



**DURUM WHEAT PRODUCTION
PRACTICES AND COSTS REPORT**

for 2004

U.S. Department of Agriculture
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| VERSION | ID | TRACT | SUBTRACT | T-TYPE | TABLE | LINE |
|---------|----|-------|----------|--------|-------|------|
| 32 | | 01 | | 0 | 000 | 00 |



| CONTACT RECORD | | |
|----------------|------|-------|
| DATE | TIME | NOTES |
| | | |
| | | |
| | | |
| | | |

| R CODES | |
|------------------|------|
| 3 - COMPLETE | 0910 |
| 5 - OUT OF SCOPE | |
| 8 - IR | |
| 9 - INAC | |
| OPTIONAL | 0002 |
| OPTIONAL | 0003 |

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

We are collecting information on practices and costs to produce durum wheat and need your help to make the information as accurate as possible. Authority for collection of information on the Durum 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 0004
[MILITARY] _ _ _ _

SCREENING BOX
0006

[ENUMERATOR NOTE: If screening box is code 1, complete the screening Supplement. If Screening box is not coded, begin with Section A.]

| 0014 | CEAP Match | 0016 | CEAP ID |
|------|------------|------|---------|
| | | | |

OFFICE USE

Completion Code 0008
3 = Zero Target

[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 |

1. How many acres of wheat (winter, durum and other spring) did this operation plant for the 2004 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 | _____ |
|------|-------|

Of the total (item 1), how many 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 durum wheat fields planted for the 2004 crop.

- ▶ [If no durum wheat acres planted, item 1b is zero, review Screening Survey Information Form. Make notes, then go to item 4 on back page.]

TOTAL NUMBER OF FIELDS PLANTED

What is the TOTAL number of durum wheat fields that were planted on this operation?.....

| | |
|------|-------|
| 0020 | _____ |
|------|-------|

[If only 1 field, enter 1 and go to item 5.]

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

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

FIELD NAME, NUMBER OR DESCRIPTION

1 _____

2 _____

3 _____

4 _____

5 _____

6 _____

7 _____

8 _____

9 _____

FIELD NAME, NUMBER OR DESCRIPTION

10 _____

11 _____

12 _____

13 _____

14 _____

15 _____

16 _____

17 _____

18 _____

APPLY "RANDOM NUMBER" LABEL HERE

4. [ENUMERATOR ACTION:

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

SELECTED FIELD
NUMBER

0021

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

During this interview, the durum wheat questions will be about this selected durum wheat field.

[Be sure the operator can identify the selected field.]

OFFICE USE
OY Field Substituted

0022

1. How many acres of durum wheat did this operation plant in this field for the 2004 crop?

ACRES
1301

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--]
What was the cash rent paid per acre for this 2004 durum 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. What year did you (the operator listed on the label) start operating this field?

YEAR
1307

7. On what date was this field planted?

MM DD YY
1308

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

8. Was the wheat in this field planted with the intention of being harvested as organic wheat?

YES = 1

CODE
1306

UNIT CODES for Seeding Rate

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

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

| | | |
|----------------|------|------|
| UNITS PER ACRE | 1310 | 1311 |
|----------------|------|------|

11. **How many acres in this field had to be replanted to durum wheat?** ACRES
(Number of acres times the number of times replanted.) 1318

12. **Was the source of the durum wheat seed--** CODE

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

..... 1319

b. *[If item 12 = 2 or 3, ask--]*
 How much of the durum wheat seed planted in this field was grown
(or received in trade) by this operation. PERCENT
 1320

(1) What was the cost per bushel for cleaning and treating this seed? DOLLARS & CENTS PER BUSHEL
 1321

13. *[If any seed purchased (item 12 = 1 or 3), ask --]* UNIT CODES
 1 = POUNDS
 2 = CWT
 3 = TONS
 4 = BUSHEL
 22 = ACRE
 23 = 50 LB BAGS

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

| | |
|------|------|
| 1429 | 1430 |
|------|------|

14. **In 2004, did you plant a NON Genetically – modified (GM) herbicide resistant wheat** CODE
(such as Clearfield) seed variety on this field? YES = 1 1316

a. *If YES, ask*
 Did you choose the NON GM herbicide resistant wheat primarily to--- CODE

| |
|--|
| 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? |

..... 1317

15. **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?** CODES
Assume that the total cost of the seed (including technology fee) changes based on the following information---
 1 = Very likely to plant
 2 = Somewhat likely to plant
 3 = Uncertain
 4 = Somewhat unlikely to plant
 5 = Very unlikely to plant

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

16. **Has harvest of this field been completed?** YES = 1 CODE
 1343

NOTES

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

| How many acres in the durum wheat field were (will be)-- | 1 | | 2 |
|--|------------|---|---|
| | ACRES | What yield per acre did you get (do you expect to get) for— UNITS PER ACRE | UNIT CODES 1= POUNDS 2= CWT 3= TONS 4= BUSHELLS UNIT CODES |
| a. harvested for grain?..... | 1346 _____ | 1347 _____ | 1348 |
| b. harvested for silage or green chop?..... | 1349 _____ | 1350 _____ | TONS |
| c. harvested for commercial seed contract?..... | 1431 _____ | 1432 _____ | 1433 |
| d. abandoned?..... | 1351 _____ | | |

18. Was straw harvested from this field?

YES - [Enter code 1 and continue.]

NO - [Go to item 20.].....

CODE

1354

ACRES

1355 _____

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

a. How many tons of durum wheat straw were harvested from this (item 19) acres?.....

TOTAL TONS

1356

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

PERCENT OR

TONS

b. Of the total durum wheat straw harvested from this field (item 19a), 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 durum wheat straw from this field? (Include landlord's share.).....

1359

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

What was the price received per ton for all durum wheat straw (item 19a) sold from this field?.....

DOLLARS & CENTS PER TON

1360 _____

20. What type of livestock grazed this wheat field BEFORE wheat harvest?.....

- | | |
|---|--|
| 1 | Cattle |
| 2 | Sheep |
| 3 | Other, specify _____ |
| 4 | Livestock did NOT graze this Wheat field -Go to item 21. |

CODE

1361

HEAD

a. Regardless of ownership, about how many head of (livestock, item 20) grazed this 2004 durum wheat crop?.....

1362

DAYS

b. How many days did these livestock graze on this 2004 wheat crop?.....

1363

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

DOLLARS & CENTS PER ACRE

OR

TOTAL DOLLARS

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

1364 _____

1365

**CROP CODE LIST for item 21
PREVIOUSLY PLANTED CROP was---**

| | | | |
|-------------------|-------------------------------|-----------------------|---|
| 1 Alfalfa hay | 196 Tobacco, flue cured | 16 Peanuts | 26 Soybeans |
| 11 Hay, all other | 193 Tobacco, burley | 17 Dry Peas | 28 Sugarbeets |
| 190 Barley | 281 Cotton, Upland | 20 Potatoes | 30 Sunflowers |
| 3 Dry Beans | 282 Cotton, Pima | 21 Rice | 142 Vegetables |
| 85 Canola | 302 CRP | 22 Rye | 163 Wheat, durum |
| 310 Clover | 311 Grasses other than clover | 98 Safflower | 164 Wheat, other spring |
| 6 Corn for grain | 94 Mustard | 25 Sorghum for grain | 165 Wheat, winter |
| 5 Corn for silage | 15 Oats | 24 Sorghum for silage | 318 No crop planted during this period |
| | 31 Sweetpotatoes | | |

21. Next, I need to know what crops were previously PLANTED on the majority of this field, including cover crops.

| 1 What crop was PLANTED on this field in--- | | 2 Was this crop irrigated? | 3 Was this crop no-tilled? 1/ |
|--|-----------|-------------------------------|-------------------------------------|
| | CROP NAME | CROP CODE | |
| a. FALL of 2003?..... | | 1366 | 1367 |
| b. SPRING/SUMMER of 2003?..... | | 1369 | 1370 |
| c. FALL of 2002..... | | 1372 | 1373 |
| d. SPRING/SUMMER of 2002?..... | | 1375 | 1376 |
| e. FALL of 2001?..... | | 1378 | 1379 |
| f. SPRING/SUMMER of 2001?..... | | 1381 | 1382 |

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

22. In 2004, did your land-use practices for this field include---

| | CODE |
|--|------|
| a. terraces?..... YES = 1 | 1384 |
| b. temporary or permanent levees?..... YES = 1 | 1388 |
| c. grassed waterways?..... YES = 1 | 1392 |
| d. filter strips or riparian buffers on or adjoining the field?..... YES = 1 | 1396 |
| e. contour farming?..... YES = 1 | 1400 |
| f. strip cropping?..... YES = 1 | 1401 |
| g. underground outlets such as tile drainage?..... YES = 1 | 1402 |
| h. other drainage channels or diversions?..... YES = 1 | 1403 |

- CODE**
23. **Has the Natural Resource Conservation Service (NRCS) classified any part of this field as "Highly Erodible"?** YES = 1 1404
24. **Have you been notified by NRCS that this field contains a wetland?** YES = 1 1405
25. **In 2004, 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 on or adjoining this field. Include assistance from any source whether paid for or free.) YES = 1 1406
26. **In 2004, did you (or will you) receive cost-sharing or incentive payments for conservation practices on this field [Be sure to consider grassed waterways and filter strips or riparian buffers on or adjoining this field.]?**
(Include payments received from any source by either the owner or operator. Exclude rental payments for keeping the land in these practices.) YES = 1 1407

| 27. During 2004, did any written plan of the following types cover this field and if so, in what year was the plan implemented? <i>(A "written plan" is a plan prepared in accordance with Federal, State, or district standards.)</i> | CODE | YEAR IMPLEMENTED |
|--|-------------|-------------------------|
| a. Conservation plan specifying practices to reduce soil erosion? YES = 1 | 1408 | 1409 _____ |
| b. Comprehensive nutrient management plan specifying practices for applying both fertilizer and manure? YES = 1 | 1410 | 1411 _____ |
| c. Nutrient management plan specifying for land application of manure only? YES = 1 | 1412 | 1413 _____ |
| d. Pest management plan specifying pesticide use and/or other practices controlling weeds, insects, or plant disease? YES = 1 | 1414 | 1415 _____ |
| e. Irrigation water management plan specifying practices for applying or conserving irrigation water? YES = 1 | 1416 | 1417 _____ |

[If items 27a, b, c, d, or e = YES, ask---]

- CODE**
28. **During 2004, did you pay any technical service provider or consultant to develop or write any of these plans which included this field?** YES = 1 1418
- a. *[If YES, ask---]*
- | | DOLLARS & CENTS PER ACRE | OR | TOTAL DOLLARS |
|--|-------------------------------------|-----------|----------------------|
| What was the cost for developing these plans for this field? <i>(Include landlord's/contractor's share. Exclude cost of construction or materials.)</i> | 1419 | | 1420 |

29. Was the durum wheat crop on this field covered by Crop Insurance in 2004?

- CODE**
- YES** - *[Enter code 1 and continue.]* YES = 1 1421
- NO** - *[Go to Section C.]*
- If YES, which coverages did you obtain?
[Enter code for all that apply.]
- a. **Basic catastrophic insurance** (Federal CAT) bought for a flat fee and protects against crop loss greater than 50% of average yield, at 55% of the price..... YES = 1 1422
- b. **Buy-up on Basic Federal CAT** for higher levels of yield and price protection (such as 65% of yield and 100% price, multi peril crop insurance)..... YES = 1 1423
- c. **Revenue Insurance** include income Protection (IP), Crop Revenue Coverage (CRC), and Revenue Assurance(RA)..... YES = 1 1424
- d. **Other Federal Crop Insurance** (Group Risk Plan, Adjusted Gross Revenue, Group Risk Income Protection, etc.) YES = 1 1425
- e. **Other Private Crop Insurance** (Hail, wind, freeze, etc.) YES = 1 1426

| | | |
|--|------|------------|
| 1. Were commercial FERTILIZERS applied to this field for the 2004 durum wheat crop?..... YES = 1 | CODE | EDIT TABLE |
| | 0202 | 0201 |

2. [If COMMERCIAL fertilizer applied, continue, else go to item 5.]

| | |
|---|--------|
| 3. How many commercial fertilizer applications were made to this field for the 2004 crop? (Include applications made by airplanes and commercial applicators)..... | NUMBER |
| | 0203 |

4. Now I need to record information for each application

| CHECKLIST | |
|--|--|
| INCLUDE | EXCLUDE |
| <input type="checkbox"/> Custom applied fertilizers | <input type="checkbox"/> Micronutrients |
| <input type="checkbox"/> Fertilizers applied in the fall of 2003 and those applied earlier if this field was fallow in 2003. | <input type="checkbox"/> Unprocessed manure <input type="checkbox"/> Fertilizer applied to previous crops in this field |
| <input type="checkbox"/> Commercially prepared manure | <input type="checkbox"/> Lime and Gypsum/landplaster |

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

| LINE | 2 MATERIALS USED | | | 3 What quantity was applied per acre? [Leave this column blank if actual nutrients were reported.] | 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? 1 Broadcast, ground without incorporation 2 Broadcast, ground with incorporation 3 Broadcast, by air 4 In seed furrow 5 In irrigation water 6 Chisel, injected or knifed in 7 Banded/Sidedressed in or over row 8 Foliar or directed spray | 7 How many acres were treated In this application? ACRES |
|------|------------------|---|-------------------------|---|---|---|--|---|
| | N Nitrogen | P ₂ O ₅ Phosphate | K ₂ O Potash | | | | | |
| 01 | 0205 | 0206 | 0207 | 0208 | 0209 | 0210 | 0211 | 0212 |
| 02 | 0205 | 0206 | 0207 | 0208 | 0209 | 0210 | 0211 | 0212 |
| 03 | 0205 | 0206 | 0207 | 0208 | 0209 | 0210 | 0211 | 0212 |
| 04 | 0205 | 0206 | 0207 | 0208 | 0209 | 0210 | 0211 | 0212 |
| 05 | 0205 | 0206 | 0207 | 0208 | 0209 | 0210 | 0211 | 0212 |
| 06 | 0205 | 0206 | 0207 | 0208 | 0209 | 0210 | 0211 | 0212 |
| 07 | 0205 | 0206 | 0207 | 0208 | 0209 | 0210 | 0211 | 0212 |
| 08 | 0205 | 0206 | 0207 | 0208 | 0209 | 0210 | 0211 | 0212 |
| | T - TYPE | | TABLE | | LINE | | | |
| | 0 | | 000 | | 00 | | | |

5. **Was sulfur applied to this field for the 2004 durum wheat crop?**
(Include direct applications and sulfur applied as a component of a fertilizer applications.) YES = 1

a. *[If sulfur applied, ask--]*

How many pounds of sulfur were applied per acre?

6. **Was gypsum applied to this field for the 2004 durum wheat crop?** YES = 1

7. **Were any fertilizers applied by custom applicators?**
 YES - *[Continue.]* NO - *[Go to item 8.]*

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

YES - *[Continue.]* NO - *[Go to item 8.]*

b. Excluding the cost of the fertilizer materials, how much was spent for custom application of fertilizers on this field?
(Include landlord and contractor costs.
Exclude custom application of lime, gypsum, & purchased manure.)
[If material and application costs can't be separated,
exclude them here and record the total in item 8.]

8. **What was the TOTAL COST of all fertilizer products applied to this field?**

(Include landlord and contractor costs.
Exclude lime, gypsum, & purchased manure.)
[If custom applied, include the cost of materials ONLY,
unless materials and application costs cannot be separated.
Include materials applied to this field if it was fallow in 2003.]

[If planted with the intention of harvesting for grain (item B7a = 1 or 2), ask--]

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

10. **Was a soil or plant tissue test performed on this durum wheat field in 2003 or 2004 for the 2004 crop?**
 YES *[Continue.]* NO *[Go to item 15.]*

11. **Was a soil test for phosphorus performed on this durum wheat field in 2003 or 2004 for the 2004 crop?** YES = 1

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

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

12. **Was a soil test for nitrogen performed on this durum wheat field in 2003 or 2004 for the 2004 crop?** YES = 1

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

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

CODE

0216

POUNDS PER ACRE

0217

CODE

0218

OFFICE USE

0215

DOLLARS & CENTS PER ACRE

OR TOTAL DOLLARS

0219

0220

DOLLARS & CENTS PER ACRE

OR TOTAL DOLLARS

0221

0222

BUSHEL PER ACRE

0223

CODE

0225

POUNDS PER ACRE

0226

CODE

0227

POUNDS PER ACRE

0228

13. Was a plant tissue test for nutrient deficiency performed on this field in 2003 or 2004 for the 2004 durum wheat crop? YES = 1

CODE
0229

14. How much was spent for these soil and plant tissue tests on this field? [Include landlord and contractor costs.] DOLLARS & CENTS PER ACRE OR TOTAL DOLLARS

0230 0231

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 8. |
| 3 | Some other reason. |

CODE
0232

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

16. Was the amount of nitrogen you decided to apply to this field based on--- [Enter code for all that apply.]

| | | |
|---|---------|--------------|
| 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 |

17. Did you use any product to slow the breakdown of nitrogen on this field? (For example a nitrification inhibitor such as N-Serve or a urease inhibitor such as Agrotain) YES = 1

CODE
0241

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

CODE
0242

a. [If no lime applied, go to item 19---else continue.]

YEARS
0243

On average, how many years are there between applications of **lime** to this field?

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

TONS PER ACRE
0244

c. [If rented, 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 manure applied to this field for the 2004 durum wheat crop?

(Exclude commercially prepared manure.)

YES - [Enter code 1 and continue.]

NO - [Go to Section D.]

CODE

0246

ACRES

0247

a. How many acres 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

0249

OR

TOTAL UNITS

0250

MILES

0251

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

d. What was the capacity of the manure spreader used to apply manure to this field?

- 1 TONS
- 2 GALLONS
- 3 BUSHELS

CODE

0252

AND

TOTAL UNITS

0253

e. What was the percent of manure applied---

PERCENT

(1) in the fall before planting?

+

0254

(2) in the spring before planting?

+

0255

(3) 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, food waste, etc.)?
- 8 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?

CODE

0260

CODE

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

| |
|------|
| 0261 |
|------|
- a. [If item 20 is YES, ask--]
What basis was used to determine these manure application rate restrictions--
- (1) Nitrogen requirement of the crop? YES = 1

| |
|------|
| 0262 |
|------|
- (2) Phosphorus requirement of the crop? YES = 1

| |
|------|
| 0263 |
|------|

NOTES

Now I have some questions about all the pesticides used on this field for the 2004 durum wheat crop including both custom applications and applications made by this operation.

1. Were any herbicides, insecticides, fungicides or other chemicals used on the durum wheat field for the 2004 crop? YES = 1

| | |
|------|------------|
| CODE | EDIT TABLE |
| 0302 | 0301 |

[Probe for applications made in the fall of 2003 (and those made earlier if this field was fallow).]

[If no pesticides applied, go to Section E.]

| | |
|--|---|
| Include defoliants, fungicides, herbicides, insecticides, and pesticides Include biological and botanical pesticides. | Exclude 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? [Show product codes from Respondent Booklet.] | Was this product bought in liquid or dry form? [Enter L or D] | Was this part of a tank mix? [If tank mix, enter line number of first product in mix.] | 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? | [Enter unit code.] 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 pesticides not listed in Respondent Booklet, specify---]

| LINE | Pesticide Type (Herbicide, Insecticide Fungicide, etc.) | EPA No. or Trade name And Formulation | Form Purchased (Liquid or Dry) | Where Purchased [ASK only if EPA No. cannot be reported.] |
|------|---|--|-----------------------------------|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |

APPLICATIONS CODES for column 9

- | | |
|---|--------------------------------|
| 1 Broadcast, ground without incorporation | 6 Chisel/Injected or Knifed in |
| 2 Broadcast, ground with incorporation | 7 Banded in or over row |
| 3 Broadcast, by air (<i>Aerial application</i>) | 8 Foliar or directed spray |
| 4 In Seed furrow | 9 Spot treatments |
| 5 In Irrigation water | |

[ENUMERATOR NOTE:
Use these columns only if

TOTAL COST
(item 4 on next page)
cannot be provided.]



[If column 9 = 9, then column 6 and column 10 must be blank]

| 9 | | | | | 10 | | 11 | | 12 | | OPTIONAL ITEM 4 | | | |
|------------------|---|--|---|--|----------------------------|-----------|------------|------------------|---------------|----------|--|--|--|--|
| | | | | | | | | | | | What was the cost per unit of the product? | | | |
| L I N E | How was this product applied? [Enter code from above.] | How many acres in this field were treated with this product? ACRES | How many times was it applied? NUMBER | Were these applications made by— 1 Operator, Partner or family member? 2 Custom applicator? 3 Employee/Other? | DOLLARS and CENTS PER UNIT | UNIT CODE | | | | | | | | |
| | | | | | | 1 Pounds | 12 Gallons | 15 Liquid Ounces | 28 Dry Ounces | 30 Grams | | | | |
| 01 | 0311 | 0312 | 0313 | 0316 | 0317 | 0318 | | | | | | | | |
| 02 | 0311 | 0312 | 0313 | 0316 | 0317 | 0318 | | | | | | | | |
| 03 | 0311 | 0312 | 0313 | 0316 | 0317 | 0318 | | | | | | | | |
| 04 | 0311 | 0312 | 0313 | 0316 | 0317 | 0318 | | | | | | | | |
| 05 | 0311 | 0312 | 0313 | 0316 | 0317 | 0318 | | | | | | | | |
| 06 | 0311 | 0312 | 0313 | 0316 | 0317 | 0318 | | | | | | | | |
| 07 | 0311 | 0312 | 0313 | 0316 | 0317 | 0318 | | | | | | | | |
| 08 | 0311 | 0312 | 0313 | 0316 | 0317 | 0318 | | | | | | | | |
| 09 | 0311 | 0312 | 0313 | 0316 | 0317 | 0318 | | | | | | | | |
| 10 | 0311 | 0312 | 0313 | 0316 | 0317 | 0318 | | | | | | | | |
| 11 | 0311 | 0312 | 0313 | 0316 | 0317 | 0318 | | | | | | | | |
| 12 | 0311 | 0312 | 0313 | 0316 | 0317 | 0318 | | | | | | | | |
| 13 | 0311 | 0312 | 0313 | 0316 | 0317 | 0318 | | | | | | | | |
| 14 | 0311 | 0312 | 0313 | 0316 | 0317 | 0318 | | | | | | | | |

3. **Were any chemicals 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 product and custom application separately?

| |
|------|
| 0324 |
|------|

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

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

| DOLLAR & CENTS PER ACRE | OR | TOTAL DOLLARS |
|----------------------------|----|---------------|
| 0331 | | 0332 |

4. **What was the TOTAL COST of all chemical products applied to this field?**

| DOLLAR & CENTS PER ACRE | OR | TOTAL DOLLARS |
|----------------------------|----|---------------|
| 0334 | | 0335 |

Include operator and landlord cost, defoliant, herbicides, insecticides, fungicides, surfactants, wetting agents, growth regulators, and materials applied before planting and during 2003 fallow period.

Exclude seed treatments.

NOTE 1: *If respondent cannot report TOTAL COST, itemize cost for each product in optional columns in Pesticide Table, item D1.*

NOTE 2: *For custom applications. If respondent cannot report cost of chemical product separately from application costs, report both in item 4.*

Now I have some questions about your pest management decisions and practices used on this field for the 2004 durum wheat crop.
By pests, we mean WEEDS, INSECTS, and DISEASES.

| T-TYPE | TABLE | LINE |
|--------|-------|------|
| 0 | 000 | 00 |

1. [Enumerator Action: Were PESTICIDE APPLICATIONS reported in Section D?]

- YES - [Continue.] NO - [Go to item 10.]

2. Was weather data used to assist in determining either the need or when to make pesticide applications?..... YES = 1
3. 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
4. Were pesticides with different mechanisms of action rotated or tank mixed for the primary purpose of keeping pests from becoming resistant to pesticides?..... YES = 1

| CODE |
|------|
| 0800 |
| 0801 |
| 802 |

5. [Enumeration Action: Were HERBICIDES used (pesticide product codes 4000-4999), Section D, item 1, column 2?]

- YES - [Continue.] NO - [Go to item 8.]

6. Were herbicides applied to this durum wheat field BEFORE weeds emerged? [If item 6 = YES, ask---]..... YES = 1

| CODE |
|------|
| 0803 |

a. Were the herbicides applied BEFORE weeds emerged on this durum wheat field based primarily on---

- | | |
|----|--|
| 1 | routine treatments of what weeds are usually present? |
| OR | |
| 2 | weed scouting from the previous year? |

| CODE |
|------|
| 0804 |

7. Were herbicides applied to this durum wheat field AFTER weeds emerged? [If item 7 = YES, ask---]..... YES = 1

| CODE |
|------|
| 0805 |

a. Were the herbicides applied AFTER weeds emerged on this durum wheat field based primarily on---

- | | |
|----|--|
| 1 | routine treatments of what weeds are usually present? |
| OR | |
| 2 | weed scouting from the current year? |

| CODE |
|------|
| 0806 |

8. [Enumeration Action: Were INSECTICIDES used (pesticide product codes 1000 – 1999), in Section D, item 1, column 2?]

- YES - [Continue.] NO - [Go to item 10.]

9. Were the insecticides applied to this durum wheat field based primarily on---

- | | |
|----|--|
| 1 | routine treatments of what insects are usually present? |
| OR | |
| 2 | scouting for insect infestation? |

| CODE |
|------|
| 0807 |

10. In 2004, how was this field primarily scouted for insects, weeds, diseases, and/or beneficial organisms---

| | | |
|---|--|------|
| 1 | By conducting general observations while performing routine tasks? [Enter code 1 and go to item 13.] | 0808 |
| 2 | By deliberately going to the field specifically for scouting activities? [Enter code 2 and go to item 11.] | |
| 3 | This field was not scouted. [Enter code 3 and go to item 18.] | |

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

CODE

0809

12. 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 |
|--|---|---|
| 13. Was this durum wheat field scouted for-- | [If YES, ask---] Was the infestation level for [column 1]— | [If column 1 = YES, ask---] Who did the majority of the scouting for [column 1]--- |
| YES = 1 | CODE | CODE |
| a. weeds?..... | 0812 | 0814 |
| b. insects or mites?..... | 0815 | 0817 |
| c. diseases?..... | 0818 | 0820 |

14. [If scouted by crop consultant or commercial scout, ask---; else go to item 15.]

How much did you pay for the scouting services for this field? [Include landlord and contractor cost.].....

| | | | |
|--|--------------------------|----|---------------|
| | DOLLARS & CENTS PER ACRE | OR | TOTAL DOLLARS |
| | 0821 | | 0822 |

a. [Note: 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

16. Was scouting data compared to published information on infestation thresholds to determine when to take measures to manage pests in field?..... YES = 1

17. Was field mapping data used for making weed management decisions on this field?..... YES = 1

CODE

0823

0824

0825

| | | |
|--|---------|------|
| 18. Were the services of a diagnostic laboratory used for pest identification or soil plant tissue pest analysis for this field? | YES = 1 | 0826 |
| 19. Were crop residues plowed down or removed in this field to manage pests? | YES = 1 | 0828 |
| 20. Were crops rotated in this field during the past 3 years for the purpose of managing pest problems? | YES = 1 | 0829 |
| 21. Were ground covers, mulches or other physical barriers maintained for this field to manage pest problems? | YES = 1 | 0830 |
| 22. Was a crop variety chosen to plant in this field because it had resistance to a specific pest? | YES = 1 | 0831 |
| 23. Was no-till or minimum till used to manage pests in this field? | YES = 1 | 0832 |
| 24. Were planting locations planned to avoid cross infestation of pests? | YES = 1 | 0833 |
| 25. Were planting or harvesting dates adjusted for this field to manage pests? | YES = 1 | 0834 |
| 31. Were field edges, lanes, ditches, roadways or fence lines chopped, mowed, plowed, or burned to manage pests for this field? | YES = 1 | 0843 |
| 32. Were equipment and implements cleaned after completing field work to reduce the spread of pests? | YES = 1 | 0844 |

PEST MANAGEMENT INFORMATION

33. [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 2004 durum wheat crop?

(Starting with the most influential in determining the pest management practices used on this operation, enter code(s) for up to 3 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 <i>(DTN, Internet, World Wide Web, etc.)</i> |
| 8 | Employee Pest Advisor |
| 9 | Other – (Specify: _____) |
| 10 | None – Operator used no outside information source |

[Enter up to 3 source codes.]

FIRST

0845

SECOND

0846

THIRD

0847

CODE

0848

34. **Other than pesticide applicator training, have you (*the operator*) attended any training session on pest identification and management since October 1, 2003?..... YES = 1**

| Completion Code for Pest Management Data | |
|--|------|
| 1- Incomplete/Refusal | 0340 |

1. Now I need to list all tractors used to produce durum wheat on this 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 MAKE and MODEL | 3 What was 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 | | 0120 ____ | 0121 | 0122 | 0123 |
| 2 | | 0124 ____ | 0125 | 0126 | 0127 |
| 3 | | 0128 ____ | 0129 | 0130 | 0131 |
| 4 | | 0132 ____ | 0133 | 0134 | 0135 |
| 5 | | 0136 ____ | 0137 | 0138 | 0139 |
| 6 | | 0140 ____ | 0141 | 0142 | 0143 |
| 7 | | 0144 ____ | 0145 | 0146 | 0147 |
| 8 | | 0148 ____ | 0149 | 0150 | 0151 |
| 9 | | 0152 ____ | 0153 | 0154 | 0155 |
| 10 | | 0156 ____ | 0157 | 0158 | 0159 |

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

- YES - [Continue.] NO - [If NO, go to 2c.]

[If item 2 = YES, ask---]

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

YEAR

0849

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

YEAR

0850

c. Did you use a defoliant in place of a swather to harvest the durum wheat from this field?

CODE

0851

YES = 1

3. Including custom operations, I need to list field work performed by machines on this field for the 2004 durum wheat crop. Please...

- ▶ Begin with the first field operation after harvest of previous crop, (If fallow during 2003, list operations starting with fall 2002.)
- ▶ 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?---[Go to Column 11.] |

| 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 S E Q U E N C E 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] | | | | | 11 In what month and year was this operation done? MM YY |
|--|--|---|--|--|--|---|--|---|--|
| | | | | 6 What was the size or swath of the [machine] used? | 7 [Record size code.] 1 Feet 2 Row 3 Moldboard (bottoms) Hauling 4 Pounds 5 Bushels 6 Tons CODE | 8 Which tractor Was used? [Record line number from item 1.] 66 Animal Drawn 77 Pick up 99 Self-Propelled 1/ | 9 How many acres were covered? 2/ ACRES | 10 How many acres were covered per hour? ACRES PER HOUR | |
| 0351 | | 0352 | 0353 | 0354 | 0355 | 0356 | 0357 | 0358 | 0359 |
| 0361 | | 0362 | 0363 | 0364 | 0365 | 0366 | 0367 | 0368 | 0369 |
| 0371 | | 0372 | 0373 | 0374 | 0375 | 0376 | 0377 | 0378 | 0379 |
| 0381 | | 0382 | 0383 | 0384 | 0385 | 0386 | 0387 | 0388 | 0389 |
| 0391 | | 0392 | 0393 | 0394 | 0395 | 0396 | 0397 | 0398 | 0399 |
| 0401 | | 0402 | 0403 | 0404 | 0405 | 0406 | 0407 | 0408 | 0409 |
| 0411 | | 0412 | 0413 | 0414 | 0415 | 0416 | 0417 | 0418 | 0419 |
| 0421 | | 0422 | 0423 | 0424 | 0425 | 0426 | 0427 | 0428 | 0429 |
| 0431 | | 0432 | 0433 | 0434 | 0435 | 0436 | 0437 | 0438 | 0439 |
| 0441 | | 0442 | 0443 | 0444 | 0445 | 0446 | 0447 | 0448 | 0449 |
| 0451 | | 0452 | 0453 | 0454 | 0455 | 0456 | 0457 | 0458 | 0459 |
| 0461 | | 0462 | 0463 | 0464 | 0465 | 0466 | 0467 | 0468 | 0469 |
| 0471 | | 0472 | 0473 | 0474 | 0475 | 0476 | 0477 | 0478 | 0479 |
| 0481 | | 0482 | 0483 | 0484 | 0485 | 0483 | 0487 | 0488 | 0489 |
| 0491 | | 0492 | 0493 | 0494 | 0495 | 0496 | 0497 | 0498 | 0499 |
| 0501 | | 0502 | 0503 | 0504 | 0505 | 0506 | 0507 | 0508 | 0509 |
| 0511 | | 0512 | 0513 | 0514 | 0515 | 0516 | 0517 | 0518 | 0519 |
| 0521 | | 0522 | 0523 | 0524 | 0525 | 0526 | 0527 | 0528 | 0529 |

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

2/ For backhoes, disk border maker, ditch closer, ditcher, levee-plow disk, quarter drain machine, rear mounted blade, and hauling operations, enter TOTAL HOURS, and leave column 10 blank.

OFFICE USE

0032

4. I need some information about the additional labor, other than the labor just reported operating machines, that worked on this field.

Please report the paid and unpaid labor that worked on this field to produce the 2004 durum wheat crop.

| TYPE OF WORKERS | 1 How many hours did (type of worker) spend on this field--- | | |
|--|---|------------------|--|
| | a. scouting for weeds and insects? | b. irrigating | c. for overhead activities (moving and loading inputs, manual operations, overseeing hired labor, bookkeeping and other management activities) |
| | HOURS | HOURS | HOURS |
| Operator, partners, family members and other unpaid workers. | 1100 | 1101 | 1103 |
| Full-time hired workers (Exclude custom and contract labor). | 1105 | 1106 | 1108 |
| Part-time or seasonal hired workers (Exclude custom and contract labor). | 1110 | 1111 | 1113 |

5. 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
6. 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
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 landlord and contractor costs.) DOLLARS & CENTS PER ACRE
8. What percent of the total hours worked on this field by UNPAID workers was worked by children under 16 years old? PERCENT

9. Now I need some information on how much was spent for custom services used on this field for the 2004 durum wheat crop.

| 1 CUSTOM SERVICE | 2 Including landlord's/contractor's cost, how much was spent for [column 1] on this field for the 2004 durum wheat crop? DOLLARS & CENTS PER ACRE |
|--|---|
| Which of these services were done for the 2004 durum wheat crop on this field? √ [Check √ box for each service performed; refer to item F3 if necessary.] | |
| <input type="checkbox"/> a. custom land preparation, shaping and/or leveling? | 1119 _____ |
| <input type="checkbox"/> b. custom cultivating? | 1120 _____ |
| <input type="checkbox"/> c. custom planting and/or reseeding? | 1121 _____ |
| <input type="checkbox"/> d. custom harvesting? | 1122 _____ |
| <input type="checkbox"/> f. custom hauling to storage or point of first sale? | 1126 _____ |
| (_____ X _____ ÷ _____ = _____ Dollars & Cents per acre.) | |
| <input type="checkbox"/> g. harvesting and hauling from field to storage or point of first sale? | 1127 _____ |
| (_____ X _____ ÷ _____ = _____ Dollars & Cents per acre.) | |
| <input type="checkbox"/> h. custom raking, baling, and hauling the straw from this field? | 1128 _____ |
| (_____ X _____ ÷ _____ = _____ Dollars & Cents per acre.) | |

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

YES - [Continue.] NO - [Go to item 12.]

| | CODE |
|--|------|
| a. Nutrient recommendations/management service? | 1129 |
| b. Collect soil or tissue samples? | 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 |

11. If YES to any of these services, what was the cost for all of these services?

(Include landlord/contractor cost.

Exclude cost of soil/tissue tests or scouting cost reported earlier.

Do not report costs for any of these services if they were reported as part of the costs of materials and/or application costs previously.)

| DOLLARS & CENTS PER ACRE | OR | TOTAL DOLLARS |
|-----------------------------|----|---------------|
| 1136 _____ | | 1137 _____ |

| | | CODE |
|---|---------|------|
| 12. Was there (will there be) a yield monitor on the equipment used to harvest this durum wheat field? | YES = 1 | 1138 |
| <i>[If YES, continue; else go to item 13.]</i> | | |
| a. Was there (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>[Enter code for all that apply.]</i> | | |
| (1) monitor crop moisture content to determine need for crop drying?..... | YES = 1 | 1140 |
| (2) add/improve tile drainage?..... | YES = 1 | 1141 |
| (3) add/improve irrigation equipment/irrigation water application?..... | YES = 1 | 1142 |
| (4) conduct in-field experiments (e.g., <i>compare fertilizer applications, seed varieties, herbicides, pesticides, etc?</i>)?..... | YES = 1 | 1143 |
| (5) negotiate new crop leases?..... | YES = 1 | 1144 |
| (6) document yields for crop insurance, real estate tax, or farm program purposes?..... | YES = 1 | 1145 |
| (7) accurately divide crop production among partners and/or for landlord crop shares?..... | YES = 1 | 1146 |
| (8) other uses [specify _____] | YES = 1 | 1147 |
| | | CODE |
| 13. During 2003 or 2004, was a GPS (Global Positioning System) device used to geo-reference and/or produce a map of the soil properties of this field? <i>(such as soil nitrate levels, PH, etc.)</i> | YES = 1 | 1148 |
| <i>[If item 13 = YES, Ask 13a and 13b; else go to item 14.]</i> | | |
| a. Was a map (or will a map be) produced based on soil tests from this field?..... | YES = 1 | 1149 |
| b. Was a map (or will a map be) produced based on a machine that measured electrical conductivity of the soil (e.g. <i>Veris machine</i>)?..... | YES = 1 | 1150 |
| | | CODE |
| 14. Did you have an airplane or satellite provide an image or photograph of this field either at the start or during the 2004 growing season? | YES = 1 | 1151 |
| 15. Was a variable rate applicator (i.e., variable rate technology or VRT) used on this field for--- | | |
| a. fertilization or liming?..... | YES = 1 | 1152 |
| (1) <i>If YES, ask---Did you use a variable rate applicator for---</i> <i>[Enter code for all that apply.]</i> | | |
| a. nitrogen applications?..... | YES = 1 | 1153 |
| b. phosphorus applications?..... | YES = 1 | 1154 |
| c. potash applications?..... | YES = 1 | 1155 |
| d. lime applications?..... | YES = 1 | 1156 |
| e. manure applications?..... | YES = 1 | 1157 |
| b. seeding?..... | YES = 1 | 1158 |
| c. pesticide applications?..... | YES = 1 | 1159 |
| 16. Was a guidance or parallel swathing system (connected to G.P.S.) used with any machine operation on this field (e.g. <i>light bar</i>)? | YES = 1 | 1212 |

ACRES

1. How many acres in this field were irrigated for the 2004 durum 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 2004 durum wheat crop.

| | | UNIT | SYSTEM 1 | SYSTEM 2 |
|---|---|------------------------------|----------|----------|
| ↓ | | | | |
| a. What type(s) of irrigation system(s) was used to irrigate this field? [Show System Type Codes in the Respondent Booklet. Enter System Type Code for up to two systems covering the most field acres.] | | SYSTEM TYPE CODE | 1161 | 1175 |
| b. What was the total quantity of water applied to this field during the entire growing season? [Include ALL water used from both on-farm and off-farm sources.]..... | | INCHES PER ACRE OR | 1162 | 1176 |
| | | TOTAL ACRE -FEET | 1163 | 1177 |
| [If operator cannot provide item 2b , ask (1) & (2)---] (1) What is the total number of hours this system was used to apply water to this field during the durum wheat growing season?..... | | TOTAL HOURS | 1164 | 1178 |
| (2) 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 durum wheat growing season using this system? [Include any pre-plant irrigation.] | | NUMBER OF IRRIGATIONS | 1167 | 1181 |
| e. Was the pump type--- [Enter code for most common 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 e = 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 2004 growing season? [Exclude this field.] | | ACRES | 1174 | 1188 |

3. Was any water purchased to irrigate this field?

(Include landlord's share and purchases from all sources.)

CODE

1189

YES - [Enter code 1 and continue.] NO - [Go to item 4.]

PERCENT

1190

a. What percent of the water used on this field was purchased?

DOLLARS & CENTS
PER ACRE

OR

TOTAL DOLLARS

1191

1192

b. What was the total cost for the water purchased for this field during the 2004 growing season?
(Include landlord and contractor costs and ditch maintenance costs.)

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

TOTAL DOLLARS

1193

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

5. [If POLY PIPE system were used (line a of item 2 = 14) ask---]

TOTAL DOLLARS

1194

What was the total amount spent for poly pipe used on this field during the 2004 growing season?

6. [If GATED PIPE system were used (line a of item 2 = 15 or 16), ask---]

INCHES

1195

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

FEET

1196

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

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

CODE

1197

YES - [Enter code 1 and continue.] NO - [Go to item 8.]

NUMBER

1198

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

INCHES

1199

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

FEET

1200

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

1201

d. Did this well(s) have a water meter or other flow measurement device? YES = 1

e. Were other fields irrigated using water pumped from well(s) that supplied water to the selected field?

CODE

1202

YES - [Enter code 1 and continue.] NO - [Go to item 8.]

ACRES

1203

(1) How many other acres on this operation were irrigated using the same well(s) during the 2004 growing season? (Excluding this field)

8. **Other than pipe that is part of the system, was any additional mainline or lateral pipe used to carry water from the source to this field?**
(Include underground pipe.)

YES - [Continue.]

NO - [Go to item 9.]

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

INCHES

1205

FEET

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

1206

RUN-OFF CODES

- 1 retained at the end of the field?
- 2 re-used 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

9. **Is the run-off from this field---**.....

1207

10. **Were water management practices such as irrigation scheduling, controlled drainage, or treatment of retention water used on this field to manage for pests or aflatoxin?**.....

1208

YES = 1

1. [If selected field RENTED (Section B, item 2), ask---, else go to Conclusion.]

What was the total cost for all inputs provided by any landlord and contractor for the 2004 crop?

(Include the costs for all inputs, such as seed, fertilizer, chemicals, technical services, custom operations, and irrigation. (Exclude real estate tax expenses, drying, and lime costs paid by the landowner.)

| DOLLARS & CENTS PER ACRE | OR | TOTAL DOLLARS |
|-----------------------------|----|---------------|
| 1209 | | 1210 |
| | | |

CONCLUSION

LOCATION OF SELECTED FIELD

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

What county is the selected durum wheat field in?

Field description.....

COUNTY NAME

OFFICE USE
COUNTY FIPS
CODE

0010

2. [ENUMERATOR ACTION:

*Mark map to indicate where the selected durum wheat field is located.
Be sure the "X" marked on map is in county identified above.]*

3. We will need additional information to complete this study. We will contact you in February or March, 2005, to collect it. I'll call you then to set up a time that is good for you.

4. Would you like to receive a copy of the results of this survey in the mail?

(Results will also be available on the Internet at <http://www.usda.gov/nass/>
& <http://www.ers.usda.gov/>.)

YES = 1

CODE

0099

RECORDS USE

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

a. [fertilizer data?]..... YES = 1

b. [pesticide data?]..... YES = 1

c. [majority of this expense data?]..... YES = 1

CODE

0011

0012

0013

SUPPLEMENTS USED

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

FERTILIZER
APPLICATIONS

PESTICIDE
APPLICATIONS

FIELD
OPERATIONS

NUMBER

0041

0042

0043

RESPONDENT.....

Respondent's name
[f code 3, 4, or 9].....

Phone.....

- 1 OPERATOR/MANAGER
- 2 SPOUSE
- 3 ACCOUNTANT/BOOKKEEPER
- 4 OTHER
- 8 OFFICE HOLD
- 9 PARTNER

CODE

0101

ENDING TIME[MILITARY].....

DATE.....

ENUMERATOR NAME.....

MILITARY TIME
H H M M

0005

MM DD YY

0007

04

ENUMERATOR ID

0098

EVALUATION

0100