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

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

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0535-0218. The time required to complete this information collection is estimated to average 65 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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

<table>
<thead>
<tr>
<th>VERSION</th>
<th>ID</th>
<th>TRACT</th>
<th>SUBTRACT</th>
<th>C-TYPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>33</td>
<td></td>
<td>01</td>
<td></td>
<td>124</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CONTACT RECORD</th>
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</thead>
<tbody>
<tr>
<td>DATE</td>
</tr>
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<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>BEGINNING TIME</th>
<th>SCREENING BOX</th>
</tr>
</thead>
<tbody>
<tr>
<td>0004 [MILITARY]</td>
<td>0006</td>
</tr>
</tbody>
</table>

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

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

   (i) Winter Wheat. .................................................................

   (ii) Durum Wheat?. ..............................................................

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

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

2. What is the TOTAL number of other spring wheat fields that were planted on this operation? [If only one field enter “1” and go to item 4.]

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
   10
   11
   12
   13
   14
   15
   16
   17
   18
4. **ENUMERATOR ACTION:** Circle the pair of numbers on the above label associated with the last numbered field in item 3. Select the field according to the number you circled on the label, and record the selected number. If only one field, enter 1.

**SELECTED FIELD NUMBER**

0021

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

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

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

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

   a. Farm Number (up to 8 digits).

   b. Tract Number (up to 7 digits).

   c. Field Number (up to 4 digits, exclude subfield letters).

**NUMBER**

1070

1071

1072

**TYPE CODE**

1=Winter Wheat
2=Spring Wheat
3=Durum Wheat

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

**OFFICE USE**

OY Field Substituted

0022
1. How many acres of wheat did this operation plant in this field for the 2017 crop? 

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

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

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

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?

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

   What was the cash rent paid per acre for this 2017 wheat field? 

4. **If field is SHARE RENTED (item 2 = 4 or 5), ask--**

   What was the landlord’s share of the crop from this field? 

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

   What was the total cost for all inputs provided by any landlord for the 2017 crop on the selected field? **(Include the costs for all inputs, such as seed, fertilizer, chemicals, technical services, custom operations, drying and irrigation. **Exclude** real estate tax expenses and lime costs paid by the landowner)**

6. **What was the total cost for all inputs provided by any contractor for the 2017 crop on the selected field? **(Include the costs for all inputs, such as seed, fertilizer, chemicals, technical services, custom operations, drying and irrigation.**

7. **What year did you (the operator listed on the label) start operating this field?**
8. On what date was this field planted? .................................................................

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

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

9. What was the source of the wheat seed? ............................................................
   [If item 9 = 2 or 3, ask--]
   a. What was the cost per pound for cleaning and treating this seed?
   [If item 9 = 2 or 3, ask--]
   b. How much of the wheat seed planted in this field was grown (or received in trade)
      by this operation? ......................................................................................

10. [If any seed purchased (item 9 = 1 or 3), ask --]
    What was the total cost per unit (including both your and the landlord’s share)
    of purchased seed for this field? (Include cost of seed treatment.) .....................

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

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

13. Did you plant an herbicide resistant wheat (such as Clearfield) seed variety
    on this field--
    a. for harvest in 2017? ...................................................................................
    b. for harvest in 2016? ...................................................................................
14. For the 2017 wheat crop, did you purchase pre-treated seed or have the seed treated after purchase with a fungicide or insecticide? YES = 1

[If item 14 is yes, ask 14a]

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

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

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

<table>
<thead>
<tr>
<th>How many acres in this wheat field were (or will be) harvested?</th>
<th>1 What yield per acre did you (or do you expect to) get for wheat?</th>
<th>2 UNIT CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. harvested for grain?</td>
<td>1346</td>
<td>1347</td>
</tr>
<tr>
<td>b. harvested for hay, silage or green chop?</td>
<td>1349</td>
<td>1350</td>
</tr>
<tr>
<td>c. harvested for commercial seed contract?</td>
<td>1431</td>
<td>1432</td>
</tr>
<tr>
<td>d. abandoned?</td>
<td>1351</td>
<td></td>
</tr>
<tr>
<td>e. used for some other purpose?</td>
<td>1439</td>
<td></td>
</tr>
</tbody>
</table>

17. Was straw harvested from this field?

YES - [Enter code 1 and continue] NO - [Go to item 19].

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

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

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

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

\[
\text{Landlord’s Share} = \frac{\text{Total Tons}}{2}
\]

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

\[
\text{Total Cost} = \text{PERCENT} \times \text{Total Tons}
\]

DOLLARS & CENTS

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

\[
\text{Price per Ton} = \frac{\text{Dollars & Cents}}{\text{Total Tons}}
\]
19. **What type of livestock grazed this wheat field during the 2017 crop year?**

- **Cattle**
- **Sheep**
- **Other [Specify: __________]**
- **Not grazed**

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

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

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

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

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

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

e. What is the total dollar amount received from others for livestock grazing on this field? *(Include landlord’s share.)* **3150**

---

**CODE**

**HEAD**

**DAYS**

**CODE**

**DOLLARS & CENTS PER ACRE** OR **TOTAL DOLLARS**
20. Please report what crops were previously PLANTED on the majority of this field, including cover crops.

<table>
<thead>
<tr>
<th>SEASON AND YEAR</th>
<th>CROP NAME</th>
<th>CROP CODE</th>
<th>YES = 1</th>
<th>YES = 1</th>
<th>YES = 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. FALL of 2016?</td>
<td>Barley 3</td>
<td>190</td>
<td>1470</td>
<td>1471</td>
<td>2344</td>
</tr>
<tr>
<td>b. SPRING/SUMMER of 2016?</td>
<td>Canola 17</td>
<td>85</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. FALL of 2015?</td>
<td>Clover 311</td>
<td>310</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. SPRING/SUMMER of 2015?</td>
<td>Corn for grain 1</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. FALL of 2014?</td>
<td>Corn for silage 11</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. SPRING/SUMMER of 2014?</td>
<td>Cotton, Pima 94</td>
<td>282</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g. FALL of 2013?</td>
<td>Cotton, Upland 15</td>
<td>281</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>h. SPRING/SUMMER of 2013?</td>
<td>CRP 16</td>
<td>302</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

DOLLARS & CENTS PER ACRE

1468

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

i. What was the seed cost per acre for the cover crop? _________________________________
21. Which of the following resource concerns do you have on this field?

<table>
<thead>
<tr>
<th>RESOURCE CONCERNS</th>
<th>CODE</th>
<th>Source 1</th>
<th>Source 2</th>
<th>Source 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Water-driven erosion.</td>
<td>2407</td>
<td>2417</td>
<td>2427</td>
<td>2437</td>
</tr>
<tr>
<td>b. Wind-driven erosion.</td>
<td>2408</td>
<td>2418</td>
<td>2428</td>
<td>2438</td>
</tr>
<tr>
<td>c. Soil compaction.</td>
<td>2409</td>
<td>2419</td>
<td>2429</td>
<td>2439</td>
</tr>
<tr>
<td>d. Poor drainage.</td>
<td>2410</td>
<td>2420</td>
<td>2430</td>
<td>2440</td>
</tr>
<tr>
<td>e. Low organic matter.</td>
<td>2411</td>
<td>2421</td>
<td>2431</td>
<td>2441</td>
</tr>
<tr>
<td>f. Water quality.</td>
<td>2412</td>
<td>2422</td>
<td>2432</td>
<td>2442</td>
</tr>
<tr>
<td>g. Other concerns.</td>
<td>2413</td>
<td>2423</td>
<td>2433</td>
<td>2443</td>
</tr>
<tr>
<td>h. No significant concerns.</td>
<td>2414</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
22. Which of the following conservation practices or plans are used on this field?

<table>
<thead>
<tr>
<th>CONSERVATION PRACTICES or PLANS</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Was this practice or plan used in 2017?</strong></td>
<td>Yes (1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>In which year did you first use this practice or plan on this field?</strong></td>
<td>2018</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Have you ever received at any time--</strong></td>
<td></td>
<td></td>
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<tr>
<td><strong>Technical or planning assistance?</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>1. USDA including funding of Technical Service Providers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Soil Conservation District or State Agency</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Other Sources of Outside Assistance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. No Assistance Needed</td>
<td>706</td>
<td>1449</td>
<td>726</td>
<td>736</td>
<td>746</td>
</tr>
<tr>
<td><strong>Financial assistance?</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Environmental Quality Incentives Program (EQIP)?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Conservation Reserve Program (CRP)?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Conservation Stewardship Programs (CSP)?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Other Federal, State, local program</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>5. No Assistance Needed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Does this practice or plan help satisfy?</strong></td>
<td>A regulatory requirement?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. A federal regulatory requirement?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. A state or local regulatory requirement?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. USDA conservation compliance provisions?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Does not relate to any regulatory or compliance requirement.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- a. Conservation tillage [include no-till/direct seeding, mulch till, and ridge till].
- b. Cover crops [include grasses, legumes, forbs, or other herbaceous plants for seasonal cover and conservation].
- c. Structural practices to conserve soil? [include grass waterways, terraces, grade stabilization, contour buffer strips, etc.].
- d. Nitrogen application practices? [include split applications (at least 50% after crop emergence), applying no more than 30 days prior to planting, precision application, or using controlled release fertilizer].
- e. Conservation plan specifying practices to reduce soil erosion?
- f. Nutrient management plan specifying practices for fertilizer/manure application?
- g. Pest management plan to implement Integrated Pest Management (IPM) to control weeds, insects, or disease?
- h. Irrigation water management plan specifying irrigation practices?
23. Is this field included in an existing conservation program contract through any of the following programs for which you or the landlord have received (or expect to receive) cost sharing payments, stewardship payments, or incentive payments?

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2236</td>
<td>Environmental Quality Incentive Program (EQIP)</td>
</tr>
<tr>
<td>2240</td>
<td>Conservation Security or Conservation Stewardship Programs (CSP)</td>
</tr>
<tr>
<td>2244</td>
<td>Conservation Reserve Program (CRP)</td>
</tr>
<tr>
<td>2248</td>
<td>Other Federal, State, Local or non-government source</td>
</tr>
</tbody>
</table>

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

YES = 1

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

<table>
<thead>
<tr>
<th>Code</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>2358</td>
<td>I was not aware of USDA conservation program funding</td>
</tr>
<tr>
<td>2359</td>
<td>I am not aware of environmental problems on this field</td>
</tr>
<tr>
<td>2360</td>
<td>Payments are not high enough</td>
</tr>
<tr>
<td>2361</td>
<td>Government standards make practices more expensive than they need to be to get the job done</td>
</tr>
<tr>
<td>2362</td>
<td>My offer would not have been accepted because my farm is not eligible or my fields would not have ranked high enough</td>
</tr>
<tr>
<td>2363</td>
<td>The application process and documenting compliance is too complicated and time consuming.</td>
</tr>
<tr>
<td>2365</td>
<td>It was too difficult to obtain the technical assistance needed to prepare an application.</td>
</tr>
</tbody>
</table>

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

YES = 1

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

YES = 1

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

YES = 1
29. **What is the slope of this field?**

   1. Nearly level (0 - 2%)
   2. Even, moderate grade (3 – 9%)
   3. Variable, moderate grade
   4. Even, steep grade (over 10%)
   5. Variable, steep grade

   CODE: 2400

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

   1. Loam
   2. Clay
   3. Sandy
   4. Mixed

   CODE: 2401

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

   [If YES, ask--]

   a. In what year was the subsurface drainage installed?

   CODE: 2402

   YES = 1

   YEAR: __ __ __ __

   INCHES: 2604

   CODE: 2605

   HOURS: 2606

   YES = 1

   CODE: 2406

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

   [If YES, ask--]

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

   CODE: 2520

   DOLLARS & CENTS PER ACRE: 2521

   PERCENT: 2522

   DOLLARS & CENTS PER ACRE: 2523
33. **Was the wheat in this field covered by Federal Crop Insurance in 2017?**

□ YES – [Enter code 1 and continue.]

□ NO – [Go to Section C.]

---

**CODE**

1385

---

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

---

**CODE**

1386

---

**b.** [If item 33a = 2 or 3, ask--]

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

What price level did you select for your buy-up coverage for this field? . . . . . . . . . .

---

**PERCENT**

1387

1388

---

**c.** [If item 33a = 4 or 5, ask--]

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

---

**PERCENT**

1389
1. Were commercial nutrients or fertilizers applied to this field for the 2017 wheat crop? (Include those from operators, landlords, and contractors.)
   [If COMMERCIAL nutrient or fertilizer applied, continue; else go to Section D.]
   YES = 1

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

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

   **CHECKLIST**
   - ✓ INCLUDE
     - Custom applied nutrients or fertilizers
     - Nutrients or fertilizers applied in the fall of 2016 and those applied earlier if this field was fallow in 2016
     - Commercially prepared manure or compost
   - □ EXCLUDE
     - Micronutrients
     - Unprocessed manure
     - Nutrients or fertilizers applied to previous crops in this field
     - Lime and gypsum/landplaster

   **OFFICE USE**
   - LINES IN TABLE: 001
   - TABLE: 0299

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

   **MATERIALS USED**
   - [Enter percentage analysis or actual pounds of plant nutrients applied per acre.]
   - [Show Common Nutrients or Fertilizers in Respondent Booklet.]

   **ACRES**

<table>
<thead>
<tr>
<th>LINE</th>
<th>N Nitrogen</th>
<th>P₂O₅ Phosphate</th>
<th>K₂O Potash</th>
<th>S Sulfur</th>
<th>2 MATERIALS USED</th>
<th>3 What quantity was applied per acre?</th>
<th>4 [Enter material code.]</th>
<th>5 When was this applied?</th>
<th>6 How was this applied?</th>
<th>7 How many acres were treated in this application?</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>31</td>
<td>32</td>
<td>33</td>
<td>34</td>
<td>36</td>
<td>37</td>
<td>38</td>
<td>39</td>
<td>40</td>
<td>.___</td>
</tr>
<tr>
<td>02</td>
<td>31</td>
<td>32</td>
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<td>34</td>
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<td>03</td>
<td>31</td>
<td>32</td>
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<td>34</td>
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<td>39</td>
<td>40</td>
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<td>37</td>
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<tr>
<td>05</td>
<td>31</td>
<td>32</td>
<td>33</td>
<td>34</td>
<td>36</td>
<td>37</td>
<td>38</td>
<td>39</td>
<td>40</td>
<td>.___</td>
</tr>
<tr>
<td>06</td>
<td>31</td>
<td>32</td>
<td>33</td>
<td>34</td>
<td>36</td>
<td>37</td>
<td>38</td>
<td>39</td>
<td>40</td>
<td>.___</td>
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<tr>
<td>07</td>
<td>31</td>
<td>32</td>
<td>33</td>
<td>34</td>
<td>36</td>
<td>37</td>
<td>38</td>
<td>39</td>
<td>40</td>
<td>.___</td>
</tr>
<tr>
<td>08</td>
<td>31</td>
<td>32</td>
<td>33</td>
<td>34</td>
<td>36</td>
<td>37</td>
<td>38</td>
<td>39</td>
<td>40</td>
<td>.___</td>
</tr>
</tbody>
</table>
4. Were any nutrients or fertilizers applied by custom applicators?
   - YES - [Continue]
   - NO - [Go to item 5]

   a. Are you able to report the cost of nutrient or fertilizer materials and custom application separately?
      - YES - [Continue]
      - NO - [Go to item 5]

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

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

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

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

      [If item 7 = 1, ask---]

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

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

      [If item 7b is more than 1 ask---]

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

   8. Was a soil or plant tissue test performed on this wheat field in 2016 or 2017 for the 2017 crop?
      - YES [Continue]
      - NO [Go to item 13]

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

      [If item 9 = 1, ask---]

      a. How many pounds of phosphorus (per acre) were recommended (by the phosphorus test)? . . . .
10. Was a soil test for nitrogen performed on this wheat field in 2016 or 2017 for the 2017 crop? 
   
   \[If \text{item}10 = 1, \text{ask}---\]

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

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

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

   \[If \text{tests were done at no cost continue, otherwise go to Item 12b.}\]

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

   b. Did you receive a payment from the Conservation Stewardship Program for performing a stalk or leaf tissue test for nitrogen application? 

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

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

   a. Results of a soil or plant tissue test? 

   b. Crop consultant recommendation? 

   c. Fertilizer dealer recommendation? 

   d. Extension Service recommendation? 

   e. Cost of nitrogen and/or expected commodity price? 

   f. Contractor recommendation? 

   g. Routine practice (operator’s own determination based on past experience, yield goal, etc.)? 

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

   How much nitrogen inhibitor did you mix with the nitrogen applied to this field?
14. Is lime ever applied to this field?  

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

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

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

c. Was lime applied to this field in 2016 or 2017 for the 2017 crop?  

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

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

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

□ YES - [Enter code 1 and continue]  □ NO - [Go to item 17].

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

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

1. Tons
2. Gallons
3. Bushels

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

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

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

4. Broadcast or sprayed without incorporation?  
5. Broadcast or sprayed with incorporation?  
6. Injected/knifed in?  
7. Sprayed using irrigation systems?
18. Were the manure application rates to this field influenced by Federal, State, or local restrictions?  

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

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

(i) Nitrogen requirement of the crop?  

(ii) Phosphorus requirement of the crop?
17. Was non-commercial compost applied to this field for the 2017 wheat crop?
   □ YES - [Enter code 1 and continue] □ NO - [Go to Section D]. ..............................

   a. How many acres in this field was the compost applied to?.................................
      CODE
      0267
      ACRES
      0268

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

      1 Tons
      2 Cubic Yards

   c. Was the major source of the compost from---
      CODE
      0281

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

   d. Was the compost---
      CODE
      0272

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

   [If item 17d = 2, ask---]
   (i) What was the total cost of the purchased compost applied to this field? (Include operator, landlord, and contractor costs and any payment made for transportation costs)
      DOLLARS & CENTS PER ACRE OR TOTAL DOLLARS
      0273
      0274

   (ii) Did you hire someone to custom apply the compost? .................................
      YES = 1
      CODE
      0275

   [If YES, ask---]
   (a) What was the total cost paid to have compost custom applied to this field? (Include operator, landlord, and contractor costs.) [Do not report custom application cost if it was included with the compost cost.] .................................
      DOLLARS & CENTS PER ACRE OR TOTAL DOLLARS
      0276
      0277

   (ii) What is the distance in miles between the compost storage/production location and this field?.
      MILES
      0291
Now I have some questions about all the biocontrols or pesticides used on this field for the 2017 wheat crop, including both custom applications and applications made by this operation.

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

<table>
<thead>
<tr>
<th>CODE</th>
<th>EDIT TABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES</td>
<td>1</td>
</tr>
</tbody>
</table>

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

Include defoliants, fungicides, herbicides, insecticides, and other pesticides.

Exclude nutrients or fertilizers reported earlier and seed treatments.

### Table

<table>
<thead>
<tr>
<th>CHEMICAL PRODUCT NAME</th>
<th>L</th>
<th>NUMBER OF LINES IN TABLE</th>
<th>TABLE</th>
<th>CODE</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>001</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>01</td>
<td></td>
<td>0399</td>
<td>0300</td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>LINE</th>
<th>Pesticide Type (Herbicide, Insecticide Fungicide, etc.)</th>
<th>EPA No. or Trade name and Formulation</th>
<th>Form Purchased (Liquid or Dry)</th>
<th>Where Purchased [Ask ONLY if EPA No. cannot be reported.]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### APPLICATIONS CODES for column 9

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Broadcast, ground without incorporation</td>
</tr>
<tr>
<td>2</td>
<td>Broadcast, ground with incorporation</td>
</tr>
<tr>
<td>3</td>
<td>Broadcast, by aircraft</td>
</tr>
<tr>
<td>4</td>
<td>In seed furrow</td>
</tr>
<tr>
<td>5</td>
<td>In irrigation water</td>
</tr>
<tr>
<td>6</td>
<td>Chisel/injected or knifed in</td>
</tr>
<tr>
<td>7</td>
<td>Banded in or over row</td>
</tr>
<tr>
<td>8</td>
<td>Foliar or directed spray</td>
</tr>
<tr>
<td>9</td>
<td>Spot treatments</td>
</tr>
</tbody>
</table>

**[ENUMERATOR NOTE]**

Use these columns only if TOTAL COST (item 4 on next page) cannot be provided.

### OPTIONAL ITEM 4

**What was the cost per unit of the product?**

<table>
<thead>
<tr>
<th>UNIT CODE</th>
<th>DOLLARS &amp; CENTS PER UNIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Pounds</td>
<td>15 Liquid Ounces</td>
</tr>
<tr>
<td>12 Gallons</td>
<td>28 Dry Ounces</td>
</tr>
<tr>
<td>13 Quarts</td>
<td>30 Grams</td>
</tr>
<tr>
<td>14 Pints</td>
<td>31 Grams</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LINE</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>76</td>
<td>77</td>
<td>79</td>
<td>80</td>
</tr>
<tr>
<td>02</td>
<td>76</td>
<td>77</td>
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<tr>
<td>14</td>
<td>76</td>
<td>77</td>
<td>79</td>
<td>80</td>
</tr>
</tbody>
</table>
3. Were any chemicals, biocontrols, or pesticides applied by custom applicators?

☐ YES – [Continue] ☐ NO – [Go to item 4]

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

☐ YES – [Continue] ☐ NO – [Go to item 4]

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

DOLLARS & CENTS
PER ACRE OR TOTAL DOLLARS

0331 _____ 0332

0334 _____ 0335

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

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

DOLLARS & CENTS
PER ACRE OR TOTAL DOLLARS

3034 ____ 3035

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

DOLLARS & CENTS
PER ACRE OR TOTAL DOLLARS

3036 ____ 3037

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

NOTE 2: If custom applied and the costs for materials can be separated from application costs, include the cost for materials only. Otherwise, report both the material and application costs in item 4.
Now I have some questions about your pest management decisions and practices used on this field for the 2017 wheat crop. By pests, we mean WEEDS, INSECTS, and DISEASES.

ENUMERATOR ACTION: Were PESTICIDE applications reported in Section D?

☐ YES – [Continue]  ☐ NO – [Go to item 6]

1. Was weather data used to assist in determining either the need or when to make pesticide applications?  
   YES = 1

2. Were any biological pesticides such as Bt (Bacillus thuringiensis), insect growth regulators, neem or other natural/biological based products sprayed or applied to manage pests in this field?  
   YES = 1

3. Were pesticides with different mechanisms of action rotated or tank mixed for the primary purpose of keeping pests from becoming resistant to pesticides?  
   YES = 1

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

☐ YES – [Continue]  ☐ NO – [Go to item 6]

4. Were herbicides applied to this wheat field BEFORE weeds emerged?  
   YES = 1

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

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

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

8. In 2017, how was this field primarily scouted for insects, weeds, diseases, and/or beneficial organisms?  
   1 By deliberately going to the field specifically for scouting activities [Enter code 1 and go to item 9.]
   2 By conducting general observations while performing routine tasks [Enter code 2 and go to item 11.]
   3 This field was not scouted.  
   [Enter code 3 and go to item 14.]

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

10. Was scouting for pests done in this field due to---
    a. a pest advisory warning?  
       YES = 1
    b. a pest development model?  
       YES = 1
11. **Was this wheat field scouted for**—

<table>
<thead>
<tr>
<th>Yes</th>
<th>Code</th>
<th>Code</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Weeds?</td>
<td>0812</td>
<td>0813</td>
<td>0814</td>
</tr>
<tr>
<td>b. Insects or mites?</td>
<td>0815</td>
<td>0816</td>
<td>0817</td>
</tr>
<tr>
<td>c. Diseases?</td>
<td>0818</td>
<td>0819</td>
<td>0820</td>
</tr>
</tbody>
</table>

*If column 1 = YES, ask---*

**What was the infestation level for [column 1]?**—

| 1 | Worse than normal |
| 2 | Normal |
| 3 | Less than normal |

**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 |

---

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

*Include operator, landlord and contractor cost.*

```
DOLLARS & CENTS  OR  TOTAL DOLLARS
PER ACRE  0821  ____  0822
```

**OFFICE USE**

```
0333
```

**CODE**

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

*Yes = 1*
14. Did you do any of the following other type(s) of pest management practices for the specific purpose of managing or reducing the spread of pests in this field? [Enter code “1” for all that apply.]

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

15. **Were any beneficial organisms (insects, nematodes, fungi) applied or released in this field to manage pests?**

16. **Were floral lures, attractants, repellants, pheromone traps or other biological pest controls used on this field?**

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

<table>
<thead>
<tr>
<th>Code</th>
<th>Question</th>
<th>DOLLARS &amp; CENTS OR TOTAL DOLLARS</th>
</tr>
</thead>
<tbody>
<tr>
<td>0859</td>
<td>What were the TOTAL materials and application costs for all biological pest controls for this field? Include operator, landlord, and contractor costs. Include cost for beneficial organisms (insects, nematodes, and fungi). Exclude biological pesticides previously reported.</td>
<td></td>
</tr>
<tr>
<td>0860</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
17. Was a trap crop \textit{(excluding fallow)} grown to help manage insects in this field? \hspace{1cm} YES = 1

18. Was this field left in fallow in 2016 to help manage insects on this field? \hspace{1cm} YES = 1

19. Were water management practices such as irrigation scheduling, controlled drainage, or treatment of retention water used on this field to manage pests or toxin-producing fungi and bacteria? \hspace{1cm} YES = 1

20. Was protection of beneficial organisms a factor in your pest control decisions for this field? \hspace{1cm} YES = 1

\[\text{If Item 20 is YES, continue. Else go to Item 21.}\]

  a. Did you change timing of, reduce application rate of, or eliminate a pesticide application? \hspace{1cm} YES = 1

  b. Did you change to an alternative pesticide, biocontrol, or non-pesticide practice? \hspace{1cm} YES = 1

21. Did pests (weeds, insects, pathogens, animals) cause any yield loss on this field in spite of your pest control efforts? \hspace{1cm} YES = 1

\[\text{If YES, ask--}\]

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

\begin{center}
\begin{tabular}{ccc}
\textbf{UNITS PER ACRE} & \textbf{TOTAL UNITS} \\
\hline
\textbf{1 BUSHELS} & \textbf{0828} & \textbf{0830} \\
\textbf{2 TONS} & \textbf{0829} & \textbf{0831} \\
\end{tabular}
\end{center}

Completion Code for Pest Management Data

\begin{center}
\textbf{0500}
\end{center}

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

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

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

### CHECK LIST

**Include** all field work using machines for---
- Land Forming/Levee Building
- Tillage
- Preparing for Irrigation
- Planting
- Fertilizer & Pesticide applications
- Harvesting & Hauling (grain & straw) to storage or first point of sale

**Exclude**
- Lime & Gypsum/landplaster applications
- Compost & Non-Commercial Manure applications

### TABLE

<table>
<thead>
<tr>
<th>LINE</th>
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<th>CODE</th>
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<td>95</td>
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</tr>
</tbody>
</table>

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

OFFICE USE

0499
2. **Now I need some additional information about your labor.**

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

<table>
<thead>
<tr>
<th>TYPE OF WORKERS</th>
<th>How many hours did <em>(type of worker)</em> spend on this field---</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>scouting for weeds, insects and diseases?</td>
</tr>
<tr>
<td></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>irrigating?</td>
</tr>
<tr>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>performing other work by hand?</td>
</tr>
<tr>
<td>You <em>(the operator)</em></td>
<td>1101</td>
</tr>
<tr>
<td>Partner(s)</td>
<td>1104</td>
</tr>
<tr>
<td>Unpaid workers</td>
<td>1107</td>
</tr>
<tr>
<td>Paid part-time or seasonal workers <em>(Exclude custom and contract labor)</em></td>
<td>1110</td>
</tr>
<tr>
<td>Paid full-time workers <em>(Exclude custom and contract labor)</em></td>
<td>1113</td>
</tr>
</tbody>
</table>

3. **What was the average hourly wage rate paid to part-time or seasonal hired workers on this field?** *(Exclude custom and contract workers, payroll taxes and benefits.)*

4. **What was the average hourly wage rate paid to full-time hired workers on this field?** *(Exclude custom and contract workers, payroll taxes and benefits.)*

5. **Was any contract labor used on this field?**

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

6. **What percent of the total number of unpaid hours worked on this field was performed by workers under 16 years of age?** *(Estimates of labor costs for unpaid workers are based on off-farm wage rates, which are different for workers under 16 relative to those 16 and older.)*
7. Now I need some information on how much was spent (or will be spent) for custom services used on this field for the 2017 wheat crop.

<table>
<thead>
<tr>
<th>CUSTOM SERVICE</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Which of the following services were performed for the 2017 wheat crop on this field?</td>
<td></td>
</tr>
<tr>
<td>☑ [Check box for each service performed; refer to item 1 if necessary.]</td>
<td></td>
</tr>
<tr>
<td>a. Custom land preparation and/or shaping?</td>
<td>1121</td>
</tr>
<tr>
<td>b. Custom cultivating?</td>
<td>1122</td>
</tr>
<tr>
<td>c. Custom planting and/or reseeding?</td>
<td>1123</td>
</tr>
<tr>
<td>d. Custom harvesting?</td>
<td>1124</td>
</tr>
<tr>
<td>e. Custom hauling to storage or point of first sale?</td>
<td>1126</td>
</tr>
<tr>
<td>(Dollars &amp; cents per unit x Total units hauled from field ÷ Acres harvested in field = Dollars &amp; cents per acre)</td>
<td></td>
</tr>
<tr>
<td>f. Custom harvesting and hauling from field to storage or point of first sale?</td>
<td>1127</td>
</tr>
<tr>
<td>(Dollars &amp; cents per unit x Total units hauled from field ÷ Acres harvested in field = Dollars &amp; cents per acre)</td>
<td></td>
</tr>
<tr>
<td>g. Custom raking, baling, and hauling the straw from this field</td>
<td>1128</td>
</tr>
<tr>
<td>(Dollars &amp; cents per unit x Total units hauled from field ÷ Acres harvested in field = Dollars &amp; cents per acre)</td>
<td></td>
</tr>
</tbody>
</table>

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

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

<table>
<thead>
<tr>
<th>CODE</th>
<th>YES = 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Nutrient recommendations/management service?</td>
<td>YES = 1</td>
</tr>
<tr>
<td>b. Soil or tissue sample collection?</td>
<td>YES = 1</td>
</tr>
<tr>
<td>c. Pest control recommendations/management service?</td>
<td>YES = 1</td>
</tr>
<tr>
<td>d. Pest scouting?</td>
<td>YES = 1</td>
</tr>
<tr>
<td>e. Irrigation management service (i.e. irrigation scheduling)?</td>
<td>YES = 1</td>
</tr>
<tr>
<td>f. Yield map or remote sensing map development/interpretation?</td>
<td>YES = 1</td>
</tr>
<tr>
<td>g. Other custom or technical service? [Specify: ____________________________]</td>
<td>YES = 1</td>
</tr>
</tbody>
</table>
10. If YES to any of these services, what was the cost for all of these services? (Include operator, landlord, and contractor costs. Exclude cost of soil/tissue tests or scouting cost reported earlier. Do not report costs for any of these services if they were previously reported as part of the costs of materials and/or application.)

<table>
<thead>
<tr>
<th>DOLLARS &amp; CENTS</th>
<th>OR TOTAL DOLLARS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>1136</td>
<td>1137</td>
</tr>
</tbody>
</table>

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

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

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

<table>
<thead>
<tr>
<th>1 Data Collection Tool</th>
<th>2 Tool Used YES = 1</th>
<th>3 Collected with GPS YES = 1</th>
<th>4 Data was/will be used to create a map Yes = 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Yield monitor</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Soil tests on core sample</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Soil sensor tests</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Hard-wired crop condition sensors</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. Wireless crop condition sensors</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. Drones, aircraft or satellites</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g. Custom service applications (data from completed work on your field)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>h. Public data downloaded from online sources</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

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

a. Did you access the data collected from this field on a--

   (i) Paper hard copy? YES = 1

   (ii) Personal computer? YES = 1

   (iii) Mobile device? YES = 1

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

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

c. Did you opt-out of your agricultural technology provider website sharing data collected from this field with any third party? YES = 1

d. Did you share any of the data collected from this field with a third party through an agricultural technology provider website? YES = 1
13. Did you obtain crop management recommendations (data interpretation) based on that data you collected from-- [Enter code “1” for all that apply.]

   a. Input dealers? ................................................................. YES = 1
   b. Integrated input providers? ........................................... YES = 1
   c. Custom service providers? ............................................. YES = 1
   d. USDA/University extension services? ............................ YES = 1

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

   (i) monitor crop moisture content to determine need for crop drying? .............. YES = 1
   (ii) add/improve tile drainage? ........................................... YES = 1
   (iii) negotiate new crop leases? ........................................... YES = 1
   (iv) other uses [specify:] ___________________________________________ ...... YES = 1

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

   a. Guidance auto-steering (excluding Light Bar)? ................................. YES = 1
   b. Light Bar? ........................................................................... YES = 1
   c. Variable rate application for seeding? ........................................... YES = 1
   d. Variable rate application for fertilizer/lime? .................................... YES = 1
   e. Variable rate application for pesticide applications? .......................... YES = 1
   f. “Smart” technologies like Google Glass or other heads-up cab control displays? ...... YES = 1
   g. Other GPS-enabled equipment? ................................................. YES = 1
   h. Any farming-specific apps for phones and tablets? .............................. YES = 1
1. How many acres in this field were irrigated for the 2017 wheat crop?  
   [If none, go to Conclusion]. ................................................................. 1160

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

<table>
<thead>
<tr>
<th>UNIT</th>
<th>SYSTEM 1</th>
<th>SYSTEM 2</th>
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</thead>
<tbody>
<tr>
<td>SYSTEM TYPE CODE</td>
<td>1161</td>
<td>1175</td>
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<tr>
<td>INCHES PER ACRE OR TOTAL ACRE-FEET</td>
<td>1162</td>
<td>1176</td>
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<td>1163</td>
<td>1177</td>
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</table>

   [If operator cannot provide item 2b, ask (i) & (ii), else go to 2c]

   (i) What is the total number of hours this system was used to apply water to this field during the wheat growing season?  
   (ii) How many gallons per minute were applied?  

   | PERCENT | 1166 | 1180 |
   | NUMBER OF IRRIGATIONS | 1167 | 1181 |

   | CODE | 1168 | 1182 |
   | 1 TURBINE? | 2 SUBMERSIBLE? | 3 CENTRIFUGAL? |
   | 4 BOOSTER? | 5 SIPHON? | 99 NO PUMP? |
   | [If code 99, go to item j] |

   | CODE | 1171 | 1185 |
   | 1 DIESEL | 2 GASOLINE | 3 LP GAS |
   | 4 NATURAL GAS | 5 ELECTRICITY | 6 SOLAR POWER |

   | HORSEPOWER | 1172 | 1186 |

   | CODE | 1173 | 1187 |
   | 1174 | 1188 |

   | DOLLARS & CENTS PER ACRE OR TOTAL DOLLARS | 1189 | 1190 |

3. What was the cost of the fuel or electricity used to irrigate this field?  
   (Include operator, landlord, and contractor costs.).  
   1189  
   1190

   [If more than one pump in the system, enter type for pump closest to water source.]

   [If NO PUMP was used (item 2e = 99), ask---]

   What was the average flow rate?  

   [Exclude this field.]

   How many other acres on this operation were irrigated using this field’s irrigation system during the 2017 growing season?
4. **Was any water purchased to irrigate this field?** *(Include landlord’s share and purchases from all sources.)*

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

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

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

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

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

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

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

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

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

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

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

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

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

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.)*

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

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

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

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

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

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

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

LOCATION OF SELECTED FIELD

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

   COUNTY NAME

   OFFICE USE

   COUNTY FIPS CODE

2. What county is the selected wheat field in? .

   Field description

   LATITUDE

   LONGITUDE

   Field location

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

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

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

6. ENDING TIME [MILITARY].

RECORDS USE

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

   a. [fertilizer data?].

   b. [pesticide data?].

   c. [majority of this expense data?].

SUPPLEMENTS USED

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

   FERTILIZER APPLICATIONS

   PESTICIDE APPLICATIONS

   FIELD OPERATIONS

Reported by: ____________________________ 9910 9911 Telephone: (_____) ____________________

OFFICE USE

<table>
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<tr>
<th>R. Unit</th>
<th>Ptr 1 Str</th>
<th>Ptr 2 Str</th>
<th>Ptr 3 Str</th>
<th>Ptr 4 Str</th>
<th>OPS</th>
<th>SSO 1</th>
<th>ADJ</th>
<th>Optional Use</th>
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<td>923</td>
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<td>922</td>
<td>9906 9916</td>
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Response Respondent Mode Enum. POID

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<th>2-R</th>
<th>3-Inac</th>
<th>4-Office Hold</th>
<th>9901</th>
<th>1-Op/Mgr</th>
<th>2-Sp</th>
<th>3-Acct/Bkpr</th>
<th>4-Partner</th>
<th>9-Other</th>
<th>9903</th>
<th>9998</th>
</tr>
</thead>
</table>

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Optional Use

Eval. Change

| 9900 | 9985 |