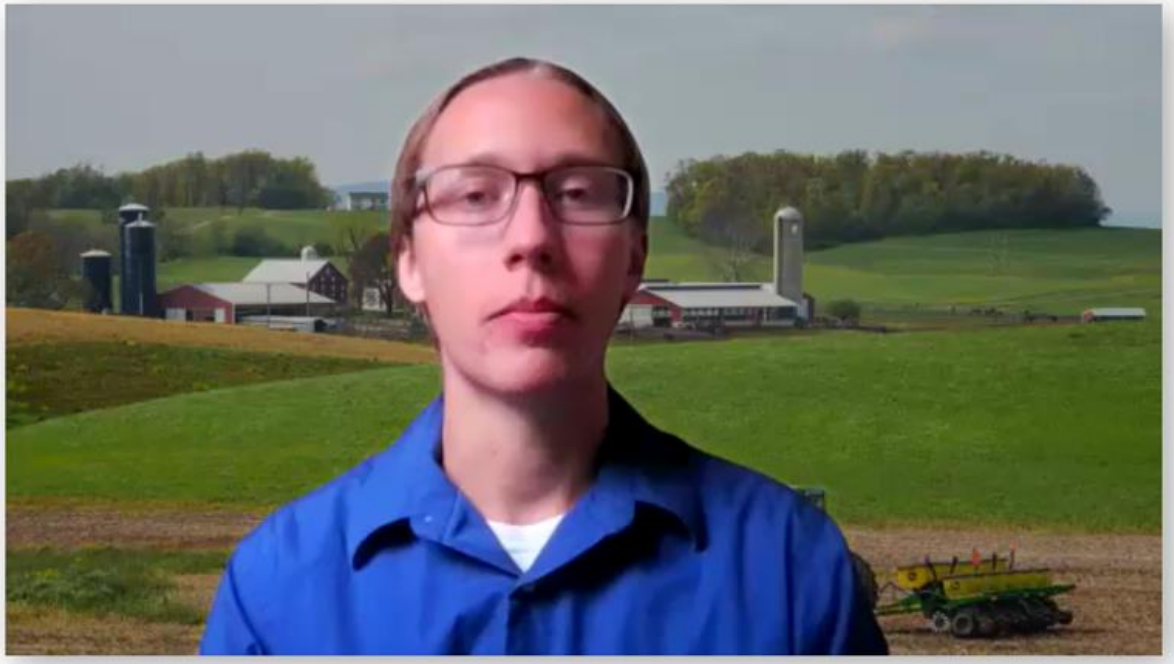
1 = Data incomplete or refused

3 = Valid zero data for this crop year

Don’t Forget!

- Yes & No
  - 1 = Yes
  - 3 = No
- Pay attention to Enumerator Actions.
- Code Completion Codes if applicable.
- Probe for additional information to clarify responses.
- When in doubt, leave a comment.

Section I: Field Operations



Logan Bradley-Trietsch

Section I: Training Objectives

- Identify **includes** and **excludes** in field operations tables
- Become proficient looking up farm machinery codes
- Correctly code **sequence numbers**
- Recognize when **depth of tillage** should be reported
- Understand how Section C is related to Section I

Field Operations Table

- List all equipment operations performed on the selected field
- Start **after** the harvest of the **previous** crop
- Continue **through** harvest of the **planted** crop
  - Harvest includes grazing/baling stubble and shredding stalks
- Do not put 2 different crop years in the same table
- Permanent **Hay** – start with the first operation, end with the last operation performed in the **calendar year**
  - Exception to the rule

Field Ops Include

- Land forming
- Tillage
- Preparing for irrigation before seeding
- Planting
- Harvesting

- Pruning, hedging, topping
- Hauling **within field**
- Residue management
- Grazing (Start and Stop)
- Custom operations
- Neighbors, friends, “swap”

Field Ops Exclude

- Lime/gypsum applications
- Pesticide, manure, fertilizer applications
- Hauling from the **field edge** to grain bins, point of sale, barns
- Work done **outside the selected field**
  - For example, field border

Include/Exclude Checklist

I **FIELD OPERATIONS** — SELECTED FIELD **I**

1. Including custom operations, what operations were performed by hand or machines on this field for the **20XX, 20XX, 20XX** crop years?
   - Begin with the first field operation for the **20XX** crop (after harvesting of **20XX** crop)
   - List the operations in order by crop year, through harvest
   - Maintain the order of tandem hook-ups
   - Include field operations performed by hand

   a. Let's start with the **20XX** crop year

Lines in Table	Table 100	0499

CHECK LIST

INCLUDE all field work done by hand or using machines for

- ☐ Land Forming
- ☐ Planting
- ☐ Hauling within field
- ☐ Tillage
- ☐ Harvesting
- ☐ Residue Management
- ☐ Preparing for Irrigation before seeding
- ☐ Custom Operations
- ☐ Pruning, hedging, topping

EXCLUDE all field work done by hand or using machines for

- ☐ Lime & Gypsum applications
- ☐ Fertilizers, Manure & Pesticides applications
- ☐ Hauling from field edge to storage

Reminders

- Exclude edge of the field operations
- Double check your codes for consistency
- Include ALL operations, even those associated with a crop failure

HARVESTING EQUIPMENT

Small Grains/Row Crops Combine

121 Hillside

122 Self-propelled, 2wd

123 Self-propelled, 4wd

OTHER IMPLEMENTS

223 Flame Thrower

What is in a crop year?

- Starts when the previous year's crop leaves the field and ends when the current year's crop leaves the field
- There are some exceptions to this rule
  - Removal of crop residues
  - Permanent hay

Field Operations Table

LINE	1 Crop Year Year	2 Sequence Number Number	3 What crop was associated with this operation? Crop Name	4 Crop Code [Record from Respondent Booklet pgs. 4 - 7.] Code	5 What operation or equipment was used on this field?	6 Machine Code [Record from Respondent Booklet pgs. 39 - 41.] Code	7 Was this operation used to incorporate a fertilizer or manure application? Yes = 1 No = 3 Code	8 What was the timing of the field operation? MM DD YY	9 What was the depth of tillage for tillage/planting operations? Inches
01	86 24	87 1	Winter Wheat	125	Deep Ripper	88 3	99 3	96 09 25 23	97 6.0
02	86 24	87 2	Winter Wheat	125	Twin Row Planter	88 117	99 3	96 10 05 23	97 2.0
03	86 24	87 3	Winter Wheat	125	Self Prop 2wd Combine	88 122	99 3	96 06 15 24	97
04	86 24	87				88	99	96	97
05	86 24	87				88	99	96	97
06	86 24	87				88	99	96	97
07	86 24	87				88	99	96	97

Field Operations Table

LINE	1 Crop Year Year	2 Sequence Number Number	3 What crop was associated with this operation? Crop Name	4 Crop Code [Record from Respondent Booklet pgs. 4 - 7.] Code	5 What operation or equipment was used on this field?	6 Machine Code [Record from Respondent Booklet pgs. 39 - 41.] Code	7 Was this operation used to incorporate a fertilizer or manure application? Yes = 1 No = 3 Code	8 What was the timing of the field operation? MM DD YY	9 What was the depth of tillage for tillage/planting operations? Inches
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02	86 24	87 2	Winter Wheat	125	Twin Row Planter	88 117	99 3	96 10 05 23	97 2.0
03	86 24	87 ~~3~~ 5	Winter Wheat	125	Self Prop 2wd Combine	88 122	99 3	96 06 15 24	97
04	86 24	87 3	Winter Wheat	125	Start Grazing	88 409	99 3	96 11 16 23	97
05	86 24	87 4	Winter Wheat	125	Stop Grazing	88 410	99 3	96 11 30 23	97
06	86 24	87				88	99	96	97
07	86 24	87				88	99	96	97

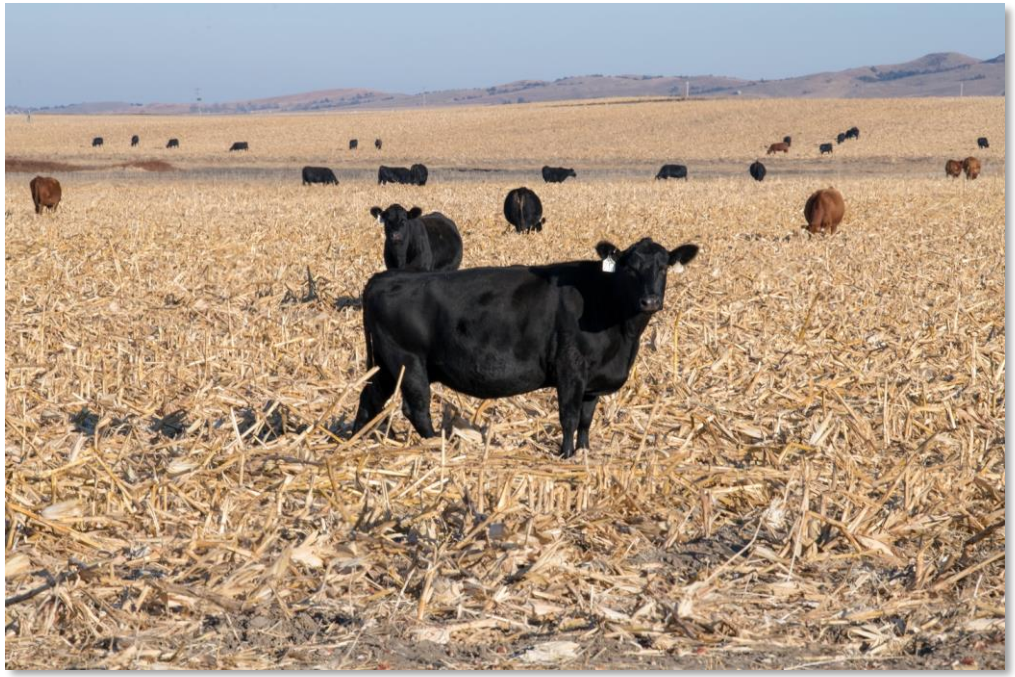
Special Situations

- Gleaning and straw/residue harvest
- Strip Cropping
- Cover Crops
- Multiple harvests of the same crop
- Livestock and grazing
- Tandem field operations
- Crop failures

Gleanings and Residue Management

Record under the crop year of the associated crop:

- Shredding of cotton stalks
- Grazing stubble
- Baling stubble



Sec. C, item 1o. will equal **1**

o. Was the grass vegetation, straw, or stubble harvested?	Yes = 1 No = 3	1212 **1**	1244	1276

Strip Cropping

- Record all operations for each crop separately
  - Tilling
  - Planting
  - Cultivating
  - Harvest
- Multiple crops in Sec. C
- Section B, item 4q will equal **1**
- Example in Section I of IM

q. Strip cropping? ..... Yes = 1 No = 3 | 3363 | **1**

Cover Crops

- Record the cover crop in the **year** that it is **removed/terminated**
- Record **all** operations required to produce the cover crop
- Item 1b in Sec. C will equal **4**

b. Intended use of Crop(s). [See Respondent Booklet pg. 7 for codes.]	Code	1006	4

Multiple Harvests

- Record all harvest operations
- Utilize a supplement if more lines are needed
- No Sec. C clue

Livestock and Grazing

- Record dates when:
  - Livestock are turned out
  - Livestock are pulled off
  - All subsequent grazing operations
- Sec. C
  - Intended use (item 1b) = 1 or 3
  - Complete items 1p to 1s

Livestock and Grazing - Example

LINE	1 Crop Year Year	2 Sequence Number Number	3 What crop was associated with this operation? Crop Name	4 Crop Code [Record from Respondent Booklet pgs. 4 - 7.] Code	5 What operation or equipment was used on this field?	6 Machine Code [Record from Respondent Booklet pgs. 39 - 41.] Code	7 Was this operation used to incorporate a fertilizer or manure application? Yes = 1 No = 3 Code	8 What was the timing of the field operation? MM DD YY	9 What was the depth of tillage for tillage/planting operations? Inches
01	86	87 1	Winter Wheat	125	No Till Drill	88 105	99 3	96 10 12 23	97 .__
02	86	87 2	Winter Wheat	125	Start Graze	88 409	99 3	96 01 15 24	97 .__
03	86	87 3	Winter Wheat	125	Stop Graze	88 410	99 3	96 03 15 24	97 .__
04	86	87 4	Winter Wheat	125	Combine	88 123	99 3	96 07 01 24	97 .__
05	86	87 5	Winter Wheat	125	Start Graze	88 409	99 3	96 07 02 24	97 .__
06	86	87 6	Winter Wheat	125	Stop Graze	88 410	99 3	96 07 23 24	97 .__

Year is preprinted in the column.

Tandem Field Operations

LINE	1 Crop Year Year	2 Sequence Number Number	3 What crop was associated with this operation? Crop Name	4 Crop Code [Record from Respondent Booklet pgs. 4 - 7.] Code	5 What operation or equipment was used on this field?	6 Machine Code [Record from Respondent Booklet pgs. 39 - 41.] Code	7 Was this operation used to incorporate a fertilizer or manure application? Yes = 1 No = 3 Code	8 What was the timing of the field operation? MM DD YY	9 What was the depth of tillage for tillage/planting operations? Inches
01	86 24	87 1	Soybeans	120	Spike Tooth Harrow	88 38	99 3	96 07 12 24	97 1.5
02	86 24	87 1	Soybeans	120	Tandem Disk	88 15	99 3	96 07 12 24	97 5.0
03	86 24	87 2	Soybeans	120	Twin Row Planter	88 117	99 3	96 07 25 24	97 1.5
04	86 24	87 3	Soybeans	120	PTO Combine	88 125	99 3	96 11 25 24	97 .__
05	86 24	87				88	99	96	97 .__
06	86 24	87				88	99	96	97 .__
07	86 24	87				88	99	96	97 .__

- Same sequence number and date

Crop Failure

- Can be partial or full
- Report all field operations for the failed crop
- If replanted, report all field operations for the new crop
- Sec. C
  - Line 1n completed
  - Acres harvested < acres planted
  - Potentially multiple crop codes

Crop Failure - Example

- **Cotton** hailed out in May
- Replanted with **soybeans** in July
- **Sequence numbers** by **date** (not crop)

1 Crop Year YEAR	2 Sequence Number Number	3 Crop Name	4 What crop was associated with this operation? CODE	5 What operation or equipment was used on this field?	6 Machine Code [*Record machine code from Respondent Booklet.*] CODE	7 What was the timing of the field operation? MMDDYY	8 What was the depth of tillage for tillage/ planting operations? INCHES
Year is preprinted in the column.	1	cotton	108	chisel plow	1	022123	5
	2	cotton	108	field cultivator	21	032923	1
	2	cotton	108	flex-tine tooth harrow	33	032923	0.5
	3	cotton	108	conventional planter	114	040123	1
	4	soybean	120	light disk	11	070123	3
	4	soybean	120	planter	114	070123	1.5
	5	soybean	120	harvester	123	101123	-

Field Operations Supplement

- Use a field ops supplement table for each year that additional lines are needed
  - Do not combine multiple years onto one supplement
  - Maximum 1 supplement per questionnaire
- Record in the top left-hand box:
  - 9-digit **CEAP POID** (starts with 69)
  - **Table number** corresponding to the year

VERSION	CEAP ID	TRACT	SUBTRACT	TABLE
1	_ _ _ _ _ _ _ _ _	01	01	_ _ _

10X = **Current year**
20X = **Prev. year**
30X = **2 years prev.**

Field Operations Supplement

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1	6 9 X X X X X X X	01	01	3 0 1

10X = **Current year**
20X = **Prev. year**
30X = **2 years prev.**

Review

- Use checklist of **includes** and **excludes** above field operations tables
- **Crop year** is after harvest of previous crop until harvest of current crop
- Ensure crop code, machinery codes, tandem dates/sequence numbers are consistent/correct
- **Sequence numbers** are ordered by **date** (not crop)
- All **hay** harvest activities are recorded
  - Mow, rake, bale, haul, grazing start, grazing stop
- Lines in Table box (IC 0499) is filled out

Thank you!

Sections J, K and Conclusion

Training Objectives

- Identify key components of Sections J, K, & Conclusion;
- Understand data collected in each section and its importance; and
- Understand how to fill in the section correctly.

Section J: Whole Farm

Section J: Overview

The set of questions is designed to gather information about the total acreage involved in a farming operation during the crop year for the ENTIRE farm.

- Land ownership
- Land rental
- Total acreage
- Cropland
- Pastureland

Section J: Item 1

TOTAL ACRES IN THIS OPERATING ARRANGEMENT

Now I'm going to ask you a few general questions about your entire operation. (INCLUDE the farmstead, all cropland, pastureland, wasteland, woodland, wetland, and government program land. INCLUDE land in other states.)

1. During the 2025 crop year, how many total acres did this operation:

		Acres
a. Own?	+	1901 .____
b. Rent FROM others? (EXCLUDE land used on an AUM (Animal Unit Month) basis.)	+	1902 .____
c. Rent TO others? (INCLUDE privately owned/rented land administered by a public agency through exchange-of-use.)	–	1903 .____

Section J: Items 2, 3, and 4

2. Then the TOTAL acres in this operation including the farmstead, all cropland, pastureland, wasteland, wetland, woodland and government program land is: (Total of 1a + 1b - 1c) ..... = 1904 .____

   a. Have I accounted for the farmstead, all cropland, pastureland, wasteland, wetland, woodland and government program land in this operation?

   1 ☐ Yes — Continue 3 ☐ No — Make corrections, then continue.

	Acres
3. Of the total (Item 2) acres operated, how many acres are considered cropland, including land in hay and cropland in government programs?	1905 .____
4. Of the total (Item 2) acres operated, how many acres are considered pastureland?	1906 .____

Section K: Operator and Operation Characteristics

Section K: Overview

Data in this section refers to the entire farming operation.

This section is designed to gather comprehensive demographic and operational data about farm operators to understand the diversity, management practices, and economic scale of agricultural operations.

The information will be used to categorize farms according to type and experience of the operator, and to test for response bias in the survey data.

Section K: Item 1

K **OPERATOR AND OPERATION CHARACTERISTICS** **K**

1. In 2025, was this operation's LEGAL STATUS.....

1	Individual (Sole/Family Proprietorship)?
2	A Legal Partnership?
3	A Family-Held Corporation?
4	A Non-Family Corporation?
5	Other (including estates, trusts, and cooperatives)?
	(specify) 0896 _____

Code

1912

Section K: Items 2 and 3

2. What is the highest level of formal education you (the operator) have completed?.....

1	Less than a high school diploma
2	High school diploma or equivalency (GED)
3	Some college
4	Completed a 4 year degree (BA or BS)
5	Graduate school

Code

1914

3. In what year did you (the operator) begin making day-to-day decisions for any farm/ranch? .....

YYYY

1915

Section K: Items 4

4. What is your race and/or ethnicity?

Select all that apply.

2003 ☐ White

For example English, German, Irish, Italian, Polish, Scottish, etc.

2006 ☐ Hispanic or Latino

For example, Mexican, Puerto Rican, Salvadoran, Cuban, Dominican, Guatemalan, etc.

2004 ☐ Black or African American

For example, African American, Jamaican, Haitian, Nigerian, Ethiopian, Somali, etc.

2007 ☐ Asian

For example, Chinese, Asian Indian, Filipino, Vietnamese, Korean, Japanese, etc.

2005 ☐ American Indian or Alaska Native

For example, Navajo Nation, Blackfeet Tribe of the Blackfeet Indian Reservation of Montana, Native Village of Barrow Inupiat Traditional Government, Nome Eskimo Community, Aztec, Maya, etc.

918 ☐ Middle Eastern or North African

For example, Lebanese, Iranian, Egyptian, Syrian, Iraqi, Israeli, etc.

917 ☐ Native Hawaiian or Pacific Islander

For example, Native Hawaiian, Samoan, Chamorro, Tongan, Fijian, Marshallese, etc.

Section K: Items 5, 6, and 7

5. What code represents the respondent's military status in the U.S. Armed Forces, Reserves, or National Guard?

[1] Never served in the military

[2] Only on active duty for training in the Reserves or National Guard

[3] Now on active duty

[4] On active duty in the past, but not now

Code

0905

6. How many years have you been continously managing a forest, farm, or ranch operation? ..... 0906 __ __

7. At what occupation did the operator spend the majority (50 percent or more) of his/her time in 20xx? .....

Mark One

0920

1 ☐ Forestry, farm, or ranch work

2 ☐ Work other than forestry, farm, or ranch work

Section K: Item 8

8. Now I would like to classify the total acres operated in terms of total gross value of sales.

Considering —

- all crops sold,
- all livestock, poultry (including commercial broilers), and products (milk, eggs, etc.) sold,
- all sales of crops, livestock, or poultry produced under contract,
- all sales of any miscellaneous agricultural products,
- all government payments received, and
- landlord's share of government payments and crops sold in 20xx?

What code represents the total gross value of sales for this operation in 20xx?

99 ☐	None during 20xx		
1 ☐	$1	—	$999
2 ☐	$1,000	—	$2,499
3 ☐	$2,500	—	$4,999
4 ☐	$5,000	—	$9,999
5 ☐	$10,000	—	$24,999
6 ☐	$25,000	—	$49,999
7 ☐	$50,000	—	$99,999
8 ☐	$100,000	—	$249,999
9 ☐	$250,000	—	$499,999
10 ☐	$500,000	—	$999,999
11 ☐	$1,000,000	—	$2,499,999
12 ☐	$2,500,000	—	$4,999,999
13 ☐	$5,000,000	and over	

Code

1916

Section K: Item 9

Code

9. Of the farm income reported, which of these categories represents the largest portion of the gross income from the operation? 1917

Farm Type Codes

1	Grains, Oilseeds, Dry Beans, and Dry Peas	9	Hogs and Pigs
2	Tobacco	10	Milk and Other Dairy Products from Cows
3	Cotton and Cottonseed	11	Cattle and Calves
4	Vegetables, Melons, Potatoes, and Sweet Potatoes	12	Sheep, Goats, and their Products
5	Fruit, Tree Nuts, Grapes, Citrus, and Berries	13	Horses, Ponies, and Mules
6	Nursery, Greenhouse, Floriculture, and Sod	14	Poultry and Eggs
7	Cut Christmas Trees and Short Rotation Woody Crops	15	Aquaculture
8	Other Crops and Hay, CRP, and Pasture	16	Other Animals and Other Animal Products

Conclusion

CONCLUSION

RECORDS USE

		Code
1. Did respondent use farm/ranch records to report:		
a. fertilizer data?	Yes = 1 No = 3	0026
b. pest control data?	Yes = 1 No = 3	0027
c. manure data?	Yes = 1 No = 3	0028
d. livestock grazing data?	Yes = 1 No = 3	0035

		Code
2. Did respondent use a written Conservation Plan to complete Section B?	Yes=1 No =3	0029

Supplements Used:	Number
Fertilizer Applications	0030
Pest Control Applications	0031
Field Operations	0032
Manure Applications	0033
Crop History Supplement	0034

	Military Time HHMM
Ending Time (Military)	0005 ____

	Total Time HHMM
	0008 ____

9910 MM DD YY

Date: ____ ____ ____

Comments and Response Code

OFFICE USE ONLY												
Response		Respondent		Mode		Enum.	Eval.	Change	Office Use for POID			
1-Comp 2-R 3-Inac 4-Office Hold 5-R – Est 6-Inac – Est 7-Off Hold – Est	9901	1-Op/Mgr 2-Sp 3-Acct/Bkpr 4-Partner 9-Oth	9902	1-PASI (Mail) 2-PATI (Tel) 3-PAPI (Face-to-Face) 6-Email 7-Fax 19-Other	9903	9998	9900	9985	9989 — — — - — — — - — — —			
							R. Unit		Optional Use			
							9921		9907	9908	9906	9916
S/E Name												

A Few Reminders

- Once you have completed the survey
  - Go over the questionnaire one more time

    Look for Reasonability – go over Questionnaire Review

    Go over notes again – make sure all comments are clear and legible on paper

    Double check boxes, tables, and decimals

    Make sure there is NO PII (Personal Identification Information)

- Mail the questionnaires early and often
  - Check with your coach to see where you are mailing them.


THANK YOU

Reminders, Tips, and Tricks

Joseph Cook
Heartland Region

Lines in Table

Record the number of lines in the table

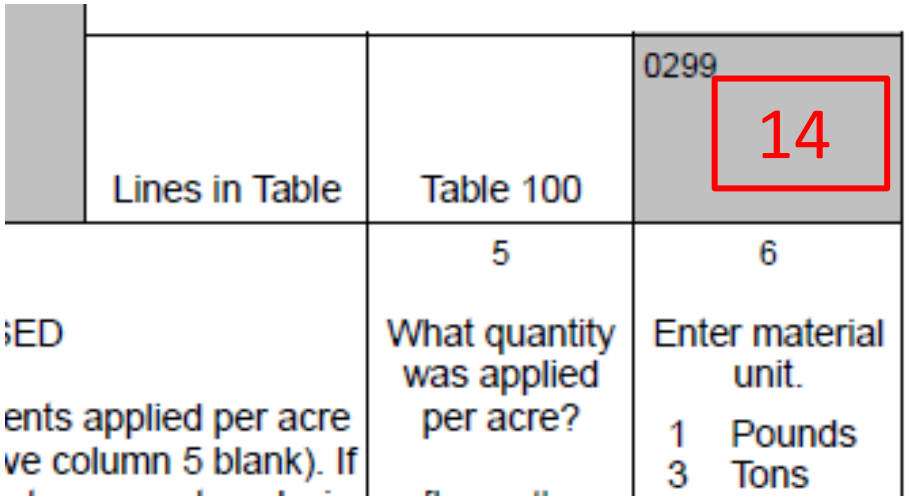
☐ Sulfur	☐ Commercially prepared manure ☐ Unprocessed manure ☐ Lime and gypsum	Lines in Table	Table 100	0299 **1**

LINE	1 Crop Year	2 Primary crop for which nutrients were intended	3 Crop Code [Enter crop code from Respondent Booklet pgs. 4 - 7.]	4 MATERIALS USED Enter actual pounds of plant nutrients applied per acre and indicate "19" in column 6 (leave column 5 blank). If only fertilizer analysis is known, enter percent analysis in this column, quantity applied per acre in column 5, and the material code in column 6. [Show Common Fertilizers in Respondent Booklet pgs. 8 - 9.]				5 What quantity was applied per acre? [Leave the column blank if pounds of actual nutrients were reported in column 4.]	6 Enter material unit. 1 Pounds 3 Tons 12 Gallons 13 Quarts 19 Pounds of actual nutrients
				Nitrogen N	Phosphorus P_2O_5	Potassium K_2O	Sulfur S		Code
01	28 24	Corn	188	31 18	32 46	33	34	36 75	37 1
02	28 24			31	32	33	34	36	37

Lines in Table- Supplements

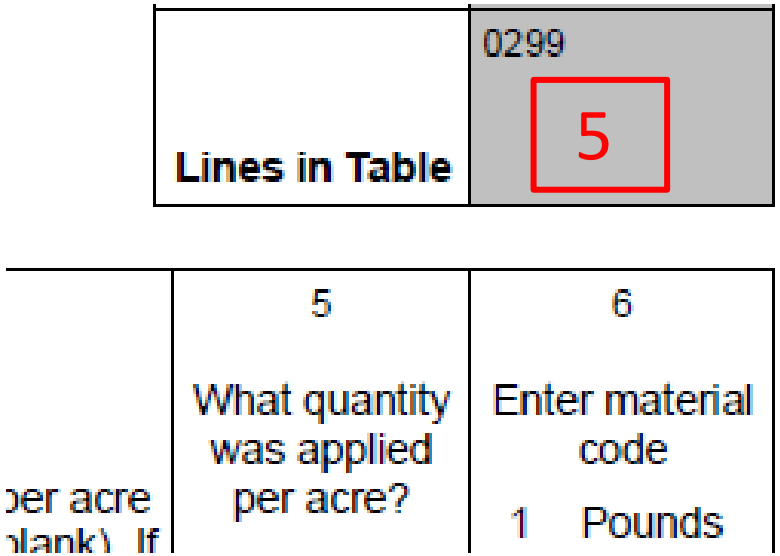
Record the number of lines in the table for that specific page

Questionnaire



	Lines in Table	Table 100	0299 14
		5	6
ɜED ents applied per acre ve column 5 blank). If		What quantity was applied per acre?	Enter material unit. 1 Pounds 3 Tons

Supplement



Lines in Table	0299 5

	5	6
ɔer acre ɒlank). If	What quantity was applied per acre?	Enter material code 1 Pounds

Tank Mixes

Don’t split tank mixes across tables/supplements

PRODUCT NAME	LINE	1 Crop Year	2 Primary crop for which control agent was intended.	3 Crop Code [Enter crop code from Respondent Booklet pgs. 4 - 7.]	4 What products were applied to this field? [Enter product code from Respondent Booklet pgs. 10 - 36.]	5 Was this product bought in liquid or dry form? [Enter L or D.]	6 Was this part of a tank mix? [If tank mix, enter line number of first product in mix.]
Powerflex	**01**	60 24	Wheat	125	61 40071	D	63 ——
Atrazine 4 L	**02**	60 24	Corn	188	61 40136	L	63 2
Express	**03**	60 24	Corn	188	61 40310	D	63 2

All Items Complete & Dashes

- Most questions have yes=1; no=3
- Use dashes in tables for “None” or “No”
- Dashes should be horizontal, not vertical

6 Was this part of a tank mix? [If tank mix, enter line number of first product in mix.]	
63	—
63	2
63	2

Office Use Boxes

- Fill in greyed-out boxes when necessary.
- Coding differs between sections

Completion Code for Conservation Plan	
1 = Incomplete/Refusal	0700

Manure Table Completion Codes		
1 = Inaccessible/Refusal 3 = Valid Zero		
Current Year	**Previous Year**	**2 Years Ago**
0454	0453	0452

Dates are Important!

- Use MM DD YY format
- Avoid date ranges
- Probe for dates

15 When was this applied? MM DD YY
56 _ _ _ _ _ _
56 _ _ _ _ _ _
56 _ _ _ _ _ _

LINE	7 When was this applied? MM DD YY
01	30 _ _ _ _ _ _
02	30 _ _ _ _ _ _
03	30 _ _ _ _ _ _

a. When was the cover crop planted?	MM DD YY	Current Year	Previous Year	2 Years Ago
		1472 _ _ _ _ _ _	1483 _ _ _ _ _ _	1571 _ _ _ _ _ _

Personally Identifiable Information (PII)

- Review Questionnaire before shipping
  - Erase any PII
- Remove NRI Point Map
- Remove FSA Listing

Before Shipping

- Remove any extra staples
  - Re-stapled questionnaires. Sometimes unavoidable, but they make guillotining more challenging
- Ensure supplements are placed at the end of the questionnaire
- Ensure the proper CEAP ID (aka CEAP POID) is written on the questionnaire and all supplements.
- DO NOT ship blank supplements

Before Shipping (continued)

- For CEAP, use #2 pencils when filling out the questionnaire!
- Ink colors that do not scan well (green, gel pens, sparkle pens, etc.)
- Fine line (light contrast) pencil does not scan as well as #2 pencil
- Remove Post-it notes attached to the questionnaire.
- White-Out should be avoided

Before Shipping (continued)

- Torn pages cause issues
- Taped on extension pages, or documents (especially if they are covering data cells)
- Use 8 ½ x 11 scratch paper—avoid odd sized paper/spiral bound paper
  - Remarks/comments are preferred annotated in the questionnaire (when possible), not on separate paper

Thank you!