



AGRICULTURAL RESOURCE MANAGEMENT SURVEY
WINTER WHEAT
PRODUCTION PRACTICES AND COSTS REPORT
 for 2009



NATIONAL AGRICULTURAL STATISTICS SERVICE

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VERSION	ID	TRACT	SUBTRACT	T-TYPE	TABLE	LINE
31	_____	01	_____	0	000	00



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. Authority for collection of information on the Winter Wheat Production Practices and Costs Report is Title 7, Section 2204 of the U.S. Code. This information will be used for economic analysis and to compile and publish estimates for your region and the United States. Response to this survey is confidential and voluntary.

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

H H M M

BEGINNING TIME
 [MILITARY]

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 WINTER WHEAT FIELD SELECTION

A

1. **How many acres of wheat (winter, durum and other spring) did this operation plant for the 2009 crop year?** [For winter wheat, record acres planted in fall/winter 2008 for 2009 crop year.]

TOTAL PLANTED ACRES	
0050	.____

[If no acres planted, review Screening Survey Information Form, make notes, then go to item 4 on back page.]

Of the total (item 1), how many acres were planted for---

- a. winter wheat?
- b. durum wheat?
- c. other spring wheat?

TOTAL ACRES	
0051	.____
0052	.____
0053	.____

2. **I will follow a simple procedure to make a random selection from the winter wheat fields planted for the 2009 crop.**

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

OFFICE USE
OY Field Substituted
0022

B

FIELD CHARACTERISTICS---SELECTED FIELD

B

1. How many acres of winter wheat did this operation plant in this field for the 2009 crop?.....

ACRES
1301

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

CODE
1300

[If YES, skip 1b and ask item 2.]

b. Was this field transitioning into organic winter wheat production in 2009?..... YES = 1

CODE
1399

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 2009 winter 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 or contractor for the 2009 crop on the selected field? (Include the costs for all inputs, such as seed, fertilizer, chemicals, technical services, custom operations, and irrigation. Exclude real estate tax expenses and lime costs paid by the landowner.)

DOLLARS & CENTS PER ACRE	OR	TOTAL DOLLARS
1305		1306

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

YEAR
1307

MM DD YY

1308

7. On what date was this field planted?.....

a. 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

1309

UNIT CODE

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

UNITS PER ACRE

1310

1311

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

ACRES

1318

9. How many acres in this field had to be replanted to winter wheat?

(Acres replanted = Number of acres x Number of times replanted).....

CODE

- 1 Purchased?
- 2 Homegrown or traded?
- 3 Both?

1319

10. Was the source of the winter wheat seed---

a. [If item 10 = 2 or 3, ask---]

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

PERCENT

1320

DOLLARS & CENTS PER BUSHEL

1321

(i) What was the cost per bushel for cleaning and treating this seed?.....

UNIT CODE

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

DOLLARS & CENTS PER UNIT

1429

1430

11. [If any seed purchased (item 10 = 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.).....

12. Did you plant a NON Genetically-Modified (GM) herbicide resistant wheat (such as Clearfield) seed variety on this field---

		CODE
a.	for 2009 (planted in Fall 2008)?..... YES = 1	1403
b.	for 2008 (planted in Fall 2007)?..... YES = 1	1402

c. [If item 12a or 12b is YES, ask---]
Did you choose the NON GM herbicide resistant wheat primarily to---

1 Increase yields through improved pest (weed) control?
2 Decrease herbicide costs?
3 Decrease machinery costs?
4 Improve ability to use or ease of using reduced tillage or no-till system?
5 Improve ability to use or ease of rotating crops?
6 Save management time or labor or improve ease of management?
7 Adopt more environmentally friendly practices?
8 For some other reason? [Specify: _____]

CODE
1317

13. If a genetically-modified herbicide resistant (such as Roundup – Ready) wheat seed becomes available, how likely would you be to plant it on this field under the following conditions? Assume that the total cost of the seed (including technology fee) changes based on the following information---

		CODES
a.	10 percent seed cost increase.....	1322
b.	20 percent seed cost increase.....	1323
c.	30 percent seed cost increase.....	1324
d.	seed cost does not increase.....	1325

14. Has harvest of this field been completed?..... YES = 1

CODE
1343

15. Now I need information about the acres harvested (or to be harvested) and the yields from this field.

How many acres in the winter wheat field were (or will be)---	1		2		3	
	ACRES	UNITS PER ACRE	UNIT CODE	CODE	PERCENT	
a. harvested for grain?.....	1346	1347	1 POUNDS 2 CWT 3 TONS 4 BUSHELS	1348	1345	
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					

16. Was straw harvested from this field?

YES - [Enter code 1 and continue] NO - [Go to item 18].....

CODE

1354

ACRES

1355

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

TOTAL TONS

1356

a. How many tons of wheat straw were harvested from these winter wheat (item 17) acres?.....

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

PERCENT

OR

TONS

b. Of the total wheat straw harvested from this winter wheat field (item 17a), what was the landlord's share of the wheat straw?.....

1357

1358

TOTAL DOLLARS

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

1359

d. Was any wheat straw sold?

If yes, what was the price received per ton for all wheat straw (item 17a) sold from this winter wheat field?.....

DOLLARS & CENTS PER TON

1360

18. Did any livestock graze this wheat field during the 2009 crop year?

YES - [Enter code 1 and continue] NO - [Go to item 20].....

CODE

1400

19. What type of livestock grazed this wheat field during the 2009 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: _____]

CODE

1361

HEAD

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

1362

DAYS

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

1363

CODE

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

1344

d. Was payment received from others for livestock grazing on this field?

YES - [Enter code 1 and continue] NO - [Go to item 20].....

1364

TOTAL DOLLARS

(i) What is the total dollar amount received? (Include landlord's share.).....

1365

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	
302 CRP	16 Peanuts	30 Sunflowers	318 No crop planted during this period
	20 Potatoes	31 Sweet Potatoes	

20. Next, I need to know 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 field irrigated?	3 Was this field no-tilled? 1/	4 Was this home-grown seed?
SEASON AND YEAR	CROP NAMES	CROP CODE 1	CROP CODE 2	YES = 1	YES = 1	YES = 1
FALL of 2008?	Winter Wheat					
SPRING/SUMMER of 2008?		1369	1326	1370	1371	1333
FALL of 2007?		1372	1327	1373	1374	1334
SPRING/SUMMER of 2007?		1375	1328	1376	1377	1335
FALL of 2006?		1378	1329	1379	1380	1336
SPRING/SUMMER of 2006?		1381	1330	1382	1383	1337
FALL of 2005?		1366	1331	1367	1368	1338
SPRING/SUMMER of 2005?		1340	1332	1341	1342	1339

1/ Soil and previous crop residue left undisturbed from harvest to planting.

a. Did you use a cover crop in conjunction with the 2009 wheat crop on this field?..... YES = 1

CODE

1401

[If item 20a is YES, continue; else go to item 21]

(i) What year was the cover crop planted?.....

(ii) In what season was the cover crop planted?.....

(iii) Was the seed for the cover crop purchased?
If yes, what was the seed cost per acre for the cover crop?.....

YEAR
1466

1 Spring/Summer
2 Fall

CODE
1467

DOLLARS & CENTS PER ACRE
1468

21. In 2009, did your land-use practices for this field include any of the following---

1	2	3	4
LAND-USE PRACTICE	Was this practice used? YES = 1	What year was this practice first used? YEAR	Was (or will there be) an incentive or cost-share received from: 1 Environmental Quality Incentives Program (EQIP)? 2 Conservation Security Program (CSP)? 3 Conservation Reserve Program (CRP)? 4 Any other Federal, State, Local or non-government source? CODE
a. Structures for soil erosion control?.....	1421		
(i) Terraces.....	1420	1441 ____	1451
(ii) Grade stabilization structures.....	1422	1442 ____	1452
b. Structures for storm water runoff control/handling?.....	1423		
(i) Grassed waterways.....	1438	1443 ____	1453
(ii) Structures for water control basins.....	1424	1444 ____	1454
c. Filter strips or other conservation buffers?.....	1425		
(i) Filter strips.....	1426	1445 ____	1455
(ii) Field borders.....	1427	1446 ____	1456
(iii) Riparian buffers (i.e., grass buffers).....	1428	1447 ____	1457
d. Other Practices?.....	1435		
(i) Contour farming and strip cropping.....	1434	1448 ____	1458
(ii) Other Practices [<i>Specify: _____</i>] ...	1436	1450 ____	1460

OFFICE USE
1440

CODE

22. Has the Natural Resource Conservation Service (NRCS) classified any part of this field as "Highly Erodible"? YES = 1 1404
23. Have you been notified by NRCS that this field contains a wetland? YES = 1 1405
24. In 2009, did you receive technical assistance for planning, installing, maintaining, or using conservation practices or systems on this field? (Include grassed waterways and filter strips or riparian buffers, or drainage area, on or adjoining this field. Include assistance from any source whether paid for or free.) YES = 1 1406
25. Is this field included in an existing conservation program contract for which you or the landlord have received (or expect to receive) cost sharing payments, stewardship payments, or incentive payments? [Be sure to consider grassed waterways and filter strips or riparian buffers, or drainage area, on or adjoining this field. Also, be sure to consider payments that are part of this contract but were made before 2009 or payments that are anticipated for future years.] YES = 1 1407

[If item 25 is YES, ask item 25a; else go to item 25b.]

- a. Have you received (or will you receive) cost sharing or incentive payments from---
- | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|
| 1 Environmental Quality Incentives Program (EQIP)
2 Conservation Security Program (CSP)
3 Conservation Reserve Program (CRP)
4 Other Federal, State, Local or non-government source | 1418 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|
- b. Was this field included in a conservation program application that was rejected from---
- | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|
| 1 Environmental Quality Incentives Program (EQIP)
2 Conservation Security Program (CSP)
3 Conservation Reserve Program (CRP)
4 Other Federal, State, Local or non-government source | 1419 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|

26. During 2009, did any written plan of the following types cover this field---

(A "written plan" is a plan prepared in accordance with Federal, State, or district standards.)

1 WRITTEN PLAN TYPE	2 Was this type of written plan used? YES = 1	3 What year was this plan implemented? YEAR	4 For any practice that is part of this plan, was (or will there be) an incentive or cost-share payment received from: 1 Environmental Quality Incentives Program (EQIP)? 2 Conservation Security Program (CSP)? 3 Conservation Reserve Program (CRP)? 4 Any other Federal, State, Local or non-government source? CODE
a. Conservation plan specifying practices to reduce soil erosion?	1408	1409 _ _ _ _ _	1461
b. Comprehensive nutrient management plan specifying practices for applying both fertilizer and manure?	1410	1411 _ _ _ _ _	1462
c. Nutrient management plan specifying practices for land application of manure only?	1412	1413 _ _ _ _ _	1463
d. Pest management plan to implement Integrated Pest Management (IPM) practices to control weeds, insects, and/or plant diseases?	1414	1415 _ _ _ _ _	1464
e. Irrigation water management plan specifying practices for applying or conserving irrigation water?	1416	1417 _ _ _ _ _	1465

27. [If item 26a, b, c, d, or e is YES, ask--]

Have you ever paid any technical service provider or consultant to develop or write any of these plans for which you or the landowner were reimbursed by the Natural Resource Conservation Service?..... YES = 1

CODE

1352

a. [If YES, ask--]

What was the reimbursement amount for developing these plans for this field? (Include landlord's/contractor's share. Exclude cost of construction or materials.).....

DOLLARS & CENTS PER ACRE

OR

TOTAL DOLLARS

1353

1384

28. Was the winter wheat in this field covered by Federal Crop Insurance in 2009?

YES - [Enter code 1 and continue]

NO - [Go to item 29].

CODE

1385

a. Which coverage did you obtain?.....

- 1 Basic catastrophic insurance (Federal CAT)
- 2 Buy-up above basic federal CAT level
- 3 Revenue insurance
- 4 Organic plan insurance
- 5 Other Federal Crop insurance

CODE

1386

(i) [If item a = 3, ask--]

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

PERCENT

1389

b. In what year did you (the operator listed on the label) first enroll this field in the Federal crop insurance program?.....

YEAR

1387

c. What is the 2009 Approved APH (actual production history) yield for this field?.....

BUSHEL PER ACRE

1388

d. What was the premium paid for Federal crop insurance for this field in 2009? (Exclude any sign-up fee.).....

DOLLARS & CENTS PER ACRE

OR

TOTAL DOLLARS

1390

1391

e. Did you (or will you) collect an indemnity payment on this field?..... YES = 1

CODE

1392

29. Was the winter wheat in this field covered by private crop insurance in 2009 (hail, wind, freeze, etc.)?

YES - [Enter code 1 and continue]

NO - [Go to item 30].

CODE

1393

a. What was the premium paid for private crop insurance for this field in 2009? (Exclude any sign-up fee.).....

DOLLARS & CENTS PER ACRE

OR

TOTAL DOLLARS

1395

1396

b. In what year did you (the operator listed on this label) first purchase private crop insurance for this field?.....

YEAR

1397

c. Did you (or will you) collect an indemnity payment on this field for private crop insurance?..... YES = 1

CODE

1394

30. What was the average price received for the winter wheat sold by this operation for the 2009 crop year?.....

DOLLARS & CENTS PER BUSHEL

1398

C NUTRIENT or FERTILIZER APPLICATIONS---SELECTED FIELD

C

<p>1. Were commercial nutrients or fertilizers applied to this field for the 2009 winter wheat crop?..... YES = 1</p> <p>2. <i>[If COMMERCIAL nutrient or fertilizer applied, continue; else go to item 7.]</i></p> <p>3. How many commercial nutrient or fertilizer applications were made to this field for the 2009 crop? <i>(Include applications made by airplanes and custom applicators).</i>.....</p> <p>4. Now I need to record information for each application.</p>	<p>CODE</p> <p>0202</p>	<p>EDIT TABLE</p> <p>0201</p>
		<p>NUMBER</p> <p>0203</p>

<input checked="" type="checkbox"/> INCLUDE	<input checked="" type="checkbox"/> EXCLUDE
<input type="checkbox"/> Custom applied nutrients or fertilizers	<input type="checkbox"/> Micronutrients
<input type="checkbox"/> Nutrients or fertilizers applied in the fall of 2008 and those applied earlier if this field was fallow in 2008	<input type="checkbox"/> Unprocessed manure
<input type="checkbox"/> Commercially prepared manure or compost	<input type="checkbox"/> Nutrients or fertilizers applied to previous crops in this field
	<input type="checkbox"/> Lime and gypsum/landplaster

	T-TYPE	TABLE
	2	001
Line 99	Office Use Lines in Table	0213

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

LINE	2 MATERIALS USED <i>[Enter percentage analysis or actual pounds of plant nutrients applied per acre.]</i> <i>[Show Common Nutrients or Fertilizers in Respondent Booklet.]</i>				3 What quantity was applied per acre? <i>[Leave this column blank if actual nutrients were reported.]</i>	4 [Enter material code.] 1 Pounds 12 Gallons 19 Pounds of actual nutrients	5 When was this applied? 1 In the fall before seeding 2 In the spring before seeding 3 At seeding 4 After seeding	6 How was this applied? <i>[Refer to code list above.]</i>	7 How many acres were treated in this application? ACRES
	N Nitrogen	P ₂ O ₅ Phosphate	K ₂ O Potash	S Sulfur					
	01	0205	0206	0207	0214	0208	0209	0210	0211
02	0205	0206	0207	0214	0208	0209	0210	0211	0212
03	0205	0206	0207	0214	0208	0209	0210	0211	0212
04	0205	0206	0207	0214	0208	0209	0210	0211	0212
05	0205	0206	0207	0214	0208	0209	0210	0211	0212
06	0205	0206	0207	0214	0208	0209	0210	0211	0212
07	0205	0206	0207	0214	0208	0209	0210	0211	0212
08	0205	0206	0207	0214	0208	0209	0210	0211	0212

T - TYPE 0	TABLE 000	LINE 00
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5. Were any nutrients or fertilizers applied by custom applicators?

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

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

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

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 landlord and contractor costs. Include costs for sulfur and micronutrients. Exclude custom application of lime, gypsum, purchased manure & purchased compost.) [If material and application costs can't be separated, exclude them here and record the total in item 6].

DOLLARS & CENTS PER ACRE

0219

OR TOTAL DOLLARS

0220

6. 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. [If custom applied and the cost of materials can be separated from application costs, include the cost of materials ONLY; otherwise, include both the material and application costs.] Include materials applied to this field if it was fallow in 2008. Exclude lime, gypsum, purchased manure and purchased compost.)

DOLLARS & CENTS PER ACRE

0221

OR TOTAL DOLLARS

0222

CODE

0218

7. Was gypsum applied to this field for the 2009 winter wheat crop? YES = 1

BUSHEL PER ACRE

0217

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

9. Was a soil or plant tissue test performed on this winter wheat field in 2008 or 2009 for the 2009 crop?

YES [Continue] NO [Go to item 14]

CODE

0225

10. Was a soil test for phosphorus performed on this winter wheat field in 2008 or 2009 for the 2009 crop? YES = 1

a. [If phosphorus test done, ask--]

POUNDS PER ACRE

0226

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

CODE

0227

11. Was a soil test for nitrogen performed on this winter wheat field in 2008 or 2009 for the 2009 crop? YES = 1

a. [If nitrogen test done, ask--]

POUNDS PER ACRE

0228

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

CODE

0229

12. Was a plant tissue test or leaf analysis for nutrient deficiency performed on this field for the 2009 crop? YES = 1

DOLLARS & CENTS PER ACRE

0230

OR TOTAL DOLLARS

0231

13. How much was spent for these soil and plant tissue tests on this field? (Include operator, landlord, and contractor costs.)

a. If tests were done at no cost, explain---

- 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 6
- 3 Some other reason

CODE

0232

14. [ENUMERATOR ACTION: Refer to the Fertilizer Table, column 2. If nitrogen (N) was applied, complete items 15, 16 and 17. If NO nitrogen applied, go to item 18.]

15. 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
- b. Crop consultant recommendation? YES = 1
- c. Fertilizer dealer recommendation? YES = 1
- d. Extension Service recommendation? YES = 1
- e. Cost of nitrogen and/or expected commodity price? YES = 1
- f. Contractor recommendation? YES = 1
- g. Routine practice (operator's own determination based on past experience, yield goal, etc.)? YES = 1

CODE

0233
0234
0235
0236
0237
0238
0239

16. Did you purchase any commercial nitrogen fertilizer applied to this field under contract or otherwise pre-purchase the fertilizer at a pre-determined price prior to planting? YES = 1

CODE

0223

a. [If YES, ask--]

What month prior to planting for the 2009 crop did you contract for the fertilizer used on this field? [Enter code "1" for January, "2" for February, etc.]

CODE

0224

17. Which of the following products did you use to slow the breakdown of nitrogen on this field?

- | |
|------------------------------------------------------------------------------------|
| 1 Nitrification inhibitors (such as N-Serve) |
| 2 Urease inhibitors (such as Agrotain) |
| 3 Chemical-coated fertilizers (such as sulfur-coated urea and polymer-coated urea) |
| 4 Other inhibitors |
| 5 None |

CODE

0241

18. Is lime ever applied to this field? YES = 1

CODE

0242

[If no lime applied, go to item 19; 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 2008 or 2009 for the 2009 crop? YES = 1

CODE

0240

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

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

19. 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 2009 winter wheat crop? (Exclude commercially prepared manure.)

YES - [Enter code 1 and continue]

NO - [Go to item 21].

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

0248

UNITS PER ACRE OR

AND

0249

TOTAL UNITS

0250

c. What is the distance between the manure storage/production location and this field?

MILES

0251

d. What was the capacity of the manure spreader (or other vehicle) used to haul manure to this field?

- 1 TONS
- 2 GALLONS
- 3 BUSHELS

CODE

0252

AND

TOTAL UNITS

0253

e. Of the total manure applied to this field for the 2009 crop, what was the percent of manure applied---

PERCENT

(i) in the fall before planting? +

0254

(ii) in the spring before planting? +

0255

(iii) after planting? +

0256

100%

f. Was the manure---

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

CODE

0257

g. 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

h. 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

i. Was the manure---	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 manure.</i>) CODE 0260
----------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------

(i) [If item 19i = 2, ask--] What was the total cost of the purchased manure applied to this field? (<i>Include any payment made for transportation costs.</i>)	DOLLARS & CENTS PER ACRE 0284	OR	TOTAL DOLLARS 0285
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------	----	------------------------------

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

(1) [If YES, ask--] What was the total cost paid to have manure custom applied to this field? [<i>Do not report custom application cost if it was included with the purchased manure cost.</i>]	DOLLARS & CENTS PER ACRE 0287	OR	TOTAL DOLLARS 0288
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------	----	------------------------------

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

k. Was the application rate of commercial nitrogen fertilizer on this field reduced due to manure application?	YES = 1	CODE 0262
----------------------------------------------------------------------------------------------------------------------	---------	---------------------

(i) [If YES, ask--] By what percent did you reduce the commercial nitrogen fertilizer application rate on this field?	PERCENT 0263
--------------------------------------------------------------------------------------------------------------------------------	------------------------

l. Did you adjust the winter wheat harvest date for this field due to the application of manure?	YES = 1	CODE 0280
--------------------------------------------------------------------------------------------------------	---------	---------------------

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

a. [If item 20 is YES, ask--] 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
------------------------------------------------	---------	------

21. Was compost applied to this field for the 2009 winter wheat crop?

YES - [Enter code 1 and continue]

NO - [Go to Section D].

CODE

0267

ACRES

0268

a. To how many acres in this field was the compost applied?

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

- 1 Tons
- 2 Cubic Yards

CODE

0269

AND

UNITS PER ACRE OR

0270

TOTAL UNITS

0271

c. Were the major sources of the compost from---

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

[Enter up to 3 source codes]

FIRST

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? (*Operator received payment for accepting the compost.*)

CODE

0272

(i) [If item 21d = 2, ask--]

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

DOLLARS & CENTS PER ACRE OR

0273

TOTAL DOLLARS

0274

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

CODE

0275

(1) [If YES, ask--]

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

DOLLARS & CENTS PER ACRE OR

0276

TOTAL DOLLARS

0277

(iii) [If item 21d = 1, ask--]

What is the distance between the compost storage/production location and this field?

MILES

0299

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 2009 winter wheat crop, including both custom applications and applications made by this operation.

1. Were any herbicides, insecticides, fungicides or other chemicals used on this winter wheat field for the 2009 crop?..... YES = 1

CODE	EDIT TABLE
0302	0301

[Probe for applications made in the fall of 2008 (and those made earlier if this field was fallow). 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.

T - TYPE	TABLE
3	001
LINE 99	OFFICE USE LINE IN TABLE
	0319

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	0305		0306	0307	0308 _____	0309 _____	0310
	02	0305		0306	0307	0308 _____	0309 _____	0310
	03	0305		0306	0307	0308 _____	0309 _____	0310
	04	0305		0306	0307	0308 _____	0309 _____	0310
	05	0305		0306	0307	0308 _____	0309 _____	0310
	06	0305		0306	0307	0308 _____	0309 _____	0310
	07	0305		0306	0307	0308 _____	0309 _____	0310
	08	0305		0306	0307	0308 _____	0309 _____	0310
	09	0305		0306	0307	0308 _____	0309 _____	0310
	10	0305		0306	0307	0308 _____	0309 _____	0310
	11	0305		0306	0307	0308 _____	0309 _____	0310
	12	0305		0306	0307	0308 _____	0309 _____	0310
	13	0305		0306	0307	0308 _____	0309 _____	0310
	14	0305		0306	0307	0308 _____	0309 _____	0310

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

0324

a. Are you able to report the cost of chemical product and custom application separately?

YES – [Continue] NO – [Go to item 4]

b. Excluding the cost of the chemical product, how much was spent for custom application of chemicals, biocontrols, and pesticides on this field? (*Include operator and landlord cost.*)

DOLLARS & CENTS
PER ACRE

OR TOTAL DOLLARS

0331

0332

4. What was the TOTAL COST of all chemical products applied to this field? (*Include operator, landlord, and contractor cost, defoliants, herbicides, insecticides, fungicides, surfactants, wetting agents, growth regulators, and materials applied before planting and during 2008 fallow period. Exclude seed treatments.*)

DOLLARS & CENTS
PER ACRE

OR TOTAL DOLLARS

0334

0335

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

10. In 2009, 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 11.] |
| 2 By conducting general observations while performing routine tasks [Enter code 2 and go to item 13.] |
| 3 This field was not scouted. [Enter code 3 and go to item 18.] |

CODE

0808

11. Was an established scouting process (systematic sampling, recording counts, etc.) used or were insect traps used in this field?

YES = 1

0809

12. 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

1	2	3	
	[If YES, ask---] What was the infestation level for [column 1] ?	[If column 1 is 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	
13. Was this winter 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 14; else go to item 15.]

14. How much was charged for the scouting services for this field?

(Include landlord and contractor cost).

DOLLARS & CENTS PER ACRE

OR

TOTAL DOLLARS

0821

0822

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

OFFICE USE

0333

15. Were written or electronic records kept for this field to track the activity or numbers of weeds, insects or diseases?

YES = 1

0823

16. Were scouting data compared to published information on infestation thresholds to determine when to take measures to manage pests in this field?

YES = 1

0824

17. Did you use field mapping of previous weed problems to assist you in making weed management decisions?

YES = 1

0825

18. Did you do any of the following other types of pest management 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 (using conventional tillage)?.....	YES = 1	0842
c. Remove/burn down crop residue?.....	YES = 1	0843
d. Rotate crops in this field during the past 3 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 used in this field treated for insect or disease control after you purchased the seed?.....	YES = 1	0854
n. Maintain a beneficial insect or vertebrate habitat?.....	YES = 1	0855
o. Maintain buffer strips or border rows to isolate organic winter 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

		CODE
19. Were any beneficial organisms (insects, nematodes, fungi) applied or released in this field to manage pests?.....	YES = 1	0853

20. Were floral lures, attractants, repellants, pheromone traps or other biological pest controls used on this field?.....	YES = 1	0858
----------------------------------------------------------------------------------------------------------------------------	---------	------

a. [If item 19 or item 20 is YES, ask--]

What were the TOTAL materials and application costs for all biological pest controls for this field? (Include operator, landlord, and contractor shares. Include cost for beneficial organisms (insects, nematodes, and fungi). Exclude biological pesticides.).....

DOLLARS & CENTS PER ACRE	OR	TOTAL DOLLARS
0859		0860

- | | | CODE |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|------|
| 21. Was a trap crop (excluding fallow) grown to help manage insects in this field? | YES = 1 | 0863 |
| 22. Was this field left fallow in the spring/summer of 2008 to help manage insects on this field? | YES = 1 | 0864 |
| 23. Were water management practices such as irrigation scheduling, controlled drainage, or treatment of retention water used on this field to manage for pests or toxic producing fungi and bacteria? | YES = 1 | 0861 |
| 24. Was protection of beneficial organisms a factor in your pest control decisions for this field? | YES = 1 | 0862 |

PEST MANAGEMENT INFORMATION

25. [Show Pest Management Information Sources Code List from Respondent Booklet.]
Which outside sources of information on pest management practices and products were used for the 2009 winter wheat crop?

[Starting with the most influential in determining the pest management practices used on this operation, enter codes for up to three sources.]

PEST MANAGEMENT INFORMATION SOURCES CODE LIST

- 1 County, Cooperative, or University Extension Advisor, Publications or Demonstrations
- 2 Farm Supply or Chemical Dealer
- 3 Commercial Scouting Service
- 4 Independent Crop Consultant or Pest Control Advisor/Custom Applicator
- 5 Other Growers or Producers
- 6 Producer Associations, Newsletters or Trade Magazines
- 7 Electronic Information Services
(DTN, Internet, World Wide Web, etc.)
- 8 Employee Pest Advisor
- 9 Other – [Specify: _____]
- 10 None – Operator used no **outside** information source

[Enter up to 3 source codes.]

FIRST

0826

SECOND

0827

THIRD

0828

- | | | CODE |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|------|
| 26. Other than pesticide applicator training, have you (the operator) attended any training session on pest identification and management since October 1, 2008? | YES = 1 | 0829 |

Completion Code for Pest Management Data	
1 Incomplete/Refusal	0340

F FIELD OPERATIONS---SELECTED FIELD

F

1. Now I need to list all tractors used to produce winter wheat on the selected field.

CHECK LIST	
Include	Exclude
<input type="checkbox"/> Tractors owned, rented, leased or borrowed	<input type="checkbox"/> Tractors provided by custom operators

1	2 What tractors were used on this field? 1 John Deere & Company 2 AGCO (Challenger, Massey-Ferguson, Caterpillar) 3 Ford New-Holland (Case) 4 Kubota 5 Other [Specify: _____] CODE	3 What is the model year? (Example: 2004) YEAR	4 Is this vehicle a---? 2 2-wheel drive tractor 3 2-wheel drive tractor with front wheel assist 4 4-wheel drive tractor 5 crawler or other tracked-tractor 6 other tractor CODE	5 What is its PTO Horsepower? PTO HORSEPOWER	6 Is it---? 1 diesel 2 gasoline 3 LP gas 9 other CODE
1	0110	0120	0121	0122	0123
2	0111	0124	0125	0126	0127
3	0112	0128	0129	0130	0131
4	0113	0132	0133	0134	0135
5	0114	0136	0137	0138	0139
6	0115	0140	0141	0142	0143
7	0116	0144	0145	0146	0147
8	0117	0148	0149	0150	0151
9	0118	0152	0153	0154	0155
10	0119	0156	0157	0158	0159

2. Was a self-propelled combine and/or swather used to harvest the winter wheat field?

- YES – [Continue] NO – [Go to item 2c]

a. What is the model year of the self-propelled harvester(s) used to harvest winter wheat from this field? (Report the average year if more than one was used.)

YEAR
0830

b. What is the model year of the self-propelled swather(s) used in preparing to harvest winter wheat from this field? (Report the average year if more than one was used.)

YEAR
0831

c. Did you use a defoliant in place of a swather in preparing to harvest the winter wheat from this field? YES = 1

CODE
0832

3. Including custom operations, I need to list field work performed by machines on this field for the 2009 winter 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 2008, list operations starting with fall 2007];
- ▶ 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

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 and wheat straw to storage or first point of sale
Exclude	
<input type="checkbox"/>	Lime & Gypsum/landplaster applications

2 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 6-10]				
				6 What was the size or swath of the [machine] used?	7 [Record size unit code.] 1 Feet 2 Row 3 Moldboard (bottoms) Hauling 4 Pounds 5 Bushels 6 Tons CODE	8 What was the power source? [Record tractor line number from item 1.] OR 66 Animal Drawn 77 Pick up 99 Self-Propelled 1/ CODE	9 How many acres were covered? [Exclude land forming and hauling operations] ACRES	10 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
0351		0352	0353	0354	0355	0356	0357	0359
0361		0362	0363	0364	0365	0366	0367	0369
0371		0372	0373	0374	0375	0376	0377	0379
0381		0382	0383	0384	0385	0386	0387	0389
0391		0392	0393	0394	0395	0396	0397	0399
0401		0402	0403	0404	0405	0406	0407	0409
0411		0412	0413	0414	0415	0416	0417	0419
0421		0422	0423	0424	0425	0426	0427	0429
0431		0432	0433	0434	0435	0436	0437	0439
0441		0442	0443	0444	0445	0446	0447	0449
0451		0452	0453	0454	0455	0456	0457	0459
0461		0462	0463	0464	0465	0466	0467	0469
0471		0472	0473	0474	0475	0476	0477	0479
0481		0482	0483	0484	0485	0483	0487	0489
0491		0492	0493	0494	0495	0496	0497	0499
0501		0502	0503	0504	0505	0506	0507	0509
0511		0512	0513	0514	0515	0516	0517	0519
0521		0522	0523	0524	0525	0526	0527	0529

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

OFFICE USE

0032

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

Please report the paid and unpaid labor that worked on this field to produce the 2009 winter 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 (Exclude custom and contract labor)	1110	1111	1112
Paid full-time workers (Exclude custom and contract labor)	1113	1114	1115

5. **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**

6. **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**

7. **Was any contract labor used on this field?** YES = 1 **CODE**

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**

8. **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**

9. Now I need some information on how much was spent for custom services used on this field for the 2009 winter wheat crop.

1 CUSTOM SERVICE	2 Including operator, landlord, and contractor costs, how much was spent for [column 1] on this field for the 2009 winter wheat crop? DOLLARS & CENTS PER ACRE
✓ ← [Check box for each service performed; refer to item 3 if necessary.]	
<input type="checkbox"/> a. Custom land preparation, shaping and/or leveling $\frac{\text{Cost per Hour} \times \text{Total Hours}}{\text{Total Acres in the Field}} = \text{Dollars \& Cents per Acre}$	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 _____
<input type="checkbox"/> e. Custom hauling to storage or point of first sale $\frac{\text{Dollars \& Cents per Unit} \times \text{Total Units Hauled from Field}}{\text{Acres Harvested in Field}} = \text{Dollars \& Cents per Acre}$	1126 _____
<input type="checkbox"/> f. Harvesting and hauling from field to storage or point of first sale $\frac{\text{Dollars \& Cents per Unit} \times \text{Total Units Hauled from Field}}{\text{Acres Harvested in Field}} = \text{Dollars \& Cents per Acre}$	1127 _____
<input type="checkbox"/> g. Custom raking, baling, and hauling the straw from this field $\frac{\text{Dollars \& Cents per Unit} \times \text{Total Units Hauled from Field}}{\text{Acres Harvested in Field}} = \text{Dollars \& Cents per Acre}$	1128 _____

10. 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 12]

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

11. 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
12. Was there (or will there be) a yield monitor on the equipment used to harvest this winter wheat field?	YES = 1	1138
[If YES, continue; else go to item 13]		
a. Was there (or will there be) a yield map produced from this harvest using information from the yield monitor?	YES = 1	1139
b. Did you use the yield monitor information to---		
(i) monitor crop moisture content to determine need for crop drying?	YES = 1	1140
(ii) add/improve tile drainage?	YES = 1	1141
(iii) add/improve irrigation equipment/irrigation water application?	YES = 1	1142
(iv) conduct in-field experiments (e.g., compare fertilizer applications, seed varieties, herbicides, pesticides, etc)?	YES = 1	1143
(v) negotiate new crop leases?	YES = 1	1144
(vi) document yields for crop insurance, real estate tax, or farm program purposes?	YES = 1	1145
(vii) accurately divide crop production among partners and/or for landlord crop shares?	YES = 1	1146
(viii) other uses [specify: _____]	YES = 1	1147
13. During 2008 or 2009, was a GPS (Global Positioning System) device used to produce a map of the soil properties (such as nitrate levels, PH, soil type, etc.) of this field?	YES = 1	1148
a. [If YES, ask--]		
Was the information collected above based on---	<div style="border: 1px solid black; padding: 5px; width: fit-content;"> 1 soil tests from this field? 2 a machine that measured electrical conductivity of the soil in this field (e.g. Veris machine)? 3 other? [Specify: _____] </div>	1149
14. Did you have an airplane or satellite provide an image or photograph of this field either at the start or during the 2009 growing season?	YES = 1	1151
15. Was a variable rate applicator used on this field for---		1152
a. fertilization or lime application?	YES = 1	
(i) [If YES, ask--]		
Did you use a variable rate applicator for---		1153
(1) nitrogen applications?	YES = 1	1154
(2) phosphorus applications?	YES = 1	1155
(3) potash applications?	YES = 1	1156
(4) lime applications?	YES = 1	1157
(5) manure applications?	YES = 1	1158
b. seeding?	YES = 1	1159
c. pesticide applications?	YES = 1	
16. Was a guidance or parallel swathing system (connected to GPS) used with any machine operation on this field (e.g. light bar)?	YES = 1	1150

NOTES

IRRIGATION

ACRES

1. How many acres in this field were irrigated for the 2009 winter wheat crop?

[If none, go to Section H].

1160

2. Now, I have some questions about irrigation systems and water used on this field for the 2009 winter 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 winter 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 winter 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 2009 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?

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 percent of the water used on this field was purchased? PERCENT
1192

b. What was the total cost for the water purchased for this field during the 2009 growing season? *(Include 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 2009 growing season? 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. Did the well(s) have a water meter or other flow measurement device? **YES = 1** CODE
1209

e. Were other fields irrigated using water pumped from well(s) that supplied water to the selected field?
 YES – [Enter code 1 and continue] **NO** – [Go to item 9]. CODE
1210

f. Excluding this field, how many other acres on this operation were irrigated using the same well(s) during the 2009 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 item 10]

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

10. Is the run-off from this field---

RUN-OFF CODES	
1	retained at the end of the field?
2	reused to irrigate on the farm?
3	collected in evaporation ponds on the farm?
4	drained from the farm?
5	there is no run-off

CODE

1214

1. In response to higher or more volatile fuel prices during the 2009 crop year for winter wheat, did you---

- a. reduce the number of field operations such as tillage, cultivation, or nutrient and pesticide applications on this field (i.e., compared to what you would have otherwise applied)? YES = 1 CODE
1220
- b. reduce the amount of irrigation water on this field (i.e., compared to what you would have otherwise applied)? YES = 1 1222
- c. change other production practices on this field? [If yes, specify: _____] YES = 1 1223

2. In response to higher or more volatile fertilizer prices during the 2009 crop year for winter wheat, did you---

- a. reduce the application rate of commercial nitrogen fertilizer on this field (i.e., compared to what you would have otherwise applied)? YES = 1 CODE
1224
 - (i) [If YES, ask--]
 - By what percent did you reduce the amount of commercial nitrogen fertilizer applied for 2009? PERCENT
1225
- b. change the type of commercial nitrogen fertilizer products applied on this field (i.e., compared to what you would have otherwise applied)? [e.g. less anhydrous ammonia and more UAN] YES = 1 CODE
1226
- c. increase the application rate of manure or other organic fertilizers on this field (i.e., compared to what you would have otherwise applied)? YES = 1 1227
- d. manage fertilizer more closely, with such practices as soil testing, split applications, variable rate applications, or soil incorporation on this field (i.e., compared to what you would have otherwise done)? YES = 1 1228

3. Was this field irrigated in 2008 and in 2009?

YES – [Continue] NO – [Go to Conclusion]

4. Did you alter production practices in 2009 due specifically to reduced availability of water supplies for irrigation on this field?

[If YES, continue; else go to Conclusion]

- a. Did you shift to wheat production on this field in 2009 due to reduced availability of water supplies? YES = 1 CODE
1221
- b. Did you reduce the water applied to this field in 2009 due to reduced availability of water supplies? YES = 1 1229
- c. Did you reduce the water applied to this field in 2009 due to reduced availability of water supplies? YES = 1 1230

