



**NATIONAL  
AGRICULTURAL  
STATISTICS  
SERVICE**

U.S. Department of Agriculture  
Rm 5805, South Building  
1400 Independence Avenue, S.W.  
Washington, D.C. 20250-2000  
202-720-7017

**AGRICULTURAL RESOURCE MANAGEMENT SURVEY  
BARLEY PRODUCTION  
PRACTICES and COSTS REPORT  
for 2003**

Form Approved  
O.M.B. Number 0535-0218  
Approval Expires 12/31/03  
Project Code 906  
Phase II

<b>VERSION</b> <b>2</b>	<b>ID</b> _____	<b>TRACT</b> <b>01</b>	<b>SUBTRACT</b> _____	<b>T-TYPE</b> <b>0</b>	<b>TABLE</b> <b>000</b>	<b>LINE</b> <b>00</b>
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CONTACT RECORD		
DATE	TIME	NOTES

R CODES	
3 - COMPLETE	0910
5 - OUT OF SCOPE	
8 - REFUSAL	
9 - INAC./INCOMPL.	
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 barley and need your help to make the information as accurate as possible. Authority for collection of information on the Barley 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.]**

OFFICE USE

Completion Code 0008  
3 = ZERO TARGET

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

<b>PARTNERS:</b>	<b>POID</b> _____	<b>POID</b> _____
<i>PARTNER NAME</i>	<i>PARTNER NAME</i>	<i>PARTNER NAME</i>
<i>ADDRESS</i>	<i>ADDRESS</i>	<i>ADDRESS</i>
<i>CITY</i> <i>STATE</i> <i>ZIP</i> <i>PHONE NUMBER</i>	<i>CITY</i> <i>STATE</i> <i>ZIP</i> <i>PHONE NUMBER</i>	<i>CITY</i> <i>STATE</i> <i>ZIP</i> <i>PHONE NUMBER</i>
<b>POID</b> _____	<b>POID</b> _____	<b>POID</b> _____
<i>PARTNER NAME</i>	<i>PARTNER NAME</i>	<i>PARTNER NAME</i>
<i>ADDRESS</i>	<i>ADDRESS</i>	<i>ADDRESS</i>
<i>CITY</i> <i>STATE</i> <i>ZIP</i> <i>PHONE NUMBER</i>	<i>CITY</i> <i>STATE</i> <i>ZIP</i> <i>PHONE NUMBER</i>	<i>CITY</i> <i>STATE</i> <i>ZIP</i> <i>PHONE NUMBER</i>

# A BARLEY FIELD SELECTION

1. How many acres of barley (*feed, seed or malt*) did this operation plant for the 2003 crop year? (*Exclude acres planted only for cover crop or to be grazed.*)

[> If no acres planted, review Screening Survey Information Form. Make notes, then go to item 4 on back page. For winter barley, record acres planted in fall/winter 2002 for 2003 crop year.]

TOTAL PLANTED ACRES

0050	•	_____
------	---	-------

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

- a. feed barley? .....
- b. malt barley? .....

TOTAL ACRES

0051	•	_____
0052	•	_____

2. How many of the total [*item 1*] barley acres were--

- a. owned by this operation? .....
- b. rented for CASH with the payment being a fixed cash amount? . . .
- c. rented for CASH with the payment being a flexible cash amount? (*Rent paid depends on prices and/or yields, or is otherwise not a fixed amount*) . .
- d. rented for a SHARE of the crop? .....
- e. rented for some combination of CASH and SHARE of the crop? . .
- f. used rent FREE? .....

ACRES

0044	•	_____
0045	•	_____
0046	•	_____
0047	•	_____
0048	•	_____
0049	•	_____

[Total must equal item 1.]

3. I will follow a simple procedure to make a random selection from the barley fields planted for the 2003 crop.

What is the TOTAL number of barley fields that were planted on this operation?

(*Exclude fields planted only for cover crop or to be grazed.*)

TOTAL NUMBER OF FIELDS PLANTED

0020
------

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

4. 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 3 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 \_\_\_\_\_

**A BARLEY FIELD SELECTION A**

APPLY "RANDOM NUMBER" LABEL HERE

5. **[ENUMERATOR ACTION:**

*Circle the pair of numbers on the above label associated with the last numbered field in item 4.  
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

6. **The field selected is (*field name/number/description*).**

**During this interview, the barley questions will be about this selected barley field.**

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

**OFFICE USE  
OY/CEAP  
Field Substituted**

0022

# B FIELD CHARACTERISTICS---SELECTED FIELD

1. How many acres of barley did this operation plant in this field for the 2003 crop?

(Exclude acres planted only for cover crop or to be grazed.)

ACRES  
1301

CODE  
1428

a. Was this field planted for--

- 1 Feed
- 2 Malt

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 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 2003 barley crop?

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

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

YEAR  
1307

8. On what date was this field planted?

MM DD YY  
1308

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

UNIT CODES for Seeding Rate  
1=POUNDS  
2=CWT  
4=BUSHEL  
23=50 LB BAGS

UNITS PER ACRE  
1310

1311

11. How many acres in this field had to be replanted to barley?

(Number of acres times the number of times replanted.)

ACRES  
1318

12. Was the source of the barley seed--

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

CODE  
1319

a. [If item 12 = 2 or 3, ask--]

How much of the barley 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

b. What type of barley variety was planted on the majority of this field?

- 1 Six-row
- 2 Two-row
- 3 Specialty

CODE  
1322

c. Seed varieties offer several benefits.

Did you (the operator) choose the barley variety used on this field primarily for--

- 1 Increase yield?
- 2 Enhanced protein content?
- 3 Disease resistance?
- 4 Insect resistance?
- 5 Drought resistance?
- 6 Malting quality?
- 7 Not Chosen for any of the above reasons

CODE  
1323

**B FIELD CHARACTERISTICS---SELECTED FIELD**

13. [If any seed purchased (item 12 = 1 or 3), ask--]

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

DOLLARS & CENTS  
PER UNIT

1429	1430
------	------

UNIT CODE  
1=POUNDS  
2=CWT  
4=BUSHEL  
22=ACRE  
23=50 LB BAGS

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

CODE  
1343

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

How many acres in the barley 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=BUSHEL	UNIT CODES
a. harvested for grain?	1346	1347		1348
b. harvested for hay, silage, or green chop?	1349	1350		TONS
c. abandoned?	1351			

23. Was straw harvested from this field?

YES - [Enter code 1 and continue.] NO - [Go to item 25.]

CODE  
1354

24. How many acres of barley straw were harvested from this field?

a. How many tons of barley straw were harvested from this (item 24) acres?

\_\_\_\_\_ x \_\_\_\_\_ = \_\_\_\_\_ OR \_\_\_\_\_ x \_\_\_\_\_ ÷ 2000 = \_\_\_\_\_  
*Tons per Acre      Acres      Total Tons      Bales      Lbs per Bale      Lbs per Ton      Total Tons*

ACRES  
1355

TOTAL TONS  
1356

b. Of the total barley straw harvested from this field (item 24a), what was the landlord's share of the barley straw?

PERCENT OR  
1357

TONS  
1358

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

TOTAL DOLLARS  
1359

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

What was the price received per ton for all barley straw (item 24a) sold from this field? . . .

DOLLARS & CENTS PER TON  
1360

**B FIELD CHARACTERISTICS---SELECTED FIELD**

25. **What type of livestock grazed this barley field BEFORE barley harvest?** .....

- |   |   |
|---|---|
| 1 | Cattle  |
| 2 | Sheep   |
| 3 | Other, <i>specify</i> _____                                       |
| 4 | Livestock did NOT graze this barley field – <i>Go to item 26.</i> |

**CODE**  
1361

a. Regardless of ownership, about how many **head** of (*livestock, item 25*) grazed this 2003 barley crop .....

**HEAD**  
1362

b. How many **days** did these livestock graze on this 2003 barley crop? .....

**DAYS**  
1363

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

<b>DOLLARS &amp; CENTS PER ACRE</b>	<b>OR TOTAL DOLLARS</b>
1364	1365

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

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

26. **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--	CROP NAME	CROP CODE	2	3
			Was this crop irrigated? YES = 1	Was this crop no-tilled? 1/ YES = 1
a. <b>FALL</b> of 2002? .....		1366	1367	1368
b. <b>SPRING/SUMMER</b> of 2002? .		1369	1370	1371
c. <b>FALL</b> of 2001? .....		1372	1373	1374
d. <b>SPRING/SUMMER</b> of 2001? .		1375	1376	1377
e. <b>FALL</b> of 2000? .....		1378	1379	1380
f. <b>SPRING/SUMMER</b> of 2000? .		1381	1382	1383

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

**B FIELD CHARACTERISTICS---SELECTED FIELD**

1	CODE	2 In what year were the (column 1) established in this field?  YEAR	[If (column 1) were established before operator began operating this field, enter code 1.]	3 In 2003, did (or will) the federal or State government pay an annual rental payment for keeping this conservation practice in place? [YES=1]
27. In 2003, did your land-use practices for this field include--				
a. terraces? . . . . . YES = 1	1384	1385 ____	1386	
b. temporary or permanent levees? . YES = 1	1388	1389 ____	1390	
c. grassed waterways? . . . . . YES = 1	1392	1393 ____	1394	1395
d. filter strips or riparian buffers on or adjoining the field? . . . . . YES = 1	1396	1397 ____	1398	1399
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			

28. Has the Natural Resource Conservation Service (NRCS) classified any part of this field as "Highly Erodible"? . . . . . YES = 1 CODE  
1404

29. Have you been notified by NRCS that this field contains a wetland? . . . . . YES = 1 1405

30. In 2003, 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

31. In 2003, 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

**B FIELD CHARACTERISTICS---SELECTED FIELD**

32. During 2003, 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 practices for land application of manure only? . . . . . YES = 1	1412	1413
d. Pest management plan specifying pesticide use and/or other practices for 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 32a, b, c, d or e = YES, ask-]

33. During 2003, did you pay any technical service provider or consultant to develop or write any of these plans which included this field? . . . . . YES = 1 CODE  
1418

a. [If YES, ask-] DOLLARS & CENTS PER ACRE OR TOTAL DOLLARS

What was the cost for developing this plan for this field? 1419 . \_ \_ 1420

*(Include landlord's/contractor's share. Exclude cost of construction or materials.)*

34. Was the barley crop on this field covered by Crop Insurance in 2003? CODE  
1421

YES - [Enter code 1 and continue.] . . . . . YES = 1

NO - [Go to Section C.]

If YES, which coverages did you obtain?  
[Enter code for all that apply.]

a. <b>Basic catastrophic insurance</b> (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. <b>Buy-up on Basic Federal CAT</b> for higher levels of yield and price protection <i>(such as 65% of yield and 100% price, multi peril crop insurance).</i> . . . . . YES = 1	1423
c. <b>Revenue insurance</b> include Income Protection (IP), Crop Revenue Coverage (CRC), and Revenue Assurance (RA). . . . . YES = 1	1424
d. <b>Other Federal Crop insurance</b> <i>(Group Risk Plan, Adjusted Gross Revenue, Group Risk Income Protection, etc.)</i> . . . . . YES = 1	1425
e. <b>Other Private Crop insurance</b> <i>(Hail, wind, freeze, etc.)</i> . . . . . YES = 1	1426



**C FERTILIZER and NUTRIENT APPLICATIONS---SELECTED FIELD C**

1. Were commercial FERTILIZERS applied to this field for the 2003 barley crop? ..... YES = 1

CODE 0202	EDIT TABLE 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 2003 crop? (Include applications made by airplanes and commercial applicators) .....

NUMBER 0203
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4. Now I need to record information for each application.

CHECK LIST		
INCLUDE	EXCLUDE	
<input type="checkbox"/> Custom applied fertilizers	<input type="checkbox"/> Micronutrients	
<input type="checkbox"/> Fertilizer applied in the fall of 2002 and those applied earlier if this field was fallow in 2002	<input type="checkbox"/> Unprocessed manure	
<input type="checkbox"/> Commercially prepared manure	<input type="checkbox"/> Fertilizer applied to previous crops in this field	
	<input type="checkbox"/> Lime and Gypsum	

T-TYPE <b>2</b>	TABLE <b>001</b>
LINE 99	OFFICE USE LINES IN TABLE 0213

LINE	2 → → → MATERIALS USED <small>[Enter percentage analysis or actual pounds of plant nutrients applied per acre.] [Show Common Fertilizers in Respondent Booklet.]</small>			3 What quantity was applied per acre? <small>[Leave this column blank if actual nutrients were reported.]</small>	4 <small>[Enter material code.]</small>	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 <sub>2</sub> O <sub>5</sub> Phosphate	K <sub>2</sub> 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 0	TABLE 000	LINE 00
-------------	--------------	------------

5. Was sulfur applied to this field for the 2003 barley crop? (Include direct applications and sulfur applied as a component of a fertilizer applications.) ..... YES = 1

CODE 0216
--------------

a. [If sulfur applied, ask--]

How many pounds of sulfur were applied per acre? .....

POUNDS PER ACRE 0217 •__
--------------------------------

6. Was gypsum applied to this field for the 2003 barley crop? ..... YES = 1

CODE 0218
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C FERTILIZER and NUTRIENT APPLICATIONS---SELECTED FIELD C

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

7. Were any fertilizers applied by custom applicators?

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

OFFICE USE

0215

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.]*

DOLLAR & CENTS PER ACRE OR TOTAL DOLLARS

0219

0220

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

*(Include landlord and contractor costs.  
Exclude lime, gypsum and 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 2002.)*

DOLLAR & CENTS PER ACRE OR TOTAL DOLLARS

0221

0222

9. What was your yield goal for this field?

BUSHELS PER ACRE

0223

10. Was a soil test for phosphorus performed on this barley field in 2002 or 2003 for the 2003 crop?

YES = 1

CODE

0225

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

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

POUNDS PER ACRE

0226

11. Was a soil test for nitrogen performed on this barley field in 2002 or 2003 for the 2003 crop?

YES = 1

CODE

0227

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

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

POUNDS PER ACRE

0228

12. Was a plant tissue test for nutrient deficiency performed on this field in 2002 or 2003 for the 2003 barley crop?

YES = 1

0229

**C FERTILIZER and NUTRIENT APPLICATIONS---SELECTED FIELD C**

13. [If soil or plant tissue test done, ask--, else go to item 14.]

**How much was spent for these soil and plant tissue tests on this field?** [Include landlord and contractor costs.]

**DOLLARS & CENTS PER ACRE**  
 0230

**OR TOTAL DOLLARS**  
 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

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--  
 [Enter code for all that apply.]

- 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. What share of the commercial nitrogen fertilizer applied to this field was purchased under contract or otherwise pre-purchased at a pre-determined price set prior to January 1, 2003?

**PERCENT**  
 0240

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

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

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

**CODE**  
 0242

**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. [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

**C FERTILIZER and NUTRIENT APPLICATIONS---SELECTED FIELD C**

19. Was manure applied to this field for the 2003 barley crop?  
(Exclude commercially prepared manure.)

YES - [Enter code 1 and continue.] ..... CODE 0246

NO - [Go to Section D.]

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

b. What was the amount of manure applied to this field? .....  
1 - TONS CODE 0248 UNITS PER ACRE 0249 TOTAL UNITS 0250  
2 - GALLONS AND OR  
3 - BUSHELS

c. What is the hauling distance between the manure storage and the manured field? ..... MILES 0251

d. What was the capacity of the manure spreader used to apply manure to this field? .....  
1 - TONS CODE 0252 TOTAL UNITS 0253  
2 - GALLONS AND  
3 - BUSHELS

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? CODE 0257  
2 Slurry liquid?  
3 Semi-dry or dry?

g. Was the manure--  
1 Broadcast or sprayed without incorporation? CODE 0258  
2 Broadcast or sprayed with incorporation?  
3 Injected/knifed in?  
4 Sprayed using irrigation systems?

h. Was the major source of the manure from-- CODE 0259  
1 Beef cattle?  
2 Dairy cattle?  
3 Hogs?  
4 Sheep?  
5 Poultry?  
6 Equine?  
7 Biosolids (municipal sludge, food waste, etc.)?  
8 Other (Specify \_\_\_\_\_)?

i. Was the manure-- CODE 0260  
1 Produced on this operation?  
2 Purchased?  
3 Obtained at no cost off this operation?  
4 Obtained with compensation?

**C FERTILIZER and NUTRIENT APPLICATIONS---SELECTED FIELD C**

CODE

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

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

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

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

(2) Phosphorus requirement of the crop? ..... YES = 1

**D PESTICIDE APPLICATIONS---SELECTED FIELD**

1. Including both custom applications and applications made by this operation, let's list all the chemicals used on this field for the 2003 barley crop.

Were any herbicides, insecticides, fungicides or other chemicals used on the barley field for the 2003 crop? . . . . . YES = 1

CODE	EDIT TABLE
0302	0301

[Probe for applications made in the fall of 2002 (and those made earlier if this field was fallow).]  
 [If no pesticides applied, go to Section E.]

<p><b>Include</b> defoliant, fungicides, herbicides, insecticides, growth regulators (neem, Bt, etc.)  <b>Include</b> biological/botanical pesticides, microbial agents, miticides, nematocides, rodenticides, and soil fumigants.</p>	<p><b>Exclude</b> fertilizers, adjuvants, (e.g. wetting agents, stickers, spreaders, etc.), seed treatments.</p>
--	--

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

NOTES	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.]
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

**D PESTICIDE APPLICATIONS---SELECTED FIELD**

APPLICATION 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 10 must be blank.]

LINE	9 How was this product applied? <i>[Enter code from above.]</i>	10 How many acres in this field were treated with this product?  ACRES	11 How many times was it applied?  NUMBER	12 Were these applications made by--  1 Operator, Partner or Family member? 2 Custom applicator? 3 Employee / Other?	OPTIONAL ITEM ④ What was the cost per unit of the product?	
					DOLLARS and CENTS PER UNIT	UNIT CODE 1 POUNDS 12 GALLONS 13 QUARTS 14 PINTS ..... 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

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

3. Were any chemicals 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 and pesticides on this field?

(Include operator and landlord cost.) . . . . .

DOLLAR & CENTS  
PER ACRE

OR TOTAL DOLLARS

0331 .\_\_ \_\_

0332

DOLLAR & CENTS  
PER ACRE

OR TOTAL DOLLARS

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

1433 .\_\_ \_\_

0334

**Include** operator and landlord cost, defoliant, herbicides, insecticides, fungicides, surfactants, wetting agents, growth regulators, end materials applied before planting and during 2002 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.



---

**NOTES and CALCULATIONS:**

**E PEST MANAGEMENT PRACTICES--SELECTED FIELD E**

Now I have some questions about your pest management decisions and practices used on this field for the 2003 barley 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 CODE  
1600

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 CODE  
1601

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  
1602

5. [Enumerator 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 barley field BEFORE weeds emerged? ..... YES = 1 CODE  
1603  
[If item 6 = YES, ask--]

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

1	routine treatments of what <b>weeds</b> are usually present?
<b>OR</b>	
2	weed scouting from the previous year?

CODE  
1604

7. Were herbicides applied to this barley field AFTER weeds emerged? ..... YES = 1 CODE  
1605  
[If item 7 = YES, ask--]

a. Were the herbicides applied AFTER weeds emerged on the barley field based primarily on--

1	routine treatments of what <b>weeds</b> are usually present?
<b>OR</b>	
2	weed scouting from the current year?

CODE  
1607

8. [Enumerator 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 barley field based primarily on--

1	routine treatments for what <b>insects</b> are usually present?
<b>OR</b>	
2	scouting for insect infestation?

CODE  
1651

10. In 2003, 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.)
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 17.)

CODE  
1608

11. Was an established scouting process used (systematic sampling, recording counts, etc.) or were insect traps used in this field? ..... YES = 1 CODE  
1609

**E PEST MANAGEMENT PRACTICES--SELECTED FIELD E**

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
1610
1611

1 13. Was this barley field scouted for--	YES = 1	2 [If YES, ask--] Was the infestation level for [column 1]-- 1 Worse than normal 2 Normal 3 Less than normal CODE	3 [If column 1 = YES, ask--] Who did the majority of the scouting for [column 1]-- 1 Operator, partner or family member 2 An employee 3 Farm supply or chemical dealer 4 Independent crop consultant or commercial scout CODE
a. weeds? .....	1612	1613	1614
b. insects and mites? .....	1615	1616	1617
c. diseases? .....	1618	1619	1620

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
1621		1622

a. [Note: If scouting performed at no cost, explain: \_\_\_\_\_] .....

OFFICE USE
0333
CODE

15. Were written or electronic records kept for this field to track the activity or numbers of weeds, insects or diseases? ..... YES = 1

1623
------

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

1624
------

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

1625
------

18. Were the services of a diagnostic laboratory used for pest identification or soil or plant tissue pest analysis for this field? ..... YES = 1

1626
------

19. Were crop residues plowed down or removed in this field to manage pests? ... YES = 1

1627
------

20. Were crops rotated in this field during the past 3 years for the purpose of managing pests? ..... YES = 1

1628
------

21. Were ground covers, mulches, or other physical barriers maintained for this field to manage pest problems? ..... YES = 1

1629
------

22. Was a seed variety chosen to plant in this field because it had resistance to a specific pest? ..... YES = 1

1630
------

23. Was no-till or minimum till used to manage pests in this field? ..... YES = 1

1631
------

24. Were planting locations planned to avoid infestation of pests? ..... YES = 1

1632
------

25. Were planting or harvesting dates adjusted for this field to manage pests? ..... YES = 1

CODE
1633

**E PEST MANAGEMENT PRACTICES--SELECTED FIELD E**

31. Were field edges, lanes, ditches, roadways or fence lines chopped, mowed, plowed, or burned to manage pests for this field? . . . . . YES = 1
32. Were equipment and implements cleaned after completing field work to reduce the spread of pests? . . . . . YES = 1

**PEST MANAGEMENT INFORMATION**

34. [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 2003 barley crop?**

*(Starting with the most influential in determining the pest management practices used on this operation, choose up to 3 sources, and enter code(s).)*

**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**

**SECOND**

**THIRD**

35. Other than pesticide applicator training, have you (the operator) attended any training session on pest identification and management since October 1, 2002? . . . . . YES = 1

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

---

**NOTES and CALCULATIONS:**

**FIELD OPERATIONS --- SELECTED FIELD**

1. Now I need to list all tractors used to produce barley 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: 2003)  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 barley from this field?

YES - [Continue.]       NO - [Go to item 3.]

[If item 2 = YES, ask-]

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

YEAR
1209 ____

[If item 2 = YES, ask-]

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

YEAR
1210 ____

**F FIELD OPERATIONS --- SELECTED FIELD F**

3. Including custom operations, I need to list field work performed by machines on this field for the 2003 barley crop. Please...

- ▶ Begin with the first field operation after harvest of previous crop, (If fallow during 2002, list operations starting with fall 2001.)
- ▶ 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-

Land Forming / Levee Building  
 Tillage  
 Preparing for Irrigation  
 Planting  
 Fertilizer & Pesticide applications  
 Harvesting & Hauling  
 to storage or first point of sale

**Exclude**

Lime & Gypsum applications



2 S E Q U E N C E	3 What operation or equipment was used?	4 [Record machine code from Respondent Booklet.]	5 Who was the machine operator- [Enter code from above.]	[If CUSTOM (column 5 = code 6), skip columns 6-10.]					11 In what month was this operation done?
				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	8 Which tractor was used?  [Record line number from item 1.] 66 Animal Drawn 77 Pick-Up 99 Self-Propelled	9 How many acres were covered? 2/	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	0486	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 2003 barley crop.

TYPE OF WORKERS	1 How many hours did (type of worker) spend on this field--			
	a. scouting for weeds and insects?  HOURS	b. irrigating?  HOURS	c. drying the harvested crop?  HOURS	d. for overhead activities (moving and loading inputs, manual operations, overseeing hired labor, bookkeeping and other management activities)  HOURS
Operator, partners, family members, and other unpaid workers . . . . .	1100	1101	1102	1103
Full-time hired workers (Exclude custom and contract labor) . . . . .	1105	1106	1107	1108
Part-time or seasonal hired workers (Exclude custom and contract labor) . . . . .	1110	1111	1112	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

1114	•	__	__
------	---	----	----

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

1115	•	__	__
------	---	----	----

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

CODE

1116
------

a. If YES, ask -- What was the average cost per acre for this contract labor?  
(Include landlord and contractor costs.) . . . . .

DOLLARS & CENTS PER ACRE

1117	•	__	__
------	---	----	----

8. What percent of the total hours worked on this field by UNPAID workers was worked by children under 16 years old? . . . . .

PERCENT

1118
------



9. Now I need some information on how much was spent for custom services used on this field for the 2003 barley crop.

1	2
CUSTOM SERVICE	Including landlord's/contractor's cost, how much was spent for [column 1] on this field for the 2003 barley crop?
Which of these services were done for the 2003 barley crop on this field?	DOLLARS & CENTS PER ACRE
<input checked="" type="checkbox"/> [Check <input checked="" type="checkbox"/> 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 unit. X Total units hauled from field ÷ Acres harvested in field = 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 unit. X Total units hauled from field ÷ Acres harvested in field = Dollars & Cents per acre.)	
<input type="checkbox"/> h. custom raking, baling, and hauling the barley straw from this field? .....	1128 •__ __
( __ __ • __ __ X _____ ÷ _____ = __ __ • __ __ Dollars & Cents per unit. X Total units hauled from field ÷ Acres harvested in field = 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 recommendation/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 costs 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 and CENTS PER ACRE	OR	TOTAL DOLLARS
1136 •__ __		1137

		CODE
12. <b>Was there</b> (will there be) <b>a yield monitor on the equipment used to harvest this barley field?</b> . . . . .	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., compare fertilizer application rates, seed varieties, herbicides, pesticides, etc.)? . . . . .	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 [ <i>specify _____</i> ] . . . . .	YES = 1	1147
13. <b>During 2002 or 2003, was a GPS (Global Positioning System) device used to geo-reference and/or produce a map of the soil properties of this field?</b> (such as soil nitrate levels, pH, etc.) . . . . .	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. Veris machine)? . . . . .	YES = 1	1150
14. <b>Did you have an airplane or satellite provide an image or photograph of this field either at the start of or during the 2003 growing season?</b> . . . . .	YES = 1	1151
15. <b>Was a variable rate applicator (i.e., variable rate technology or VRT) used on this field for--</b>		
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. phosphorous 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. <b>Was a guidance or parallel swathing system (connected to G.P.S.) used with any machine operation on this field (e.g. light bar)?</b> . . . . .	YES = 1	1208

**G** IRRIGATION --- SELECTED FIELD

ACRES

1. How many acres in this field were irrigated for the 2003 barley 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 2003 barley crop.

↓	UNIT	SYSTEM 1	SYSTEM 2
a. What type(s) of irrigation system(s) were used to irrigate this field? [Show <b>System Type Codes</b> in the Respondent Booklet. Enter <b>System Type Code</b> for up to two systems covering the most field acres.] .....	SYSTEM TYPE CODE	1161	1175
b. What was the <b>total</b> 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 <b>cannot provide item 2b</b> , ask (1) & (2)--] (1) What is the <b>total</b> number of <b>hours</b> this system was used to apply water to this field during the barley 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 barley 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.)	CODE	1168	1182
	1 TURBINE? 2 SUBMERSIBLE? 3 CENTRIFUGAL? 4 BOOSTER? 5 SIPHON? 99 NO PUMP-? [If code 99, go to item j.]		
f. What was the average pumping rate? .....	GALLONS PER MINUTE	1169	1183
g. [If item 2a = code 1-9 (PRESSURE SYSTEM), ask--] What was the system operating pressure? .....	POUNDS PER SQUARE INCH	1170	1184
h. What was the primary motor type used to pump the water?	CODE	1171	1185
	1 DIESEL 2 GASOLINE 3 LP GAS 4 NATURAL GAS 5 ELECTRICITY 6 SOLAR POWER		
i. What was the average motor size? .....	HORSE-POWER	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 <b>other</b> acres on this operation were irrigated using this field's irrigation system during the 2003 growing season? [Exclude this field.] .....	ACRES	1174	1188

**G** IRRIGATION --- SELECTED FIELD

3. 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 4.]

CODE  
1189

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

PERCENT  
1190

b. What was the total cost for the water purchased for this field during the 2003 growing season?  
(Include landlord and contractor costs and ditch maintenance costs.)

DOLLARS & CENTS PER ACRE  
1191 .\_\_

OR TOTAL DOLLARS  
1192

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

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

TOTAL DOLLARS  
1193

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

What was the total amount spent for poly pipe used on this field during the 2003 growing season?

TOTAL DOLLARS  
1194

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

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

INCHES  
1195

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

FEET  
1196

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

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

CODE  
1197

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

NUMBER  
1198

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

INCHES  
1199

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  
1200

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

CODE  
1201

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

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

CODE  
1202

(1) How many other acres on this operation were irrigated using the same well(s) during the 2003 growing season?

ACRES  
1203 .\_\_

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 most common type of additional pipe used? .....

PIPE TYPE CODES	
1	ALUMINUM - (NON-HI-PRESSURE)
2	ALUMINUM - (HI-PRESSURE)
3	STEEL
4	PLASTIC
5	OTHER (SPECIFY:_____)

CODE

1204

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

INCHES

1205

FEET

1206

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

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.

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

CODE

1207

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

CODE

1650

YES = 1

**H DRYING--SELECTED FIELD H**

[ENUMERATOR NOTE: If barley was harvested for grain Section B, item 22, continue; else go to Section I.

1. Was (or will) most of the barley crop from this field--  
(Include landlords and contractors share.)

- 1 Custom dried - Continue.
- 2 Dried other than custom dried - Go to item 3.
- 3 Not dried - Go to Section I.

**CODE**

0830

2. [If CUSTOM DRIED (item 1 is code 1), ask--]

What was (will be) the cost of custom drying the barley from this field?

[If no cost, explain \_\_\_\_\_]

CENTS PER BUSHEL OR	TOTAL DOLLARS
0831	0832

[Go to Section I.]

**OFFICE USE**

0105

3. [If DRIED OTHER THAN CUSTOM (item 1 is code 2), ask--]

a. Was the main fuel type used to dry barley from this field--

- 1 Diesel
- 2 Gasoline
- 3 LP Gas
- 4 Natural Gas
- 5 Electricity
- 6 Other

**CODE**

0833

b. On the average, what percent of moisture was (will be) removed from the barley from this field? .....

**PERCENTAGE POINTS**

0834      • \_\_\_\_

# LANDLORD/CONTRACTOR COSTS

1. [If selected field RENTED, ask--; else go to Conclusion.]  
**Did your landlord/contractor for this selected barley field contribute to the cost of any of these production expense items for the 2003 crop?**

CODE

YES - [Enter 1 and continue.]       NO - [Enter 3 and go to Conclusion.]      0840

1	2	
Which items? [Check ✓ all that are YES.]	[For each item checked in column 1, ask--] How much did your landlord and/or contractor spend for [column 1 item] for this field?	
	PERCENT	OR TOTAL DOLLARS
<b>Seed Costs</b>		
<input type="checkbox"/> a. Purchased seed . . . . .	0841	0842
<b>Fertilizer Costs (Exclude Lime and Gypsum.)</b>		
<input type="checkbox"/> b. Fertilizer custom applications . . . . .	0843	0844
<input type="checkbox"/> c. Fertilizer materials . . . . .	0845	0846
<b>Chemicals/Pesticides Costs</b>		
<input type="checkbox"/> d. Chemical/pesticides custom applications . . . . .	0847	0848
<input type="checkbox"/> e. Chemical/pesticides materials . . . . .	0849	0850
<b>Technical Services</b>		
<input type="checkbox"/> h. Soil tests or plant tissue tests . . . . .	0855	0856
<input type="checkbox"/> i. Scouting services . . . . .	0857	0858
<input type="checkbox"/> j. Develop or write plans . . . . .	0859	0860
<b>Custom Field Operations and Services</b>		
<input type="checkbox"/> l. Custom land preparation, shaping, and/or leveling . . . . .	0863	0864
<input type="checkbox"/> m. Custom cultivating . . . . .	0865	0866
<input type="checkbox"/> n. Custom planting and/or reseeding . . . . .	0867	0868
<input type="checkbox"/> o. Custom harvesting . . . . .	0869	0870
<input type="checkbox"/> q. Baler twine/wire . . . . .	0873	0874
<input type="checkbox"/> r. Custom hauling . . . . .	0875	0876
<input type="checkbox"/> s. Custom raking, baling or hauling barley straw . . . . .	0877	0878
<input type="checkbox"/> t. Custom drying . . . . .	0879	0880
<input type="checkbox"/> v. Contract and other paid labor . . . . .	0883	0884
<input type="checkbox"/> w. Other custom and/or technical services . . . . .	0885	0886
<b>Drying Costs</b>		
<input type="checkbox"/> x. Fuel and/or electricity for drying . . . . .	0887	0888
<input type="checkbox"/> y. Repairs of the facilities used for drying . . . . .	0889	0890
<b>Irrigation and Water Management Costs</b>		
<input type="checkbox"/> z. Purchased irrigation water . . . . .	0891	0892
<input type="checkbox"/> aa. Fuel, lubrication, and electricity for irrigation . . . . .	0893	0894

# CONCLUSION

## LOCATION OF SELECTED FIELD

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

What county is the selected barley field in? .....

Field description .....

COUNTY NAME	OFFICE USE COUNTY FIPS CODE
	0010

2. [ENUMERATOR ACTION:

*Mark map to indicate where the selected barley 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, 2004, to collect it. I'll call you then to set up a time that's 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--]

CODE

- a. [fertilizer data?] ..... YES = 1
- b. [pesticide data?] ..... YES = 1
- c. [majority of this expense data?] ..... YES = 1

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

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

CODE

0101

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

Phone ..... ( )


ENDING TIME [MILITARY] .....

MILITARY TIME  
H H M M

0005

DATE: .....

MM DD YY

0007

03

ENUMERATOR NAME .....

ENUMERATOR ID

0098

EVALUATION

0100

0101
0005
0007
0098
0100