

AGRICULTURAL RESOURCE MANAGEMENT SURVEY

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 Phase II



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WINTER WHEAT PRODUCTION PRACTICES AND COSTS REPORT FOR 2017

VERSION 31	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 practices and costs to produce winter 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 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.

<p style="text-align: center;">H H M M</p> <p>BEGINNING TIME <input style="width: 100px; height: 20px;" type="text" value="0004"/> [MILITARY]</p>	<p>SCREENING BOX</p> <p><input style="width: 100px; height: 20px;" type="text" value="0006"/></p>
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[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

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

(i) Winter Wheat.....

TOTAL ACRES

0051

NUMBER OF FIELDS

3051	+
------	---

(ii) Durum Wheat?.....

0052

3052	+
------	---

(iii) Other Spring Wheat?.....

0053

3053	+
------	---

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

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

TOTAL NUMBER OF FIELDS PLANTED

0020

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 _____

10 _____

2 _____

11 _____

3 _____

12 _____

4 _____

13 _____

5 _____

14 _____

6 _____

15 _____

7 _____

16 _____

8 _____

17 _____

9 _____

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).

NUMBER
1070
1071
1072
TYPE CODE
1 = WINTER WHEAT
2 = SPRING WHEAT
3 = DURUM WHEAT
1073

7. In the randomly selected field (Item 4), what kind of wheat was planted in this field?
(If selected field is not winter wheat, go back to Item 2 to collect winter wheat fields.).

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.] DOLLARS & CENTS PER ACRE
1891

b. What was the cost per acre, for third party organic certification? CODE
1302

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?
 DOLLARS & CENTS PER ACRE
1303

3. [If field is **CASH RENTED** (item 2 = 2, 3 or 5), ask item 3, else go to item 4.] PERCENT
1304

What was the cash rent paid per acre for this 2017 wheat field? DOLLARS & CENTS PER ACRE OR TOTAL DOLLARS
1305 1306

4. [If field is **SHARE RENTED** (item 2 = 4 or 5), ask--] DOLLARS & CENTS PER ACRE OR TOTAL DOLLARS
1309 1310

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) YEAR
1312

5. [If field is **RENTED** (item 2 = 2, 3, 4, or 5), ask--] YEAR
1312

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.) YEAR
1312

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

MM DD YY

1308

8. On what date was this field planted?

BUSHEL PER ACRE

1311

a. What was your yield goal at planting for this field?

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

3321

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

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

- UNIT CODE
- 1 = POUND
- 2 = CWT
- 3 = TON
- 4 = BUSHEL
- 22 = ACRE
- 23 = 50 LB BAG

DOLLARS & CENTS PER UNIT

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

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.)

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

UNITS

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

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

ACRES

1315

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

CODE

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

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? YES = 1 CODE
3062

[If item 14 is yes, ask 14a]

a. Enter the appropriate product code from the Respondent Booklet (Page 2) (enter 999 if a seed treatment was applied but the product is not listed)..... CODE
2325

15. Has harvest of this field been completed? YES = 1 CODE
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
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? CODE
1520
 YES - [Enter code 1 and continue] NO - [Go to item 19].

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

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

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

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

19. What type of livestock grazed this wheat field during the 2017 crop year?

CODE

3147

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

HEAD

1362

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

DAYS

1363

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

CODE

3060

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

YES = 1

3061

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--]

DOLLARS & CENTS PER ACRE

OR

TOTAL DOLLARS

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

3150 .__ __

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?	3 How did you manage this cover crop?	4 Was this field irrigated?	5 Was this field no-tilled or strip-tilled? 1/
SEASON AND YEAR	CROP NAME	CROP CODE	YES = 1	CODE	YES = 1	YES = 1
a. FALL of 2016?	Winter Wheat	1343 165	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 or Fall 2016, ask--]

DOLLARS & CENTS PER ACRE

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

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

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?
			Technical or planning assistance?	Financial 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	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	1 A federal regulatory requirement? 2 A state or local regulatory requirement? 3 USDA conservation compliance provisions? 4 Does not relate to any regulation or compliance requirement.
			CODE	CODE	CODE
a. Conservation tillage [include no-till/direct seeding, mulch till, and ridge till].	0706	1449	0726	0736	0746
b. Cover crops [include grasses, legumes, forbs, or other herbaceous plants for seasonal cover and conservation].	0707	0617	0727	0737	0747
c. Structural practices to conserve soil? [include grass waterways, terraces, grade stabilization, contour buffer strips, etc.].	0708	0618	0728	0738	0748
d. Nitrogen application practices? [include split applications (at least 50% after crop emergence), applying no more than 30 days prior to planting, precision application, or using controlled release fertilizer].	0709	0619	0729	0739	0749
e. Conservation plan specifying practices to reduce soil erosion?.	0702	0612	0722	0732	0742
f. Nutrient management plan specifying practices for fertilizer/manure application?.	0703	0613	0723	0733	0743
g. Pest management plan to implement Integrated Pest Management (IPM) to control weeds, insects, or disease?.	0704	0614	0724	0734	0744
h. Irrigation water management plan specifying irrigation practices?.	0705	0615	0725	0735	0745

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?

- a. Environmental Quality Incentive Program (EQIP)
- b. Conservation Security or Conservation Stewardship Programs (CSP)
- c. Conservation Reserve Program (CRP)
- d. Other Federal, State, Local or non-government source

CODE	
YES = 1	2236
YES = 1	2240
YES = 1	2244
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?

- a. I was not aware of USDA conservation program funding.....
- b. I am not aware of environmental problems on this field.....
- c. Payments are not high enough.....
- d. Government standards make practices more expensive than they need to be to get the job done.....
- e. My offer would not have been accepted because my farm is not eligible or my fields would not have ranked high enough.....
- f. The application process and documenting compliance is too complicated and time consuming.....
- g. It was too difficult to obtain the technical assistance needed to prepare an application.....

	Don't Know	Not a Reason	Minor Reason	Major Reason	Code
a.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	2358
b.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	2359
c.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	2360
d.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	2361
e.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	2362
f.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	2363
g.	<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

CODE
2368

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 (HELCS) 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.....

YES = 1

CODE
1404

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

YES = 1

1405

29. **What is the slope of this field?**

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

CODE

2400

30. **What is the primary soil type of this field?**

1	Loam
2	Clay
3	Sandy
4	Mixed

CODE

2401

31. **Did the land use practices for this field include subsurface drainage?** YES = 1

[If YES, ask--]

CODE

2402

a. In what year was the subsurface drainage installed?

YEAR

2403

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

INCHES

2604

c. What is the diameter of your tiles?

2605

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

HOURS

2606

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

[If Yes, ask--]

CODE

2520

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

DOLLARS & CENTS PER ACRE

2521

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

PERCENT

2522

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

DOLLARS & CENTS PER ACRE

2523

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 yield level did you select for your buy-up coverage for this field?

1387

What price level did you select for 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 0202	EDIT TABLE 0200
---------------------	---------------------------

[If **COMMERCIAL** nutrient or fertilizer applied, continue; else go to Section D.]

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 type="checkbox"/> Custom applied nutrients or fertilizers</p> <p><input type="checkbox"/> Nutrients or fertilizers applied in the fall of 2016 and those applied earlier if this field was fallow in 2016</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>
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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	4	5	6	7
	N Nitrogen	P₂O₅ Phosphate	K₂O Potash	S Sulfur	What quantity was applied per acre? [Leave this column blank if actual pounds of nutrients were reported.]	[Enter material code.] 1 Pounds 12 Gallons 19 Pounds of actual nutrients	When was this applied? 1 In the fall before seeding 2 In the spring before seeding 3 At seeding 4 After seeding	How was this applied? [Refer to code list above.]	How many acres were treated in this application? 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

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

0219

OR TOTAL DOLLARS

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

0221

OR TOTAL DOLLARS

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

CODE

3225

[If item 7 = 1, ask--]

a. 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 item 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.]

CODE

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

0225

[If item 9 = 1, ask--]

a. 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

[If item 10 = 1, ask---]

a. 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? YES = 1

CODE
0229

12. How much was spent for these soil and plant tissue tests on this field in 2016 or 2017 for the 2017 crop ? [Include 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?

- | | |
|---|--|
| 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. |

CODE
0232

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---

a. Results of a soil or plant tissue test? YES = 1

CODE
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

h. [If nitrogen inhibitors were used, continue; else go to item 14.]

How much nitrogen inhibitor did you mix with the nitrogen applied to this field?

POUNDS PER ACRE	OR	GALLONS PER ACRE
2561		2562

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

[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? YES = 1 CODE
0240

[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

a. How many acres in this field was manure applied to? ACRES
0247

b. What was the amount of manure applied to this field? CODE
0248 AND UNITS PER ACRE OR TOTAL UNITS
0249 0250

1 Tons
2 Gallons
3 Bushels

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? + PERCENT
0254

(ii) in the spring before planting? + 0255

(iii) after planting? + 0256

100%

d. Was the manure--- CODE
0257

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

e. Was the manure--- CODE
0258

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

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

[If item 15g = 2, ask---]

(i) 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

0284

OR

TOTAL DOLLARS

0285

CODE

0286

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

[If YES, ask---]

(a) 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

0287

OR

TOTAL DOLLARS

0288

CODE

0261

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

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

CODE

0264

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

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

CODE

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

0265

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

0266

17. Was non-commercial compost applied to this field for the 2017 wheat crop?

YES - [Enter code 1 and continue] NO - [Go to Section D].

CODE

0267

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

ACRES

0268

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

1 Tons
2 Cubic Yards

CODE

0269

UNITS PER ACRE OR

AND

0270

TOTAL UNITS

0271

c. Was the major source of the compost from---

1 Beef cattle?
2 Dairy cattle?
3 Hogs?
4 Sheep?
5 Poultry?
6 Equine?
7 Biosolids (<i>municipal sludge</i>)?
8 Food waste?
9 Crop? [<i>Specify:</i> _____]
10 Other? [<i>Specify:</i> _____]

[

CODE

0281

SECOND

0282

THIRD

0283

d. Was the compost---

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

CODE

0272

[If item 17d = 2, ask---]

(i) 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

0273

OR

TOTAL DOLLARS

0274

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

CODE

0275

[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

0276

OR

TOTAL DOLLARS

0277

(iii) What is the distance in miles between the compost storage/production location and this field?

MILES

0291

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.

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

	CODE	EDIT TABLE
YES = 1	0302	0300

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

Include defoliant, 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	L I N E	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]

OFFICE USE

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

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, defoliants, 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

E

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]

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

CODE	
0800	
0801	
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
- 5. Were herbicides applied to this wheat field AFTER weeds emerged? YES = 1

0803	
0805	

- 6. Were records kept for this field to track the activity or numbers of weeds, insects or diseases? YES = 1
- 7. Did you use published information on infestation thresholds to determine when to take measures to manage pests in this field? YES = 1

CODE	
0823	
0824	

- 8. 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 9.]
2	By conducting general observations while performing routine tasks [Enter code 2 and go to item 11.]
3	This field was not scouted. [Enter code 3 and go to item 14.]

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

CODE	
0808	
0809	

- 10. Was scouting for pests done in this field due to---

- a. a pest advisory warning? YES = 1
- b. a pest development model? YES = 1

CODE	
0810	
0811	

1		2		3	
		[If YES, ask---] What was the infestation level for [column 1]?— 1 Worse than normal 2 Normal 3 Less than normal		[If column 1 = 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	
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	0821	OR	TOTAL DOLLARS	0822
			OFFICE USE	0333
a. [If scouting performed at no cost, explain:_____]				0825

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

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

15. Were any beneficial organisms (insects, nematodes, fungi) applied or released in this field to manage pests?	YES = 1	0853
16. Were floral lures, attractants, repellants, pheromone traps or other biological pest controls used on this field?	YES = 1	0858

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

a. What were the TOTAL materials and application costs for all biological pest controls for this field? <i>Include operator, landlord, and contractor costs. Include cost for beneficial organisms (insects, nematodes, and fungi). Exclude biological pesticides previously reported.</i>	DOLLARS & CENTS PER ACRE	OR	TOTAL DOLLARS
	0859		0860

17. Was a trap crop (excluding fallow) grown to help manage insects in this field? YES = 1 CODE
0863
18. Was this field left in fallow in 2016 to help manage insects on this field? YES = 1 CODE
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.]
- 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, pathogens, animals) cause any yield loss on this field in spite of your pest control efforts? YES = 1 CODE
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?

1	BUSHELS
2	TONS

CODE
0828

AND

UNITS PER ACRE
0829

OR

TOTAL UNITS
0830

Completion Code for Pest Management Data

1 - Incomplete/Refusal	0500
------------------------	------

F FIELD OPERATIONS--SELECTED FIELD

F

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 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 (grain & straw) to storage or first point of sale
Exclude	
<input type="checkbox"/>	Lime & Gypsum/landplaster applications
<input type="checkbox"/>	Compost & Non-Commercial Manure applications

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, or 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	11 What was the fuel type of the tractor? [Record fuel type only if Power code equals 1-5] 1=diesel 2=gasoline 3=LP gas 4=other 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	How many total hours did (type of worker) spend on this field---		
	1	2	3
	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 (Exclude custom and contract labor)	1110	1111	1112
Paid full-time workers (Exclude custom and contract labor)	1113	1114	1115

3. What was the average hourly wage rate paid to part-time or seasonal hired workers on this field? (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 on this field? (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

[If YES, ask ---

a. 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	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?	1121 _____
<input type="checkbox"/> b. Custom cultivating?	1122 _____
<input type="checkbox"/> c. Custom planting and/or reseeding?	1123 _____
<input type="checkbox"/> d. Custom harvesting?	1124 _____
e. Custom hauling to storage or point of first sale? $\frac{\text{_____}}{\text{_____}} \times \text{_____} \div \text{_____} = \text{_____}$ (Dollars & cents per unit x Total units hauled from field ÷ Acres harvested in field = Dollars & cents per acre)	1126 _____
f. Custom harvesting and hauling from field to storage or point of first sale? $\frac{\text{_____}}{\text{_____}} \times \text{_____} \div \text{_____} = \text{_____}$ (Dollars & cents per unit x Total units hauled from field ÷ Acres harvested in field = Dollars & cents per acre)	1127 _____
g. Custom raking, baling, and hauling the straw from this field $\frac{\text{_____}}{\text{_____}} \times \text{_____} \div \text{_____} = \text{_____}$ (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
1195
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?	1129
b. Soil or tissue sample collection?	1130
c. Pest control recommendations/management service?	1131
d. Pest scouting?	1132
e. Irrigation management service (i.e. irrigation scheduling)?	1133
f. Yield map or remote sensing map development/interpretation?	1134
g. Other custom or technical service? [Specify: _____]	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

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

CODE
2460

[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.

1 Data Collection Tool	2 Tool Used YES = 1	3 Collected with GPS YES = 1	4 Data was/will be used to create a map Yes = 1
a. Yield monitor.	2461	2462	2463
b. Soil tests on core sample (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 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--

- (i) Paper hard copy? YES = 1
- (ii) Personal computer? YES = 1
- (iii) Mobile device? YES = 1

b. Did you access the data collected from this field through an agricultural technology provider website? YES = 1

CODE
2485
2486
2487
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

d. Did you share any of the data collected from this field with a third party through an agricultural technology provider website? YES = 1

2489
2490

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

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.]

(i) monitor crop moisture content to determine need for crop drying?	YES = 1	1140
(ii) add/improve tile drainage?	YES = 1	1141
(iii) negotiate new crop leases?	YES = 1	1144
(iv) 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	1267

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	1162	1176
	OR TOTAL ACRE-FEET	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.]	CODE	1168	1182
		1 TURBINE? 2 SUBMERSIBLE? 3 CENTRIFUGAL? 4 BOOSTER? 5 SIPHON? 99 NO PUMP? [If code 99, go to item j.]	
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?	CODE	1171	1185
		1 DIESEL 2 GASOLINE 3 LP GAS 4 NATURAL GAS 5 ELECTRICITY 6 SOLAR POWER	
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

DOLLARS & CENTS
PER ACRE OR TOTAL DOLLARS

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

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

[If SIPHON TUBES were used (item 2a = 10 or 11), ask--]

TOTAL DOLLARS
1201

5. **What would be the total cost to replace all the siphon tubes used on this field?**

[If POLY PIPE system was used (item 2a = 14) ask--]

TOTAL DOLLARS
1202

6. **What was the total amount spent for poly pipe used on this field during the 2017 growing season?** (*Include operator, landlord, and contractor costs.*)

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

INCHES
1203

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

FEET
1204

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

CODE
1205

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

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

NUMBER
1206

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

INCHES
1207

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

FEET
1208

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.]

CODE
1210

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].

ACRES
1211

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

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 Conclusion]

INCHES
1212

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

FEET
1213

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

NOTES

CONCLUSION

LOCATION OF SELECTED FIELD

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

COUNTY NAME

OFFICE USE
COUNTY FIPS CODE

2. What county is the selected wheat field in?

0010

Field description

3. [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.*]

4. 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.

5. 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

6. ENDING TIME [MILITARY]

RECORDS USE

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

a. [fertilizer data?]

b. [pesticide data?]

c. [majority of this expense data?]

CODE

0011

0012

0013

NUMBER

0041

0042

0043

SUPPLEMENTS USED

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

FERTILIZER APPLICATIONS

PESTICIDE APPLICATIONS

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-PATI (Tel) 3-PAPI (Face-to-Face)		9903 9998		9989		

								Eval.	Change	
								9900	9985	