

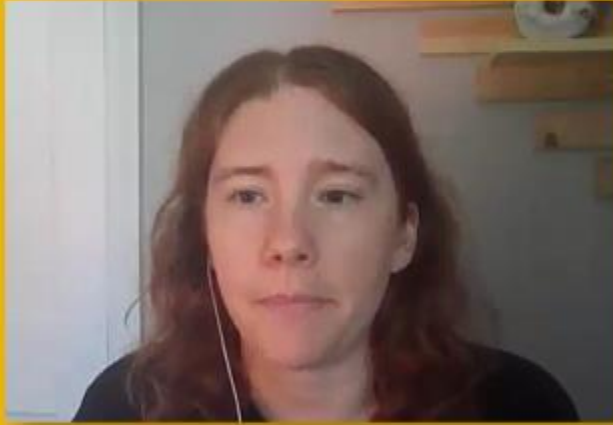
2024 CEAP Phase 2 -Presentations

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Purpose of CEAP & Selling CEAP

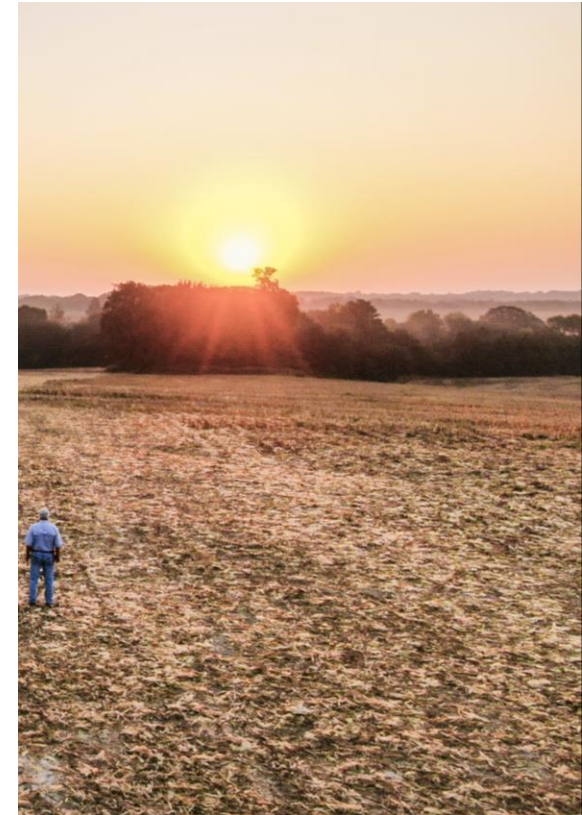


Brianna Henry
Natural Resource Specialist, NRCS



Training Objectives

- What is the purpose of CEAP?
- What are the uses of the data we collect for CEAP?
- How can we sell operators on participating in the CEAP survey?

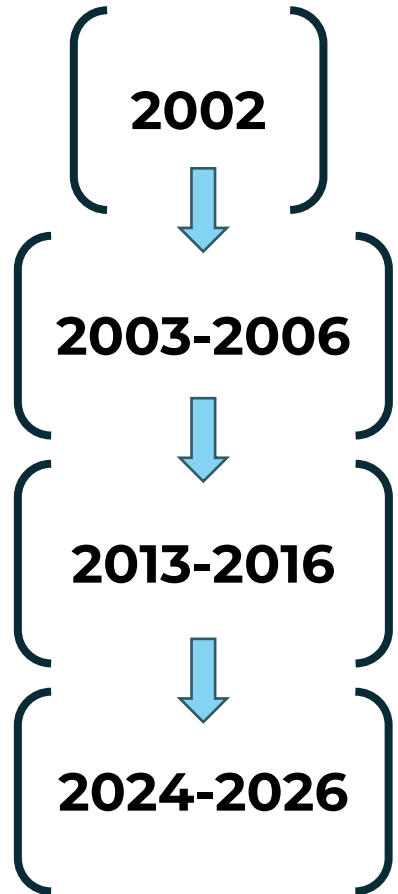


Purpose of CEAP

- 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



- **CEAP is initiated** to strengthen accountability for conservation program funding provided through the 2002 Farm Bill
- **CEAP I survey** is administered
- **CEAP II survey** is administered following and alongside Special Emphasis Area surveys from 2011-2014
- **CEAP III survey** is administered



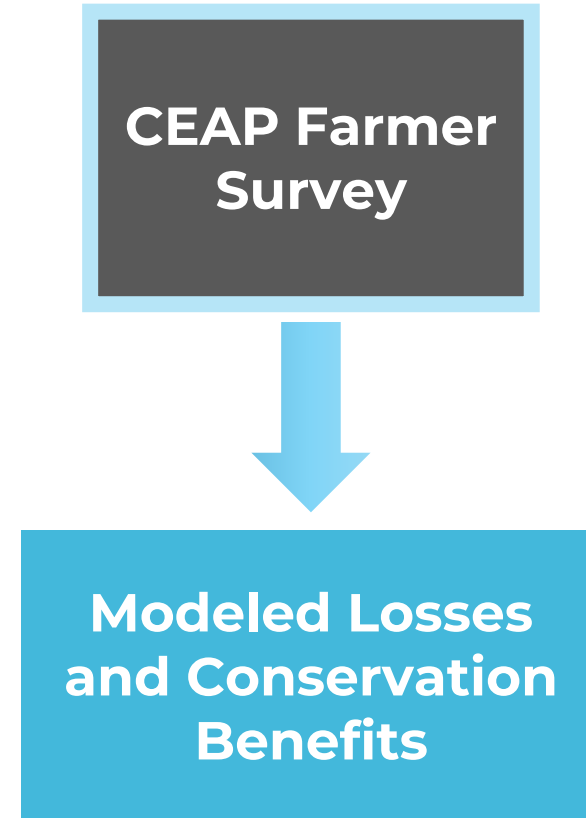
Why is CEAP Important?

- Gives operators an opportunity to provide an accurate picture of the conservation practices they use on their working lands
- Establishes the scientific understanding of effects of conservation practices at the regional and watershed scale
- Provides Congress and policymakers with information needed to fund conservation programs for landowners



How is Farmer Data Used?

- Each survey provides a 3-year snapshot of the conservation and management practices carried out at the surveyed point
- CEAP uses a modeling approach to simulate the daily farming activities and conservation practice adoption for each point
- The model estimates edge-of-field sediment and nutrient losses



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 point 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



CEAP Data are...

- **Used for:** conservation program development and targeting conservation activity backed by data and science
- **Used by:** NRCS conservationists, agricultural producers, and partners
- **Used at:** the national, regional, and watershed scales



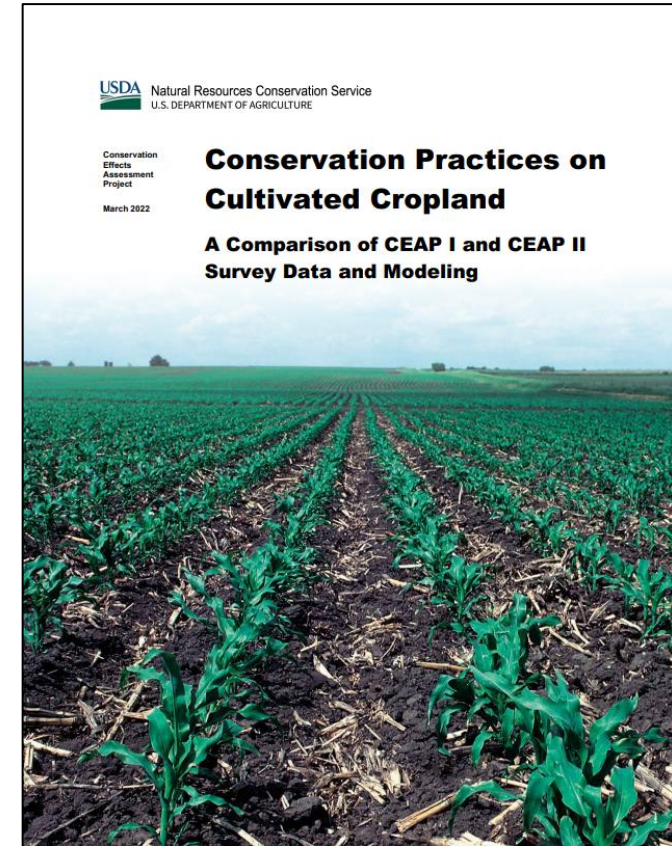
How Are Data Used?

- **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



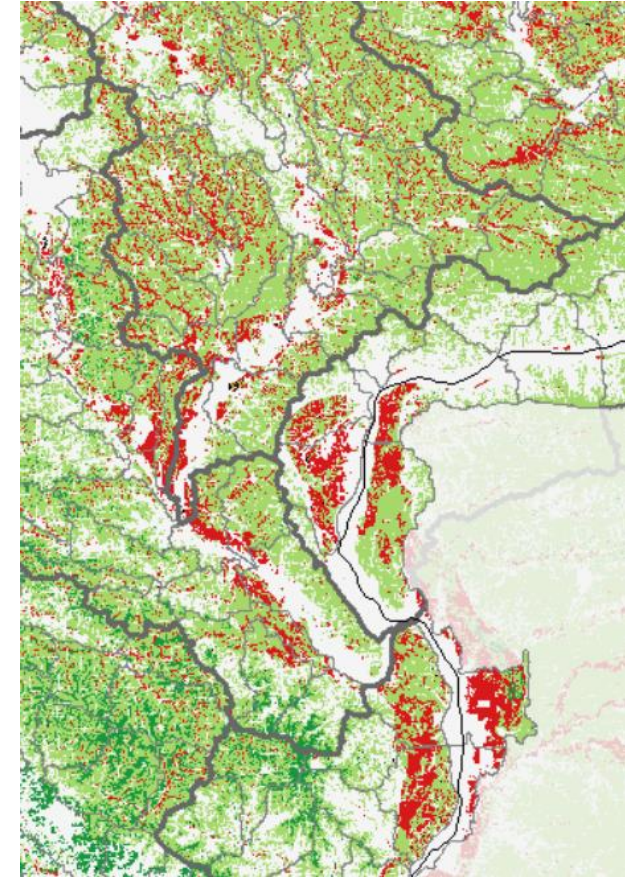
How Are Findings Distributed?

- 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



CEAP Data help...

- **Tell success stories** for voluntary conservation
- **Identify best practices** to combat emerging conservation needs
- **Provide accountability** for taxpayer dollars
- **Target funding** to the lands that can create the most conservation impact



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?

Brianna Henry, NRCS
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Face Page, Section A: Field Characteristics, and Section B: Conservation Plan

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Jessica Lemenager
Northwest Region



United States Department of Agriculture
National Agricultural Statistics Service



Face Page

2024 CONSERVATION EFFECTS ASSESSMENT PROJECT (CEAP)

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



USDANASS
National Operations Division
9700 Page Avenue, Suite 400
St. Louis, MO 63132-1547
Phone: 1-888-424-7829
FAX: 1-855-415-3987
Email: sm.nass.nod.fsp@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: <http://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!

HHMM

0004

Beginning Time

Military



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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:

- a. planted or cropped, EXCLUDING greenhouse and nursery crops (selected field)?
- b. in field borders, grassed waterways, buffers, and other uses associated with conservation practices but not cropped?
- c. idle cropland or summer fallow (selected field)?
- d. greenhouse and nursery crops?
- e. pasture (selected field)?
- f. continuous conservation cover (selected field)?
- g. non-ag (such as dwellings, buildings, structures, roads, woodland and wasteland not in a conservation practice)?

Acres

0017	_____
+	
0018	_____
+	
0019	_____
+	
0020	_____
+	
0021	_____
+	
0016	_____
+	
0022	_____
+	

← Hay, cover crops

2. The TOTAL acres in the selected field and conservation area (1a + 1b + 1c + 1d + 1e + 1f + 1g) are

Acres	
=	0023 _____



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)?

Yes — Enter 1

No — Enter 3

Code

0732

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

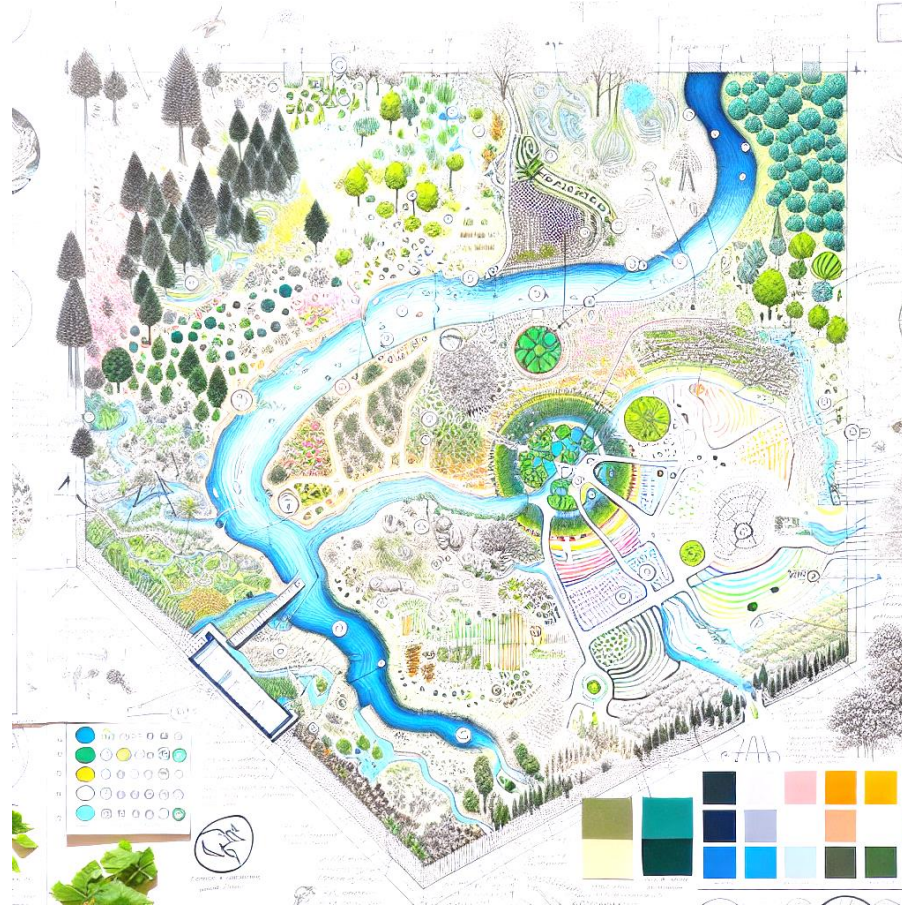
5. Were the majority of the acres in this field (reported in Items 1a or 1c)

- | |
|--|
| 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



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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)

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



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Written Plan

a. Does the written plan include any of the following? (Select all that apply.)

- i. Practices to reduce soil erosion
- ii. Nutrient management plan practices
- iii. Pest management plan practices
- iv. Irrigation water management plan practices
- v. Wildlife habitat enhancement practices
- vi. Manure management and handling practices
- vii. Agricultural water management plan that meets state or local requirements
- viii. Soil health management plan practices

Code

Yes = 1	0702
No = 3	
Yes = 1	0703
No = 3	
Yes = 1	0704
No = 3	
Yes = 1	0705
No = 3	
Yes = 1	0706
No = 3	
Yes = 1	0771
No = 3	
Yes = 1	0742
No = 3	
Yes = 1	0785
No = 3	



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.]

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

Code
0707

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

- i. CSP
- ii. CRP
- iii. CREP
- iv. EQIP
- v. FWP

	Code
Yes = 1	0786
No = 3	
Yes = 1	0708
No = 3	
Yes = 1	0787
No = 3	
Yes = 1	0710
No = 3	
Yes = 1	0788
No = 3	

4

- vi. ACEP
- vii. RCPP
- viii. State Programs
- ix. Other

	Code
Yes = 1	0789
No = 3	
Yes = 1	0790
No = 3	
Yes = 1	0711
No = 3	
Yes = 1	0712
No = 3	

(Specify) 0791 _____



Plan Assistance

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

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

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 (RCP)

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	0719	0725	0731
(Specify) 0792 _____			



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?	Code	1329
<div style="border: 1px solid black; padding: 2px; display: inline-block;"> 1 = primarily grassed 2 = primarily cropped </div>		
b. Riparian (stream side) forest buffer?	Yes = 1 No = 3	1333
i. Width of buffer	Feet	3320
ii. Species	Code	3321
<div style="border: 1px solid black; padding: 2px; display: inline-block;"> 1 = evergreen 2 = deciduous 3 = mixed </div>		
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!



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Section C: Cropping History and Conservation Practices

[Click Here to return to topic list](#)



Evan Swindall
Northern Plains Region



United States Department of Agriculture
National Agricultural Statistics Service



Section C: Training Objectives

- Understand what is meant by a “crop year”;
- Understand how to record a crop rotation plan;
- Understand cover crop management alternatives; and
- Define the conservation practices included on the NRI CEAP questionnaire.



- 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.]

Let's begin with the 20XX crop year. What was/were the:		1	2	3
		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	1070

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	

Remember:

-Consistency with Field Operations, Fertilizers, Pesticides

Those sections may appear incomplete or inconsistent and
These Use codes can provide clues

-Consistency with Applied Nutrients and Chemicals

Especially for cases of:

If crop abandoned, replanted, or use changes prior to or at harvest
Multiple crops per year (here and in other sections)
Different crops on parts of field at same time

-Report the crop in the year it was harvested or terminated

-Strip cropping: can add the acreage for strips planted to the same crop and report as a whole



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 _____
f. Was precision technology used to change seeding rate within the field?	Yes = 1 No = 3	0800	0801	0802
g. Was precision technology used to change crop variety within the field?	Yes = 1 No = 3	0803	0804	0805
h. Was a soil test performed on this field prior to planting (anytime from harvest of previous year's crop to planting of current year's crop) to determine crop nutrient or soil health needs?	Yes = 1 No = 3	0806	0807	0808
i. Did you apply soil carbon amendments (e.g., biochar, compost, compost teas, etc.) to improve soil health?	Yes = 1 No = 3	0809	0810	0811

- **Acres Planted:** if all or part of the field is prevented planting, enter the number of acres and make note those acres were prevented planting or idle
- **Previous Planted crops:** if previously planted crop is now growing in the field, include its acres and date of planting, e.g., winter wheat, forage crop or other perennials



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	1083

- **EXPECTED yield vs ACTUAL yield:** helps us understand the amount of nutrients applied. If the actual yield was low but the expected yield was high, this can help explain the higher nutrient application amount
- Correct harvest units are very important
- Abandoned/Not Harvested: do not include cover crops

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



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	1092
t.	Was any forage intentionally left behind for wildlife use, cover, and/or shelter?	Yes = 1 No = 3	2610	2611	2612

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) _____

- Use livestock codes for question q
- For questions r(1) and s(1) you can write the dates or number of weeks in the margins then go back later and fill in the number of days



Repeat Section C: Crop History and Conservation Practices for previous 2 years



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Special Situations – Strip Cropping

- Determine if the field arrangement is strip cropping.
- If field is not strip cropped, then record only the crop with the LARGEST acreage.
- If field is strip cropped,
 - Record all information for each crop
 - If two or more strips are planted in the same crop, add up and record the total acreage in the strips for that crop. Check to see that Section B – Question 4(q) is marked “1” for strip cropping.
 - Include a note that the field is strip cropped.



Special Situations – Multiple Harvests of the Same Crop

- If the crop is harvested more than once record the date of the last harvest on Line I.(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 expected and actual yield for all harvests.



Special Situations – Vegetables

- **If no more than 3 vegetables in any year**, fill out Section C same as other crops.
 - If none of the crops are sequential, then follow standard partial field rules, i.e., choose the crop with the most acreage.
- **If more than 3 vegetables in the current crop year**, then use Section C Supplement:
 - For the previous two years, don't use the Section C supplement. If there are more than 3 vegetable crops; list only the first 3 in sequence and add a note explaining that later crops in the same year are skipped.
 - Use normal Section C for the previous two years, if crops other than vegetables are planted.



Special Situations – Vegetables

- Section C Supplement has columns for 9 crops. If more than 9 crops are grown in the selected field –
 - Record information for the nine most dominant vegetables, based on acreage.
 - Detailed comments should be made describing the operation.



Crop Rotation Plan

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

1343 Yes — Continue 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. 1 st year of rotation		1344	1351	1358
ii. 2 nd year of rotation		1345	1352	1359
iii. 3 rd year of rotation		1346	1353	1360
iv. 4 th year of rotation		1347	1354	1361
v. 5 th year of rotation		1348	1355	1362
vi. 6 th year of rotation		1349	1356	1363



Cover Crop

3. Was a cover crop planted on this field for the 20XX, 20XX, 20XX crop years?
 1471 Yes — Continue 3 No — Go to Item 4.

a. When was the cover crop planted?			20XX	20XX	20XX
	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

- For question 3(j), any natural disaster damage should be coded as 8 – winter kill



Drainage

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	Code 1327				
5. Are irrigation/drainage ditches lined or vegetated to maintain a stable channel?	Yes = 1 No = 3	Code 1364				
6. Does this field have subsurface (tile) drainage? <input type="checkbox"/> Yes — Continue <input type="checkbox"/> No — Go to Item 7. <input type="checkbox"/> Don't Know — Go to Item 7.		Code 1341				
a. Are the drainage tiles organized in a pattern?	Yes = 1 No = 3	Code 1781				
[If Yes — Continue. If No — Go to Item 6c.]						
b. What is the approximate subsurface (tile) drain spacing?		Code 1782				
<table border="1" style="width: 100%; text-align: center;"> <tr> <td>1 — less than 30 ft.</td> <td>2 — 30-59 ft.</td> <td>3 — 60-100 ft.</td> <td>4 — Greater than 100 ft.</td> </tr> </table>	1 — less than 30 ft.	2 — 30-59 ft.	3 — 60-100 ft.	4 — Greater than 100 ft.		
1 — less than 30 ft.	2 — 30-59 ft.	3 — 60-100 ft.	4 — Greater than 100 ft.			
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				



Reminders

- Yes & No
 - 1 = Yes
 - 3 = No
- Pay attention to skip instructions
- Fill in previous two years if operator gives info for current year and then says “the same” for the other two years
- Check that crop codes for each year carry through the rest of the questionnaire.
- Record small grains planted in the correct crop year.
- Reference your Interviewer’s Manual for more details



Thank you!



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CEAP Section D

Commercial Fertilizer Application

[Click Here
to return to
topic list](#)



Joseph Cook
Heartland Region



United States Department of Agriculture
National Agricultural Statistics Service



Section Purpose

- Identify nutrients or fertilizer used on the selected field for the past three years.
- Analyze water quality and crop productivity issues.
- Demonstrate how farmers adjust fertilizer applications for crop needs and to reduce costs and losses to the environment.



Getting Started In Section D

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

1. Were commercial FERTILIZERS applied to the field for:

- a. The Current year crop
- b. The Last year's crop
- c. The Two year's ago crop

	Code	Completion Code
Yes = 1 No = 3	0221	0234
Yes = 1 No = 3	0235	0233
Yes = 1 No = 3	0237	0232

Code Yes=1 if Applied Fertilizers and No=3

Fertilizer Practice Questions

- Ask these even if no fertilizer was applied in the past three years

2. Is your soil phosphorus level elevated to a point where no additional phosphorus nutrients can be applied to this field for the Current year crop Code

Yes = 1	0247
No = 3	

3. Were phosphorus nutrients applied to this field as either fertilizer or manure prior to supply phosphorus for subsequent years of the crop rotation? 2 years ago

1 Yes — Enter 1, then Continue. 3 No — Enter 3, then Go to Item 4

Code
0248
MM DD YY

a. When were the phosphorus nutrients applied?

0249
____ _

4. What types of information did you use to inform fertilizer application decisions?

a. Fertilizer costs	Code
	Yes = 1 855
	No = 3
b. Current weather conditions	Code
	Yes = 1 856
	No = 3
c. Mid to long-term forecasted climate conditions	Code
	Yes = 1 857
	No = 3
d. Crop market prices	Code
	Yes = 1 858



The Fertilizer Tables

Enumerator Action: Was fertilizer applied in _____ ? If Yes — Continue. If No — Go to Item 11b.

11a. Now I need to record information for each fertilizer application for the _____ crop.
 [Probe for applications made in the fall of _____ (and those made earlier if this field was fallow) for the _____ crop year.]

CHECKLIST									
INCLUDE			EXCLUDE						
<input type="checkbox"/> Custom applied fertilizers			<input type="checkbox"/> Micronutrients						
<input type="checkbox"/> Sulfur			<input type="checkbox"/> Commercially prepared manure						
			<input type="checkbox"/> Unprocessed manure						
			<input type="checkbox"/> Lime and gypsum						
			Lines in Table	Table 100		0299			
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 ₂ O ₅	Potassium K ₂ O	Sulfur S		
01	28 24			31	32	33	34	36	37
									Code

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	1 Nitrification inhibitor	1 Ammonia-based
2 Broadcast, ground with incorporation	2 Urease inhibitor	2 Not ammonia-based
3 Broadcast by aircraft	3 Chemical-coated fertilizers (such as sulfur-coated and polymer-coated urea)	
4 In seed furrow	4 Other Inhibitors (specify) _____	
5 In irrigation water (fertigation)	0907 _____	
6 Chiseled/injected or knifed in	5 None	
7 Banded/side-dressed on the soil surface		
8 Foliar or directed spray		

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.]	12 Fertilizer form [Enter code from box above.]	NOTES
01	30 _____	39	40 _____	29	26	27	



What Fertilizer Materials are Included?

- All those applied specifically for the current year and the previous two years
- applied in the fall for the next year's crop
- applied in the fall if no crop was grown
- applied during the summer if the selected field was fallow in that year
- applied by custom applicators
- Nitrogen products applied with herbicides to make the herbicide more effective
- Fertilizers included in tank mixes with pesticides



What Materials are Excluded

- Micro-nutrients such as iron, zinc, boron, lime and gypsum
- Commercially prepared manure products (report these in Sec E)
- Unprocessed manure (Report on-farm, unprocessed manure in Sec E)



Materials Used Breakdown

4				5	6
MATERIALS USED				What quantity was applied per acre?	Enter material unit.
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.]				[Leave the column blank if pounds of actual nutrients were reported in column 4.]	1 Pounds 3 Tons 12 Gallons 13 Quarts 19 Pounds of actual nutrients
Nitrogen N	Phosphorus P ₂ O ₅	Potassium K ₂ O	Sulfur S		
31	32	33	34	36	37
--	--	--	--	--	--



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:

- **Percent Analysis – most common & preferred**

- **Pounds of Actual Nutrients**

4				5	6
MATERIALS USED				What quantity was applied per acre? [Leave the column blank if pounds of actual nutrients were reported in column 4.]	Enter material unit.
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.]					
Nitrogen N	Phosphorus P ₂ O ₅	Potassium K ₂ O	Sulfur S		Code
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
- Ammonium Polyphosphate 10-34-0
- MAP 11-52-0
- DAP 18-46-0

- **Pounds of Actual Nutrients - Individual Ingredients**

- Nitrogen
- Phosphorus
- Potassium
- Sulfur



Percent analysis is written with numbers and dashes

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



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

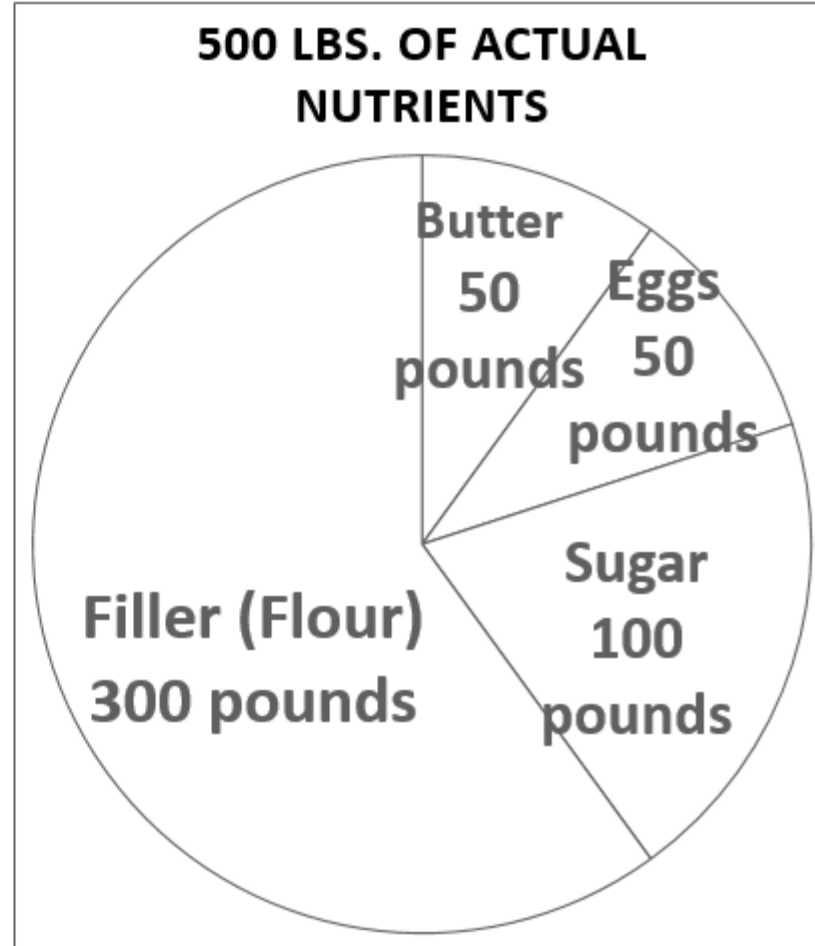
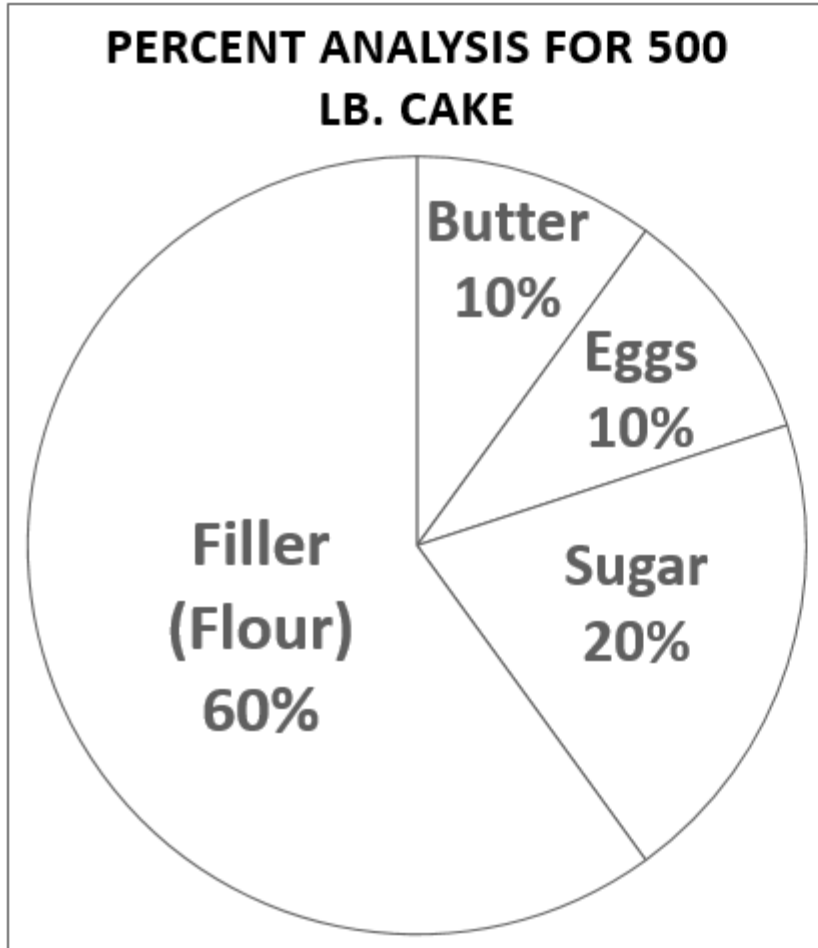


Let's See an Example

Suppose you wanted to make a
500 pound cake...
(made of fertilizer?)



Cake Chart



Percent Analysis of Cake

4 MATERIALS USED				5	6
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.				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
[Show Common Fertilizers in Respondent Booklet pgs. 8 - 9.]					
Butter	Eggs	Sugar	Sulfur S		Code
31 10	32 10	33 20	34	36 500	37 1



Pounds of Actual Cake Nutrients

4 MATERIALS USED				5	6
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.				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
[Show Common Fertilizers in Respondent Booklet pgs. 8 - 9.]					
Butter	Eggs	Sugar	Sulfur S		Code
31 50	32 50	33 100	34	36	37 19



Percent Analysis

4 MATERIALS USED				5	6
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.				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
[Show Common Fertilizers in Respondent Booklet pgs. 8 - 9.]					
Nitrogen N	Phosphorus P ₂ O ₅	Potassium K ₂ O	Sulfur S		Code
31 11	32 52	33	34 4	36 85	37 1
31 10	32 34	33	34 4	36 5	37 12
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

4 MATERIALS USED				5	6
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.				What quantity was applied per acre? [Leave the column blank if pounds of actual nutrients were reported in column 4.]	Enter material unit.  19 Pounds of actual nutrients
[Show Common Fertilizers in Respondent Booklet pgs. 8 - 9.]					
Nitrogen N	Phosphorus P ₂ O ₅	Potassium K ₂ O	Sulfur S		Code
31 10	32 44	33 72	34 4	36	37 19
31	32	33	34	36	37
31	32	33	34	36	37



2 Ways to Record Nutrient or Fertilizer Applications:

- **Percent Analysis – most common & preferred**

- 5 gallons of 10-34-0
- 85 pounds of 11-52-0
- 120 pounds of 0-0-60

Complete Product

- **Pounds of Actual Nutrients**

- 10 pounds of Nitrogen
- 44 pounds of Phosphorus
- 72 pounds of Potassium

Ingredients of a Product



2 Ways to Record Nutrient or Fertilizer Applications:

- **Percent Analysis – most common & preferred**

- 5 gallons of 10-34-0
- 85 pounds of 11-52-0
- 120 pounds of 0-0-60
- **Column 5 must be complete**
- **Column 6 must be coded 1, 3, 12 or 13**

- **Pounds of Actual Nutrients**

- 10 pounds of Nitrogen
- 44 pounds of Phosphorus
- 72 pounds of potassium
- **Column 5 must be blank**
- **Column 6 must be coded 19**

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

The Rest of the Table

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

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

Now we do it all again!

- CEAP covers the current year as well as the previous two years.
- If fertilizer was applied in the previous fall for a crop to be harvested during the next calendar year, include that application for the crop year of harvest.



Supplements

- If more than 14 applications happened in a year, you will need a supplement.
- Write the CEAP ID (9 digit poid) and table number at the top.
- The table number will be the relevant year's table number plus 1.
 - So a supplement for the current year would be table 101.



Supplement example- Previous Year

Lines in Table	Table 200	0299
5	6	
What quantity was applied per acre?	Enter material unit.	
1 Pounds		

Previous year's fertilizer table number is table 200.

VERSION	CEAP ID	TRACT	SUBTRACT	TABLE
1	6 1 2 3 4 5 6 7 8	01	01	2 0 1
CHECKLIST				
INCLUDE		EXCLUDE		

Previous year's fertilizer supplement table number is table 201.





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CEAP Section E Manure Applications

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Tanner Gray
North Eastern Region



United States Department of Agriculture
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Section E: Manure Applications

Selected Field, Page 20



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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 Notes

- Supplements are used if there has been more than 10 applications
- (non-PII) Comments are welcome!



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

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

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 Y — [Enter 1 and continue.]

3 N — [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	2	3	4	5	6	7	8	9
	Crop Year	Primary crop for which nutrients were intended	Crop Code [Enter crop code from Respondent Booklet pgs. 4 - 7.]	What quantity of manure was applied per acre?	Unit (column 4 only)	Where was the manure produced?	How was the manure handled?	Was manure tested before application	Nitrogen
	YY		Code		Code	Code	Code	Code	Code
01	42 __ __			44 _____	45	46	47	48	59
02	42 __ __			44 _____	45	46	47	48	59

Go to SECTION F

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 **1**

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

Lines in Table	Table 001	0599
----------------	-----------	------

LINE	1	2	3	4	5	6	7	8	9
	Crop Year	Primary crop for which nutrients were intended	Crop Code [Enter crop code from Respondent Booklet pgs. 4 - 7.]	What quantity of manure was applied per acre?	Unit (column 4 only)	Where was the manure produced?	How was the manure handled?	Was manure tested before application?	Nitrogen inhibitor applied with manure
	YY		Code		Code	Code	Code	Code	Code
01	42 __ __			44 _____	45 _____	46 _____	47 _____	48 _____	59 _____
02	42 __ __			44 _____	45 _____	46 _____	47 _____	48 _____	59 _____

Q2: Details on each manure application

- Sheet 1 table columns 1-9
- Sheet 2 table columns 10-17

- If Operator doesn't know, find out type and number of animals that produced the manure and for what time period and 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 acres-inches



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 **1**

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

Lines in Table	Table 001	0599
----------------	-----------	------

LINE	1	2	3	4	5	6	7	8	9
	Crop Year	Primary crop for which nutrients were intended	Crop Code [Enter crop code from Respondent Booklet pgs. 4 - 7.]	What quantity of manure was applied per acre?	Unit (column 4 only)	Where was the manure produced?	How was the manure handled?	Was manure tested before application?	Nitrogen inhibitor applied with manure
	YY		Code		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/acres=rate per acre)

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 **1**

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

Lines in Table	Table 001	0599
----------------	-----------	------

LINE	1	2	3	4	5	6	7	8	9
	Crop Year	Primary crop for which nutrients were intended	Crop Code [Enter crop code from Respondent Booklet pgs. 4 - 7.]	What quantity of manure was applied per acre?	Unit (column 4 only)	Where was the manure produced?	How was the manure handled?	Urease inhibitor	
	YY		Code		Code	Code	Code	Code	Code
01	42 __ __			44 _____	45 _____	46 _____	47 _____	48 _____	59 _____
02	42 __ __			44 _____	45 _____	46 _____	47 _____	48 _____	59 _____

• If more than 1 source, put where majority acquired

• If answer "1 produced on op" MUST answer Q6 and Q7 (pg 22)

- Example of **Corn Silage** grown on a **dairy farm** that receives **liquid manure, broadcast w/o incorporation.**

L I N E	1	2	3	4	5	6	7	8	9
	Crop Year	Primary crop for which nutrients were intended	Crop Code [Enter crop code from Respondent Booklet pg. 4.]	What quantity of manure was applied per acre?	Unit (column 4 only)	Where was the manure produced?	How was the manure handled?	Was manure tested before application?	Nitrogen inhibitor applied with manure
	YY		Code		Code	Code	Code	Code	Code
01	4 ² 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 10-17



Example of Sheet 2 Filled In on Manure Analysis in lbs/1,000 gallons of manure applied (per unit applied).

L I N E	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? MM DD YY	16 How was this applied? [Enter code from box above.]	17 How many acres were treated in this application? Acres
	Nitrogen N	Phosphorus P ₂ O ₅	Potassium K ₂ O	Code	Code	Code	Code	Code	Code	
01	49 25.00	50 12.00	51 11.00	52 121	53 2	54 3	55	05 15 YY	57 3	58 100

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**



Example of Sheet 2 Filled In based on Analysis

LINE	10			11	12	13	14	15	16	17
	Results from manure analysis test OR actual amount of nutrients applied [Leave this column blank if column 8=2 or 3.]			Unit (column 10 only) [Enter code from box above.]	Major source of manure [Enter code from box above.]	Was manure composted before application? 1 Yes 2 DK 3 No	Composting Method? [Leave this column blank if column 13 = 2 or 3.] 1 Windrow 2 Static pile 3 In-Vessel 4 Other	When was this applied? MM DD YY	How was this applied? [Enter code from box above.]	How many acres were treated in this application?
	Nitrogen N	Phosphorus P ₂ O ₅	Potassium K ₂ O	Code	Code	Code	Code	MM DD YY	Code	Acres
49	50	51	52	53	54	55	56	57	58	
01	2.50	1.20	1.10	29	2	3		05 15 YY	3	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



Example of Sheet 2 Filled In based on Actual Nutrients

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? MM DD YY	16 How was this applied ? [Enter code from box above.]	17 How many acres were treated in this application ? Acres
Nitrogen N	Phosphorus P ₂ O ₅	Potassium K ₂ O	Code	Code	Code	Code	Code	Code	Code	
49	50	51	52	53	54	55	56	57	58	
01 175.00	84.00	77.00	19	2	3		05 15 YY	3	100.0	

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

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



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	Unit Codes	Code
0459	1 mg/Kg P 2 ppm P 3 lbs/acre	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 p
4 Twice a
5 Once a y
6 Once every 2 years
7 Once every 3 years or more

- An N based manure rate is a higher rate than a P based rate.
- The rate is based on soil test P 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
Unit Codes
1 mg/Kg P
2 ppm P
3 lbs/acre

Code
0460

• May or may NOT be the same value for soil test phosphorus as reported in Section D, Item 2



4. Was the soil test phosphorus level in the field in years when manure was applied the same as reported in Section D, Item 2? [If Yes — Enter 1 and continue. If No — Enter 3, then Go to Item 5.]

Code
0421
0422
0423

a. Was the soil test phosphorus level in the field in years when manure was applied the same as reported in Section D, Item 2?
b. Was the soil test phosphorus level in the field in years when manure was applied the same as reported in Section D, Item 2?

Yes = 1
No = 3
Yes = 1
No = 3

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

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
3

Should have been reported on pg 20, 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)	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 _____

**Double check
pg 20, Item 2...**

LINE	1	2	3	4	5	6	7	8	9
	Crop Year	Primary crop for which nutrients were intended	Crop Code [Enter crop code from Respondent Booklet pg. 4.]	What quantity of manure was applied per acre?	Unit (column 4 only)	Where was the manure produced?	How was the manure handled?	Was manure tested before application?	Nitrogen inhibitor applied with manure
	YY		Code		Code	Code	Code	Code	Code
01	42 22	Corn, silage	189	44 7,000	45 12	46 1	47 2	48 1	49 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)	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 _____

**Remember
pg 20, Item 2...**

LINE	1	2	3	4	5	6	7	8	9
	Crop Year	Primary crop for which nutrients were intended	Crop Code [Enter crop code from Respondent Booklet pg. 4.]	What quantity of manure was applied per acre?	Unit (column 4 only) 1 Pounds 3 Tons 4 Bushels 12 Gallons 14 Acres/Inch	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	How was the manure handled? 1 Solid 2 Liquid 3 Slurry	Was manure tested before application? 1 Yes 2 Don't Know (DK) 3 No	Nitrogen inhibitor applied with manure 1 Nitrification inhibitor 2 Urease inhibitor 3 None
	YY		Code		Code	Code	Code	Code	
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)	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) 0871 _____	12 2-stage lagoon system with the 2nd stage being a lagoon
4 barn, shed or house		13 2-stage lagoon system with the 2nd stage being a holding pond
5 other (specify) 0870 _____		14 run off storage pond used only for collection of open-lot run off
6 none		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) 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

7. For each form of manure applied to this field, what type of storage and/or treatment system is used for the bulk of 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
		13 2-stage lagoon system with the 2nd stage being a holding pond used only for open-lot run off

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

8. For liquid manure stored in lagoon, is a methane digester being used?

Yes = 1
No = 3

Code

0873

0874

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



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

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
		14 run off storage pond used only for collection of open-lot run off
		15 other (specify)
		0872 _____

Code

Code

0469

0470

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

8. For liquid manure stored in lagoon, is a methane digester being used?

Yes = 1

No = 3

Code

0873

0874

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



Thank You!



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Sections F & G: Pesticide Applications & Management Practices

[Click Here to return to topic list](#)



Chris Rice
Mountain Region



United States Department of Agriculture
National Agricultural Statistics Service



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						
1. In which of the following years (202█, 202█, and/or 202█) 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	20XZ 20XY 20XX <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: center;">0315</td> <td style="text-align: center;">0345</td> <td style="text-align: center;">0346</td> </tr> <tr> <td style="text-align: center;"> </td> <td style="text-align: center;"> </td> <td style="text-align: center;"> </td> </tr> </table>	0315	0345	0346			
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	<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: center;">0344</td> <td style="text-align: center;">0343</td> <td style="text-align: center;">0342</td> </tr> </table>	0344	0343	0342			
0344	0343	0342						



Mechanisms of Action (MOAs)

- A **mechanism of action** describes HOW the chemical kills the pest
- **Q4 – Rotation**: Two different MOAs applied at 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



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 "None" 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 at the bottom of page 24, 26, and 28

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



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 YY	Wheat	125	61 40071	D	63 _____
Atrazine 4L	02	60 YY	Corn	188	61 40136	L	63 2
Express	03	60 YY	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?	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
	OR						
01	83 0 9 2 2 Y Y	65 2 0 0	73 _____	74 28	76 6	84 1	77 1500 .0
02	83 0 5 1 1 Y Y	65 _____	73 1 0 0	74 14	76 8	84 1	77 1500 .0
03	83 0 5 1 1 Y Y	65 0 1 3	73 _____	74 15	76 8	84 1	77 1500 .0



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 2 .0 0		73 _ _	74 28
65 _ _		73 1 0 0	74 14



Pesticide Application Table

- Refer to the table at the top of pages 25, 27, 29 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?	How many acres in this field were treated with this product?
1 Entire field	
2 Part of field	
3 Spot Treatment	
4 Entire field plus borders and buffers	
Code	Acres



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)

8	9
How much was applied per acre per application?	What was the total amount applied per application in this field?
65	73 2.00



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 an 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

- Q1: Scouting Methods
 - Making general observations while performing routine tasks
 - Deliberately going out to the field specifically for scouting activities
 - The field was not scouted for pests
- Q3: Why was scouting done in the field?
 - Pre-determined schedule or calendar
 - Pest development model based on degree days, maximum or minimum temperature, or wetness
 - Pest advisory warning



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



Section F & Section G Concluded

- Thank you for your time and attention!
- Refer to the Interviewer's Manual or Questionnaire to learn more about Section F and G



Section H: Irrigation

[Click Here
to return to
topic list](#)



Jake Bowers
Upper Midwest Region



United States Department of Agriculture
National Agricultural Statistics Service



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		Gravity Systems	
1	Hand-move	10	Siphon-Tube System from unlined ditches
2	Solid or Permanent Set	11	Siphon-Tube System from lined ditches
3	Side Roll or Wheel Line	12	Portal System from unlined ditches
4	Center Pivot or Linear Move with impact sprinklers	13	Portal System from lined ditches
5	Center Pivot or Linear Move low pressure spray nozzles below the tower and suspended above ground level	14	Any Poly-Pipe System
6	Center Pivot or Linear Move with spray or bubbler nozzles discharging on or near the ground	15	Gated-Pipe (not poly-pipe)
7	Big Gun	16	Improved Gated Pipe (surge flow or cablegation, not poly-pipe)
8	Low-Flow Irrigation (drip, trickle, or micro spray)	17	Sub irrigation
9	Other (Specify: _____)	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



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Pressure System Types



Micro-drip



Subsurface Drip



Drip Tape



Micro-spray

Low-Flow Irrigation



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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

Enumerator 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	0882	0883	0884
	No = 3			
b. Did you practice winter flooding?	Yes = 1	0885	0886	0887
	No = 3			
c. Did you practice alternate wetting and drying?	Yes = 1	0888	0889	0890
	No = 3			

- 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

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

Section H, Item 5.....

	20xx	20xx	20xx
5. Irrigation runoff from the field is primarily? [See Respondent Booklet pg. 38 for codes.]	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
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			Amount / Acre 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

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

Code 1542

Please provide the following information for the last test performed on this field:

	Salinity	Unit	Nitrate-Nitrogen (NO ₃ -N)	Unit
	Test Value	1 ppm 2 mg/L 3 microseimens/cm	Test Value	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 (NO₃-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?	1551
	Yes = 1
	No = 3

- 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)

- a. Well
- b. Irrigation district
- c. River or stream
- d. Other Specify: 0894 _____

Code

Yes = 1	1552
No = 3	
Yes = 1	1553
No = 3	
Yes = 1	1554
No = 3	
Yes = 1	1555
No = 3	

[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?

- a. I receive it when it's my turn
- b. I receive it by calling one or more days ahead of when I want it
- c. I receive it anytime I want it

Code

Yes = 1	1556
No = 3	
Yes = 1	1557
No = 3	
Yes = 1	1558
No = 3	

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

Code

Yes = 1	1559
No = 3	



Determining When to Irrigate

13. Which of the following are ways you decide when to irrigate? (Select all that apply)

- a. When plants appear dry or stressed
- b. When indicated by the calendar or schedule of field operations
- c. When water is available
- d. On the soil surface appearance or feel, or current climate observations
- e. When a target "dryness" value, such as inches depleted, centibars of tension, percent remaining, etc, from soil moisture monitoring devices is reached
- 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
- g. When a target measured plant stress level, such as pressure bomb, canopy temperature, etc., is reached

		Code
Yes = 1	No = 3	1560
Yes = 1	No = 3	1561
Yes = 1	No = 3	1562
Yes = 1	No = 3	1563
Yes = 1	No = 3	1564
Yes = 1	No = 3	1568
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)

- | | | |
|----|---|-------------------|
| 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 |
| b. | Run times based on past experience and schedule of required field operations | Yes = 1
No = 3 |
| 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 |
| d. | Field collected data such as from an observation well or soil moisture probe | Yes = 1
No = 3 |

Code

1574
1575
1576
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 1579 No = 3
b. A flow measuring device	Yes = 1 1580 No = 3
c. Measuring the flows to the field	Yes = 1 1582 No = 3
d. Measuring the flows at the water supply	Yes = 1 1583 No = 3
e. The runtime plus a known system application rate	Yes = 1 1584 No = 3
f. A pump test flow rate and runtime	Yes = 1 1585 No = 3



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 1587 No = 3
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 1588 No = 3
b. Historic ET data through CIMIS, Cooperative Extension publications, etc	Yes = 1 1589 No = 3
c. Tracking root zone soil moisture changes with electronic probes or other devices	Yes = 1 1590 No = 3

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 1592 No = 3
b. Apply moisture for seed germination and emergence	Yes = 1 1594 No = 3
c. Freeze protection or crop cooling	Yes = 1 1595 No = 3
d. To apply fertilizer or other chemicals	Yes = 1 1596 No = 3
e. Ground water recharge	Yes = 1 1597 No = 3

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



Improving Water Applications

PRACTICES TO IMPROVE WATER USE APPLICATIONS

Section H, Item 19

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.]

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



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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			
	20xx	20xx	20xx
1 = Inaccessible/Refusal 3 = Valid Zero	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

[Click Here
to return to
topic list](#)



Nicholas Sobrepena
Pacific Region



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Section I: Training Objectives

- Identify what should be included and excluded in the field operations tables.
- Identify how to look up and code the farm machinery used during field operations.
- Discern how to properly code the “sequence number”.
- Understand when the “depth of tillage” should be reported.
- Notice how Section C is related to Section I.



Section I: Field Operations

I

FIELD OPERATIONS — SELECTED FIELD

I

1. Including custom operations, what operations were performed by hand or machines on this field for the [redacted], [redacted], and [redacted] crop years?

- Begin with the first field operation for the [redacted] crop (after harvesting of [redacted] 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 [redacted] crop year

Lines in Table	Table 100	0499
----------------	-----------	------

CHECK LIST

INCLUDE all field work done by hand or using machines for

- | | | |
|--|--|---|
| <input type="checkbox"/> Land Forming | <input type="checkbox"/> Planting | <input type="checkbox"/> Hauling within field |
| <input type="checkbox"/> Tillage | <input type="checkbox"/> Harvesting | <input type="checkbox"/> Residue Management |
| <input type="checkbox"/> Preparing for Irrigation before seeding | | |
| <input type="checkbox"/> Custom Operations | <input type="checkbox"/> 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 is harvested and ends when the current year’s crop leaves the field.
- There are some exceptions to this rule.
 - Removal of crop residues
 - Cover crops



Field Operations Table

LINE	1 Crop Year	2 Sequence Number	3 What crop was associated with this operation?	4 Crop Code [Record from Respondent Booklet pgs. 4 - 7.]	5 What operation or equipment was used on this field?	6 Machine Code [Record from Respondent Booklet pgs. 39 - 41.]	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	2 Sequence Number	3 What crop was associated with this operation?	4 Crop Code [Record from Respondent Booklet pgs. 4 - 7.]	5 What operation or equipment was used on this field?	6 Machine Code [Record from Respondent Booklet pgs. 39 - 41.]	7 Was this operation used to incorporate a fertilizer or manure application? Yes = 1 No = 3	8 What was the timing of the field operation?	9 What was the depth of tillage for tillage/planting operations?
	Year	Number	Crop Name	Code		Code	Code	MM DD YY	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 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



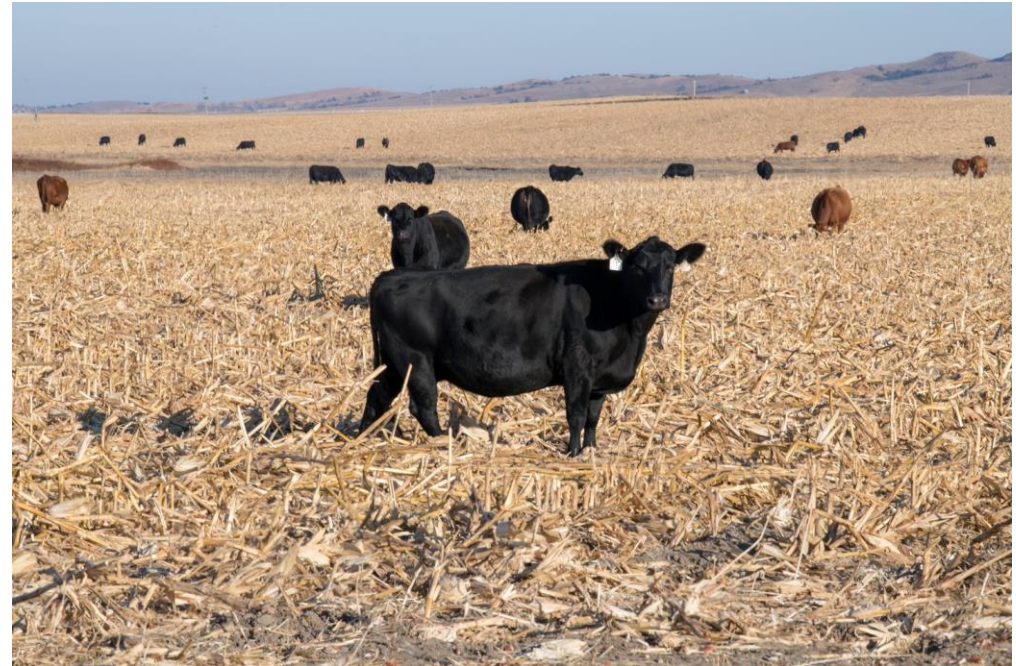
Special Situations

- 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

- Shredding of cotton stalks
- Grazing stubble
- Baling stubble
- Stalk chopping
- Section C, Item 1.o. will be a “1”



Strip Cropping

- Record all operations for each crop separately
 - Tilling
 - Planting
 - Cultivating
 - Harvest
- Page 177 of Interviewer's Manual
- Multiple crops in Section C



Cover Crops

- Record the cover crop in the year that it is removed or terminated
- Record all operations required to produce the cover crop
- Item 1.b. in Section C will be a “4”



Multiple Harvests

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



Livestock and Grazing

- Record dates when:
 - Livestock are turned out
 - Livestock are pulled off
 - All subsequent grazing operations
- Page 173 of Interviewer's Manual
- Section C
 - Item 1.b., intended use, should be marked a "1" or a "3"
 - Items 1.p. to 1.s. will be complete



Tandem Field Operations

LINE	1 Crop Year	2 Sequence Number	3 What crop was associated with this operation?	4 Crop Code [Record from Respondent Booklet pgs. 4 - 7.]	5 What operation or equipment was used on this field?	6 Machine Code [Record from Respondent Booklet pgs. 39 - 41.]	7 Was this operation used to incorporate a fertilizer or manure application? Yes = 1 No = 3	8 What was the timing of the field operation?	9 What was the depth of tillage for tillage/planting operations?
	Year	Number	Crop Name	Code		Code	Code	MM DD YY	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



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.
- Page 176 of Interviewer's Manual
- Section C
 - Item 1.n. completed
 - Acres harvested < acres planted
 - Potentially multiple crop codes



Thank you!



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Sections J, K and Conclusion

[Click Here
to return to
topic list](#)



Karla Lester
Southern Plains Region



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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



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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

J		WHOLE FARM — SELECTED FIELD	J
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 2024 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 <input type="checkbox"/> Yes — Continue 3 <input type="checkbox"/> No — Make corrections, then continue.		
3. Of the total (Item 2) acres operated, how many acres are considered cropland, including land in hay and cropland in government programs?		Acres 1905 _____
4. Of the total (Item 2) acres operated, how many acres are considered pastureland?		1906 _____



Section K: Operator and Operation Characteristics



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Section K: Overview

Data in this section refers to the entire farming operation, not just to the selected field as in previous sections.

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 2024, was this operation's LEGAL STATUS.....	<table border="1"><tr><td>1</td><td>Individual (Sole/Family Proprietorship)?</td></tr><tr><td>2</td><td>A Legal Partnership?</td></tr><tr><td>3</td><td>A Family-Held Corporation?</td></tr><tr><td>4</td><td>A Non-Family Corporation?</td></tr><tr><td>5</td><td>Other (including estates, trusts, and cooperatives)? (specify) 0896 _____</td></tr></table>	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 _____	<p>Code</p> <table border="1"><tr><td>1912</td></tr></table>	1912
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 _____												
1912													



Section K: Items 2 and 3

2. What is the highest level of formal education you (the operator) have completed?.....	<table border="1"><tr><td>1</td><td>Less than a high school diploma</td></tr><tr><td>2</td><td>High school diploma or equivalency (GED)</td></tr><tr><td>3</td><td>Some college</td></tr><tr><td>4</td><td>Completed a 4 year degree (BA or BS)</td></tr><tr><td>5</td><td>Graduate school</td></tr></table>	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	<p>Code</p> <table border="1"><tr><td>1914</td></tr></table>	1914
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												
1914													
3. In what year did you (the operator) begin making day-to-day decisions for any farm/ranch?		<p>YYYY</p> <table border="1"><tr><td>1915</td></tr><tr><td>-----</td></tr></table>	1915	-----									
1915													



Section K: Items 4 and 5

		Code
4. Is the operator of Hispanic, Latin, or Spanish origin?	Yes = 1	0897
	No = 3	
		Code
5. What is the operator's race? [Select all that apply.]	Yes = 1	0898
	No = 3	
a. American Indian or Alaska Native	Yes = 1	0899
	No = 3	
b. Asian	Yes = 1	0900
	No = 3	
c. Black or African American	Yes = 1	0901
	No = 3	
d. Middle Eastern or North African	Yes = 1	0910
	No = 3	
e. Native Hawaiian or Other Pacific Islander	Yes = 1	0902
	No = 3	
f. White	Yes = 1	0903
	No = 3	
g. Not Listed		
(specify) 0904 _____		



Section K: Items 6, 7, and 8

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

1. Never served in the military]	Code
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			

0905

7. How many years have you been continuously managing a forest, farm, or ranch operation? 0906

0920

Mark One

8. At what occupation did the operator spend the majority (50 percent or more) of his/her time in 2024?	1 <input type="checkbox"/>	Forestry, farm, or ranch work
	2 <input type="checkbox"/>	Work other than forestry, farm, or ranch work



Section K: Item 9

9. 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 2023.

What code represents the total gross value of sales for this operation in 2023?

- | | | |
|----|--------------------------|---------------------------|
| 99 | <input type="checkbox"/> | None during 2023 |
| 1 | <input type="checkbox"/> | \$1 — \$999 |
| 2 | <input type="checkbox"/> | \$1,000 — \$2,499 |
| 3 | <input type="checkbox"/> | \$2,500 — \$4,999 |
| 4 | <input type="checkbox"/> | \$5,000 — \$9,999 |
| 5 | <input type="checkbox"/> | \$10,000 — \$24,999 |
| 6 | <input type="checkbox"/> | \$25,000 — \$49,999 |
| 7 | <input type="checkbox"/> | \$50,000 — \$99,999 |
| 8 | <input type="checkbox"/> | \$100,000 — \$249,999 |
| 9 | <input type="checkbox"/> | \$250,000 — \$499,999 |
| 10 | <input type="checkbox"/> | \$500,000 — \$999,999 |
| 11 | <input type="checkbox"/> | \$1,000,000 — \$2,499,999 |
| 12 | <input type="checkbox"/> | \$2,500,000 — \$4,999,999 |
| 13 | <input type="checkbox"/> | \$5,000,000 and over |

Code

1916



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Section K: Item 10

10. Of the farm income reported, which of these categories represents the largest portion of the gross income from the operation?		Code
		1917
Farm Type Codes		
<ul style="list-style-type: none"> 1 Grains, Oilseeds, Dry Beans, and Dry Peas 2 Tobacco 3 Cotton and Cottonseed 4 Vegetables, Melons, Potatoes, and Sweet Potatoes 5 Fruit, Tree Nuts, Grapes, Citrus, and Berries 6 Nursery, Greenhouse, Floriculture, and Sod 7 Cut Christmas Trees and Short Rotation Woody Crops 8 Other Crops and Hay, CRP, and Pasture 	<ul style="list-style-type: none"> 9 Hogs and Pigs 10 Milk and Other Dairy Products from Cows 11 Cattle and Calves 12 Sheep, Goats, and their Products 13 Horses, Ponies, and Mules 14 Poultry and Eggs 15 Aquaculture 16 Other Animals and Other Animal Products 	



Conclusion



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CONCLUSION

RECORDS USE

1. Did respondent use farm/ranch records to report:

	Code
a. fertilizer data?	Yes = 1 0026 No = 3
b. pest control data?	Yes = 1 0027 No = 3
c. manure data?	Yes = 1 0028 No = 3
d. livestock grazing data?	Yes = 1 0035 No = 3

2. Did respondent use a written Conservation Plan to complete Section B?

Code
Yes=1 0029
No =3

Supplements Used:

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

Ending Time (Military)

Military Time HHMM
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	

									Optional Use	
									9907	9908
S/E Name										



Thank you!



United States Department of Agriculture
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Reminders, Tips, and Tricks

[Click Here
to return to
topic list](#)



Joseph Cook
Heartland Region



United States Department of Agriculture
National Agricultural Statistics Service



Lines in Table

Record the number of lines in the table

		<input type="checkbox"/> Sulfur <input type="checkbox"/> Commercially prepared manure <input type="checkbox"/> Unprocessed manure <input type="checkbox"/> Lime and gypsum		Lines in Table	Table 100	0299			
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 ₂ O ₅	Potassium K ₂ O	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

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

Supplement

		0299
	Lines in Table	5
		5
	What quantity was applied per acre?	Enter material code
per acre		1 Pounds
blank). If		

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

	7
	When was this applied?
	MM DD YY
L I N E	
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!



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