

AGRICULTURAL RESOURCE MANAGEMENT SURVEY

DRAFT

OMB No. 0535-0218
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 Project Code: 906
 SMetaKey: 2038
 Phase II



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WHEAT PRODUCTION PRACTICES AND COSTS REPORT FOR 2017

VERSION	ID _____	TRACT 01	SUBTRACT ____	C-TYPE
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CONTACT RECORD		
DATE	TIME	NOTES

INTRODUCTION:
[Introduce yourself, and ask for the operator. Rephrase in your own words.]

We are collecting information on the practices and costs used to produce wheat and need your help to make the information as accurate as possible. The information you provide will be used for statistical purposes only. Your responses will be kept confidential and any person who willfully discloses ANY identifiable information about you or your operation is subject to a jail term, a fine, or both. This survey is conducted in accordance with the Confidential Information Protection provisions of Title V, Subtitle A, Public Law 107-347 and other applicable Federal laws. For more information on how we protect your information please visit: <https://www.nass.usda.gov/confidentiality>. Response to this survey is **voluntary**.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0535-0218. The time required to complete this information collection is estimated to average 65 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.

We encourage you to refer to your farm records during the interview.

BEGINNING TIME [MILITARY] H H M M

0004

SCREENING BOX

0006

[Name, address and partners verified and updated if necessary]

POID _____	POID _____
PARTNER NAME	PARTNER NAME
ADDRESS	ADDRESS
CITY STATE ZIP PHONE NUMBER	CITY STATE ZIP PHONE NUMBER
POID _____	POID _____
PARTNER NAME	PARTNER NAME
ADDRESS	ADDRESS
CITY STATE ZIP PHONE NUMBER	CITY STATE ZIP PHONE NUMBER



A

WHEAT FIELD SELECTION

A

1. **How many acres of wheat did this operation plant for the 2017 crop year?** *[If no acres planted, review Screening Survey Information Form, make notes, then go to item 4 on back page].....*

TOTAL PLANTED ACRES

0050	_____
------	-------

b. Of the total (item 1) acres, how many were planted as --

	TOTAL ACRES		NUMBER OF FIELDS
(i) Winter Wheat?	51 _____	+	3051
(ii) Durum Wheat?	52 _____	+	3052
(iii) Other Spring Wheat?	53 _____	+	3053

I will follow a simple procedure to make a random selection from the wheat fields planted for the 2017 crop.

TOTAL NUMBER OF FIELDS PLANTED

0020

2. **What is the TOTAL number of wheat fields that were planted on this operation?** *[If only one field enter "1" and go to item 5.].....*

3. **Please list these fields according to identifying name/number or describe each field, then I will tell you which field has been selected.**

[If there are more than 18 fields make sure item 2 is TOTAL fields planted, and list only the 18 fields closest to the operator's permanent residence. If respondent is unable to identify or describe the fields, use the Field Selection Grid Supplement.]

FIELD NAME, NUMBER OR DESCRIPTION

FIELD NAME, NUMBER OR DESCRIPTION

1 _____

2 _____

3 _____

4 _____

5 _____

6 _____

7 _____

8 _____

9 _____

10 _____

11 _____

12 _____

13 _____

14 _____

15 _____

16 _____

17 _____

18 _____

APPLY "RANDOM NUMBER" LABEL HERE

4. [ENUMERATOR ACTION: Circle the pair of numbers on the above label associated with the last numbered field in item 3. Select the field according to the number you circled on the label, and record the selected number. If only one field, enter 1.]

SELECTED FIELD NUMBER

0021

5. The field selected is _____ (field name/number/description).

During this interview, the wheat questions will be about this selected wheat field. [Be sure the operator can identify the selected field.]

6. For the randomly selected field above, please provide the Farm Service Agency (FSA):

- a. Farm Number (up to 8 digits)
b. Tract Number (up to 7 digits)
c. Field Number (up to 4 digits, exclude subfield letters)

1070
1071
1072

UNIT CODE
1 = WINTER WHEAT
2 = SPRING WHEAT
3 = DURUM WHEAT

7. In the randomly selected field (Item 4), what kind of wheat was planted in this field?

1073

OFFICE USE
OY Field Substituted

0022

B FIELD CHARACTERISTICS---SELECTED FIELD

B

1. How many acres of wheat did this operation plant in this field for the 2017 crop? ACRES
1301

a. Are the acres in this field **CERTIFIED ORGANIC**? YES = 1 CODE
1300

[If **NO**, skip 1b and ask item 2.]

b. What was the cost, per acre, for third party organic certification? 1891

2. Were the acres in this field --
 1 owned by this operation?
 2 rented for CASH with the payment being a fixed cash amount?
 3 rented for CASH with the payment being a flexible cash amount?
 4 rented for a SHARE of the crop?
 5 rented for some combination of CASH and SHARE of the crop?
 6 used RENT FREE?
 CODE
1302

3. [If field is CASH RENTED (item 2 = 2, 3 or 5), ask item 3, else go to item 4.]
 What was the cash rent paid per acre for this 2017 wheat field? DOLLARS & CENTS PER ACRE
1303

4. [If field is SHARE RENTED (item 2 = 4 or 5), ask--]
 What was the landlord's share of the crop from this field? PERCENT
1304

5. [If field is RENTED (item 2 = 2, 3, 4, or 5), ask--]
 What was the total cost for all inputs provided by any landlord for the 2017 crop on the selected field? (Include the costs for all inputs, such as seed, fertilizer, chemicals, technical services, custom operations, drying and irrigation. Exclude real estate tax expenses and lime costs paid by the landowner.) DOLLARS & CENTS PER ACRE
1305 OR TOTAL DOLLARS
1306

6. What was the total cost for all inputs provided by any contractor for the 2017 crop on the selected field? (Include the costs for all inputs, such as seed, fertilizer, chemicals, technical services, custom operations, drying and irrigation.) DOLLARS & CENTS PER ACRE
1309 OR TOTAL DOLLARS
1310

7. What year did you (the operator listed on the label) start operating this field? YEAR
1312

8. On what date was this field planted? MM DD YY
1308

a. What was your yield goal at planting for this field? BUSHELS PER ACRE
1311

b. When planted, was this wheat field planted with the intention of --- (Include wheat planted for commercial seed contract under other uses.)
 1 Dual purpose (grain and grazing)?
 2 Harvesting for grain only?
 3 Grazing only?
 4 Cover crop?
 5 Other uses [Specify: _____]
 CODE
3117

9. What was the source of the wheat seed?

1 Purchased?
2 Homegrown or traded?
3 Both?

CODE

1317

[If item 9 = 2 or 3, ask--]

DOLLARS & CENTS PER POUND

1321

a. What was the cost per pound for cleaning and treating this seed?

[If item 9 = 2 or 3, ask--]

PERCENT

b. How much of the wheat seed planted in this field was grown (or received in trade) by this operation?

1318

UNIT CODE

- 1 = POUNDS
- 2 = CWT
- 3 = TONS
- 4 = BUSHEL
- 22 = ACRE
- 23 = 50 LB BAGS

10. [If any seed purchased (item 9 = 1 or 3), ask --]

What was the total cost per unit (including both your and the landlord's share) of purchased seed for this field? (Include cost of seed treatment.)

DOLLARS & CENTS PER UNIT

1319	1320
------	------

UNIT CODE

- 1 = POUNDS/ACRE
- 2 = CWT/ACRE
- 3 = TONS/ACRE
- 4 = BUSHEL/ACRE
- 23 = 50 LB BAGS/ACRE

NUMBER OF UNITS

11. What was the seeding rate per acre the first time this field was planted?

1313	2314
------	------

ACRES

12. How many acres in this field had to be replanted to wheat? (Acres replanted = Number of acres x Number of times replanted.)

1315

13. Did you plant an herbicide resistant wheat (such as Clearfield) seed variety on this field---

CODE

a. for harvest in 2017?

YES = 1

1403

b. for harvest in 2016?

YES = 1

1402

14. For the 2017 wheat crop, did you purchase pre-treated seed or have the seed treated after purchase with a fungicide or insecticide?

CODE

YES = 1

--

[If item 14 is yes, ask 14a]

CODE

a. Enter the appropriate product code from the Respondent Booklet (Page _____) (enter 3 if a seed treatment was not applied, 999 if a seed treatment was applied but the product is not listed.)

2325

CODE

YES = 1

15. Has harvest of this field been completed?

1328

16. Please report the following information about the acres harvested (or to be harvested) and the yields from this field.

How many acres in this wheat field were (or will be)---	1		2
	ACRES	UNITS PER ACRE	UNIT CODE
a. harvested for grain?	1346 _____	1347 _____	1348 1 Pounds 2 CWT 3 Tons 4 Bushels
b. harvested for hay, silage or green chop?	1349 _____	1350 _____	TONS
c. harvested for commercial seed contract?	1431 _____	1432 _____	1433
d. abandoned?	1351 _____		
e. used for some other purpose?	1439 _____		

17. Was straw harvested from this field?

YES - [Enter code 1 and continue.]

NO - [Go to item 19.]

CODE
1520

18. How many acres of wheat straw were harvested from this wheat field?

ACRES
1521

a. How many tons of wheat straw were harvested from these wheat acres (item 18)?

TOTAL TONS
1522

$\frac{\text{_____}}{\text{Tons per Acre}} \times \frac{\text{_____}}{\text{Acres}} = \frac{\text{_____}}{\text{Total Tons}}$ OR $\frac{\text{_____}}{\text{Bales}} \times \frac{\text{_____}}{\text{Lbs per Bale}} \div \frac{2000}{\text{Lbs per Ton}} = \frac{\text{_____}}{\text{Total Tons}}$

b. Of the total wheat straw harvested from this field (item 18a), what was the landlord's share of the wheat straw?

PERCENT OR TONS
1523 1524

c. What was the total cost of baler twine/wire used to bale the wheat straw from this field? (Include landlord's share.)

TOTAL DOLLARS
1525

d. [If any wheat straw was sold, ask---]

What was the price received per ton for all wheat straw (item 18a) sold from this field?

DOLLARS & CENTS PER TON
1526

19. What type of livestock grazed this wheat field during the 2017 crop year? (Include livestock grazing before wheat harvest and livestock "grazing-out" the field instead of harvesting wheat).

1 Cattle
2 Sheep
3 Other [Specify: _____]
4 Not grazed

CODE
3147

[If Item 19 is 4, go to Item 20, otherwise ask --]

a. About how many head of livestock (item 19) grazed this wheat field?

HEAD
1362

b. How many days did this livestock graze on this wheat field?

DAYS
1363

c. Was this wheat field "grazed-out" instead of harvested for grain? YES = 1

CODE
3060

d. Were the livestock that grazed this wheat field owned by this operation? YES = 1

[If livestock NOT owned by this operator grazed on this field, ask--]

e. What is the total dollar amount received from others for livestock grazing on this field? (Include landlord's share).

DOLLARS & CENTS PER ACRE
3150
. ____

OR

TOTAL DOLLARS
3151

CROP CODE LIST for item 20 – PREVIOUSLY PLANTED CROPS

190 Barley	3 Dry Beans	21 Rice	193 Tobacco, burley
85 Canola	17 Dry Peas	22 Rye	196 Tobacco, flue cured
310 Clover	311 Grasses other than clover	98 Safflower	42 Vegetables
6 Corn for grain	1 Hay, alfalfa	25 Sorghum for grain	163 Wheat, durum
5 Corn for silage	11 Hay, all other	24 Sorghum for silage	164 Wheat, other spring
282 Cotton, Pima	94 Mustard Seed	26 Soybeans	165 Wheat, winter
281 Cotton, Upland	15 Oats	28 Sugarbeets	Perennial from previous year
302 CRP	16 Peanuts	30 Sunflowers	318 No crop planted during this period
320 Cultivated Fallow	20 Potatoes	31 Sweet Potatoes	

20. Please report what crops were previously PLANTED on the majority of this field, including cover crops.

1 What crops were PLANTED on this field in---			2 Was this a cover crop?	How did you manage this crop?	Was this field irrigated?	Was this field no-tilled or strip-tilled?
SEASON AND YEAR	CROP NAME	CROP CODE	YES = 1	1 Plowed-in 2 Chisled-in 3 Chemical-killed 4 Rolled 5 Grazed 6 Harvested 7 Disked	YES = 1	1/ YES = 1
a. FALL of 2016?		1343	1470	1471	2344	1345
b. SPRING/SUMMER of 2016?		1369	1472	1473	2370	1371
c. FALL of 2015?		1372	1474	1475	2373	1374
d. SPRING/SUMMER of 2015?		1375	1476	1477	2376	1377
e. FALL of 2014?		1378	1478	1479	2379	1380
f. SPRING/SUMMER of 2014?		1381	1480	1481	2382	1383
g. FALL of 2013?		1366	1482	1483	2367	1368
h. SPRING/SUMMER of 2013?		1340	1484	1485	2341	1342

^{1/} No-till means leaving soil and previous crop residue undisturbed from harvest to planting. Strip-till means tilling a narrow strip over the row, leaving soil and previous crop residue between the rows undisturbed.

[If a cover crop was planted in Spring/Summer/Fall 2016, ask--]

**DOLLARS & CENTS
PER ACRE**

i. What was the seed cost per acre for the cover crop?.....

1468	__	__
------	----	----

21. Which of the following resource concerns do you have on this field?

RESOURCE CONCERNS	CODE YES = 1	Have you received technical assistance from any of the following sources to evaluate this resource concern? (Report up to 3 sources that you received assistance from.)		
		Source 1	Source 2	Source 3
a. Water-driven erosion.	2407	2417	2427	2437
b. Wind-driven erosion.	2408	2418	2428	2438
c. Soil compaction.	2409	2419	2429	2439
d. Poor drainage.	2410	2420	2430	2440
e. Low organic matter.	2411	2421	2431	2441
f. Water quality.	2412	2422	2432	2442
g. Other concerns.	2413	2423	2433	2443
h. No significant concerns.	2414	2424	2434	2444

22. Which of the following conservation practices or plans are used on this field?

1 CONSERVATION PRACTICES or PLANS	2 Was this practice or plan used in 2017? YES = 1	3 In which year did you first use this practice or plan on this field? YEAR	4 Have you ever received at any time --		5 Does this practice or plan help satisfy? CODE
			Technical or planning assistance? 1 USDA including funding of Technical Service Providers 2 Soil Conservation District or State Agency 3 Other Sources of Outside Assistance 4 No assistance needed CODE	Financial assistance? 1 Environmental Quality Incentives Program (EQIP)? 2 Conservation Reserve Program (CRP)? 3 Conservation Stewardship Programs (CSP)? 4 Other Federal, State, Local program 5 No assistance needed CODE	
a. Conservation tillage [include No-till/Direct seeding, mulch till, and ridge till]	706	1449	726	736	746
b. Cover crops [include grasses, legumes, forbs, or other herbaceous plants for seasonal cover and conservation].	707	617	727	737	747
c. Structural practices to conserve soil? [include grass waterways, terraces, grade stabilization, contour buffer strips, etc.]	708	618	728	738	748
d. Nitrogen application practices? [Include splitting nitrogen applications 50 % after crop emergence, applying nutrients 30 days prior to planting, precision application of nutrients, or using controlled release fertilizer]	709	619	729	739	749
e. Conservation plan specifying practices to reduce soil erosion?.	702	612	722	732	742
f. Nutrient management plan specifying practices for __ Fertilizer application __ Manure application.	703	613	723	733	743
g. Pest management plan to implement Integrated Pest Management (IPM) to control weeds, insects, or disease?. . .	704	614	724	734	744
h. Irrigation water management plan specifying irrigation practices?.	705	615	725	735	745

23. Is this field included in an existing conservation program contract through any of the following programs for which you or the landlord have received (or expect to receive) cost sharing payments, stewardship payments, or incentive payments?

		CODE
a. Environmental Quality Incentives Program (EQIP)?.....	YES = 1	2236
b. Conservation Security or Conservation Stewardship Programs (CSP)?.....	YES = 1	2240
c. Conservation Reserve Program (CRP)?.....	YES = 1	2244
d. Other Federal, State, Local or non-government source?.....	YES = 1	2248

24. During the last four years, did you apply for conservation funding, either through any Federal, State, or local program, for this field? YES = 1 2357

[If Item 24=1, go to Item 26---]

25. If you did not apply for conservation program funding for this field in the past four years, what were your reasons?

	Don't Know	Not a Reason	Minor Reason	Major Reason	CODE
a. I was not aware of USDA or other conservation programs.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	2358
b. I am not aware of environmental problems on this field.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	2359
c. Payments are not high enough.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	2360
d. Government standards make practices more expensive than they need to be to get the job done.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	2361
e. My offer would not have been accepted because my farm is not eligible or my fields would not have ranked high enough.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	2362
f. The application process and documenting compliance is too complicated and time consuming.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	2363
g. It was too difficult to obtain the technical assistance needed to prepare an application..	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	2365

26. During the past 4 years, was this field included in an application that was rejected or has not yet been funded? YES = 1

27. Has the Natural Resource Conservation Service (NRCS) classified any part of this field as "Highly Erodible"? (Cropland identified as highly erodible is subject to highly erodible land conservation (HELC) requirements. Producers who receive farm program payments are required to have (and apply) a written soil conservation plan.) (A "written plan" is a plan prepared in accordance with Federal, State, or district standards.)

CODE
1404

28. Have you been notified by NRCS that this field contains a wetland?

1405

1	Nearly level (0-2%)
2	Even, Moderate grade (3-9%)
3	Variable, Moderate grade
4	Even, steep grade (over 10%)
5	Variable, Steep grade
<hr/>	
1	Loam
2	Clay
3	Sandy
4	Mixed

29. What is the slope of this field.

CODE

2400

30. What is the primary soil type of this field

CODE

2401

31. Did the land use practices for this field include subsurface drainage?

YES = 1 CODE

2402

[If YES, ask--]

YEAR

2403

a. In what year was the subsurface drainage installed?

INCHES

2604

b. What is the average depth of your drainage system?

2605

c. What is the diameter of your tiles?

HOURS

2606

d. On average, how many hours does it take your field to return to normal soil moisture levels following a heavy storm?

e. Does this system include a mechanism for controlled drainage (e.g. stop logs, risers, or float mechanisms)? YES = 1

2406

32. Was the wheat in this field covered by a crop hail insurance policy? YES = 1

CODE

--

[If Yes, ask--]

DOLLARS & CENTS PER ACRE

--

a. What was the dollar amount of coverage per acre for the hail insurance policy covering this field?

PERCENT

--

b. What was the percent deductible for the hail insurance policy covering this field? (Record no deductible as 0%)

DOLLARS &

--

c. What premium did you pay for the hail insurance policy covering this field?

33. Was the wheat in this field covered by Federal Crop Insurance in 2017?

YES – [Enter code 1 and continue.] NO – [Go to Section C.]

CODE

1385

a. Which coverage did you obtain?

- | | |
|---|---|
| 1 | Federal CAT (Basic catastrophic insurance) |
| 2 | Yield based (Individual) |
| 3 | Yield plus SCO (Supplemental Coverage Option) |
| 4 | Revenue based (Individual) |
| 5 | Revenue plus SCO (Supplemental Coverage Option) |
| 6 | Other Federal Crop insurance |

CODE

1386

b. [If item a = 2 or 3, ask--]

PERCENT

What was your yield level of your buy-up coverage for this field?

1387

What was your price level of your buy-up coverage for this field?

1388

c. [If item a = 4 or 5, ask--]

PERCENT

What was the level of revenue coverage you obtained for this field?

1389

C NUTRIENT or FERTILIZER APPLICATIONS---SELECTED FIELD

C

1. **Were commercial nutrients or fertilizers applied to this field for the 2017 wheat crop? (Include those from operators, landlords, and contractors.)**

YES = 1

CODE	EDIT TABLE
0202	0200

[If COMMERCIAL nutrient or fertilizer applied, continue; else go to item 6.]

2. **How many commercial nutrient or fertilizer applications were made to this field for the 2017 crop? (Include applications made by airplanes and custom applicators.)**

NUMBER
0203

3. **Now I need to record information for each application.**

CHECKLIST

<p style="text-align: center;">INCLUDE</p> <p><input checked="" type="checkbox"/> Custom applied nutrients and fertilizers</p> <p><input type="checkbox"/> Nutrients or fertilizers applied for this crop.</p> <p><input type="checkbox"/> Commercially prepared manure or compost</p>	<p style="text-align: center;">EXCLUDE</p> <p><input type="checkbox"/> Micronutrients</p> <p><input type="checkbox"/> Unprocessed manure</p> <p><input type="checkbox"/> Nutrients or fertilizers applied to previous crops in this field</p> <p><input type="checkbox"/> Lime and Gypsum/landplaster</p>
---	--

Office Use Lines in Table	TABLE 001	0299
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APPLICATION CODES for COLUMN 6	
1 Broadcast, ground without incorporation	5 In irrigation water
2 Broadcast, ground with incorporation	6 Chisel/Injected or knifed in
3 Broadcast, by aircraft	7 Banded in or over row
4 In seed furrow	8 Foliar or directed spray

L I N E	2 MATERIALS USED				3 What quantity was applied per acre?	4 [Enter material code.]	5 When was this applied?	6 How was this applied?	7 How many acres were treated in this application?
	N Nitrogen	P₂O₅ Phosphate	K₂O Potash	S Sulfur	[Leave this column blank if actual nutrients were reported.]	1 Pounds 12 Gallons 19 Pounds of actual nutrients	1 More than one month before seeding 2 Between one day and one month before seeding 3 At seeding 4 After seeding	[Refer to code list above.]	ACRES
01	31	32	33	34	36	37	38	39	40
02	31	32	33	34	36	37	38	39	40
03	31	32	33	34	36	37	38	39	40
04	31	32	33	34	36	37	38	39	40
05	31	32	33	34	36	37	38	39	40
06	31	32	33	34	36	37	38	39	40
07	31	32	33	34	36	37	38	39	40
08	31	32	33	34	36	37	38	39	40

TABLE 000	LINE 00
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4. **Were any nutrients or fertilizers applied by custom applicators?**

YES - [Continue] **NO** - [Go to item 5]

a. Are you able to report the cost of nutrient or fertilizer materials and custom application separately?

YES - [Continue] **NO** - [Go to item 5]

OFFICE USE

0215

b. Excluding the cost of the nutrient or fertilizer materials, how much was spent for custom application of nutrients or fertilizers on this field? (*Include operator, landlord, and contractor costs. Include costs for sulfur and micronutrients. Exclude custom application of lime, gypsum, purchased manure and purchased compost.*) [If material and application costs can't be separated, **exclude** them here and record the total in item 5].

DOLLARS & CENTS PER ACRE	OR	TOTAL DOLLARS
0219 _____		0220

5. **What was the TOTAL COST of all nutrient or fertilizer products applied to this field?** (*Include operator, landlord, and contractor costs, as well as the costs for sulfur and micronutrients. Include materials applied to this field if it was fallow in 2016. Exclude lime, gypsum, purchased manure and purchased compost.*) [If custom applied and the cost of material can be separated from application costs, **include** the cost of materials **ONLY**; otherwise, **include** both the material and application costs].

DOLLARS & CENTS PER ACRE	OR	TOTAL DOLLARS
0221 _____		0222

6. **Was gypsum applied to this field for the 2017 wheat crop?** **YES = 1**

CODE

0218

7. **Was a soil test for Soil Organic Matter performed on this wheat field at some point in the last 10 years?** **YES = 1**

3225

a. [If Item 7 = 1, ask---]

What was the percentage of Soil Organic Matter on the field for the most recent test?

PERCENT

3226 _____

b. How many times have you tested this field for Soil Organic Matter in the last ten years?

NUMBER

3227

[If answer to 7b. is more than 1 ask]

c. Based on these tests, is your Soil Organic Matter content

1 Increasing
2 Decreasing
3 Staying roughly the same

CODE

3228

8. **Was a soil or plant tissue test performed on this wheat field in 2016 or 2017 for the 2017 crop?**

YES [Continue.] **NO** [Go to item 13.]

9. **Was a soil test for phosphorus performed on this wheat field in 2016 or 2017 for the 2017 crop?** **YES = 1**

CODE

0225

a. [If Item 9 = 1, ask---]

How many pounds of phosphorus (*per acre*) were recommended (*by the phosphorus test*)?

POUNDS PER ACRE

0226

10. **Was a soil test for nitrogen performed on this wheat field in 2016 or 2017 for the 2017 crop?** **YES = 1**

CODE

0227

a. [If Item 10 = 1, ask---]

How many pounds of nitrogen (*per acre*) were recommended (*by the nitrogen test*)?

POUNDS PER ACRE

0228

11. Was a plant tissue test or leaf analysis for nutrient deficiency performed on this field in 2016 or 2017 for the 2017 crop? CODE
0229
YES = 1

12. How much was spent for these soil and plant tissue tests on this field? (Include operator, landlord, and contractor costs.) DOLLARS & CENTS PER ACRE OR TOTAL DOLLARS
0230 0231

[If tests were done at no cost continue; otherwise go to Item 12b]

a. What is the reason why tests were done at no cost? --- CODE
0232

1 Soil/plant tissue test provided free of charge by dealer, crop consultant, or extension service.

2 Soil/plant tissue test costs were included in the total fertilizer costs reported in item 5.

3 Some other reason

b. Did you receive a payment from the Conservation Stewardship Program for performing a stalk or leaf tissue test for Nitrogen application? YES = 1
3231

[ENUMERATOR ACTION: Refer to the Fertilizer Table, column 2. If nitrogen (N) was applied, complete item 13. If NO nitrogen applied, go to item 14.]

13. Was the amount of nitrogen you decided to apply to this field based on---

		CODE
a. Results of a soil or plant tissue test?	YES = 1	0233
b. Crop consultant recommendation?	YES = 1	0234
c. Fertilizer dealer recommendation?	YES = 1	0235
d. Extension Service recommendation?	YES = 1	0236
e. Cost of nitrogen and/or expected commodity price?	YES = 1	0237
f. Contractor recommendation?	YES = 1	0238
g. Routine practice (operator's own determination based on past experience, yield goal, etc.)?	YES = 1	0239

14. Is lime ever applied to this field? CODE
0242
YES = 1

[If no lime applied, go to item 15; else continue.]

a. On average, how many years are there between applications of lime to this field? YEARS
0243

b. How many tons of lime were applied per acre the last time it was applied to this field? TONS PER ACRE
0244

c. Was lime applied to this field in 2016 or 2017 for the 2017 crop? CODE
0240
YES = 1

[If field is rented (Section B, item 2 = 2, 3, 4, or 5), ask---

d. Considering the last time it was applied, what percent of the total cost of lime and its application was paid by the landlord(s)? PERCENT
0245

15. Was non-commercial manure (from own farm, from a neighbor's farm, etc.) or other organic material (excluding compost) applied to this field for the 2017 wheat crop? (Exclude commercially prepared manure.)

YES - [Enter code 1 and continue]

NO - [Go to item 17].

CODE
0246

ACRES
0247

a. How many acres in this field was manure applied to?

b. What was the amount of manure applied to this field?

- 1 Tons
- 2 Gallons
- 3 Bushels

CODE		UNITS PER ACRE	OR	TOTAL
0248	AND	0249		0250

c. Of the total manure applied to this field for the 2017 crop, what was the percent of manure applied---

- (i) in the fall before planting? +
- (ii) in the spring before planting? +
- (iii) after planting? +

PERCENT

0254
0255
0256

100%

d. Was the manure---

- 1 Lagoon liquid?
- 2 Slurry liquid?
- 3 Semi-dry or dry?

CODE

0257

e. Was the manure---

- 1 Broadcast or sprayed *without* incorporation?
- 2 Broadcast or sprayed *with* incorporation?
- 3 Injected/knifed in?
- 4 Sprayed using irrigation systems?

CODE

0258

f. Was the major source of the manure from---

- 1 Beef cattle?
- 2 Dairy cattle?
- 3 Hogs?
- 4 Sheep?
- 5 Poultry?
- 6 Equine?
- 7 Biosolids (*municipal sludge*)?
- 8 Food waste?
- 9 Other? [*Specify: _____*]

CODE

0259

g. Was the manure---

- 1 Produced on this operation?
- 2 Purchased?
- 3 Obtained at no cost off this operation?
- 4 Obtained with compensation? (*Operator received payment for accepting the manure.*)

CODE

0260

(i) [*If item 15i = 2, ask---*]

What was the total cost of the purchased manure applied to this field? (*Include operator, landlord, and contractor costs. Include any payment made for transportation costs.*)

	DOLLARS & CENTS PER ACRE	TOTAL DOLLAR S
	0284	0285

(ii) Did you hire someone to custom apply the manure? YES = 1 CODE
0286

(a) [If YES, ask---]

What was the total cost paid to have manure custom applied to this field? [Do not report custom application cost if it was included with the purchased manure cost.].....

DOLLARS & CENTS PER ACRE	OR	TOTAL DOLLARS
028 7		0288

h. Of the manure applied to this field, was any tested for nutrient content prior to application? YES = 1 CODE
0261

16. Were the manure APPLICATION RATES to this field influenced by Federal, State, or local restrictions? YES = 1 CODE
0264

a. [If item 16 is YES, ask---]

What basis was used to determine these manure application rate restrictions--

(i) Nitrogen requirement of the crop? YES = 1 CODE
0265

(ii) Phosphorus requirement of the crop? YES = 1 CODE
0266

17. Was compost applied to this field for the 2017 wheat crop?
 YES - [Enter code 1 and continue] NO - [Go to item 18]. CODE
0267

a. How many acres in this field was the compost applied? ACRES
0268

b. What was the amount of compost applied to this field? CODE
0269 AND UNITS PER ACRE
0270 OR TOTAL UNITS
0271

c. Were the major sources of the compost from--- [Enter up to 3 source codes]

1 Beef cattle?	AND	UNITS PER ACRE	OR	TOTAL UNITS
2 Dairy cattle?				
3 Hogs?				
4 Sheep?				
5 Poultry?				
6 Equine?				
7 Biosolids (municipal sludge)?				
8 Food waste?				
9 Crop? [Specify: _____]				
10 Other? [Specify: _____]				

FIRST 0281

SECOND 0282

THIRD 0283

d. Was the compost--- 0272

1 Produced on this operation?
2 Purchased?
3 Obtained at no cost off this operation?
4 Obtained with compensation? (Operator received payment for accepting the compost.)

(i) [If item 17d = 2, ask---]

What was the total cost of the purchased compost applied to this field? (**Include** operator, landlord, and contractor costs and any payment made for transportation costs.)

DOLLARS & CENTS PER ACRE

OR

TOTAL DOLLARS

0273

0274

CODE

0275

(ii) Did you hire someone to custom apply the compost? YES = 1

[If YES, ask---]

(a) What was the total cost paid to have compost custom applied to this field? (**Include** operator, landlord, and contractor costs.) [Do not report custom application cost if it was included with the compost cost].

DOLLARS & CENTS PER ACRE

OR

TOTAL DOLLARS

0276

0277

D BIOCONTROL or PESTICIDE APPLICATIONS---SELECTED FIELD

D

Now I have some questions about all the biocontrols or pesticides used on this field for the 2017 wheat crop, including both custom applications and applications made by this operation.

CODE	EDIT TABLE
0302	0300

1. **Were any herbicides, insecticides, fungicides or other biocontrols or pesticides used on this wheat field for the 2017 crop?..... YES = 1**

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

If no biocontrols or pesticides applied, go to Section E.

Include defoliants, fungicides, herbicides, insecticides, and other pesticides. Include biological and botanical pesticides.	Exclude nutrients or fertilizers reported earlier and seed treatments.
---	---

OFFICE USE LINES IN TABLE	TABLE 001	0399
------------------------------	--------------	------

CHEMICAL PRODUCT NAME	LINE	2	3	4	5	6	OR	7	8	
		What products were applied to this field? <small>[Show product codes from Respondent Booklet.]</small>	Was this product bought in liquid or dry form? <small>[Enter L or D]</small>	Was this part of a tank mix? <small>[If tank mix, enter line number of first product in mix.]</small>	When was this applied? 1 BEFORE planting 3 AT planting 4 AFTER Planting	How much was applied per acre per application?		What was the total amount applied per application in this field?	<small>[Enter unit code.]</small> 1 Pounds 12 Gallons 13 Quarts 14 Pints 15 Liquid Ounces 28 Dry Ounces 30 Grams	
	01	61		63	64	65	_____	73	_____	74
	02	61		63	64	65	_____	73	_____	74
	03	61		63	64	65	_____	73	_____	74
	04	61		63	64	65	_____	73	_____	74
	05	61		63	64	65	_____	73	_____	74
	06	61		63	64	65	_____	73	_____	74
	07	61		63	64	65	_____	73	_____	74
	08	61		63	64	65	_____	73	_____	74
	09	61		63	64	65	_____	73	_____	74
	10	61		63	64	65	_____	73	_____	74
	11	61		63	64	65	_____	73	_____	74
	12	61		63	64	65	_____	73	_____	74
	13	61		63	64	65	_____	73	_____	74
	14	61		63	64	65	_____	73	_____	74

2. [For biocontrols or pesticides not listed in Respondent Booklet, specify--]

LINE	Pesticide Type <small>(Herbicide, Insecticide Fungicide, etc.)</small>	EPA No. or Trade name and Formulation	Form Purchased <small>(Liquid or Dry)</small>	Where Purchased <small>[Ask ONLY if EPA No. cannot be reported.]</small>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

3. **Were any chemicals, biocontrols, or pesticides applied by custom applicators?**

- YES** – [Continue] **NO** – [Go to item 4]

a. Are you able to report the cost of chemical, biocontrol, and pesticide products and custom application separately?

OFFICE USE
0324

- YES** – [Continue] **NO** – [Go to item 4]

b. Excluding the cost of the chemical, biocontrol, and pesticide products, how much was spent for custom application of such materials on this field? (**Include operator, landlord, and contractor costs.**)

DOLLARS & CENTS PER ACRE	OR	TOTAL DOLLARS
0331		0332
. _ _		

4. **What was the TOTAL COST of all chemical, biocontrol, or pesticide products applied to this field? (*Include operator, landlord, and contractor costs for defoliant, herbicides, insecticides, fungicides, surfactants, wetting agents, growth regulators, and materials applied before planting and during 2016 fallow period. Exclude seed treatments.*)**

DOLLARS & CENTS PER ACRE	OR	TOTAL DOLLARS
0334		0335
. _ _		

a. How much was spent for **herbicide** products applied to this field? (**Include operator, landlord, and contractor costs.**)

DOLLARS & CENTS PER ACRE	OR	TOTAL DOLLARS
3034		3035
. _ _		

b. How much was spent for **insecticide** products applied to this field? (**Include operator, landlord, and contractor costs.**)

DOLLARS & CENTS PER ACRE	OR	TOTAL DOLLARS
3036		3037
. _ _		

NOTE 1: If respondent cannot report TOTAL COST, itemize cost for each product in optional columns in Biocontrol or Pesticide Table.

NOTE 2: If custom applied and the costs for materials can be separated from application costs, include the cost for materials only. Otherwise, report both the material and application costs in item 4.

Notes:

E PEST MANAGEMENT PRACTICES---SELECTED FIELD

Now I have some questions about your pest management decisions and practices used on this field for the 2017 wheat crop. By pests, we mean WEEDS, INSECTS, and DISEASES.

ENUMERATOR ACTION: *Were PESTICIDE applications reported in Section D?*

- YES** – [Continue]
- NO** – [Go to item 6]

- | | | CODE |
|---|---------|------|
| 1. Was weather data used to assist in determining either the need or when to make pesticide applications? | YES = 1 | 0800 |
| 2. Were any biological pesticides such as Bt (<i>Bacillus thuringiensis</i>), insect growth regulators, neem or other natural/biological based products sprayed or applied to manage pests in this field? | YES = 1 | 0801 |
| 3. 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 | 0802 |

[ENUMERATOR ACTION: *Were HERBICIDE (pesticide product codes 40000-49999) applications reported in Section D, item 1, column 2?*

- YES** – [Continue]
- NO** – [Go to item 6]

- | | | |
|--|---------|------|
| 4. Were herbicides applied to this wheat field BEFORE weeds emerged? | YES = 1 | 0803 |
| 5. Were herbicides applied to this wheat field AFTER weeds emerged? | YES = 1 | 0805 |

- | | | | | |
|---|---|-------|------|------|
| 6. In 2017, how was this field primarily scouted for insects, weeds, diseases, and/or beneficial organisms? | 1 By deliberately going to the field specifically for scouting activities [Enter code 1 and go to item 7.]
2 By conducting general observations while performing routine tasks [Enter code 2 and go to item 9.]
3 This field was not scouted. [Enter code 3 and go to item 14.] | | CODE | 0808 |
|---|---|-------|------|------|

- | | | |
|--|---------|------|
| 7. Was an established scouting process (systematic sampling, recording counts, etc.) used or were insect traps used in this field? | YES = 1 | 0809 |
|--|---------|------|

- | | | |
|--|---------|------|
| 8. Was scouting for pests done in this field due to--- | | |
| a. a pest advisory warning? | YES = 1 | 0810 |
| b. a pest development model? | YES = 1 | 0811 |

- | | | CODE |
|---|---------|------|
| 9. Were records kept for this field to track the activity or numbers of weeds, insects or diseases? | YES = 1 | 0823 |

- | | | |
|---|---------|------|
| 10. Did you use published information on infestation thresholds to determine when to take measures to manage pests in this field? | YES = 1 | 0824 |
|---|---------|------|

1		2	3
		[If YES, ask---] What was the infestation level for [column 1]?—	[If column 1 = YES, ask---] Who did the majority of the scouting for [column 1]?
		1 Worse than normal 2 Normal 3 Less than normal	1 Operator, partner or family member 2 An employee 3 Farm supply or chemical dealer 4 Independent crop consultant or commercial scout
11 Was this wheat field scouted for--		YES = 1	CODE
		CODE	CODE
a. Weeds?.....	0812	0813	0814
b. Insects or mites?.....	0815	0816	0817
c. Diseases?.....	0818	0819	0820

[If scouted by crop consultant or commercial scout, ask item 12; else go to item 13.]

12. How much was charged for the scouting services for this field?
[Include operator, landlord and contractor cost.].....

	DOLLARS & CENTS PER ACRE	OR	TOTAL DOLLARS
	0821		0822

a. If scouting performed at no cost, explain:_____

	OFFICE USE
	0333

13. Did you use field mapping of previous weed problems to assist you in making weed management decisions?..... YES = 1

	0825
--	------

14. **Did you do any of the following other type(s) of pest management practices for the specific purpose of managing or reducing the spread of pests in this field?**

[Enter code "1" for all that apply.]

		CODE
a.	Use the services of a diagnostic laboratory for pest identification or soil plant tissue pest analysis for this field?	0841
	YES = 1	
b.	Plow down crop residue (<i>using conventional tillage</i>)?	0842
	YES = 1	
c.	Remove/burn down crop residue?	0843
	YES = 1	
d.	Rotate crops in this field during the past three years?	0844
	YES = 1	
e.	Maintain ground covers, mulches, or other physical barriers?	0845
	YES = 1	
f.	Choose crop variety because of specific resistance to a certain pest?	0846
	YES = 1	
g.	Use no-till or minimum till?	0847
	YES = 1	
h.	Plan planting locations to avoid cross infestation of pests?	0848
	YES = 1	
i.	Adjust planting or harvesting dates?	0849
	YES = 1	
j.	Chop, spray, mow, plow, or burn field edges, lanes, ditches, roadways, or fence lines?	0850
	YES = 1	
k.	Clean equipment and field implements after completing field work to reduce the spread of pests?	0851
	YES = 1	
l.	Adjust row spacing, plant density or row directions?	0852
	YES = 1	
m.	Have the seed treated for insect or disease control after you purchased the seed for this field?	0854
	YES = 1	
n.	Maintain a beneficial insect or vertebrate habitat?	0855
	YES = 1	
o.	Maintain buffer strips or border rows to isolate organic wheat from non-organic crops or land, or did you take a buffer harvest?	0856
	YES = 1	
p.	Use a flamer to kill weeds?	0857
	YES = 1	
q.	Plant earlier or later to avoid weeds?	0865
	YES = 1	
15.	Were any beneficial organisms (insects, nematodes, fungi) applied or released in this field to manage pests?	0853
	YES = 1	
16.	Were floral lures, attractants, repellants, pheromone traps or other biological pest controls used on this field?	0858
	YES = 1	

a. [If item 15 or item 16 is YES, ask--]

What were the TOTAL materials and application costs for all biological pest controls for this field?

Include operator, landlord, and contractor costs. Include cost for beneficial organisms (insects, nematodes, and fungi). Exclude biological pesticides previously reported.

DOLLARS & CENTS PER ACRE	OR	TOTAL DOLLARS
0859		0860

- CODE**
17. Was a trap crop (excluding fallow) grown to help manage insects in this field? YES = 1 0863
18. Was this field left in fallow in 2016 to help manage insects on this field? YES = 1 0864
19. Were water management practices such as irrigation scheduling, controlled drainage, or treatment of retention water used on this field to manage pests or toxin-producing fungi and bacteria? YES = 1 0861
20. Was protection of beneficial organisms a factor in your pest control decisions for this field? YES = 1 1765

[If Item 20 is YES, continue. Else go to Item 21.]

- CODE**
- a. Did you change timing of, reduce application rate of, or eliminate a pesticide application? YES = 1 1766
- b. Did you change to an alternative pesticide, biocontrol, or non-pesticide practice? YES = 1 1767
21. Did pests (weeds, insects, diseases, animals) cause any yield loss on this field in spite of your pest control efforts? YES = 1 0827

[If YES, ask--]

a. How much yield loss do you think was caused by all pests on this field in spite of the management practices you used to reduce those losses?

	CODE		UNITS PER ACRE		TOTAL UNITS
1 BUSHELS 2 TONS	828	AND	829	OR	830

Completion Code for Pest Management Data	
1 Incomplete/Refusal	0500

1. Including custom operations, I need to list field work performed by machines on this field for the 2017 wheat crop. Please...

- ▶ begin with the first field operation after harvest of previous crop, including operations for a cover crop established since the previous crop was harvested [if fallow during 2016, list operations starting with fall 2015];
- ▶ list the operations in order through harvest and hauling of this crop to storage or first point of sale; and
- ▶ maintain the order of tandem hook-ups.

CODES FOR COLUMN 5	
1	You (the Operator)
2	Partner
3	Unpaid Worker
4	Paid Part-time or Seasonal Worker
5	Paid Full-time Worker
6	Custom Applicator

OFFICE USE
LINES IN TABLE
0499

CHECK LIST	
Include	all field work using machines for---
<input type="checkbox"/>	Land Forming/Levee Building
<input type="checkbox"/>	Tillage
<input type="checkbox"/>	Preparing for Irrigation
<input type="checkbox"/>	Planting
<input type="checkbox"/>	Fertilizer & Pesticide applications
<input type="checkbox"/>	Harvesting & Hauling wheat & wheat straw to storage or first point of sale
Exclude	
<input type="checkbox"/>	Lime & Gypsum/landplaster applications
<input type="checkbox"/>	Non-Commercial Manure applications & Compost

LINE No.	SEQUENCE No.	3 What operation or equipment was used?	4 [Record machine code from Respondent Booklet.] CODE	5 Who was the machine operator- [Enter code from above.] CODE	[IF CUSTOM (column 5 = code 6), skip columns 6-11]					
					6 What was the size or swath of the [machine] used? CODE	7 [Record size unit code.] 1 Feet 2 Row 3 Moldboard (bottoms) Hauling 4 Pounds 5 Bushels 6 Tons CODE	8 How many acres were covered? [Exclude land forming and hauling operations] ACRES	OR	9 How many TOTAL HOURS were spent on land forming and hauling? [Example: backhoes, disk border maker, ditcher, rear mounted blade, trucks, wagons, forklifts, etc.] HOURS	10 Which Power Source was used? ^{1/} Tractors: 1= (<40 HP) 2= (40-99 HP) 3= (100-149 HP) 4= (150-199 HP) 5= (>=200 HP) Other: 66=Animal Drawn 77=Pick up 99=Self Propelled 1/ CODE
01	87		88	89	90	91	92	93	94	95
02	87		88	89	90	91	92	93	94	95
03	87		88	89	90	91	92	93	94	95
04	87		88	89	90	91	92	93	94	95
05	87		88	89	90	91	92	93	94	95
06	87		88	89	90	91	92	93	94	95
07	87		88	89	90	91	92	93	94	95
08	87		88	89	90	91	92	93	94	95
09	87		88	89	90	91	92	93	94	95
10	87		88	89	90	91	92	93	94	95
11	87		88	89	90	91	92	93	94	95
12	87		88	89	90	91	92	93	94	95
13	87		88	89	90	91	92	93	94	95
14	87		88	89	90	91	92	93	94	95
15	87		88	89	90	91	92	93	94	95
16	87		88	89	90	91	92	93	94	95
17	87		88	89	90	91	92	93	94	95
18	87		88	89	90	91	92	93	94	95

^{1/} If trucks other than pick-ups are used as the power source, use truck codes in Respondent Booklet.

OFFICE USE

0400

2. **Now I need some additional information about your labor.**

Please report the paid and unpaid labor that worked on this field to produce the 2017 wheat crop.
 (*Exclude labor that was reported for field work performed by machines.*)

TYPE OF WORKERS	1 How many hours did (type of worker) spend on this field---		
	a.	b.	c.
	scouting for weeds, insects and diseases? HOURS	irrigating? HOURS	performing other work by hand? HOURS
You (the operator)	1101	1102	1103
Partner(s)	1104	1105	1106
Unpaid workers	1107	1108	1109
Paid part-time or seasonal workers (<i>Exclude custom and contract labor</i>)	1110	1111	1112
Paid full-time workers (<i>Exclude custom and contract labor</i>)	1113	1114	1115

3. **What was the average hourly wage rate paid to part-time or seasonal hired workers?**
 (*Exclude custom and contract workers, payroll taxes and benefits.*)
- DOLLARS & CENTS
PER HOUR
- 1119
._ _
4. **What was the average hourly wage rate paid to full-time hired workers?**
 (*Exclude custom and contract workers, payroll taxes and benefits.*)
- DOLLARS & CENTS
PER HOUR
- 1118
._ _
5. **Was any contract labor used on this field?** YES = 1
- CODE
- 1116
- a. [*If YES, ask ---*]
- What was the average cost per acre for this contract labor?
 (*Include operator, landlord, and contractor costs.*)
- DOLLARS & CENTS
PER ACRE
- 1117
._ _
6. **What percent of the total number of unpaid hours worked on this field was performed by workers under 16 years of age?** (*Estimates of labor costs for unpaid workers are based on off-farm wage rates, which are different for workers under 16 relative to those 16 and older.*)
- PERCENT
- 1120

7. Now I need some information on how much was spent (or will be spent) for custom services used on this field for the 2017 wheat crop.

1 CUSTOM SERVICE Which of the following services were performed for the 2017 wheat crop on this field?	2 Including operator, landlord, and contractor costs, how much was spent for [column 1] on this field for the 2017 wheat crop? DOLLARS & CENTS PER ACRE
✓ ← [Check box for each service performed; refer to item 1 if necessary.]	
<input type="checkbox"/> a. Custom land preparation, and/or shaping $\frac{\text{---.---}}{\text{---.---}} \times \frac{\text{---.---}}{\text{---.---}} = \frac{\text{---.---}}{\text{---.---}} \div \frac{\text{---.---}}{\text{---.---}} = \text{---.---}$ (Cost per hour X Total hours = Total dollars ÷ Total acres in the field = Dollars & cents per acre)	1121 .---
<input type="checkbox"/> b. Custom cultivating	1122 .---
<input type="checkbox"/> c. Custom planting and/or reseedling	1123 .---
<input type="checkbox"/> d. Custom harvesting	1124 .---
<input type="checkbox"/> e. Custom hauling to storage or point of first sale $\frac{\text{---.---}}{\text{---.---}} \times \frac{\text{---.---}}{\text{---.---}} \div \frac{\text{---.---}}{\text{---.---}} = \text{---.---}$ (Dollars & cents per unit x Total units hauled from field ÷ Acres harvested in field = Dollars & cents per acre) . .	1126 .---
<input type="checkbox"/> f. Custom harvesting and hauling from field to storage or point of first sale $\frac{\text{---.---}}{\text{---.---}} \times \frac{\text{---.---}}{\text{---.---}} \div \frac{\text{---.---}}{\text{---.---}} = \text{---.---}$ (Dollars & cents per unit x Total units hauled from field ÷ Acres harvested in field = Dollars & cents per acre) . .	1127 .---
<input type="checkbox"/> g. Custom raking, baling, and hauling the straw from this field $\frac{\text{---.---}}{\text{---.---}} \times \frac{\text{---.---}}{\text{---.---}} \div \frac{\text{---.---}}{\text{---.---}} = \text{---.---}$ (Dollars & cents per unit x Total units hauled from field ÷ Acres harvested in field = Dollars & cents per acre)	1128 .---

8. Was the wheat harvested and hauled from this field dried (or will be dried) before it was sold or stored?

CODE
YES = 1

9. Did you hire any technical or consultant services to make recommendations (such as for nutrient, pest control, irrigation, or precision farming) for this field?

YES – [Continue] NO – [Go to item 11]

Which of the following services did you obtain?

	CODE
a. Nutrient recommendations/management service? YES = 1	1129
b. Soil or tissue sample collection? YES = 1	1130
c. Pest control recommendations/management service? YES = 1	1131
d. Pest scouting? YES = 1	1132
e. Irrigation management service (i.e. irrigation scheduling)? YES = 1	1133
f. Yield map or remote sensing map development/interpretation? YES = 1	1134
g. Other custom or technical service? [Specify: _____] YES = 1	1135

10. If YES to any of these services, what was the cost for all of these services? (Include operator, landlord, and contractor costs. Exclude cost of soil/tissue tests or scouting cost reported earlier. Do not report costs for any of these services if they were previously reported as part of the costs of materials and/or application.)

DOLLARS & CENTS PER ACRE	OR	TOTAL DOLLARS
1136		1137

CODE
2460

11. Were there (or will there be) any data collection tools (yield monitors, GPS mapping, etc) used during field operations on this wheat field? YES = 1

[If YES, continue; else go to item 12]

Please report the data collection technologies you used on this field to produce this crop. Also indicate if the data is collected with Global Positioning System (GPS) coordinates and if the data will be used to create a map.

Data Collection Tool	1 Tool Used YES = 1	2 Collected with GPS YES = 1	3 Data was/will be mapped to create a map YES = 1
a. Yield monitor.	2461	2462	2463
b. Soil tests on core samples (performed on-farm or sent out to a laboratory)	2464	2465	2466
c. Soil sensor tests	2467	2468	2469
d. Hard-wired crop condition sensors.	2470	2471	2472
e. Wireless crop condition sensors.	2473	2474	2475
f. Drones, aircraft or satellites.	2476	2477	2478
g. Custom service applications (data from completed work on your field)	2479	2480	2481
h. Public data downloaded from the online sources.	2482	2483	2484

12. Please report how your farm data will be stored and accessed. [Enter code "1" for all that apply.]

a. Did you access the data collected from this field on a	CODE
1. Paper hard copy. YES = 1	2485
2. Personal computer. YES = 1	2486
3. Mobile device. YES = 1	2487
b. Did you access the data collected from this field through an agricultural technology provider website? YES = 1	2488

[If item 12b = 1 continue, otherwise go to Item 13]

c. Did you opt-out of your agricultural technology provider website sharing data collected from this field with any third party?	YES = 1	2489
d. Did you share any of the data collected from this field with a third party through an agricultural technology provider website?	YES = 1	2490

13. Did you obtain crop management recommendations (data interpretation) based on that data you collected from [Enter code "1" for all that apply.]

CODE

a. Input dealers?	YES = 1	2491
b. Integrated input providers?	YES = 1	2492
c. Custom Service providers?	YES = 1	2493
d. USDA/University extension services?	YES = 1	2494

14. Did you use the yield monitor information to--- [Enter code "1" for all that apply.]

CODE

a. monitor crop moisture content to determine need for crop drying?	YES = 1	1140
b. add/improve tile drainage?	YES = 1	1141
c. negotiate new crop leases?	YES = 1	1144
d. other uses [specify:] _____	YES = 1	1147

15. Was any of the following GPS-enabled (Global Positioning System) equipment used to produce crops on this field? [Enter code "1" for all that apply.]

CODE

a. Guidance auto-steering (excluding Light Bar)?	YES = 1	2148
b. Light Bar?	YES = 1	2149
c. Variable rate application for seeding?	YES = 1	1158
d. Variable rate application for fertilizer/lime?	YES = 1	1152
e. Variable rate application for pesticide applications?	YES = 1	1159
f. "Smart" technologies like Google Glass or other heads-up cab control displays?	YES = 1	2150
g. Other GPS-enabled equipment.	YES = 1	1151
h. Any farming-specific apps for phones and tablets?	YES = 1	

IRRIGATION

ACRES

1. How many acres in this field were irrigated for the 2017 wheat crop?

[If none, go to **Conclusion**].

1160

2. Now, I have some questions about irrigation systems and water used on this field for the 2017 wheat crop.

		UNIT	SYSTEM 1	SYSTEM 2
↓				
a. What type(s) of irrigation system(s) was (or were) used to irrigate this field? [Show System Type Codes in the Respondent Booklet. Enter System Type Code for up to two systems covering the most field acres.]		SYSTEM TYPE CODE	1161	1175
b. What was the total quantity of water applied to this field during the entire growing season? (Include ALL water used from both on-farm and off-farm sources.)		INCHES PER ACRE OR TOTAL ACRE-FEET	1162	1176
			1163	1177
[If operator cannot provide item 2b, ask (i) & (ii), else go to 2c]				
(i) What is the total number of hours this system was used to apply water to this field during the wheat growing season?		TOTAL HOURS	1164	1178
(ii) How many gallons per minute were applied?		GALLONS PER MINUTE	1165	1179
c. What percent of the water used to irrigate this field through this system came from surface water sources?		PERCENT	1166	1180
d. What was the number of times this field was irrigated during the wheat growing season using this system? (Include any pre-plant irrigation.)		NUMBER OF IRRIGATIONS	1167	1181
e. Was the pump type--- [If more than one pump in the system, enter type for pump closest to water source.]	1 TURBINE? 2 SUBMERSIBLE? 3 CENTRIFUGAL? 4 BOOSTER? 5 SIPHON? 99 NO PUMP? [If code 99, go to item j.]	CODE	1168	1182
f. What was the average pumping rate?		GALLONS PER MINUTE	1169	1183
g. [If item 2a = code 1-9 (PRESSURE SYSTEM), ask---] What was the system operating pressure?		POUNDS PER SQUARE INCH	1170	1184
h. What was the primary motor type used to pump the water?	1 DIESEL 2 GASOLINE 3 LP GAS 4 NATURAL GAS 5 ELECTRICITY 6 SOLAR POWER	CODE	1171	1185
i. What was the average motor size?		HORSEPOWER	1172	1186
j. [If NO PUMP was used (item 2e = 99), ask---] What was the average flow rate?		GALLONS PER MINUTE	1173	1187
k. How many other acres on this operation were irrigated using this field's irrigation system during the 2017 growing season? (Exclude this field.)		ACRES	1174	1188

3. What was the cost of the fuel or electricity used to irrigate this field? (**Include operator, landlord, and contractor costs.**)

	DOLLARS & CENTS PER ACRE	OR	TOTAL DOLLARS
	1189		1190

4. **Was any water purchased to irrigate this field?** (*Include landlord's share and purchases from all sources.*)

YES – [Enter code 1 and continue.] **NO** – [Go to item 5].

CODE
1191

a. What was the total cost for the water purchased for this field during the 2017 growing season? (*Include operator, landlord, and contractor costs and ditch maintenance costs for this field.*)

DOLLARS & CENTS PER ACRE **OR TOTAL DOLLARS**
1193 1194

5. [If SIPHON TUBES were used (item 2a = 10 or 11), ask---]
What would be the total cost to replace all the siphon tubes used on this field?

TOTAL DOLLARS
1201

6. [If POLY PIPE system was used (item 2a = 14) ask---]
What was the total amount spent for poly pipe used on this field during the 2017 growing season? (*Include operator, landlord, and contractor costs.*)

TOTAL DOLLARS
1202

7. [If GATED PIPE system was used (item 2a = 15 or 16), ask---]

a. What was the average diameter of gated pipe used to irrigate this field?

INCHES
1203

b. What was the total length of gated pipe used?

FEET
1204

8. **Were wells used to supply irrigation water for this field?**

YES – [Enter code 1 and continue] **NO** – [Go to item 9].

CODE
1205

a. How many wells were used to irrigate this field?

NUMBER
1206

b. What was the average diameter of the outer well casing?

INCHES
1207

c. What was the average pumping depth of these wells during the irrigation season? [*Pumping depth is the depth to water at the start of the irrigation season, plus an average decline in the water level caused by pumping during the irrigation season.*]

FEET
1208

d. Were other fields irrigated using water pumped from wells that supplied water to the selected field?

YES – [Enter code 1 and continue] **NO** – [Go to item 9].

CODE
1210

e. Excluding this field, how many other acres on this operation were irrigated using the same wells during the 2017 growing season?

ACRES
1211

9. **Was any additional mainline or lateral pipe used to carry water from the source to the system in this field?** (*Include underground pipe. Exclude any system pipe within the selected field.*)

YES – [Continue] **NO** – [Go to Section H]

a. What was the average diameter (*in inches*) of the most common type of this additional pipe used?

INCHES
1212

b. How many feet of this additional pipe were used to bring water to this field?

FEET
1213

Notes:

H

CONCLUSION

H

LOCATION OF SELECTED FIELD

I need to locate the selected field of wheat on this map.

1. What county is the selected wheat field in?

COUNTY NAME

OFFICE USE
COUNTY FIPS CODE

0010

Field description

LATITUDE

LONGITUDE

Field location

N

0054

W

0055

2. [ENUMERATOR ACTION: Mark map to indicate where the selected wheat field is located. Be sure the "X" marked on map is in the county identified above.]

3. We will need additional information to complete this study. We will contact you in February or March 2018 to collect it. I'll call you then to set up a time that is good for you.

4. To receive the complete results of this survey on the release date, go to www.nass.usda.gov/results/. Would you rather have a brief summary mailed to you at a later date?

YES = 1

CODE

9990

HH MM

0005

5. ENDING TIME [MILITARY]

RECORDS USE

6. [Did respondent use farm/ranch records to report---]

a. [fertilizer data?]

YES = 1

b. [pesticide data?]

YES = 1

c. [majority of this expense data?]

YES = 1

CODE

0011

0012

0013

NUMBER

0041

SUPPLEMENTS USED

7. [Record the total number of each type of supplement used to complete this interview.]

FERTILIZER APPLICATIONS

0042

PESTICIDE APPLICATIONS

0043

FIELD OPERATIONS

Reported by: _____

9910

M M D D 17

9911

Telephone: (____) _____

OFFICE USE

R. Unit	Ptr 1 Str	Ptr 2 Str	Ptr 3 Str	Ptr 4 Str	OPS	SSO 1	ADJ	Optional Use		
9921	9922	9923	9927	9928	923	9907	922	9906	9916	
Response		Respondent		Mode		Enum.	POID			
1-Comp 2-R 3-Inac 4-Office Hold		9901	1-Op/Mgr 2-Sp 3-Acct/Bkpr 4-Partner 9-Other	9902	2-Tel 3-Face-to-Face	9903	9998	9989		
								Eval.	Change	
								9900	9985	