CONSERVATION EFFECTS ASSESSMENT PROJECT (CEAP) - 2016

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United States Department of Agriculture

National Agricultural Statistics Service

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

		CONTACT RECORD
DATE	TIME	NOTES

INTRODUCTION
[*Introduce yourself, and ask for the operator.*]

The National Agricultural Statistics Service 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.

The information you provide will be used for statistical purposes only. In accordance with the Confidential Information Protection provisions of Title V, Subtitle A, Public Law 107–347 and other applicable Federal laws, your responses will be kept confidential and will not be disclosed in identifiable form to anyone other than employees or agents. By law, every employee and agent has taken an oath and is subject to a jail term, a fine, or both if he or she willfully discloses ANY identifiable information about you or your operation. Response is **voluntary**.

0001
1

HHMM

BEGINNING TIME
[*MILITARY*]

0004
_ _ _ _

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.

Skip to next page

Or

Space for Notes and Comments

A FIELD CHARACTERISTICS---SELECTED FIELD A

1. In 2016, how many acres in the selected field and conservation area containing the sample point were:

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

			ACRES
2.	**So the TOTAL acres in the selected field and conservation area (1a + 1b + 1c + 1d + 1e + 1f + 1g) are:**	=	0023 .___

ENUMERATOR NOTE: [*If any acres are reported in Item 1a (planted or cropped), or Item 1c (idle cropland or summer fallow), Item 1e (pasture), or Item 1f (continuous conservation cover), continue; else, go to* ***Conclusion***, on page 40]

3. **During 2016, was any portion of the selected field and/or conservation area of interest enrolled in the continuous Conservation Reserve Program (CRP), the Farmable Wetland Program (FWP), or in the Conservation Reserve Enhancement Program (CREP)?**

	CODE
☐ **Yes -** [*Enter 1*]	0732
☐ **No -** [*Enter 3*]	

4. **Was this field considered organic acreage?** **Yes = 1**

2016	2015	2014
3382	3381	3380

5. **Were the majority of the acres in this field** (reported in Items 1a, 1c, 1e, or 1f)--

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?

2016	2015	2014
0504	0503	0502

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, 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 Reserve Program (CRP)
- Environmental Quality Incentive Program (EQIP) Plan
- Wetland Reserve Program (WRP) Plan
- Wildlife Habitat Incentive Program (WHIP) Plan
- Grassland Reserve Program (GRP) Plan
- Agricultural Water Enhancement Program (AWEP) Plan
- Nutrient Management Plan or Comprehensive Nutrient Management Plan

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

[*Encourage the respondent to get their Conservation Plan to answer the following questions.*]

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

		CODE
(i) Practices to reduce soil erosion?.	**Yes = 1**	0702
(ii) Nutrient management plan practices?.	**Yes = 1**	0703
(iii) Pest management plan practices?.	**Yes = 1**	0704
(iv) Irrigation water management plan practices?.	**Yes = 1**	0705
(v) Wildlife habitat enhancement practices?.	**Yes = 1**	0706
(vi) Manure management and handling practices?.	**Yes = 1**	0771
(vii) Agricultural water management plan that meets state or local requirements?.	**Yes = 1**	0742
(viii) Grazing Management Plan and Practices?.	**Yes = 1**	0743

2. **Did you receive cost share or incentive payments in 2016, 2015, or 2014 for any conservation practices implemented on this field and/or conservation area?**
[*Be sure to include payments for establishing grassed waterways and filter strips or riparian buffers on or adjoining the field*.]

	CODE
☐ **Yes –** [*Enter 1 and continue.*] ☐ **No –** [*Enter 3, then go to Item* 3.]	0707

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

		CODE
(i) Conservation Security Program (CSP).	**Yes = 1**	0772
(ii) CRP.	**Yes = 1**	0708
(iii) WRP.	**Yes = 1**	0709
(iv) EQIP.	**Yes = 1**	0710
(v) AWEP.	**Yes = 1**	0745
(vi) State Programs.	**Yes = 1**	0711
(vii) Other (*Specify*) _____	**Yes = 1**	0712
(viii) Don't Know.	**Yes = 1**	0713

3. **Did you receive any help for the development of:**

a. 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** - [*Check box, then go to Item 3c.*]
3☐**No -** [*Check box and continue.*]

b. conservation practices currently in place on this field/conservation area?
0781
1☐**Yes** - [*Check box and continue.]*
3☐**No** - [*Check box, then go to Item 4.*]

c. If **Yes**, please identify who provided the assistance for the development of the Conservation Plan and/or conservation practice(s) on this field/conservation area.

- **Include** assistance for planning, installing, maintaining, or using conservation practices or systems on this field.
- **Include** grassed waterways and filter strips or riparian buffers on or adjoining this field.
- **Include** 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**
(i) NRCS.	0714	0720	0726
(ii) Conservation District.	0715	0721	0727
(iii) Technical Service Providers (NRCS Certified). .	0716	0722	0728
(iv) Private Consultant.	0747	0760	0762
(v) Trade Organizations.	0751	0761	0763
(vi) University Extension.	0717	0723	0729
(vii) State Agencies.	0718	0724	0730
(viii) Other (*Specify*:)	0719	0725	0731

Completion Code for Conservation Plan	
1 = Incomplete/Refusal	0700

4. **In 2016, 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, skip to the next practice.*

a. Terraces?	**Yes = 1**	1328
(i) Were these terraces: (1 = primarily grassed; 2 = primarily cropped)	**Code**	1329
b. Stream side forest buffer?	**Yes = 1**	1333
(i) Width of buffer?	**Feet**	3320
(ii) Species: (1 = evergreen; 2 = deciduous; 3 = mixed)	**Code**	3321
c. Stream side herbaceous buffer?	**Yes = 1**	1334
(i) Width of buffer?	**Feet**	3322
(ii) Is the buffer maintained, for example, by fertilizing, mowing, or repairing any gullies?	**Yes = 1**	3323
(iii) Is the buffer designed to capture---		
(a) sediment?	**Yes = 1**	3330
(b) nutrients?	**Yes = 1**	3331
(c) pesticide residue?	**Yes = 1**	3332
d. Field borders?	**Yes = 1**	1337
(i) Width of field border?	**Feet**	3333
(ii) Is the field border maintained, for example, by fertilizing, mowing, or repairing any gullies?	**Yes = 1**	3334
(iii) Is the field border designed to capture---		
(a) sediment?	**Yes = 1**	3341
(b) nutrients?	**Yes = 1**	3342
(c) pesticide residue?	**Yes = 1**	3343
e. Filter strips?	**Yes = 1**	1338
(i) Width of filter strip?	**Feet**	3344
(ii) Is the filter strip maintained, for example, by fertilizing, mowing, or repairing any gullies?	**Yes = 1**	3350
(iii) Is the filter strip designed to capture---		
(a) sediment?	**Yes = 1**	3352
(b) nutrients?	**Yes = 1**	3353
(c) pesticide residue?	**Yes = 1**	3354

		CODE
f. Grassed waterways?	Yes = 1	1330
g. Vegetative barriers (in-field)?	Yes = 1	1331
h. Hedgerow plantings?	Yes = 1	1332
i. Windbreak?	Yes = 1	1335
j. Herbaceous wind barrier?	Yes = 1	3360
k. Contour buffers (in-field)?	Yes = 1	1336
l. Critical area planting?	Yes = 1	1339
m. Grade stabilization structure?	Yes = 1	1340
n. Drainage water management?	Yes = 1	3361
Are water tables managed for – (**Include** above ground and below ground water levels.)		
(i) Reduction of nutrient, pathogen, pesticide, and other contaminant losses from the field?	Yes = 1	3390
(ii) Seasonal wildlife habitat?	Yes = 1	3391
(iii) Weed control?	Yes = 1	3392
(iv) Managing crop residue?	Yes = 1	3393
(v) Conserving soil organic matter?	Yes = 1	3394
(vi) Reducing wind erosion and particulate emissions?	Yes = 1	3371
(vii) Other purposes? Specify: _____	Yes = 1	3372
o. Irrigation tailwater recovery system?	Yes = 1	3373
p. Contour farming?	Yes = 1	3362
q. Strip cropping?	Yes = 1	3363
r. Fence for the purpose of managing domestic livestock?	Yes = 1	3110
(i) Cross-fence for animal rotation?	Yes = 1	3111
(ii) Stream and/or water body protection?	Yes = 1	3112
(iii) Sensitive area protection?	Yes = 1	3113
(iv) Supplemental feeding area?	Yes = 1	3114
s. Prescribed Grazing?	Yes = 1	3115
t. Other? Specify: _____	Yes = 1	2450

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

☐ **Yes = 1** ☐ **No = 3** ☐ **Not Applicable = 4.** . . . . . **CODE** 3364

6. **Do you manage the vegetative cover for wildlife purposes?**

☐ **Yes = 1** ☐ **No = 3** ☐ **Not Applicable = 4.** . . . . . **CODE** 3370

C CROPPING HISTORY & CONSERVATION PRACTICES---SELECTED FIELD C

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

		1	2	3
Let's begin with the 2016 crop year. What was/were the:		**2016**	**2016**	**2016**
Crop(s) planted or Land Use?	**Crop**			
1. Crop(s) code or Land Use Code. [***See Resp. Booklet pg. 3 for codes***]	**Code**	1005	1037	1069
2. Intended use of Crop(s)? [***See Respondent Booklet pg. 6 for codes***]	**Code**	1006	1038	1070
3. Acres planted? [***Include*** *previous planted crops*.]	**Acres**	1007 .__	1039 .__	1071 .__
4. Date planted or established? (*MMDDYY*)	**Date**	1008 __ __ __ __ __ __	1040 __ __ __ __ __ __	1072 __ __ __ __ __ __
5. Row Width (*for row crops*)?	**Inches**	1011 .__	1043 .__	1075 .__
6. Spacing between rows *(for orchards and vineyards)*?	**Feet**	4600	4602	4604
7. Spacing between plants within rows *(for orchards and vineyards)*?	**Feet**	4601	4603	4605
8. **Expected** yield/acre at planting (*yield goal*)?	**Number**	1012 .__	1044 .__	1076 .__
a. Unit: [***See Respondent Booklet pg. 6 for codes***]	**Code**	1013	1045	1077
9. Type of tillage used? [***See Respondent Booklet pg. 6 for codes***]	**Code**	1014	1046	1078
10. Acres harvested?	**Acres**	1015 .__	1047 .__	1079 .__
a. Date harvested? (*MMDDYY*)	**Date**	1016 __ __ __ __ __ __	1048 __ __ __ __ __ __	1080 __ __ __ __ __ __
11. **Actual** yield at harvest/acre?	**Number**	1017 .__	1049 .__	1081 .__
a. Unit: [***See Respondent Booklet pg. 6 for codes***]	**Code**	1018	1050	1082
12. Acres Abandoned or NOT harvested?	**Acres**	1019 .__	1051 .__	1083 .__
13. Was this crop irrigated?	**Yes = 1 No = 3**	1029	1061	1093
14. Was the grass vegetation, straw or stubble harvested? *If **Yes**, enter 1 and continue. If **No**, enter 3, then go to Item* 15	**Yes = 1 No = 3**	1020	1052	1084
a. How many acres of grass vegetation, straw or stubble were harvested?	**Acres**	1021 .__	1053 .__	1085 .__
b. What was the remaining stubble height after harvest?	**Inches**	1022	1054	1086
15. Was the field grazed? *If **Yes**, enter 1 and continue. If **No**, enter 3, then go to item 19.*	**Yes = 1 No = 3**	1023	1055	1087
16. What type of livestock grazed the field (primarily)? [***See Respondent Booklet pg. 6 for codes***]	**Code**	1024	1056	1088
17. Regardless of ownership, how many head of _____ grazed this field **BEFORE** harvest?	**Head**	1025	1057	1089
a. How many **total** days was the field grazed **BEFORE** harvest?	**Days**	1026	1058	1090
b. Was supplemental feed supplied to livestock?	**Yes = 1 No = 3**	1411	1413	1422
18. Regardless of ownership, how many head of _____ grazed this field **AFTER** harvest?	**Head**	1027	1059	1091
a. How many **total** days was the field grazed **AFTER** harvest?	**Days**	1028	1060	1092
b. Was supplemental feed supplied to livestock?	**Yes = 1 No = 3**	1412	1421	1423
19. Was any forage intentionally left behind for wildlife use, cover, and/or shelter?	**Yes = 1 No = 3**	2610	2611	2612
		2016 EDIT CROPPING TABLE		**1004**

		1	2	3
Let's continue with the 2015 crop year.		**2015**	**2015**	**2015**
Did you make day-to-day farming/ranching decisions for this field in 2015? *If **Yes,** continue. If **No**, go to page 10.*	**Yes = 1 No = 3**	0010		
What was/were the:				
Crop(s) planted or Land Use?	**Crop**			
1. Crop(s) code or Land Use Code. [***See Resp. Booklet pg. 3 for codes***]	**Code**	1101	1133	1165
2. Intended use of Crop(s)? [***See Respondent Booklet pg. 6 for codes***]	**Code**	1102	1134	1166
3. Acres planted? [***Include** previous planted crops.*]	**Acres**	1103 .__	1135 .__	1167 .__
4. Date planted or established? (*MMDDYY*)	**Date**	1104 _ _ _ _ _ _	1136 _ _ _ _ _ _	1168 _ _ _ _ _ _
5. Row Width (*for row crops*)?	**Inches**	1107 .__	1139 .__	1171 .__
6. Spacing between rows (*for orchards and vineyards*)?	**Feet**	4618	4620	4622
7. Spacing between plants within rows (*for orchards and vineyards*)?	**Feet**	4619	4621	4623
8. **Expected** yield/acre at planting (*yield goal*)?	**Number**	1108 .__	1140 .__	1172 .__
a. Unit: [***See Respondent Booklet pg. 6 for codes***]	**Code**	1109	1141	1173
9. Type of tillage used? [***See Respondent Booklet pg. 6 for codes***]	**Code**	1110	1142	1174
10. Acres harvested?	**Acres**	1111 .__	1143 .__	1175 .__
a. Date harvested? (*MMDDYY*)	**Date**	1112 _ _ _ _ _ _	1144 _ _ _ _ _ _	1176 _ _ _ _ _ _
11. **Actual** yield at harvest/acre?	**Number**	1113 .__	1145 .__	1177 .__
a. Unit: [***See Respondent Booklet pg. 6 for codes***]	**Code**	1114	1146	1178
12. Acres Abandoned or NOT harvested?	**Acres**	1115 .__	1147 .__	1179 .__
13. Was this crop irrigated?	**Yes = 1 No = 3**	1125	1157	1189
14. Was the grass vegetation, straw, or stubble harvested? *If **Yes**, enter 1 and continue. If **No**, enter 3 and go to Item 15*	**Yes = 1 No = 3**	1116	1148	1180
a. How many acres of grass vegetation, straw, or stubble were harvested?	**Acres**	1117 .__	1149 .__	1181 .__
b. What was the remaining stubble height after harvest?	**Inches**	1118	1150	1182
15. Was the field grazed? *If **Yes**, enter 1 and continue. If **No**, enter 3, then go to item 19.*	**Yes = 1 No = 3**	1119	1151	1183
16. What type of livestock grazed the field (primarily)? [***See Respondent Booklet pg. 6 for codes***]	**Code**	1120	1152	1184
17. Regardless of ownership, how many head of _____ grazed this field **BEFORE** harvest?	**Head**	1121	1153	1185
a. How many **total** days was the field grazed **BEFORE** harvest?	**Days**	1122	1154	1186
b. Was supplemental feed supplied to livestock?	**Yes = 1 No = 3**	1431	1433	1442
18. Regardless of ownership, how many head of _____ grazed this field **AFTER** harvest?	**Head**	1123	1155	1187
a. How many **total** days was the field grazed **AFTER** harvest?	**Days**	1124	1156	1188
b. Was supplemental feed supplied to livestock?	**Yes = 1 No = 3**	1432	1441	1443
19. Was any forage intentionally left behind for wildlife use, cover, and/or shelter?	**Yes = 1 No = 3**	2622	2623	2624
		2015 EDIT CROPPING TABLE		**1003**

		1	2	3
Let's finish up with the 2014 crop year:		**2014**	**2014**	**2014**
Did you make day-to-day farming/ranching decisions for this field in 2014? *If **Yes**, continue. If **No**, go to page 11.*	**Yes = 1 No = 3**	0011		
What was/were the:				
Crop(s) planted or Land Use?	**Crop**			
1. Crop(s) code or Land Use Code. [***See Resp. Booklet pg. 3 for codes***]	**Code**	1197	1229	1261
2. Intended use of Crop(s)? [***See Respondent Booklet pg. 6 for codes***]	**Code**	1198	1230	1262
3. Acres planted? [***Include** previous planted crops.*]	**Acres**	1199 .__	1231 .__	1263 .__
4. Date planted or established? (*MMDDYY*)	**Date**	1200 __ __ __ __ __ __	1232 __ __ __ __ __ __	1264 __ __ __ __ __ __
5. Row Width (*for row crops*)?	**Inches**	1203 .__	1235 .__	1267 .__
6. Spacing between rows (*for orchards and vineyards)?*	**Feet**	4624	4626	4628
7. Spacing between plants within rows (*for orchards and vineyards*)?	**Feet**	4625	4627	4629
8. **Expected** yield/acre at planting (*yield goal*)?	**Number**	1204 .__	1236 .__	1268 .__
a. Unit: [***See Respondent Booklet pg. 6 for codes***]	**Code**	1205	1237	1269
9. Type of tillage used? [***See Respondent Booklet pg. 6 for codes***]	**Code**	1206	1238	1270
10. Acres harvested?	**Acres**	1207 .__	1239 .__	1271 .__
a. Date harvested? (*MMDDYY*)	**Date**	1208 __ __ __ __ __ __	1240 __ __ __ __ __ __	1272 __ __ __ __ __ __
11. **Actual** yield at harvest/acre?	**Number**	1209 .__	1241 .__	1273 .__
a. Unit: [***See Respondent Booklet pg. 6 for codes***]	**Code**	1210	1242	1274
12. Acres Abandoned or NOT harvested?	**Acres**	1211 .__	1243 .__	1275 .__
13. Was this crop irrigated?	**Yes = 1 No = 3**	1221	1253	1285
14. Was the grass vegetation, straw, or stubble harvested? *If **Yes** enter 1 and continue. If **No**, enter 3, then go to Item 15.*	**Yes = 1 No = 3**	1212	1244	1276
a. How many acres of grass vegetation, straw, or stubble were harvested?	**Acres**	1213 .__	1245 .__	1277 .__
b. What was the remaining stubble height after harvest?	**Inches**	1214	1246	1278
15. Was the field grazed? *If **Yes**, enter 1 and continue. If **No**, enter 3, then go to item 19.*	**Yes = 1 No = 3**	1215	1247	1279
16. What type of livestock grazed the field (primarily)? [***See Respondent Booklet pg. 6 for codes***]	**Code**	1216	1248	1280
17. Regardless of ownership, how many head of _____ grazed this field **BEFORE** harvest?	**Head**	1217	1249	1281
a. How many **total** days was the field grazed **BEFORE** harvest?	**Days**	1218	1250	1282
b. Was supplemental feed supplied to livestock?	**Yes = 1 No = 3**	1451	1453	1462
18. Regardless of ownership, how many head of _____ grazed this field **AFTER** harvest?	**Head**	1219	1251	1283
a. How many **total** days was the field grazed **AFTER** harvest?	**Days**	1220	1252	1284
b. Was supplemental feed supplied to livestock?	**Yes = 1 No = 3**	1452	1461	1463
19. Was any forage intentionally left behind for wildlife use, cover, and/or shelter?	**Yes = 1 No = 3**	2625	2626	2627
		2014 EDIT CROPPING TABLE		**1002**

2. **Do you have a crop rotation plan for this field?. .** 1343 1☐**Yes –** [*Continue.*] 3☐**No –** [*Go to Item 3.*]

   a. Let's record your crop rotation plan. [*Use the crop codes from* ***the Respondent Booklet pg.3.*** *Use multiple codes to capture strip cropping, double cropping, and cover crops in a planned rotation.*]

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

3. **Was a cover crop planted on this field for the 2016, 2015 or 2014 crop years?. . . . . .** 1471 1☐**Yes –** [*Continue.*] 3☐**No –** [*Go to Item 4.*]

		2016	**2015**	**2014**
a. When was the cover crop planted?	**MMDDYY**	1472 __ __ __ __ __ __	1483 __ __ __ __ __ __	1571 __ __ __ __ __ __
b. What type of cover crop was planted? (*Enter code*)	1 Wheat 2 Rye 3 Other small grain/ winter annual 4 Legume (clover, cowpeas, etc.) 5 Other 6 Mixed	1473	1491	1572
c. When was the cover crop terminated?	**MMDDYY**	1481 __ __ __ __ __ __	1492 __ __ __ __ __ __	1573 __ __ __ __ __ __
d. How was the cover crop terminated? (*Enter code*)	1 Herbicide 2 Mowed 3 Hayed 4 Plowed or disked in 5 Roller/Crimper 6 Harvested for grain 7 Burned	1482	1493	1581

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** — **CODE** 1327

   [*If* ***Yes****, continue. If* ***No****, go to Item 6.*]

   e. **Is livestock access to the water body:**

   (i) Prevented? . . . . . **Yes = 1** — **CODE** 3400

   (ii) Controlled? . . . . . **Yes = 1** — 3401

   (iii) Unrestricted? . . . . . **Yes = 1** — 3402

5. **Are irrigation/drainage ditches lined or vegetated to maintain a stable channel?. . . . . .** **Yes = 1** — **CODE** 1364

6. **Does this field have subsurface (tile) drainage?**

   1341 1☐**Yes –** [*Continue.*] 2☐**Don't Know –** [*Go to Item 7.*] 3☐**No –** [*Go to Item 7.*]

   a. Are the drainage tiles organized in a pattern?. . . . . **Yes = 1** — 1781

   [*If* ***Yes****, continue. If* ***No****, go to Item 6c.*]

   b. What is the approximate subsurface (tile) drain spacing?. . . . . — **CODE** 1782

   | **1** – less than 30 feet | **2** – 30-59 feet | **3** – 60-100 feet | **4** – more than 100 feet |

   c. Are there surface inlet pipes connected to the subsurface (tile) drains in this field?. . . . . **Yes = 1** — **CODE** 1783

7. **Does this field have surface drainage structures?. . . . . .** **Yes = 1** — 1342

D COMMERCIAL FERTILIZER APPLICATIONS---SELECTED FIELD D

1. **Were commercial FERTILIZERS applied to this field for:**

		CODE	EDIT TABLE
a. the **2016** crop? [*If **Yes**, enter 1 and continue. If **No**, enter 3, then go to Item 1c.*]. . . .	Yes = 1 No = 3	0221	0234
b. Did you use any product to slow the breakdown of nitrogen on this field in **2016**? (For example, a nitrification inhibitor, a urease inhibitor, or slow release polymer.).	Yes = 1 No = 3	0222	

		CODE	EDIT TABLE
c. the **2015** crop? [*If **Yes**, enter 1 and continue. If **No**, enter 3, then go to Item 1e.*]. . . .	Yes = 1 No = 3	0235	0233
d. Did you use any product to slow the breakdown of nitrogen on this field in **2015**? (For example, a nitrification inhibitor, a urease inhibitor, or slow release polymer.).	Yes = 1 No = 3	0236	

		CODE	EDIT TABLE
e. the **2014** crop? [*If **Yes**, enter 1 and continue. If **No**, enter 3, then go to Item 2.*].	Yes = 1 No = 3	0237	0232
f. Did you use any product to slow the breakdown of nitrogen on this field in **2014**? (For example, a nitrification inhibitor, a urease inhibitor, or slow release polymer.).	Yes = 1 No = 3	0238	

2. **Is your soil phosphorus level elevated to a point where no additional phosphorus nutrients can be applied to this field for the 2016 crop year?. . . . . .** Yes = 1 — 0247

3. **Were phosphorus nutrients applied to this field as either fertilizer or manure prior to 2014 to supply phosphorus for subsequent years of the crop rotation?** — CODE 0248

☐ **Yes** – [*Enter 1 and continue.*]
☐ **No** – [*Enter 3, then go to Item 4.*]. . . . . .

a. When were the phosphorus nutrients applied?. . . . . — MMDDYY 0249 __ __ __ __ __ __

b. What rate was applied?. . . . .

Units for fertilizer	Units for manure
18 lbs/acre P_2O_5	1 Pounds per acre 3 Tons per acre 12 Gallons per acre 14 Acre-Inch manure/acre

. . . . AMOUNT 0250 . ___ AND UNIT CODE 0251

4. **Were soil amendments other than nutrients added to this field?. . . .** Yes = 1

2016	2015	2014
0283	0285	0287

[*If **Yes**, continue for that year. If **No** for all years, go to Item 5.*]

a. Were the amendments added to address pH, soil structure, or micronutrient–related problems?. . . . . Yes = 1

2016	2015	2014
0284	0286	0288

5. **Was a soil test performed on this field within the last 5 years to determine crop nutrient application needs?** — CODE 0252

☐ **Yes** – [*Enter 1 and continue.*]
☐ **No** – [*Enter 3, then go to Item 6.*]. . . . . .

a. How often is the soil test performed?. . . . . .

1	annually
2	every 2-3 years
3	once during the rotation

. . . . . CODE 0253

b. Please provide the following information for the last soil test performed on this field. If nitrogen and phosphorus were tested separately, provide the information for BOTH tests. (Report soil test value only. Do not report recommended fertilizer amounts.)

	1 Year of Test YY	2 Crop Name	3 Crop Code	4 Soil Test Nitrogen		5 Soil Test Phosphorus		6 Soil Test Potassium	
				Test Value	Unit 1 lbs/acre 2 ppm 3 mg/kg 4 Index 10 Other	Test Value	Unit 1 lbs/acre 2 ppm 3 mg/kg 4 Index 10 Other	Test Value	Unit 1 lbs/acre 2 ppm 3 mg/kg 4 Index 10 Other
(i)	0254 __ __		0255	0256	0257	0258	0259	0260	0261
(ii)	0263 __ __		0264	0265	0266	0267	0268	0269	0270

	7 Soil pH	8 Soil Test Electrical Conductivity (EC)		9 Soil Test Sodium Absorption Ratio (SAR)
		Test Value	Unit 1 siemens per meter (S/m) 2 deciSiemens per meter (dS/m) 3 microSiemens per centimeter (µS/cm) 4 millimhos per centimeter (mmho/cm)	Test Value
(i)	0262 .___	0291	0292	0293
(ii)	0271 .___	0296	0297	0298

6. **Were any of the following types of soil or tissue tests performed to determine nutrient needs on this field?**

			CODE
a.	Pre-plant or pre-sidedress nitrate-nitrogen test.	**Yes = 1**	0272
b.	Deep soil profile nitrate-nitrogen test (greater than one foot deep).	**Yes = 1**	0273
c.	Leaf petiole or leaf tissue tests.	**Yes = 1**	0274
d.	Post-harvest stalk test.	**Yes = 1**	0275
e.	Chlorophyll analysis (for example, leaf color charts, chlorophyll meters, optical sensors, or remote aerial sensing).	**Yes = 1**	0276

7. **During crop years 2016, 2015, or 2014---**

		2016	2015	2014
Was a GPS (Global Positioning System) device used to georeference and/or produce a map of the soil properties of this field (*such as soil nitrate levels, pH, etc.*)?.	**Yes = 1**	1299	1310	1321

[*If* **Yes** *to any crop year, continue. If* **No** *to all crop years, go to Item 8a.*]

		2016	2015	2014
a. Was the map based on random sampling?.	**Yes = 1**	0277	0279	0281
b. Was the map based on grid sampling?.	**Yes = 1**	0278	0280	0282
c. Was the map based on a machine that measured electrical conductivity of the soil?.	**Yes = 1**	1301	1312	1323

ENUMERATOR NOTE: Was fertilizer applied in 2016? [*If **Yes**, continue. If **No**, go to Item 8b.*]

8a. **Now I need to record information for each fertilizer application for the 2016 crop.**
[*Probe for applications made in the fall of 2015 (and those made earlier if this field was fallow) for the 2016 crop year.*]

CHECKLIST	
INCLUDE	**EXCLUDE**
☐ Custom applied fertilizers	☐ Micronutrients
☐ Sulfur	☐ Commercially prepared manure
	☐ Unprocessed manure
	☐ Lime and gypsum

Office Use 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 pg, 3 .*]	4 **MATERIALS USED** *Enter actual pounds of plant nutrients applied per acre. If only fertilizer analysis is known, enter percent analysis in this column and quantity applied per acre in column 5.* [*Show Common Fertilizers in Respondent Booklet pg, 7.*]				5 **What quantity was applied per acre?** [*Leave this column blank if pounds of actual nutrients were reported in column 4.*]	6 [*Enter material code.*] *1 Pounds* *3 Tons* *12 Gallons* *13 Quarts* *19 Pounds of actual nutrients*
				Nitrogen N	**Phosphorus P_2O_5**	**Potassium K_2O**	**Sulfur S**		**CODE**
01	28 **16**			31	32	33	34	36	37
02	28 **16**			31	32	33	34	36	37
03	28 **16**			31	32	33	34	36	37
04	28 **16**			31	32	33	34	36	37
05	28 **16**			31	32	33	34	36	37
06	28 **16**			31	32	33	34	36	37
07	28 **16**			31	32	33	34	36	37
08	28 **16**			31	32	33	34	36	37
09	28 **16**			31	32	33	34	36	37
10	28 **16**			31	32	33	34	36	37
11	28 **16**			31	32	33	34	36	37
12	28 **16**			31	32	33	34	36	37
13	28 **16**			31	32	33	34	36	37
14	28 **16**			31	32	33	34	36	37

APPLICATION CODES FOR COLUMN 8

1 Broadcast, ground without incorporation
2 Broadcast, ground with incorporation
3 Broadcast, by air
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

LINE	7 **When was this applied?** **MMDDYY**	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**	NOTES
01	30 __ __ __ __ __ __	39	40 ___.___	29	
02	30 __ __ __ __ __ __	39	40 ___.___	29	
03	30 __ __ __ __ __ __	39	40 ___.___	29	
04	30 __ __ __ __ __ __	39	40 ___.___	29	
05	30 __ __ __ __ __ __	39	40 ___.___	29	
06	30 __ __ __ __ __ __	39	40 ___.___	29	
07	30 __ __ __ __ __ __	39	40 ___.___	29	
08	30 __ __ __ __ __ __	39	40 ___.___	29	
09	30 __ __ __ __ __ __	39	40 ___.___	29	
10	30 __ __ __ __ __ __	39	40 ___.___	29	
11	30 __ __ __ __ __ __	39	40 ___.___	29	
12	30 __ __ __ __ __ __	39	40 ___.___	29	
13	30 __ __ __ __ __ __	39	40 ___.___	29	
14	30 __ __ __ __ __ __	39	40 ___.___	29	

ENUMERATOR NOTE: Was fertilizer applied in 2015? [*If **Yes**, continue. If **No**, go to Item 8c.*]

8b. **Now I need to record information for each fertilizer application for the 2015 crop.**
[*Probe for applications made in the fall of 2014 (and those made earlier if this field was fallow) for the 2015 crop year.*]

CHECKLIST	
INCLUDE	**EXCLUDE**
☐ Custom applied fertilizers	☐ Micronutrients
☐ Sulfur	☐ Commercially prepared manure
	☐ Unprocessed manure
	☐ Lime and gypsum

Office Use Lines in Table	**TABLE 200**	0299

LINE	1 Crop Year	2 Primary crop for which nutrients were intended	3 Crop Code [*Enter crop code from Respondent Booklet pg, 3 .*]	4 MATERIALS USED *Enter actual pounds of plant nutrients applied per acre. If only fertilizer analysis is known, enter percent analysis in this column and quantity applied per acre in column 5.* [*Show Common Fertilizers in Respondent Booklet pg, 7.*]				5 What quantity was applied per acre? [*Leave this column blank if pounds of actual nutrients were reported in column 4.*]	6 [*Enter material code.*] *1 Pounds* *3 Tons* *12 Gallons* *13 Quarts* *19 Pounds of actual nutrients*
				Nitrogen N	Phosphorus P_2O_5	Potassium K_2O	Sulfur S		CODE
01	28 **15**			31	32	33	34	36	37
02	28 **15**			31	32	33	34	36	37
03	28 **15**			31	32	33	34	36	37
04	28 **15**			31	32	33	34	36	37
05	28 **15**			31	32	33	34	36	37
06	28 **15**			31	32	33	34	36	37
07	28 **15**			31	32	33	34	36	37
08	28 **15**			31	32	33	34	36	37
09	28 **15**			31	32	33	34	36	37
10	28 **15**			31	32	33	34	36	37
11	28 **15**			31	32	33	34	36	37
12	28 **15**			31	32	33	34	36	37
13	28 **15**			31	32	33	34	36	37
14	28 **15**			31	32	33	34	36	37

APPLICATION CODES FOR COLUMN 8

1 Broadcast, ground without incorporation
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3 Broadcast, by air
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

LINE	7 **When was this applied?** **MMDDYY**	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**	NOTES
01	30 __ __ __ __ __ __	39	40 ___.___	29	
02	30 __ __ __ __ __ __	39	40 ___.___	29	
03	30 __ __ __ __ __ __	39	40 ___.___	29	
04	30 __ __ __ __ __ __	39	40 ___.___	29	
05	30 __ __ __ __ __ __	39	40 ___.___	29	
06	30 __ __ __ __ __ __	39	40 ___.___	29	
07	30 __ __ __ __ __ __	39	40 ___.___	29	
08	30 __ __ __ __ __ __	39	40 ___.___	29	
09	30 __ __ __ __ __ __	39	40 ___.___	29	
10	30 __ __ __ __ __ __	39	40 ___.___	29	
11	30 __ __ __ __ __ __	39	40 ___.___	29	
12	30 __ __ __ __ __ __	39	40 ___.___	29	
13	30 __ __ __ __ __ __	39	40 ___.___	29	
14	30 __ __ __ __ __ __	39	40 ___.___	29	

ENUMERATOR NOTE: Was fertilizer applied in 2014? [*If **Yes**, continue. If **No**, go to **Section E**.*]

8c. **Now I need to record information for each fertilizer application for the 2014 crop.**
[*Probe for applications made in the fall of 2013 (and those made earlier if this field was fallow) for the 2014 crop year.*]

CHECKLIST	
INCLUDE	**EXCLUDE**
☐ Custom applied fertilizers	☐ Micronutrients
☐ Sulfur	☐ Commercially prepared manure
	☐ Unprocessed manure
	☐ Lime and gypsum

Office Use Lines in Table	TABLE 300	0299

LINE	1 **Crop Year**	2 **Primary crop for which nutrients were intended**	3 **Crop Code** [*Enter crop code from Respondent Booklet pg, 3 .*]	4 **MATERIALS USED** *Enter actual pounds of plant nutrients applied per acre. If only fertilizer analysis is known, enter percent analysis in this column and quantity applied per acre in column 5.* [*Show Common Fertilizers in Respondent Booklet pg, 7.*]				5 **What quantity was applied per acre?** [*Leave this column blank if pounds of actual nutrients were reported in column 4.*]	6 [*Enter material code.*] *1 Pounds* *3 Tons* *12 Gallons* *13 Quarts* *19 Pounds of actual nutrients*
				Nitrogen N	**Phosphorus P_2O_5**	**Potassium K_2O**	**Sulfur S**		**CODE**
01	28 **14**			31	32	33	34	36	37
02	28 **14**			31	32	33	34	36	37
03	28 **14**			31	32	33	34	36	37
04	28 **14**			31	32	33	34	36	37
05	28 **14**			31	32	33	34	36	37
06	28 **14**			31	32	33	34	36	37
07	28 **14**			31	32	33	34	36	37
08	28 **14**			31	32	33	34	36	37
09	28 **14**			31	32	33	34	36	37
10	28 **14**			31	32	33	34	36	37
11	28 **14**			31	32	33	34	36	37
12	28 **14**			31	32	33	34	36	37
13	28 **14**			31	32	33	34	36	37
14	28 **14**			31	32	33	34	36	37

APPLICATION CODES FOR COLUMN 8

1 Broadcast, ground without incorporation
2 Broadcast, ground with incorporation
3 Broadcast, by air
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

LINE	7 **When was this applied?** **MMDDYY**	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**	NOTES
01	30 __ __ __ __ __ __	39	40 ___.___	29	
02	30 __ __ __ __ __ __	39	40 ___.___	29	
03	30 __ __ __ __ __ __	39	40 ___.___	29	
04	30 __ __ __ __ __ __	39	40 ___.___	29	
05	30 __ __ __ __ __ __	39	40 ___.___	29	
06	30 __ __ __ __ __ __	39	40 ___.___	29	
07	30 __ __ __ __ __ __	39	40 ___.___	29	
08	30 __ __ __ __ __ __	39	40 ___.___	29	
09	30 __ __ __ __ __ __	39	40 ___.___	29	
10	30 __ __ __ __ __ __	39	40 ___.___	29	
11	30 __ __ __ __ __ __	39	40 ___.___	29	
12	30 __ __ __ __ __ __	39	40 ___.___	29	
13	30 __ __ __ __ __ __	39	40 ___.___	29	
14	30 __ __ __ __ __ __	39	40 ___.___	29	

E MANURE APPLICATIONS---SELECTED FIELD E

1. **Was manure or manure compost applied to this field for the 2016, 2015, or 2014 crop year?**
Manure applications include 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 2013, 2014 and 2015 (and those made earlier if this field was fallow) for the 2014, 2015, and 2016 crop years.]

	CODE
☐ **Yes** – [*Enter 1 and continue.*] ☐ **No** – [*Enter 3, then go to* ***Section F****.*]	0418

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

Office Use Lines in Table	TABLE 001	0599

LINE	1 **Crop Year** YY	2 **Primary crop for which nutrients were intended**	3 **Crop Code** [Enter crop code from Respondent Booklet pg. 3.] CODE	4 **What quantity of manure was applied per acre?**	5 **Unit** *(column 4 only)* 1 Pounds 3 Tons 4 Bushels 12 Gallons 14 Acres/Inch CODE	6 **Where was the manure produced?** 1 On this operation 2 Purchased 3 Obtained at no cost off this operation 4 Obtained with compensation 5 Commercially prepared manure CODE	7 **How was the manure handled?** 1 Solid 2 Liquid 3 Slurry CODE	8 **Was a manure test done?** 1 Yes 2 DK 3 No CODE
01	42 __ __			44 .___	45	46	47	48
02	42 __ __			44 .___	45	46	47	48
03	42 __ __			44 .___	45	46	47	48
04	42 __ __			44 .___	45	46	47	48
05	42 __ __			44 .___	45	46	47	48
06	42 __ __			44 .___	45	46	47	48
07	42 __ __			44 .___	45	46	47	48
08	42 __ __			44 .___	45	46	47	48
09	42 __ __			44 .___	45	46	47	48
10	42 __ __			44 .___	45	46	47	48

CODES FOR UNIT COLUMN 10
31 lbs/ton
121 lbs/1000gals
19 lbs of actual nutrients/acre
15 lbs/acre-inch
29 % by weight

CODES FOR MANURE SOURCE COLUMN 11
1 Beef cattle
2 Dairy cattle
3 Hogs
4 Sheep/Goats
5 Broiler
6 Layer
7 Poultry Breeder
8 Turkey
9 Poultry (other)
10 Equine
11 Biosolids
12 Other (*Specify*)_____
13 Don't Know

CODES FOR APPLICATION COLUMN 15
1 Dry broadcast, without incorporation
2 Dry broadcast, with incorporation
3 Liquid broadcast, without incorporation
4 Liquid broadcast, with incorporation
5 Chiseled/injected or knifed in
6 Furrow or basin irrigated
7 Sprinkler irrigated

.

LINE	9 **Results from manure analysis test OR actual amount of nutrients applied** [*Leave this column blank if column 8 = 2 or 3*]			10 **Unit** (*column 9 only*) [*Enter code from box above.*]	11 **Major source of manure** [*Enter code from box above.*]	12 **Was manure composted before application?** 1 Yes 2 DK 3 No	13 **Composting Method?** [*Leave this column blank if column 12 = 2 or 3*] 1 Windrow 2 Static pile 3 In-Vessel 4 Other	14 **When was this applied?**	15 **How was this applied?** [*Enter code from box above.*]	16 **How many acres were treated in this application?**
	Nitrogen **N**	Phosphorus **P_2O_5**	Potassium **K_2O**			**CODE**		**MMDDYY**		**ACRES**
01	49 .__ __	50 .__ __	51 .__ __	52	53	54	55	56 __ __ __ __ __ __	57	58 .__
02	49 .__ __	50 .__ __	51 .__ __	52	53	54	55	56 __ __ __ __ __ __	57	58 .__
03	49 .__ __	50 .__ __	51 .__ __	52	53	54	55	56 __ __ __ __ __ __	57	58 .__
04	49 .__ __	50 .__ __	51 .__ __	52	53	54	55	56 __ __ __ __ __ __	57	58 .__
05	49 .__ __	50 .__ __	51 .__ __	52	53	54	55	56 __ __ __ __ __ __	57	58 .__
06	49 .__ __	50 .__ __	51 .__ __	52	53	54	55	56 __ __ __ __ __ __	57	58 .__
07	49 .__ __	50 .__ __	51 .__ __	52	53	54	55	56 __ __ __ __ __ __	57	58 .__
08	49 .__ __	50 .__ __	51 .__ __	52	53	54	55	56 __ __ __ __ __ __	57	58 .__
09	49 .__ __	50 .__ __	51 .__ __	52	53	54	55	56 __ __ __ __ __ __	57	58 .__
10	49 .__ __	50 .__ __	51 .__ __	52	53	54	55	56 __ __ __ __ __ __	57	58 .__

EDIT MANURE TABLE		
2016	**2015**	**2014**
0454	0453	0452

3. **Were the manure application rates to this field influenced by State or local restrictions, by your conservation plan, nutrient management plan (NMP) or your comprehensive nutrient management plan (CNMP)?** [*If **Yes**, enter 1 and continue. If **No**, enter 3, then go to Item 4.*]. . . . 0419

		CODE
a. What nutrient requirement basis was used to determine these manure applications?.	1 Nitrogen 2 Phosphorus	0420

	Soil Test P	UNIT CODES	CODE
b. What was the soil test phosphorus level in the field before the manure application occurred?. .	0459	1 mg/kg P 2 ppm P 3 lbs/acre	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.*]. 0421

a. Was commercial nitrogen reduced?.	**Yes = 1**	0422
b. Was commercial phosphorus reduced?.	**Yes = 1**	0423

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

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

. . . . . CODE 0424

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

[**ENUMERATOR NOTE:** M*anure 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 Item 8.*] . . . . . CODE 0425

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

Solid	Slurry	Liquid
1 stacking slab (open storage) 2 covered slab 3 manure pack 4 barn, shed or house 5 other (*Specify*) _____ 6 none	7 concrete or steel tank, basin or pit 8 earthen storage facility 9 other (*Specify*) _____	10 single stage lagoon or holding pond 11 two stage lagoon system with the second stage being either a lagoon or a holding pond 12 run off storage pond used only for collection of open-lot run off 13 other (*Specify*) _____
Code	**Code**	**Code**
0468	0469	0470

8. **Was an amendment added to manure prior to application, or to the field, in order to enhance nutrient efficiency or reduce environmental impacts?**
[*For example, aluminum or iron compounds, strong acids, nitrapyrin, or NBPT*]. . . . . **Yes = 1** CODE 0461

F PEST CONTROL APPLICATIONS---SELECTED FIELD F

1. **Were any products applied to this field in 2016, 2015, or 2014 to control weeds, insects, or diseases?** [**Include** herbicides, insecticides, fungicides, biocontrol agents, and other conventional or organic products]. . . . . .

	2016	2015	2014
Yes = 1 No = 3	0315	0345	0346
Edit Table	0344	0343	0342

ENUMERATOR ACTION: [*If pesticides applied in any year, continue. Complete table only for year(s) specified, else go to* ***Section G***.]

		CODE
2. **Did you use a pesticide product for the purpose of improving plant health as opposed to controlling a pest?**.	Yes = 1	0347
3. **Did you alter any of your pesticide applications specifically to protect honey bees and/or native pollinators?** (*For example, utilize an IPM program that specifically protects pollinators, only apply insecticides outside of the bloom period, only apply insecticides at night, etc.*). . .	Yes = 1	0348
4. **Were pesticides with different mechanisms of action rotated or tank mixed for the PRIMARY PURPOSE of keeping pests from becoming resistant to pesticides?**.	Yes = 1	0318
5. **Did you select and plant crop seeds that had been commercially treated with fungicides or insecticides?**.	Yes = 1	0349
6. **Did you select and plant crop cultivars with genetically engineered tolerances to specific herbicides such as glyphosate or glufosinate?**.	Yes = 1	0350

ENUMERATOR ACTION: Were any pest control products applied in 2016? [*If* ***Yes****, continue. If* ***No****, go to Item 8b*.]

7. **Other than cost and product effectiveness, did you consider any other factors in determining which pest control product to use in 2016?**

CODE 0351

☐ **Yes** – [*Enter 1 and continue.*] ☐ **No** – [*Enter 3, then go to Item 8a.*]. . . . . .

a. Which of the following factors did you consider – –

Source	(*Select all that apply*) Yes = 1
(i) Potential health risk to applicator or farm worker?.	0352
(ii) Risk to populations of beneficial organisms (earthworms, bees, ladybugs, etc.)?.	0353
(iii) Risk to natural resources (drinking water, wildlife, fish, etc.)?.	0354
(iv) Pest resistance management?.	0355
(v) Crop safety?.	0356
(vi) Other? (*specify)*_____	0357

ENUMERATOR NOTE: Were pest control products applied in 2016? [*If **Yes**, continue. If **No**, go to Item 8b.*]

8a. **Including both custom applications and applications made by this operation, list all the pest control products used on this field for the 2016 crop(s).**

[*Probe for applications made in the fall of 2015 (and those made earlier if this field was fallow) for the 2016 crop year.*]

***Include** herbicides, insecticides, fungicides, defoliants, growth regulators, microbial agents, miticides, nematicides, rodenticides, soil fumigants, and seed treatments.*

***Include** biological and botanical pest control products.*

***Exclude** fertilizers, adjuvants (e.g. wetting agents, stickers, spreaders, etc.).*

Office Use Lines in Table	TABLE 100	0399

PRODUCT NAME	LINE	1 Crop Year	2 Primary crop for which control agent was intended	3 Crop Code [*Enter crop code from Respondent Booklet pg. 3.*]	4 What products were applied to this field? [*Enter Product Code from Respondent Booklet pg. 9.*]	5 Was this product bought in liquid or dry form? [*Enter L or D.*]	6 Was this part of a tank mix? [*If tank mix, enter line number of first product in mix.*]
	01	60 **16**			61		63
	02	60 **16**			61		63
	03	60 **16**			61		63
	04	60 **16**			61		63
	05	60 **16**			61		63
	06	60 **16**			61		63
	07	60 **16**			61		63
	08	60 **16**			61		63
	09	60 **16**			61		63
	10	60 **16**			61		63
	11	60 **16**			61		63
	12	60 **16**			61		63
	13	60 **16**			61		63
	14	60 **16**			61		63
	15	60 **16**			61		63

[*For pest control products not listed in Respondent Booklet, specify --*]

Line	Pest Control Product Type (*Herbicide, Insecticide, Fungicide, etc.)*	EPA No. or Tradename and Formulation	Form Purchased (Liquid or Dry	Where Purchased [*Ask only if EPA No. cannot be reported.*]

APPLICATION CODES FOR COLUMN 11	
4 Seed furrow	21 Broadcast, ground, incorporated
5 Chemigation (in irrigation water)	31 Broadcast, aerial
6 Chisel/injected or knifed in	32 Broadcast, aerial, foliar
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	

LINE	7 **When was it applied?** **MMDDYY**	8 **How much was applied per acre per application**	**OR**	9 **What was the total amount applied per application in this field?**	10 [*Enter unit code.*] (*col. 8 or 9 only*) 1 Pounds 12 Gallons 13 Quarts 14 Pints 15 Liquid Ounces 28 Dry Ounces 30 Grams 40 Kilograms 41 Liters	11 **How was this product applied?** [*Enter code from above.*]	12 **Was this product applied to the entire field, to only a portion of the field, or as a spot treatment?** 1 Entire field 2 Part of field 3 Spot treatment 4 Entire field plus borders and buffers **CODE**	13 **How many acres in this field were treated with this product?** **ACRES**
01	83 _ _ _ _ _ _	65 _ _ . _ _		73 _ _ . _ _	74	76	84	77 _ _ . _
02	83 _ _ _ _ _ _	65 _ _ . _ _		73 _ _ . _ _	74	76	84	77 _ _ . _
03	83 _ _ _ _ _ _	65 _ _ . _ _		73 _ _ . _ _	74	76	84	77 _ _ . _
04	83 _ _ _ _ _ _	65 _ _ . _ _		73 _ _ . _ _	74	76	84	77 _ _ . _
05	83 _ _ _ _ _ _	65 _ _ . _ _		73 _ _ . _ _	74	76	84	77 _ _ . _
06	83 _ _ _ _ _ _	65 _ _ . _ _		73 _ _ . _ _	74	76	84	77 _ _ . _
07	83 _ _ _ _ _ _	65 _ _ . _ _		73 _ _ . _ _	74	76	84	77 _ _ . _
08	83 _ _ _ _ _ _	65 _ _ . _ _		73 _ _ . _ _	74	76	84	77 _ _ . _
09	83 _ _ _ _ _ _	65 _ _ . _ _		73 _ _ . _ _	74	76	84	77 _ _ . _
10	83 _ _ _ _ _ _	65 _ _ . _ _		73 _ _ . _ _	74	76	84	77 _ _ . _
11	83 _ _ _ _ _ _	65 _ _ . _ _		73 _ _ . _ _	74	76	84	77 _ _ . _
12	83 _ _ _ _ _ _	65 _ _ . _ _		73 _ _ . _ _	74	76	84	77 _ _ . _
13	83 _ _ _ _ _ _	65 _ _ . _ _		73 _ _ . _ _	74	76	84	77 _ _ . _
14	83 _ _ _ _ _ _	65 _ _ . _ _		73 _ _ . _ _	74	76	84	77 _ _ . _
15	83 _ _ _ _ _ _	65 _ _ . _ _		73 _ _ . _ _	74	76	84	77 _ _ . _

ENUMERATOR NOTE: Were pest control products applied in 2015? [*If **Yes**, continue. If **No**, go to Item 8c.*]

8b. **Including both custom applications and applications made by this operation, list all the pest control products used on this field for the 2015 crop(s).**

[*Probe for applications made in the fall of 2014 (and those made earlier if this field was fallow) for the 2015 crop year.*]

***Include** herbicides, insecticides, fungicides, defoliants, growth regulators, microbial agents, miticides, nematicides, rodenticides, soil fumigants, and seed treatments.*

***Include** biological and botanical control products.*

***Exclude** fertilizers, adjuvants (e.g. wetting agents, stickers, spreaders, etc.).*

Office Use Lines in Table	TABLE 200	0399

PRODUCT NAME	LINE	1 Crop Year	2 Primary crop for which control agent was intended	3 Crop Code [*Enter crop code from Respondent Booklet pg. 3.*]	4 What products were applied to this field? [*Enter Product Code from Respondent Booklet pg. 9.*]	5 Was this product bought in liquid or dry form? [*Enter L or D.*]	6 Was this part of a tank mix? [*If tank mix, enter line number of first product in mix.*]
	01	60 **15**			61		63
	02	60 **15**			61		63
	03	60 **15**			61		63
	04	60 **15**			61		63
	05	60 **15**			61		63
	06	60 **15**			61		63
	07	60 **15**			61		63
	08	60 **15**			61		63
	09	60 **15**			61		63
	10	60 **15**			61		63
	11	60 **15**			61		63
	12	60 **15**			61		63
	13	60 **15**			61		63
	14	60 **15**			61		63
	15	60 **15**			61		63

[*For pest control products not listed in Respondent Booklet, specify --*]

Line	Pest Control Product Type (*Herbicide, Insecticide, Fungicide, etc.*)	EPA No. or Tradename and Formulation	Form Purchased (Liquid or Dry)	Where Purchased [*Ask only if EPA No. cannot be reported.*]

APPLICATION CODES FOR COLUMN 11	
4 Seed furrow	21 Broadcast, ground, incorporated
5 Chemigation (in irrigation water)	31 Broadcast, aerial
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LINE	7 **When was it applied?** **MMDDYY**	8 **How much was applied per acre per application?**	**OR**	9 **What was the total amount applied per application in this field?**	10 [*Enter unit code.*] (*col. 8 or 9 only*) 1 Pounds 12 Gallons 13 Quarts 14 Pints 15 Liquid Ounces 28 Dry Ounces 30 Grams 40 Kilograms 41 Liters	11 **How was this product applied?** [*Enter code from above.*]	12 **Was this product applied to the entire field, to only a portion of the field, or as a spot treatment?** 1 Entire field 2 Part of field 3 Spot treatment 4 Entire field plus borders and buffers **CODE**	13 **How many acres in this field were treated with this product?** **ACRES**
01	83 __ __ __ __ __ __	65 ._ _		73 ._ _	74	76	84	77 ._
02	83 __ __ __ __ __ __	65 ._ _		73 ._ _	74	76	84	77 ._
03	83 __ __ __ __ __ __	65 ._ _		73 ._ _	74	76	84	77 ._
04	83 __ __ __ __ __ __	65 ._ _		73 ._ _	74	76	84	77 ._
05	83 __ __ __ __ __ __	65 ._ _		73 ._ _	74	76	84	77 ._
06	83 __ __ __ __ __ __	65 ._ _		73 ._ _	74	76	84	77 ._
07	83 __ __ __ __ __ __	65 ._ _		73 ._ _	74	76	84	77 ._
08	83 __ __ __ __ __ __	65 ._ _		73 ._ _	74	76	84	77 ._
09	83 __ __ __ __ __ __	65 ._ _		73 ._ _	74	76	84	77 ._
10	83 __ __ __ __ __ __	65 ._ _		73 ._ _	74	76	84	77 ._
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13	83 __ __ __ __ __ __	65 ._ _		73 ._ _	74	76	84	77 ._
14	83 __ __ __ __ __ __	65 ._ _		73 ._ _	74	76	84	77 ._
15	83 __ __ __ __ __ __	65 ._ _		73 ._ _	74	76	84	77 ._

ENUMERATOR NOTE: Were pest control products applied in **2014**? [*If **Yes**, continue. If **No**, go to **Section G**.*]

8c. **Including both custom applications and applications made by this operation, list all the pest control products used on this field for the 2014 crop(s).**

[*Probe for applications made in the fall of 2013 (and those made earlier if this field was fallow) for the 2014 crop year.*]

***Include** herbicides, insecticides, fungicides, defoliants, growth regulators, microbial agents, miticides, nematicides, rodenticides, soil fumigants, and seed treatments.*

***Include** biological and botanical pest control products.*

***Exclude** fertilizers, adjuvants (e.g. wetting agents, stickers, spreaders, etc.).*

Office Use Lines in Table	TABLE 300	0399

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	01	60 **14**			61		63
	02	60 **14**			61		63
	03	60 **14**			61		63
	04	60 **14**			61		63
	05	60 **14**			61		63
	06	60 **14**			61		63
	07	60 **14**			61		63
	08	60 **14**			61		63
	09	60 **14**			61		63
	10	60 **14**			61		63
	11	60 **14**			61		63
	12	60 **14**			61		63
	13	60 **14**			61		63
	14	60 **14**			61		63
	15	60 **14**			61		63

[*For pest control products not listed in Respondent Booklet, specify --*]

Line	Pest Control Product Type (*Herbicide, Insecticide, Fungicide, etc.*)	EPA No. or Tradename and Formulation	Form Purchased (Liquid or Dry)	Where Purchased [*Ask only if EPA No. cannot be reported.*]

APPLICATION CODES FOR COLUMN 11	
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LINE	7 **When was it applied?** **MMDDYY**	8 **How much was applied per acre per application?**	**OR**	9 **What was the total amount applied per application in this field?**	10 [*Enter unit code.*] (*col. 8 or 9 only*) 1 Pounds 12 Gallons 13 Quarts 14 Pints 15 Liquid Ounces 28 Dry Ounces 30 Grams 40 Kilograms 41 Liters	11 **How was this product applied?** [*Enter code from above.*]	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**
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03	83 _ _ _ _ _ _	65 ._ _		73 ._ _	74	76	84	77 ._
04	83 _ _ _ _ _ _	65 ._ _		73 ._ _	74	76	84	77 ._
05	83 _ _ _ _ _ _	65 ._ _		73 ._ _	74	76	84	77 ._
06	83 _ _ _ _ _ _	65 ._ _		73 ._ _	74	76	84	77 ._
07	83 _ _ _ _ _ _	65 ._ _		73 ._ _	74	76	84	77 ._
08	83 _ _ _ _ _ _	65 ._ _		73 ._ _	74	76	84	77 ._
09	83 _ _ _ _ _ _	65 ._ _		73 ._ _	74	76	84	77 ._
10	83 _ _ _ _ _ _	65 ._ _		73 ._ _	74	76	84	77 ._
11	83 _ _ _ _ _ _	65 ._ _		73 ._ _	74	76	84	77 ._
12	83 _ _ _ _ _ _	65 ._ _		73 ._ _	74	76	84	77 ._
13	83 _ _ _ _ _ _	65 ._ _		73 ._ _	74	76	84	77 ._
14	83 _ _ _ _ _ _	65 ._ _		73 ._ _	74	76	84	77 ._
15	83 _ _ _ _ _ _	65 ._ _		73 ._ _	74	76	84	77 ._

G PEST MANAGEMENT PRACTICES---SELECTED FIELD G

Now I have some questions about the pest management decisions and practices used on this field during the 2016 crop year. By pests, we mean INSECTS, WEEDS, and PLANT DISEASES.

1. **During 2016, how was this field primarily scouted for pests and/or beneficial organisms?. . . . . .**

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

. . . . . CODE 1701

2. **Was an established scouting process used in this field** (systematic sampling, recording counts, use of insect traps, etc.)?. . . . . **Yes = 1** 1702

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

   a. a pre-determined schedule or calendar?. . . . . **Yes = 1** 1773

   b. a pest development model based on degree days, maximum or minimum temperatures, or wetness?. . . . . **Yes = 1** 1703

   c. a pest advisory warning?. . . . . **Yes = 1** 1704

4. **Was this field scouted for:**

1	2 **Yes = 1**	3 [*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	4 [*If column 2 = **Yes**, Ask--*] **Based on the scouting report and compared to published threshold levels, rate the pest pressure as—** 1 Low 2 Medium 3 High
	CODE	**CODE**	**CODE**
a. weeds?.	1705	1709	1774
b. insects or mites?.	1706	1710	1775
c. diseases?.	1707	1711	1776
d. other? (*Specify*) _____	1708	1712	1777

CODE

5. **Was scouting for pests done in the field after a pest control application to evaluate degree of control?. . . . . Yes = 1** 1778

6. **Were either written or electronic records kept for this field to track the activity or numbers of weeds, insects, or diseases?. . . . . Yes = 1** 1713

7. **Were scouting data compared to published information on infestation thresholds to determine when to take measures to manage pests in this field?. . . . . Yes = 1** 1714

		CODE
8. **Were field mapping data used for making weed management decisions on this field?**	**Yes = 1**	1715
9. **Were the services of a diagnostic laboratory used for pest identification or soil or plant tissue pest analysis for this field?**	**Yes = 1**	1716

10. **Did you conduct any of the following activities for the crops grown in 2016 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**	1717
b. Alter crop rotation?	**Yes = 1**	1718
c. Maintain ground covers, mulches, or other physical barriers?	**Yes = 1**	1719
d. Use no-till or minimum till?	**Yes = 1**	1720
e. Adjust spacing or plant density?	**Yes = 1**	1721
f. Release beneficial organisms (insects, nematodes, fungi) in the field?	**Yes = 1**	1722
g. Chop, spray, mow, plow, or burn field edges, lanes, ditches, roadways or fence lines?	**Yes = 1**	1723
h. Grow a trap crop?	**Yes = 1**	1724
i. Clean equipment and field implements after completing field work?	**Yes = 1**	1725
j. Cultivate for weed control during the growing season?	**Yes = 1**	1727
k. Choose crop variety because of specific resistance to a pest?	**Yes = 1**	1728
l. Choose not to plant a crop in certain areas of the field to avoid a specific pest?	**Yes = 1**	1779
m. Adjust planting or harvesting dates?	**Yes = 1**	1730
n. Adjust grazing animal rotation(s), timing, or duration?	**Yes = 1**	3403

		CODE
11. **Were weather data used to assist in determining either the 'need for' or 'when to' apply a pest management practice?**	**Yes = 1**	1731
12. **Other than pesticide applicator training, have you (the operator) attended any training sessions on pest identification and management in the past 3 years?**	**Yes = 1**	1746
13. **Were floral lures, attractants, repellants, pheromone traps or other biological pest controls used on this field?**	**Yes = 1**	1756

Completion Code for Pest Management Data	
1 – Incomplete/Refusal	1700

H IRRIGATION---SELECTED FIELD H

ENUMERATOR NOTE: [*Ask ONLY if irrigation was reported in* ***Section C****. Cropping History and Conservation Practices, Item 13 =* ***Yes*** *on pages 8, 9, or 10. 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*] crop(s).**

   a. What type of irrigation system(s) were used to irrigate this field?

   [*Show System Type Codes in* ***Respondent Booklet pg. 26****. 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 irrigation season asthe Secondary System. If only 1 type of system was used, report under the Primary System and then skip to Item 1b.*]

		2016 SYSTEM TYPE	2015 SYSTEM TYPE	2014 SYSTEM TYPE
(i) Primary Irrigation System.	Code	1505	1506	1507
(ii) Secondary Irrigation System.	Code	1511	1513	1515
(iii) What was the estimated date that primary and secondary irrigation systems were switched?.	(MMDDYY)	1512 __ __ __ __ __ __	1514 __ __ __ __ __ __	1516 __ __ __ __ __ __

   b. Were any major changes made to the way the field was irrigated during the period 2014 – 2016? (**Include** irrigation system type, source of water, and major changes to scheduling or monitoring.). . . . . **Yes = 1** 1593

ENUMERATOR NOTE: [*If an irrigation system reported in 1a for any year is a gravity system (code 10-19) then continue; else, go to Item 4.*]

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

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

	2016	2015	2014
Primary System Code	1508	1509	1510
Secondary System Code	1517	1518	1519

		2016	2015	2014
3. **Did you take steps to allow for or encourage quicker water advance rates to the end of the field, such as shortening runs, furrow smoothing, higher flow rates, narrow checks, tailwater recovery systems, etc.?. . . . . .**	**Yes = 1**	1520	1521	1522
4. **Is the irrigation runoff from the field primarily:** [***See Respondent Booklet pg. 26 for codes***.]	**Code**	1536	1537	1538
5. **Do you know how much water you applied to the crop(s) in this field?**	**Yes = 1**	3404	3405	3406
6. **What was the total amount of water applied?. . . . . .**	**Inches per Acre**	3407	3408	3409

[*If* ***Yes****, continue. If* ***No****, go to Item 7.*]

7. **Is there a limit on water availability or supply for this field?. . . . . .** **Yes = 1** 1540

[*If* ***Yes****, continue. If* ***No****, go to Item 8.*]

   a. **If there is a water availability limit for irrigation, what is the maximum annual application amount ?** (If no maximum annual application amount, enter **99**). . . . **Inches** 1541 (Amount/Acre)

8. **Has the irrigation water supply been tested for either nitrogen content or salinity?. . . .** **Yes = 1** 1542

   [*If* ***Yes****, continue. If* ***No****, go to Question 9 on page 33.*]

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

	Salinity Test Value	Unit 1 = ppm 2 = mg/L 3 = microseimens/cm	Nitrate–Nitrogen (NO_3–N) Test Value	Unit 1 = ppm 2 = mg/L
a. Surface Water.	1543	1544	1547	1548
b. Groundwater.	1545	1546	1549	1550

ENUMERATOR NOTE: [If irrigation system reported in Item 1a, for any year, is a pressure system (code 1 – 9), then continue; else, go to Item 10.]

9. **Did you take steps to evaluate or improve the uniformity of water application of your pressure system?**. . . . . **Yes = 1** [1551]

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

a. Well?. . . . . **Yes = 1** [1552]

b. Irrigation district?. . . . . **Yes = 1** [1553]

c. River or stream?. . . . . **Yes = 1** [1554]

d. Other? Specify: _____ **Yes = 1** [1555]

[*If Item **10b = 1**, continue; else go to Item 12.*]

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

a. I receive it when it's my turn. . . . . **Yes = 1** [1556]

b. I receive it by calling one or more days ahead of when I want it. . . . . **Yes = 1** [1557]

c. I receive it any time I want it. . . . . **Yes = 1** [1558]

12. **Does the source of your water limit your selection of irrigation methods, such as a conversion to a pressurized system?**. . . . . **Yes = 1** [1559]

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

a. When plants appear dry or stressed?. . . . . **Yes = 1** [1560]

b. When indicated by the calendar or schedule of field operations?. . . . . **Yes = 1** [1561]

c. When water is available?. . . . . **Yes = 1** [1562]

d. On the surface soil appearance or feel, or general current climate observations?. . . . . **Yes = 1** [1563]

e. When a target "dryness" value, such as inches depleted, centibars of tension, percent remaining, etc., from soil moisture monitoring devices is reached?. . . . . **Yes = 1** [1564]

f. When a target water use value, such as inches of ET since last irrigation, from root zone water budget and current weather data (CIMIS) is reached?. . . . . **Yes = 1** [1568]

g. When a target measured plant stress level, such as pressure bomb, canopy temperature, etc., is reached?. . . . . **Yes = 1** [1569]

h. Other? Specify: _____ **Yes = 1** [1570]

14. **Which of the following are ways you decide how long or how much to run the water on each set?** (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** [1574]

b. Run times based on past experience and schedule of required field operations?. . . . . **Yes = 1** [1575]

c. Sets or blocks are changed when the target number of inches or gallons, per tree or vine, are applied? (May be calculated from the run time and flow rate.). . . . . **Yes = 1** [1576]

d. Other? Specify: _____ **Yes = 1** [1577]

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

a.	Irrigation district record, report, or bill?	**Yes = 1**	1579
b.	A flow measuring device?	**Yes = 1**	1580
c.	Measuring the flows to the field?	**Yes = 1**	1582
d.	Measuring the flows at the water supply?	**Yes = 1**	1583
e.	The runtime plus a known system application rate?	**Yes = 1**	1584
f.	A pump test flow rate and runtime?	**Yes = 1**	1585
g.	Other? Specify: _____	**Yes = 1**	1586

16. **Do you know how much water the crop(s) removed from the soil?** . . . . . **Yes = 1** 1587

[*If **Yes**, continue. If **No**, go to Item 18.*]

17. **How did you determine how much water the crop(s) removed from the soil?** (Select all that apply)

a.	The current (real-time) climate–based measurements such as CIMIS?	**Yes = 1**	1588
b.	Historic ET data through CIMIS, Cooperative Extension publications, etc.?	**Yes = 1**	1589
c.	Tracking root zone soil moisture changes with electronic probes or other devices?	**Yes = 1**	1590
d.	Other? Specify: _____	**Yes = 1**	1591

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

a.	Pre–planting irrigation to refill rootzone?	**Yes = 1**	1592
b.	Apply moisture for seed germination and emergence?	**Yes = 1**	1594
c.	Freeze protection or crop cooling?	**Yes = 1**	1595
d.	To apply fertilizer or other chemicals?	**Yes = 1**	1596
e.	Ground water recharge?	**Yes = 1**	1597
f.	Other? Specify: _____	**Yes = 1**	1598

19. **Were other practices used to improve water applications**? . . . . . **Yes = 1** 1533

[*If **Yes**, please list practices. **See Respondent Booklet pg. 26**.*]

1565	1566	1567

20. **During and after each irrigation, do you defer grazing animals from the field until soil is no longer saturated?** . . . . . **Yes = 1** 3410

21. **Do you manage irrigation to address salinity problems in this field?** . . . . . **Yes = 1** 1539

Completion Code for Irrigation	**2016**	**2015**	**2014**
	1504	1503	1502

I FIELD OPERATIONS---SELECTED FIELD I

1. **Including custom operations, I need to list the operations performed by hand or machines on this field for the 2016, 2015, and 2014 crop years.**
   - Begin with the first field operation for the 2016 crop (after harvesting of 2015 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 2016 crops.

Office Use Lines in Table	TABLE 100	0499

CHECK LIST

Include all field work done by hand or using machines for--

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

Exclude all field work done by hand or using machines for--

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

LINE	1 Crop Year YEAR	2 Sequence Number NUMBER	3 Was this part of a tandem operation? [If Yes, record the sequence order of equipment] CROP NAME	4 What crop was associated with this operation? CROP NAME	5 Crop Code [*Record from Resp. Book pg. 3.*] CODE	6 What operation or equipment was used on this field?	7 Machine Code [*Record from Respondent Booklet pg. 27.*] CODE	8 What was the timing of the field operation? MMDDYY	9 What was the depth of tillage for tillage/planting operations? INCHES
01	86 16	87	98				88	96 — — — — — —	97 .—
02	86 16	87	98				88	96 — — — — — —	97 .—
03	86 16	87	98				88	96 — — — — — —	97 .—
04	86 16	87	98				88	96 — — — — — —	97 .—
05	86 16	87	98				88	96 — — — — — —	97 .—
06	86 16	87	98				88	96 — — — — — —	97 .—
07	86 16	87	98				88	96 — — — — — —	97 .—
08	86 16	87	98				88	96 — — — — — —	97 .—
09	86 16	87	98				88	96 — — — — — —	97 .—
10	86 16	87	98				88	96 — — — — — —	97 .—
11	86 16	87	98				88	96 — — — — — —	97 .—
12	86 16	87	98				88	96 — — — — — —	97 .—
13	86 16	87	98				88	96 — — — — — —	97 .—
14	86 16	87	98				88	96 — — — — — —	97 .—
15	86 16	87	98				88	96 — — — — — —	97 .—
16	86 16	87	98				88	96 — — — — — —	97 .—

2016 EDIT FIELD OPERATIONS	3004

b. Now let's continue with the 2015 crop year.

- Begin with the first field operation for the 2015 crop (after harvesting of 2014 crop.)

Office Use Lines in Table	TABLE 200	0499

CHECK LIST

Include all field work done by hand or using machines for--

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

Exclude all field work done by hand or using machines for--

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

LINE	1 Crop Year YEAR	2 Sequence Number NUMBER	3 Was this part of a tandem operation? [If Yes, record the sequence order of equipment]	4 What crop was associated with this operation? CROP NAME	5 Crop Code [*Record from Resp. Book pg. 3.*] CODE	6 What operation or equipment was used on this field?	7 Machine Code [*Record from Respondent Booklet pg. 27.*] CODE	8 What was the timing of the field operation? MMDDYY	9 What was the depth of tillage for tillage/planting operations? INCHES
01	86 **15**	87	98				88	96 ———	97 .—
02	86 **15**	87	98				88	96 ———	97 .—
03	86 **15**	87	98				88	96 ———	97 .—
04	86 **15**	87	98				88	96 ———	97 .—
05	86 **15**	87	98				88	96 ———	97 .—
06	86 **15**	87	98				88	96 ———	97 .—
07	86 **15**	87	98				88	96 ———	97 .—
08	86 **15**	87	98				88	96 ———	97 .—
09	86 **15**	87	98				88	96 ———	97 .—
10	86 **15**	87	98				88	96 ———	97 .—
11	86 **15**	87	98				88	96 ———	97 .—
12	86 **15**	87	98				88	96 ———	97 .—
13	86 **15**	87	98				88	96 ———	97 .—
14	86 **15**	87	98				88	96 ———	97 .—
15	86 **15**	87	98				88	96 ———	97 .—
16	86 **15**	87	98				88	96 ———	97 .—

2015 EDIT FIELD OPERATIONS	3003

c. Please answer the following for the 2014 crop year.

- Begin with the first field operation for the 2014 crop (after harvesting of 2013 crop.)

Office Use Lines in Table	TABLE 300	0499

CHECK LIST

Include all field work done by hand or using machines for--

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

Exclude all field work done by hand or using machines for--

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

LINE	1 **Crop Year** **YEAR**	2 **Sequence Number** **NUMBER**	3 **Was this part of a tandem operation?** **[If Yes, record the sequence order of equipment]**	4 **What crop was associated with this operation?** **CROP NAME**	5 **Crop Code** [*Record from Resp. Book pg. 3.*] **CODE**	6 **What operation or equipment was used on this field?**	7 **Machine Code** [*Record from Respondent Booklet pg. 27.*] **CODE**	8 **What was the timing of the field operation?** **MMDDYY**	9 **What was the depth of tillage for tillage/planting operations?** **INCHES**
01	86 **14**	87	98				88	96 — — — — — —	97 .___
02	86 **14**	87	98				88	96 — — — — — —	97 .___
03	86 **14**	87	98				88	96 — — — — — —	97 .___
04	86 **14**	87	98				88	96 — — — — — —	97 .___
05	86 **14**	87	98				88	96 — — — — — —	97 .___
06	86 **14**	87	98				88	96 — — — — — —	97 .___
07	86 **14**	87	98				88	96 — — — — — —	97 .___
08	86 **14**	87	98				88	96 — — — — — —	97 .___
09	86 **14**	87	98				88	96 — — — — — —	97 .___
10	86 **14**	87	98				88	96 — — — — — —	97 .___
11	86 **14**	87	98				88	96 — — — — — —	97 .___
12	86 **14**	87	98				88	96 — — — — — —	97 .___
13	86 **14**	87	98				88	96 — — — — — —	97 .___
14	86 **14**	87	98				88	96 — — — — — —	97 .___
15	86 **14**	87	98				88	96 — — — — — —	97 .___
16	86 **14**	87	98				88	96 — — — — — —	97 .___

2014 EDIT FIELD OPERATIONS	3002

J WHOLE FARM 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, wetland, woodland and government program land.* ***Include*** *land in other states.*)

1. **During the 2016 crop year, how many total acres did this operation:** — **ACRES**

   a. own? . . . . . **+** 1901 ___.___

   b. rent **FROM** others? *(**Exclude** land used on an AUM basis.)*. . . . . **+** 1902 ___.___

   c. rent **TO** others? *(**Include** privately owned/rented land administered by a public agency through exchange-of-use.)*. . . . . **-** 1903 ___.___

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?

   ☐ **Yes –** [*Continue*] ☐ **No –** [*Make corrections, then continue.*]

ACRES

3. **Of the total (Item 2) acres operated, how many acres are considered cropland, including land in hay and cropland in government programs?**. . . . . 1905 ___.___

4. **Of the total (Item 2) acres operated, how many acres are considered pastureland?**. . . . . 1906 ___.___

K OPERATOR AND OPERATION CHARACTERISTICS K

1. **In 2016, was this operation's LEGAL STATUS . . . . . .**

   1 Individual (*Sole/family Proprietorship*)?
   2 A legal Partnership?
   3 A Family-held Corporation?
   4 A Non-family Corporation?
   5 Other, (*including estates, trusts and cooperatives)*?
   *Describe*_____

   . . . .

   CODE 1912

2. **In 2016, what was your (*the operator's*) major occupation?. . . . . .**

   1 Farm or ranch work
   2 Hired farm manager
   3 Something else
   4 Retired

   . . . .

   CODE 1913

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

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

   . . . .

   CODE 1914

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

   YYYY 1915 ___ ___ ___ ___

5. **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 2015.

   What code represents the total gross value of sales for this operation in 2015?

   ☐ 99 None during 2015
   ☐ 1 $1 - $999
   ☐ 2 $1,000 - $2,499
   ☐ 3 $2,500 - $4,999
   ☐ 4 $5,000 - $9,999
   ☐ 5 $10,000 - $24,999
   ☐ 6 $25,000 - $49,999
   ☐ 7 $50,000 - $99,999
   ☐ 8 $100,000 - $249,999
   ☐ 9 $250,000 - $499,999
   ☐ 10 $500,000 - $999,999
   ☐ 11 $1,000,000 - $2,499,999
   ☐ 12 $2,500,000 - $4,999,999
   ☐ 13 $5,000,000 and over

   . . . . . .

   CODE 1916

6. **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

1	GRAINS, OILSEEDS and DRY BEANS	9	HOGS and PIGS
2	TOBACCO	10	MILK and OTHER DAIRY PRODUCTS FROM COWS
3	COTTON and COTTONSEED	11	CATTLE and CALVES
4	VEGETABLES, MELONS and POTATOES	12	SHEEP, GOATS, and THEIR PRODUCTS
5	FRUIT TREES, NUTS, GRAPES, CITRUS, and BERRIES	13	HORSES, PONIES and MULES
6	NURSERY, GREENHOUSE, FLORICULTURE and SOD	14	POULTRY and EGGS
7	CUT CHRISTMAS TREES and SHORT WOODY CROPS	15	AQUACULTURE
8	OTHER CROPS and HAY, CRP and PASTURE	16	OTHER ANIMALS and OTHER ANIMAL PRODUCTS

CONCLUDE INTERVIEW and THANK the RESPONDENT

CONCLUSION

RECORDS USE

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

		CODE
a. ***fertilizer*** *data*?.	**Yes = 1**	0026
b. ***pest control*** *data*?.	**Yes = 1**	0027
c. ***manure*** *data*?.	**Yes = 1**	0028
d. ***livestock grazing*** *data*?.	**Yes = 1**	0035

		CODE
2. *Did the respondent use a Conservation Plan or Grazing Plan to complete* ***Section B****?*.	**Yes = 1**	0029

SUPPLEMENTS USED

3. *Record the total number of each type of supplement used to complete this interview*.. . . . . .

	NUMBER
FERTILIZER APPLICATIONS	0030
PEST CONTROL APPLICATIONS	0031
FIELD OPERATIONS	0032
MANURE APPLICATIONS	0033
CROP HISTORY SUPPLEMENT	0034

	MILITARY TIME HHMM
ENDING TIME [*MILITARY*].	0005 __ __ __ __

	TOTAL HOURS
	0006 ._____

9910	MM	DD	YY
Date:	__ __	__ __	__ __

Office Use Only

Response		Respondent		Mode		Enum.	Eval.	Change
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-Mail 2-Tel 3-Face-to-Face 4-CATI 5-Web 6-e-mail 7-Fax 8-CAPI 19-Other	9903	9998	9900	9985
								R. Unit 9921

Office Use for POID			
9989 __ __ __ - __ __ __ - __ __ __			
Optional Use			
9907	9908	9906	9916

S/E Name