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| Project 906 - ARMS Phase II QID | | OMB No. 0535-0218 Approval Expires 12/31/2019 | | | |
| SURVEY_LOGO_1:USDA_logo_bw.gif | **AGRICULTURAL RESOURCE MANAGEMENT SURVEY** | | | SURVEY_LOGO_2:ERS Logo.bmp | **NATIONAL**  **AGRICULTURAL**  **STATISTICS**  **SERVICE** |
|  | **BARLEY PRODUCTION PRACTICES**  **AND COSTS REPORT** | | |  |  |
|  | **for** **2019** | | U.S. Department of Agriculture,Rm 5030, South Building1400 Independence Ave., S.W.Washington, DC 20250-2000  Phone: 1-800-727-9540  Fax: 202-690-2090  Email: nass@nass.usda.gov | | |

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| **VERSION**  **4** | **ID**  **\_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_** | **TRACT**  **01** | **SUBTRACT**  **\_\_\_ \_\_\_** | **T-TYPE**  **0** | **TABLE**  **000** | **LINE**  **00** | **SURVEY_LOGO_4:ERS Logo.bmp** |

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| **CONTACT RECORD** | | | | |
| DATE | | TIME | | NOTES |
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| **INTRODUCTION:**  [*Introduce yourself, and ask for the operator. Rephrase in your own words*.]  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**. You may skip any question(s) you prefer not to answer.  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. | | |
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|  | | **H H M M** |
|  | **BEGINNING TIME**  [*MILITARY*] | 0004 |
| **\_\_ \_\_ \_\_ \_\_** |
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|  | | **SCREENING BOX** |
|  | | 0006 |

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| [*Name, address and partners verified and updated if necessary*] | | | | | | | |
| **POID** \_\_ \_\_ \_\_ \_\_ \_\_ \_\_ \_\_ \_\_ \_\_ | | | | **POID** \_\_ \_\_ \_\_ \_\_ \_\_ \_\_ \_\_ \_\_ \_\_ | | | |
| PARTNER NAME | | | | PARTNER NAME | | | |
| ADDRESS | | | | ADDRESS | | | |
| CITY | STATE | ZIP | PHONE NUMBER | CITY | STATE | ZIP | PHONE NUMBER |
| **POID** \_\_ \_\_ \_\_ \_\_ \_\_ \_\_ \_\_ \_\_ \_\_ | | | | **POID** \_\_ \_\_ \_\_ \_\_ \_\_ \_\_ \_\_ \_\_ \_\_ | | | |
| PARTNER NAME | | | | PARTNER NAME | | | |
| ADDRESS | | | | ADDRESS | | | |
| CITY | STATE | ZIP | PHONE NUMBER | CITY | STATE | ZIP | PHONE NUMBER |

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| **A** | **BARLEY FIELD SELECTION** | **A** |

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| 1. **How many acres of barley did this operation plant for the** **2019 crop year?**. . . . . . . . . . . . . . | **TOTAL PLANTED ACRES** |
| 0050  **.\_\_\_\_** |
| [*If no acres planted, review Screening Survey Information Form, make notes,*  *then go to item 4 on back page*.] | |

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| 2. **I will follow a simple procedure to make a random selection from the barley fields planted for the** **2019 crop.** |  |
| **What is the TOTAL number of** **barley fields that were planted on this operation?**  [*If only one field, enter “1” and go to item 5.*] . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **TOTAL NUMBER OF FIELDS PLANTED** |
|  | 0020 |

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| 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* a*nd 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.*] | |

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| **FIELD NAME, NUMBER OR DESCRIPTION** |  | **FIELD NAME, NUMBER OR DESCRIPTION** |
| 1 |  | 10 |
| 2 |  | 11 |
| 3 |  | 12 |
| 4 |  | 13 |
| 5 |  | 14 |
| 6 |  | 15 |
| 7 |  | 16 |
| 8 |  | 17 |
| 9 |  | 18 |

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| **APPLY “RANDOM NUMBER” LABEL HERE** |  | |
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| 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 |
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| 5.**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.*] |

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|  | **OFFICE USE**  **OY Field Substituted** | | |
|  | | 0022 |

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

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| 1. **How many acres of barley did this operation**  **plant in this field for the** **2019 crop?**. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **ACRES** | |
| 1301 | .\_\_\_\_ |

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|  | | **CODE** |
| a. Are the acres in this field **CERTIFIED ORGANIC**?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** | 1300 |
| [*If YES, skip 1b and ask item 2*.] |  | **CODE** |
| b. Was this field transitioning into organic barley production in 2019?. . . . . . . . . . . . . . . . . . . | **YES = 1** | 1399 |

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| 2. **Were the acres in this field---** | 1 owned by this operation?  2 rented for CASH with the payment being a fixed cash amount?  3 rented for CASH with the payment being a flexible cash amount?  4 rented for a SHARE of the crop?  5 rented for some combination of CASH and SHARE of the crop?  6 used RENT FREE? | . . . . | | **CODE** |
|  |  |  | | 1302 |
|  |  |  |  | |
| 3. [*If field is CASH RENTED* (item 2 = 2, 3, or 5)*, ask item 3*; *else go to item 4.*]  **What was the cash rent paid per acre for this 2019 barley field?**. . . . . . . . . . . . . . . . . . . . . . . . . . . | | | | **DOLLARS & CENTS**  **PER ACRE** |
|  | | | | 1303  **.\_\_ \_\_** |

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| 4. [*If field is SHARE RENTED* (item 2 = 4 or 5)*, ask*--- ]  **What was the landlord’s share of the crop from this field?**. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | | | **PERCENT** |
| 1304 |
| 5. [*If field is RENTED* (item 2 = 2, 3, 4, or 5)*, ask*---]  **What was the total cost for all inputs provided by any landlord or contractor for the** **2019 crop on the selected field?** (***Include*** *the costs for all inputs, such as seed, fertilizer, chemicals, technical services, custom operations, and irrigation.* ***Exclude*** *real estate tax expenses and lime costs paid by the landowner*.) . . . . . . . . . . . . . . . . . | **DOLLARS & CENTS**  **PER ACRE OR** | | | **TOTAL DOLLARS** |
| 1305 | **.\_\_\_ \_\_\_** |  | 1306 |

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|  | | | **MM DD YY** |
| 6. **On what date was this field planted?**. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | | 1308  **\_\_ \_\_ \_\_ \_\_ \_\_ \_\_** |
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| a. When planted, was this barley field  planted with the intention of ---  (***Include*** *barley planted for commercial*  *seed contract under other uses*.). . . . . . . . . . . . . . . . . . . . . | 1 Dual purpose (*grain and grazing*)?  2 Harvesting for grain only?  3 Grazing only?  4 Cover crop?  5 Other uses [*Specify:* \_\_\_\_\_\_\_\_\_\_\_ ] |  | **CODE** |
|  |  | . . . . . . . . . . | 1309 |

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|  | **BUSHELS PER ACRE** | | | |
| b. What was your yield goal at planting for this field?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | 0217 |  |

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|  | | | **UNIT CODE** |
|  | **UNITS PER ACRE** | | 1 = POUNDS  2 = CWT  3 = TONS  4 = BUSHELS  23 = 50 LB BAGS |
| 7. **What was the seeding rate per acre the first time this field was planted?**. . . . . . | 1310 | **.\_\_** | 1311 |

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|  | **ACRES** |
| 8. **How many acres in this field had to be replanted to barley?**  (*Acres replanted = Number of acres x Number of times replanted*) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 1318  **.\_\_\_\_** |
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|  | | | **CODE** |
| 9. **Was the source of the barley seed---** | 1 Purchased?  2 Homegrown or traded?  3 Both? | . . . . . . . . . |
| 1319 |

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| a. [*If item* *9 = 2 or 3, ask---*] | | | | | | **PERCENT** |
| How much of the barley seed planted in this field  was grown (*or received in trade*) by this operation?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | | | | | 1320 |
|  | | | | **DOLLARS & CENTS**  **PER BUSHEL** | | |
| (i) What was the cost per bushel for cleaning and treating this seed?. . . . . . . . . . . . . . . . . . . . . . . | | | | | | 1321  **.\_\_\_ \_\_\_** |
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|  |  | | | | **UNIT CODE** | |
| 10. [*If any seed purchased* (item 9 = 1 or 3), *ask---*] | **DOLLARS & CENTS**  **PER UNIT** | | | | 1 = POUND  2 = CWT  3 = TON  4 = BUSHEL  22 = ACRE  23 = 50 LB BAG | |
| **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*.) . . . . . . . . . . . . . . . . . | | 1429 | **.\_\_\_ \_\_\_** | | 1430 | |

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|  | | **CODE** |
| 11. **Has harvest of this field been completed?**. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** | 1343 |

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| 12. **Now I need information about the acres harvested** (*or to be harvested*) **and the yields from this field.** |

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| **How many acres in the barley**  **field were** (*or will be*)--- | **ACRES** | 1  **What**  **yield per acre**  **did you** (*or do you expect to*)  **get for barley---**  **UNITS PER ACRE** | | 2  **UNIT CODE**  1 POUNDS  2 CWT  3 TONS  4 BUSHELS  **CODE** |
| a. harvested for grain?. . . . . . . . . . . . . . . . . . . . . . . . . . | 1346  **.**\_\_\_\_ | 1347 | **.\_\_\_\_** | 1348 |
| b. harvested for hay, silage or green chop?. . . . . . . . . . | 1349  **.\_\_\_\_** | 1350 | **.\_\_\_\_** | TONS |
| c. harvested for commercial seed contract?. . . . . . . . . . | 1431  **.\_\_\_\_** | 1432 | **.\_\_\_\_** | 1433 |
| d. abandoned?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 1351  **.\_\_\_\_** |  | |  |
| e. used for some other purpose?. . . . . . . . . . . . . . . . . . | 1439  **.\_\_\_\_** |  | |  |

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| 13. **Was straw harvested from this field?**  **YES** - [*Enter code 1 and go to item* ] **NO** - [*Continue*]. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **CODE** |
| 1354 |

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| 14. **How many acres of** **barley straw were harvested from this barley field?**. . . . . . . . . . . . . . . . . . . . . | | | | | | | | | | | | | | | | | 1355  **.\_\_\_** | |
|  | | | | | | | | | | | | | | | | | **TOTAL TONS** | |
| a. How many **tons** of barley **straw** were harvested from these barley (*item 14*) acres?. . . . . . . . . . . . | | | | | | | | | | | | | | | | | 1356 | |
|  | \_\_\_\_\_\_\_**.\_\_**  Tons per Acre | X | \_\_\_\_\_\_\_  Acres | = | \_\_\_\_\_\_\_\_\_  Total Tons | **OR** | \_\_\_\_\_\_\_  Bales | X | \_\_\_\_\_\_\_\_\_\_  Lbs per Bale | ÷ | 2000  Lbs per Ton | | = | \_\_\_\_\_\_\_\_  Total Tons | | |  | |
|  | | | | | | | | | | | | **PERCENT** | | | **OR** | | **TONS** | |
| b. Of the total barley straw harvested from this barley field  (*item* *14a*), what was the landlord’s share of the barley straw?. . . . . . . . . . . | | | | | | | | | | | | 1357  **.\_\_\_ \_\_\_** | | |  | | 1358 | |
|  | | | | | | | | | | | | | | | | | | **TOTAL DOLLARS** |
| c. What was the total cost of baler twine/wire used to bale the barley straw  from this barley field? (***Include*** *landlord’s share*.). . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | | | | | | | | | | | | | | | | | 1359 |
|  | | | | | | | | | | | | | | | | | | |
| d. Was any barley straw sold? | | | | | | | | | | | | | | | | **DOLLARS & CENTS**  **PER TON** | | |
| If yes, what was the price received per ton for all barley straw (*item* *14**a*)  sold from this barley field?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | | | | | | | | | | | | | | | | | 1360  **.\_\_\_ \_\_\_** |

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| 15. **Did any livestock graze this barley field during the 2019 crop year?**  **YES** - [*Enter code 1 and continue*]  **NO** - [*Go to item 17*]. . . . . . . . . . . . . . . . . . . . . . . . . . . | **CODE** |
| 1400 |
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| 16. **What type of livestock grazed this barley field**  **during the 2019 crop year?** (***Include*** *livestock*  *grazing before wheat harvest and livestock “grazing-out”*  *the field instead of harvesting wheat*.) . . . . . . . . . . . . . . . . . . . | 1 Cattle  2 Sheep  3 Other [*Specify:* \_\_\_\_\_\_\_\_\_\_\_\_\_] | . . . . . . . . | **CODE** |
| 1361 |

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|  | **HEAD** |
| a. About how many **head** of livestock (*item 16*) grazed this barley field?. . . . . . . . . . . . . . . . . . . . . . . | 1362 |
|  | **DAYS** |
| b. How many **days** did this livestock graze on this barley field?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 1363 |

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|  | **CODE** |
| c. Was this barley field “grazed-out” instead of harvested for grain?. . . . . . . . . . . . . . . . . . . . . **YES = 1** | 1344 |
| d. Was payment received from others for livestock grazing on this field?  **YES** - [*Enter code 1 and continue*]  **NO** - [*Go to item 17*]. . . . . . . . . . . . . . . . . . . . . . . . | **CODE** |
|  | 1364 |
|  | **TOTAL DOLLARS** |
| (i) What is the total dollar amount received? (***Include*** *landlord’s share*.). . . . . . . . . . . . . . . . . . . . . . . . | 1365 |

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| **CROP CODE LIST for item 17 – PREVIOUSLY PLANTED CROPS** | | | | | | | |
| 190 | Barley | 3 | Dry Beans | 21 | Rice | 193 | Tobacco, burley |
| 85 | Canola | 17 | Dry Peas | 22 | Rye | 196 | Tobacco, flue cured |
| 310 | Clover | 311 | Grasses other than clover | 98 | Safflower | 42 | Vegetables |
| 6 | Corn for grain | 1 | Hay, alfalfa | 25 | Sorghum for grain | 163 | Wheat, durum |
| 5 | Corn for silage | 11 | Hay, all other | 24 | Sorghum for silage | 164 | Wheat, other spring |
| 282 | Cotton, Pima | 94 | Mustard Seed | 26 | Soybeans | 165 | Wheat, winter |
| 281 | Cotton, Upland | 15 | Oats | 28 | Sugarbeets |  |  |
| 302 | CRP | 16 | Peanuts | 30 | Sunflowers | 318 | **No crop planted**  during this period |
|  |  | 20 | Potatoes | 31 | Sweet Potatoes |

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| 17. **Next, I need to know what crops were previously PLANTED on the majority of this field, including cover crops.** |

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| **1** | | | **2** |
| **What crops were PLANTED on this field in---** | | | **Was this field**  **no-tilled?**  **1/** |
| **SEASON AND YEAR** | **CROP NAME** | **CROP CODE** | **YES = 1** |
| a. **FALL of** **2010?**. . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | 1343 | 1345 |
| b. **SPRING/SUMMER of** **2010?**. . . . . . . . . . . . . . . . . |  | 1369 | 1371 |
| c. **FALL of** **2009?**. . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | 1372 | 1374 |
| d. **SPRING/SUMMER of** **2009?**. . . . . . . . . . . . . . . . . |  | 1375 | 1377 |
| e. **FALL of** **2008?**. . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | 1378 | 1380 |
| f. **SPRING/SUMMER of** **2008?**. . . . . . . . . . . . . . . . . |  | 1381 | 1383 |
| g. **FALL of** **2007?**. . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | 1366 | 1368 |
| h. **SPRING/SUMMER of** **2007?**. . . . . . . . . . . . . . . . . |  | 1340 | 1342 |

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

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| i. [*If a cover crop was planted in Spring/Summer/Fall* *2010, ask*---]  What was the seed cost per acre for the cover crop?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **DOLLARS & CENTS**  **PER ACRE** | |
| 1468  **.\_\_\_ \_\_\_** |

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| 18. **In 2019, did your land-use practices for this field include any of the following---** | | | |
| **1** | **2**  **Was this**  **practice**  **used?**  **YES = 1** | **3**  **What year was this practice**  **first used?**  **YEAR** | **4**  **Was** (*or will there be*)  **an incentive or cost-share received from:**   1. Environmental Quality   Incentives Program (EQIP)?   1. Conservation Security or Conservation Stewardship Programs (CSP)? 2. Conservation Reserve Program (CRP)? 3. Any other Federal, State, Local or non-government source?   **CODE** |
| **LAND-USE PRACTICE** |
| a. **Structures for** **soil erosion control?**. . . . . . . . . . . . . . . . . . . . . | 1421 |  |  |
| (i) Terraces. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 1420 | 1441  \_\_ \_\_ \_\_ \_\_ | 1451 |
| (ii) Grade stabilization structures. . . . . . . . . . . . . . . . . . . . . | 1422 | 1442  \_\_ \_\_ \_\_ \_\_ | 1452 |
| b. **Structures for storm water runoff control/handling****?**. . . . . . . | 1423 |  |  |
| (i) Grassed waterways. . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 1438 | 1443  \_\_ \_\_ \_\_ \_\_ | 1453 |
| (ii) Structures for water control basins. . . . . . . . . . . . . . . . . | 1424 | 1444  \_\_ \_\_ \_\_ \_\_ | 1454 |
| c. **Filter strip****s or other conservation buffers?**. . . . . . . . . . . . . . | 1425 |  |  |
| (i) Filter strips. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 1426 | 1445  \_\_ \_\_ \_\_ \_\_ | 1455 |
| (ii) Field borders. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 1427 | 1446  \_\_ \_\_ \_\_ \_\_ | 1456 |
| (iii) Riparian buffers (*i.e., grass buffers*). . . . . . . . . . . . . . . . | 1428 | 1447  \_\_ \_\_ \_\_ \_\_ | 1457 |
| d. **Other Practices?**. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 1435 |  |  |
| (i) Contour farming and strip cropping. . . . . . . . . . . . . . . . . | 1434 | 1448  \_\_ \_\_ \_\_ \_\_ | 1458 |
| (ii) Conservation tillage / no-till. . . . . . . . . . . . . . . . . . . . . . . | xxxx | xxxx  \_\_ \_\_ \_\_ \_\_ | xxxx |
| (iii) Other Practices [*Specify*: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ] . . . | 1436 | 1450  \_\_ \_\_ \_\_ \_\_ | 1460 |

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|  | **OFFICE USE** |
|  | 1440 |

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| 19. **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.*). . . . . . . . . . . . . . . . . |  | **CODE** |
| **YES = 1** | 1404 |
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| 20. **Have you been notified by NRCS that this field contains a wetland?**. . . . . . . . . . . . . . . . . | **YES = 1** | 1405 |

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| 21. **During 2019, did any written plan of the following types cover this field---**  (Be sure to include soil conservation plans required under Highly Erodible Land Conservation  (conservation compliance) provisions. Producers who have been notified of highly erodible  land are subject to HELC requirements and must have (and apply) a written soil conservation  plan to be eligible for most farm program payments.)  (*A “written plan” is a plan prepared in accordance with Federal, State, or district standards.*) | | | |
| **1**  **WRITTEN PLAN TYPE** | **2**  **Was this type**  **of written**  **plan used?** | **3**  **What year**  **was this plan**  **implemented?** | **4**  **For any practice that is part of this plan,**  **was** (*or will there be*) **an incentive**  **or cost-share payment received from:**  1 Environmental Quality Incentives  Program (EQIP)?  2 Conservation Security or Conservation  Stewardshio Programs (CSP)?  3 Conservation Reserve Program (CRP)?  4 Any other Federal, State, Local  or non-government source? |
|  | **YES = 1** | **YEAR** | **CODE** |
| a. Conservation plan specifying practices  to reduce soil erosion?. . . . . . . . . . . . . . . . | 1408 | 1409  \_\_ \_\_ \_\_ \_\_ | 1461 |
| b. Comprehensive nutrient management  plan specifying practices for applying  both fertilizer and manure?. . . . . . . . . . . . . | 1410 | 1411  \_\_ \_\_ \_\_ \_\_ | 1462 |
| c. Nutrient management plan specifying  practices for land application  of manure only?. . . . . . . . . . . . . . . . . . . . . . | 1412 | 1413  \_\_ \_\_ \_\_ \_\_ | 1463 |
| d. Pest management plan to implement  Integrated Pest Management (IPM)  practices to control weeds, insects,  and/or plant diseases?. . . . . . . . . . . . . . . . | 1414 | 1415  \_\_ \_\_ \_\_ \_\_ | 1464 |
| e. Irrigation water management plan  specifying practices for applying  or conserving irrigation water?. . . . . . . . . . | 1416 | 1417  \_\_ \_\_ \_\_ \_\_ | 1465 |

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| 22. **Was the barley in this field covered by Federal Crop Insurance in** **2019?**  **YES** – [*Enter code 1 and continue*]  **NO** – [*Go to item* 23]. . . . . . . . . . . . . . . . . . . . . . . . . . | | | | | | | | | | **CODE** |
|  | | | | | | | | | | 1385 |
|  | | | | | | | | | | **CODE** |
| a. Which coverage did you obtain?. . . . | 1 Federal CAT (basic catastrophic insurance)  2 Buy-up above Federal CAT yield and/or price level  3 Revenue insurance  4 Organic plan insurance  5 Other Federal Crop insurance | | | | | | . . . . . . | | |  |
|  |  | | | | | |  | | | 1386 |
|  |  | | | | | |  | | | **PERCENT** |
| (i) [*If item a = 3, ask---*]  What was the level of revenue coverage you obtained for this field?. . . . . . . . . . . . . . . . . . . . . | | | | | | | | | |  |
|  | | | | | | | | | | 1389 |
|  | | | | | | | | | | **YEAR** |
| b. In what year did you (*the operator listed on the label*) first enroll this field  in the Federal crop insurance program?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | | | | | | | | | 1387  \_\_\_ \_\_\_ \_\_\_ \_\_\_ |
|  | |  | | | | | | **BUSHELS PER ACRE** | | | |
| c. What is the 2019 Approved APH (*actual production history*) yield for this field?. . . . . . . . . . . . . . . . . . | | | | | | | | | | 1388 |
|  | | | **DOLLARS & CENTS**  **PER ACRE OR** | | | | | | | **TOTAL DOLLARS** |
| d. What was the premium paid for Federal crop insurance for this field in 2019? (***Exclude*** *any sign-up fee.*). . . . . . . . . . . . . . . . . . . . . . . . | | | 1390 | | **.\_\_\_ \_\_\_** | | | |  | 1391 |
| e. Did you (*or will you*)collect an indemnity payment for this field  from federal crop insurance during 2019?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | | | | |  | | | | **CODE** |
|  | | | | | | **YES = 1** | | | | 1392 |
| 23. **Was the barley in this field covered by private crop insurance**  **in 2019** (*hail, wind, freeze, etc.*)**?**  **YES** – [*Enter code 1 and continue*]  **NO** – [*Go to* ***Section C***]. . . . . . . . . . . . . . . . . . . . . . . . | | | | | | | | | | **CODE** |
|  | | | | | | | | | | 1393 |
|  | | | **DOLLARS & CENTS**  **PER ACRE OR** | | | | | | | **TOTAL DOLLARS** |
| a. What was the premium paid for private crop insurance for this field in 2019? (***Exclude*** *any sign-up fee.*). . . . . . . . . . . . . . . . . . . . . . . . | | | 1395 | **.\_\_\_ \_\_\_** | | | | |  | 1396 |
|  | | | | | |  | | | | **YEAR** |
| b. In what year did you (*the operator listed on this label*) first purchase  private crop insurance for this field?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | | | | | | | | | 1397  \_\_\_ \_\_\_ \_\_\_ \_\_\_ |
|  | | | | | |  | | | | **CODE** |
| c. Did you (*or will you*) collect an indemnity payment for this field  from private crop insurance during 2019?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | | | | | **YES = 1** | | | | 1394 |

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| **C** | **NUTRIENT or FERTILIZER APPLICATIONS---**SELECTED FIELD | **C** |

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|  | | **CODE** | **EDIT TABLE** |
| 1. **Were commercial nutrients or fertilizers applied to this field for the 2019 barley crop?**. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** | 0202 | 0201 |
| 2. [*If COMMERCIAL nutrient or fertilizer applied, continue; else go to item 7.*] | | | **NUMBER** |
| 3. **How many commercial nutrient or fertilizer applications were made to this field  for the 2019 crop?**  (***Include*** *applications made by airplanes and custom applicators*.). . . . . . . . . . . . . . . . . . . . . . . | | | 0203 |

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| 4. **Now I need to record information for each application.** | | | | | | |
| **CHECKLIST** | | | |  | | |
| **🗸** | **INCLUDE** | **🗸** | **EXCLUDE** |  | | |
| Custom applied nutrients  or fertilizers | | Micronutrients | |  |  |  |
| Nutrients or fertilizers  applied in the fall of 2010  and those applied earlier  if this field was fallow in 2010 | | Unprocessed manure  Nutrients or fertilizers applied  to previous crops in this field | |  |  |  |
| **T-TYPE**  **2** | **TABLE**  **001** |
| Commercially prepared  manure or compost | | Lime and gypsum/landplaster | | **LINE**  **99** | **OFFICE USE**  **LINES IN TABLE** | 0213 |

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|  |  | | | | | | |  | **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 | | |  |
|  | | | | | | | | | | | | | | | | |
| **L**  **I**  **N**  **E** | | **2**  **MATERIALS USED**  [*Enter percentage analysis or actual*  *pounds of plant nutrients applied per acre*.]  [*Show Common Nutrients or Fertilizers*  *in Respondent Booklet*.] | | | | | **3**  **What quantity**  **was applied**  **per acre?**  [*Leave this*  *column blank*  *if actual nutrients*  *were reported.*] | | | **4**  [Enter  material  code.]  1 Pounds  12 Gallons  19 Pounds  of actual  nutrients | **5**  **When was**  **this applied?**  1 In the fall  before seeding  2 In the spring  before seeding  3 At seeding  4 After seeding | **6**  **How was**  **this**  **applied?**  [*Refer to*  *code list above.*] | | **7**  **How many**  **acres were**  **treated**  **in this**  **application?**  **ACRES** | | |
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|
| **N**  Nitrogen | **P2O5**  Phosphate | | **K2O**  Potash | **S**  Sulfur |
| **01** | | 0205 | 0206 | | 0207 | 0214 | 0208 | | | 0209 | 0210 | 0211 | | 0212 | **.\_\_\_** | |
| **02** | | 0205 | 0206 | | 0207 | 0214 | 0208 | | | 0209 | 0210 | 0211 | | 0212 | **.\_\_\_** | |
| **03** | | 0205 | 0206 | | 0207 | 0214 | 0208 | | | 0209 | 0210 | 0211 | | 0212 | **.\_\_\_** | |
| **04** | | 0205 | 0206 | | 0207 | 0214 | 0208 | | | 0209 | 0210 | 0211 | | 0212 | **.\_\_\_** | |
| **05** | | 0205 | 0206 | | 0207 | 0214 | 0208 | | | 0209 | 0210 | 0211 | | 0212 | **.\_\_\_** | |
| **06** | | 0205 | 0206 | | 0207 | 0214 | 0208 | | | 0209 | 0210 | 0211 | | 0212 | **.\_\_\_** | |
| **07** | | 0205 | 0206 | | 0207 | 0214 | 0208 | | | 0209 | 0210 | 0211 | | 0212 | **.\_\_\_** | |
| **08** | | 0205 | 0206 | | 0207 | 0214 | 0208 | | | 0209 | 0210 | 0211 | | 0212 | **.\_\_\_** | |

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

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| 5. **Were any nutrients or fertilizers applied by custom applicators?**  **YES** - [*Continue*]  **NO** - [*Go to item 6*] | | | | | | |
| a. Are you able to report the cost of nutrient or fertilizer materials  and custom application separately?  **YES** - [*Continue*]  **NO** - [*Go to item 6*] | | | | | **OFFICE USE** | |
| 0215 | |
| b. Excluding the cost of the nutrient or fertilizer materials, how much  was spent for custom application of nutrients or fertilizers on this  field? (***Include*** *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 6.*]. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **DOLLARS & CENTS**  **PER ACRE** | | | **OR** | **TOTAL DOLLARS** | |
| 0219 | **.\_\_\_ \_\_\_** |  | | 0220 |  |

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| 6. **What was the TOTAL COST of all nutrient or fertilizer products**  **applied to this field?** (***Include*** *operator, landlord, and contractor costs as well*  *as the costs for sulfur and micronutrients*. [*If custom applied and the cost of materials*  *can be separated from application costs ,* ***include*** *the cost of materials ONLY; otherwise,*  *include both the material and application costs.]* ***Include*** *materials applied to this field*  *if it was fallow in* *2010*. ***Exclude*** *lime, gypsum, purchased manure and purchased compost*.). . . . | **DOLLARS & CENTS**  **PER ACRE** | | | **OR TOTAL DOLLARS** | |
| 0221 | **.\_\_\_ \_\_\_** |  | | 0222 |

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|  | **CODE** |
| 7. **Was gypsum applied to this field for the 2019 barley crop?**. . . . . . . . . . . . . . . . . . . . . . . . . **YES = 1** | 0218 |

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| 8. **Was a soil or plant tissue test performed on this barley field**  **in** **2010 or 2019 for the 2019 crop?**  **YES** [*Continue*]  **NO** [*Go to item 13*] | | |  |
|  | | | **CODE** |
| 9. **Was a soil test for phosphorus performed on this barley field**  **in 2010 or 2019 for the 2019 crop?**. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** | | 0225 |
| a. [*If phosphorus test done, ask*---] | | **POUNDS PER ACRE** | | |
| How many pounds of phosphorus (*per acre*) were recommended (*by the phosphorus test*)?. . . . . | | | 0226 |
|  | | | **CODE** |
| 10. **Was a soil test for nitrogen performed on this barley field**  **in 2010 or** **2019 for the** **2019 crop?**. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** | | 0227 |
| a. [*If nitrogen test done, ask---*] | | **POUNDS PER ACRE** | | |
| How many pounds of nitrogen (*per acre*) were recommended (*by the nitrogen test*)?. . . . . . . . . . . | | | 0228 |

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|  | **CODE** |
| 11. **Was a plant tissue test or leaf analysis for nutrient deficiency performed**  **on this field for the** **2019 crop?**. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  **YES = 1** | 0229 |

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|  | | **DOLLARS & CENTS**  **PER ACRE** | | | | **OR** | **TOTAL DOLLARS** |
| 12. **How much was spent for these soil and plant tissue tests**  **on this field?** (***Include*** *operator, landlord, and contractor costs*.). . . . . . . . . . . . . . . . . . . . | | | 0230 | **.\_\_\_ \_\_\_** | |  | 0231 |
|  | | | | | | | |
| a. If tests were done at no cost, explain--- | 1 Soil/plant tissue test provided free of charge  by dealer, crop consultant, or extension service  2 Soil/plant tissue test costs were included in the total  fertilizer costs reported in item 6  3 Some other reason | | | |  | | **CODE** |
|  |  | | | | . . . . . . . | | 0232 |

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| 13. [**ENUMERATOR ACTION*:*** *Refer to the Fertilizer Table, column 2. If nitrogen (N) was applied,*  *complete items 14 and* *15. If NO nitrogen applied, go to item* *16.*] | | |
|  | | |
| 14.**Was the amount of nitrogen you decided to apply to this field based on---** | | **CODE** |
| a. Results of a soil or plant tissue test?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** | 0233 |
| b. Crop consultant recommendation?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** | 0234 |
| c. Fertilizer dealer recommendation?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** | 0235 |
| d. Extension Service recommendation?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** | 0236 |
| e. Cost of nitrogen and/or expected commodity price?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** | 0237 |
| f. Contractor recommendation?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** | 0238 |
| g. Routine practice (*operator’s own determination based on past*  *experience, yield goal, etc.*)?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** | 0239 |

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| 15. **Did you purchase any commercial nitrogen fertilizer applied to this field**  **under contract or otherwise pre-purchase the fertilizer at a pre-determined price prior to planting?**. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** | **CODE** |
| 0223 |
| a. [*If YES, ask---*]  What month prior to planting for the 2019 crop did you contract for the  fertilizer used on this field? [*Enter code “1” for January, “2” for February, etc.*]. . . . . . . . . . . . . . . . . | |  |
| 0224 |
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|  | | **CODE** |
| 16. **Is lime ever applied to this field?**. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** | 0242 |
| [*If no lime applied, go to item 17; else continue*.] | | **YEARS** |
| a. On average, how many years are there between applications of **lime** to this field?. . . . . . . . . . . . . | | 0243 |
|  | | **TONS PER ACRE** |
| b. How many tons of **lime** were applied per acre the last time it was applied to this field?. . . . . . . . . . | | 0244  .\_\_\_ |
|  | | **CODE** |
| c. Was lime applied to this field in 2010 or 2019 for the 2019 crop?. . . . . . . . . . . . . . . . . . . . | **YES = 1** | 0240 |
| d. [*If field is rented* (Section B, item 2 = 2, 3, 4, or 5), *ask---*]  Considering the last time it was applied, what percent of the total cost of lime  and its application was paid by the landlord(s)?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | **PERCENT** |
|  | | 0245 |

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| 17. **Was non-commercial manure** (*from own farm, from a neighbor’s farm, etc.*) **or other organic**  **material** (*excluding compos*t) **applied to this field for the 2019 barley crop?** (***Exclude*** *commercially prepared manure*.)  **YES** - [*Enter code 1 and continue*]  **NO** - [*Go to item 19*]. . . . . . . . . . . . . . . . . . . . . . . . | **CODE** |
| 0246 |
|  | **ACRES** |
| a. How many acres in this field was manure applied to?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 0247  **.\_\_\_** |

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| b. What was the amount of manure  applied to this field?. . . . . . . . . . . . | | 1 TONS  2 GALLONS  3 BUSHELS | | . . . | **CODE** | | |  | | | | **UNITS PER ACRE** | | | **OR** | **TOTAL UNITS** | | |
|  | |  | |  | 0248 | | | **AND** | | | | 0249 | **.\_\_\_ \_\_\_** | |  | 0250 | | **.\_\_\_** |
|  | | | | | | | | | | | | | | | | **MILES** | | |
| c. What is the distance between the manure storage/production location and this field?. . . . . . . . . . . | | | | | | | | | | | | | | | | 0251  **.\_\_\_** | | |
|  | | | | | | | | | | | | | | | | | | |
| d. What was the capacity of the manure spreader  (*or other vehicle*) used to haul manure to this field?. . . . | | | | | | 1 TONS  2 GALLONS  3 BUSHELS |  | | | | **CODE** | | |  | | **TOTAL UNITS** | | |
|  | | | | | |  | . . . | | | | 0252 | | | **AND** | | 0253 | **.\_\_\_ \_\_\_** | |
| e. Of the total manure applied to this field for the 2019  crop, what was the percent of manure applied--- | | | | | | | | | | | | | | | | **PERCENT** | | |
| (i) in the fall before planting?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | | | | | | | | | | | | | | **+** | 0254 | | |
| (ii) in the spring before planting?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | | | | | | | | | | | | | | **+** | 0255 | | |
| (iii) after planting?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | | | | | | | | | | | | | | **+** | 0256 | | |
|  | | | | | | | | | | | | | | | | **100%** | | |
|  | 1 Lagoon liquid?  2 Slurry liquid?  3 Semi-dry or dry? | |  | | | | | | | | | | | | | **CODE** | | |
| f. Was the manure--- |  | | . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | | | | | | | | | | | | 0257 | | |
|  | | | | | | | | | | | | | | | | | | |
|  | 1 Broadcast or sprayed *without* incorporation?  2 Broadcast or sprayed *with* incorporation?  3 Injected/knifed in?  4 Sprayed using irrigation systems? | | | | | | | | |  | | | | | | **CODE** | | |
| g. Was the manure--- |  | | | | | | | | | . . . . . . . . . . . . . . . . . . . | | | | | | 0258 | | |
|  | | | | | | | | | | | | | | | | | | |
|  | 1 Beef cattle?  2 Dairy cattle?  3 Hogs?  4 Sheep?  5 Poultry?  6 Equine?  7 Biosolids (*municipal sludge*)?  8 Food waste?  9 Other? [*Specify:* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ] | | | | | | | |  | | | | | | | **CODE** | | |
| h. Was the major source  of the manure from--- |  | | | | | | | | . . . . . . . . . . . . . . . . . . . | | | | | | | 0259 | | |
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| i. Was the manure--- | 1 Produced on this operation?  2 Purchased?  3 Obtained at no cost off this operation?  4 Obtained with compensation? (*Operator*  *received payment for accepting the manure*.) | . . . . . . . . . . . . . . . . . . . . |  |
| **CODE** |
| 0260 |

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| (i) [*If item 17i = 2, ask*---]  What was the total cost of the purchased manure applied  to this field? (***Include*** *any payment made for transportation costs.*) . . . . . . . . . . . | **DOLLARS & CENTS**  **PER ACRE OR** | | | **TOTAL DOLLARS** |
| 0284 | **.\_\_\_ \_\_\_** |  | 0285 |

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

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

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|  |  | **CODE** |
| j. Of the manure applied to this field, was any tested for nutrient content  prior to application?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** | 0261 |
|  |  |  |
| k. Was the application rate of commercial nitrogen fertilizer on this field  reduced due to manure application?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** | 0262 |
| (i) [*If YES, ask*---]  By what percent did you reduce the commercial nitrogen fertilizer  application rate on this field?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | **PERCENT** |
| 0263 |
|  |  | **CODE** |
| l. Did you adjust the barley harvest date for this field due to the  application of manure?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** | 0280 |

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| 18. **Were the manure APPLICATION RATES to this field influenced by Federal,**  **State, or local restrictions?**. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | **CODE** |
| **YES = 1** | 0264 |
| a. [*If item 18 is YES, ask---*]  What basis was used to determine these manure application rate restrictions-- | | **CODE** |
| (i) Nitrogen requirement of the crop?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** | 0265 |
| (ii) Phosphorus requirement of the crop?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** | 0266 |

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| 19. **Was compost applied to this field for the 2019 barley crop?**  **YES** - [*Enter code 1 and continue*]  **NO** - [*Go to* ***Section D***]. . . . . . . . . . . . . . . . . . . . . . . . . | **CODE** |
| 0267 |

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|  | | | | | | | | **ACRES** | |
| a. To how many acres in this field was the compost applied?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | | | | | | | 0268  **.\_\_\_** | |
|  | | | | | | | | | |
| b. What was the amount of compost  applied to this field?. . . . . . . . . . . . . . |  |  | **CODE** |  | **UNITS PER ACRE** | | **OR** | **TOTAL UNITS** | |
| 1 Tons  2 Cubic Yards |
| . . . | 0269 | **AND** | 0270 | **.\_\_\_ \_\_\_** |  | 0271 | **.\_\_\_** |

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|  | | | **[Enter up to 3**  **source codes]** |
| c. Were the major sources  of the compost from--- | 1 Beef cattle?  2 Dairy cattle?  3 Hogs?  4 Sheep?  5 Poultry?  6 Equine?  7 Biosolids (*municipal sludge*)?  8 Food waste?  9 Crop? [*Specify:* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ]  10 Other? [*Specify:* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ] | . . . . . . . . . . | **FIRST** |
| 0281 |
| **SECOND** |
| 0282 |
| **THIRD** |
| 0283 |

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| d. Was the compost--- | 1 Produced on this operation?  2 Purchased?  3 Obtained at no cost off this operation?  4 Obtained with compensation? (*Operator*  *received payment for accepting the compost.*) | . . . . . . . . . . |  |
| **CODE** |
| 0272 |

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| (i) [*If item 19d = 2, ask*---]  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 |

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

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| (1) [*If YES, ask---*]  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 |

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| (iii) [*If item* *19d = 1, ask*---]  What is the distance between the compost storage/production location and this field?. . . . . . . | **MILES** |
| 0299  **.\_\_\_** |

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| **NOTES** |

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| **D** | **BIOCONTROL or PESTICIDE APPLICATIONS---**SELECTED FIELD | **D** |

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| **Now I have some questions about all the biocontrols or pesticides used on this field for the 2019 barley crop, including both custom applications and applications made by this operation.** |

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| 1. **Were any herbicides, insecticides, fungicides or other biocontrols**  **or pesticides used on this barley field for the 2019 crop?**. . . . . . . . . . . . |  | **CODE** | **EDIT TABLE** |
| **YES = 1** | 0302 | 0301 |
| [*Probe for applications made in the fall of* *2010* (and those made earlier  If this field was fallow)*.*]  ***If no biocontrols or pesticides applied, go to Section E.*** |  |  |  |

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| **Include** defoliants, fungicides, herbicides,  insecticides, and other pesticides. | | | | **Exclude** nutrients or fertilizers reported  earlier and seed treatments. | | | |  | **T - TYPE**  **3** | | | | **TABLE**  **001** |
| **Include** biological and botanical pesticides. | | | |  | | | | **LINE**  **99** | **OFFICE USE**  **LINE IN TABLE** | | | | 0319 |
|  | | | | | | | | | | | | | |
| **CHEMICAL**  **PRODUCT**  **NAME** |  | **2** | **3** | | **4** | **5** | **6 OR 7** | | | | | **8** | |
| **L**  **I**  **N**  **E** | **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 biocontrols or pesticides not listed in Respondent Booklet, specify*---] | | | | | | | | | | | | | |

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| **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.*] |
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|  | **APPLICATIONS CODES for column 9** | |  | | [**ENUMERATOR NOTE**:  Use these columns only if  TOTAL COST  (*item 4 on next page*)  cannot be provided.] |  |
|  | 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  9 Spot treatments |  | |  |
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|  | **9** | **10** | | **11** | **12** |  | **OPTIONAL ITEM 4** | | | |
|  |  |  | |  |  |  | **What was the cost per unit of the product?** | | | |
|  |  |  | |  |  |  |
| **L**  **I**  **N**  **E** | **How**  **was this**  **product**  **applied?**  [*Enter code*  *from above*.] | **How many**  **acres in this**  **field were**  **treated with**  **this product?** | | **How many**  **times was it**  **applied?** | **Were these**  **applications**  **made by---**  1 Operator, partner  or family member?  2 Custom applicator?  3 Employee/Other? |  |  | | **UNIT CODE** | |
| **DOLLARS & CENTS**  **PER UNIT** | | 1 Pounds  12 Gallons  13 Quarts  14 Pints | 15 Liquid Ounces  28 Dry Ounces  30 Grams |
| **ACRES** | | **NUMBER** |  |  |
| **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 | |

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| 3. **Were any chemicals, biocontrols, or pesticides applied by custom applicators?** |

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| **YES** – [*Continue*] | **NO** – [*Go to item 4*] | | | | **OFFICE USE** |
| a. Are you able to report the cost of chemical, biocontrol, and pesticide products  and custom application separately? | | | | | 0324 |
| **YES** – [*Continue*] | **NO** – [*Go to item 4*] | | | | |
| b. Excluding the cost of the chemical, biocontrol, and pesticide products,  how much was spent for custom application of such materials on this field?  (***Include*** *operator, landlord, and contractor costs.*). . . . . . . . . . . . . . . . . . . . . . . . . . . . | | **DOLLARS & CENTS**  **PER ACRE OR** | | | **TOTAL DOLLARS** |
| 0331 | **.\_\_\_ \_\_\_** |  | 0332 |
| 4. **What was the TOTAL COST of all chemical, biocontrol, or pesticide**  **products applied to this field?** (**Include** *operator, landlord, and contractor costs, defoliants, herbicides, insecticides, fungicides, surfactants, wetting agents, growth regulators,*  *and materials applied before planting and during 2010 fallow period.* **Exclude** *seed treatments.*). . | | **DOLLARS & CENTS**  **PER ACRE OR** | | | **TOTAL DOLLARS** |
| 0334 | **.\_\_\_ \_\_\_** |  | 0335 |
|  | | | | | |
| **NOTE 1**: *If respondent cannot report TOTAL COST, itemize cost for each product in optional columns in Biocontrol or Pesticide Table.* | | | | | |
| **NOTE 2**: *If custom applied and the costs for materials can be separated from application costs, include the cost for materials only.*  *Otherwise, report both the material and application costs in item 4*. | | | | | |

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

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| **Now I have some questions about your pest management decisions and practices**  **used on this field for the 2019 barley crop. By pests, we mean WEEDS, INSECTS, and DISEASES.** | |  | |  |  |
|  | | **T-TYPE**  **0** | | **TABLE**  **000** | **LINE**  **00** |
|  | | | | | |
| 1. [**ENUMERATOR ACTION:** *Were PESTICIDE applications reported in Section D?*] | | | | | |
| **YES** – [*Continue*] | **NO** – [*Go to item 8* ] | | | | |
|  | | | **CODE** | | |
| 2. **Was weather data used to assist in determining either the need or when**  **to make pesticide applications?**. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . **YES = 1** | | | 0800 | | |

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| 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** |  |
| 0801 |

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| 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** | |  |
| 0802 |
|  | | |
| 5. [**ENUMERATOR ACTION*:*** *Were HERBICIDE* (pesticide product codes 3000-4999)  *applications reported in 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** | |  |
| 0803 |

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| 7. **Were herbicides applied to this barley field**  **AFTER weeds emerged?**. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . **YES = 1** | 0805 |

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| 8. **In 2019, 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 16.*] |  | **CODE** |
| . . . . . | 0808 |
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| 9. **Was an established scouting process** (*systematic sampling, recording counts, etc*.) **used**  **or were insect traps used in this field?**. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** | 0809 |
| 10. **Was scouting for pests done in this field due to---** |  |  |
| a. a pest advisory warning?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** | 0810 |
| b. a pest development model?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** | 0811 |

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| 1 | | 2 | 3 |
| 11. **Was this barley field scouted for---** | **YES = 1** | [*If* ***YES****, ask---]*  **What was the**  **infestation level for** [*column 1*] **?**  1 Worse than normal  2 Normal  3 Less than normal  **CODE** | [*If column 1 is* ***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?. . . . . . . . . . . . . . . . . . . . . . . . . . . | 0812 | 0813 | 0814 |
| b. diseases?. . . . . . . . . . . . . . . . . . . . . . . . . | 0827 | 0828 | 0829 |
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| [*If scouted by crop consultant or commercial scout, ask item 12;*  *else go to item 13.*]  12. **How much was charged for the scouting services for this field?**  (***Include*** *operator, landlord, and contractor costs*.). . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **DOLLARS & CENTS**  **PER ACRE OR** | | | | **TOTAL DOLLARS** |
| 0821 | **.\_\_\_ \_\_\_** | |  | 0822 |
|  | | | | | **OFFICE USE** |
| a. [*If scouting performed at no cost, explain*: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ] | | |  | | 0333 |

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| 13. **Were written or electronic records kept for this field to track the activity**  **or numbers of weeds, insects or diseases?**. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . **YES = 1** | **CODE** |
| 0823 |

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| 14. **Were scouting data compared to published information on infestation thresholds**  **to determine when to take measures to manage pests in this field?**. . . . . . . . . . . . . . . . . . . **YES = 1** |  |
| 0824 |

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| 15. **Did you use field mapping of previous weed problems to assist you in making**  **weed management decisions?**. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . **YES = 1** |  |
| 0825 |

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| 16. **Did you do any of the following other types of pest management for the specific purpose of**  **managing or reducing the spread of pests in this field?** [*Enter code “1****”*** *for all that apply*.] | | **CODE** |
| a. Use the services of a diagnostic laboratory for pest identification or soil plant tissue pest analysis for this field?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** | 0841 |
| b. Plow down crop residue (*using conventional tillage*)?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** | 0842 |
| c. Remove / burn down crop residue?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** | 0843 |
| d. Rotate crops in this field during the past three years?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** | 0844 |
| e. Maintain ground covers, mulches, or other physical barriers?. . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** | 0845 |
| f. Choose crop variety because of specific resistance to a certain pest?. . . . . . . . . . . . . . . . | **YES = 1** | 0846 |
| g. Use no-till or minimum till?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** | 0847 |
| h. Plan planting locations to avoid cross infestation of pests?. . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** | 0848 |
| i. Adjust planting or harvesting dates?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** | 0849 |
|  |  |  |
| j. Chop, spray, mow, plow, or burn field edges, lanes, ditches, roadways, or fence lines?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** | 0850 |
|  |  |  |
| k. Clean equipment and field implements after completing field work to reduce the spread of pests?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** | 0851 |
| l. Adjust row spacing, plant density or row directions?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** | 0852 |
|  |  |  |
| m. Have the seed treated for insect or disease control  after you purchased the seed for this field?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** | 0854 |
| n. Maintain a beneficial insect or vertebrate habitat?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** | 0855 |
|  |  |  |
| o. Maintain buffer strips or border rows to isolate organic barley  from non-organic crops or land, or did you take a buffer harvest?. . . . . . . . . . . . . . . . . . . . | **YES = 1** | 0856 |
| p. Use a flamer to kill weeds?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** | 0857 |

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|  | | |  | | **CODE** |
| 17. **Were any beneficial organisms** (*insects, nematodes, fungi*) **applied**  **or released in this field to manage pests?**. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | | **YES = 1** | | 0853 |
|  | | | | | |
| 18. **Were floral lures, attractants, repellants, pheromone traps or other**  **biological pest controls used on this field?**. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | | **YES = 1** | | 0858 |
| a. [*If item 17 or item 18 is YES, ask*---]  **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*.) . . . . . . . . . . . . |  | | | | |
| **DOLLARS & CENTS**  **PER ACRE OR** | | | | **TOTAL DOLLARS** |
| 0859 | **.\_\_\_ \_\_\_** | |  | 0860 |

|  |  |  |
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|  | | |
|  |  | **CODE** |
| 19. **Was a trap crop** (*excluding fallow*) **grown to help manage insects in this field?**. . . . . . . . . | **YES = 1** | 0863 |

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| 20. **Were water management practices such as irrigation scheduling, controlled**  **drainage, or treatment of retention water used on this field to manage for pests**  **or toxic producing fungi and bacteria?**. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** |  |
| 0861 |
|  |  |  |
| 21. **Was protection of beneficial organisms a factor in your pest control decisions for this field?**. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** | 0862 |

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| **PEST MANAGEMENT INFORMATION** | | | |
| 22. [*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 2019 barley crop?** | | | |
| [*Starting with the most influential in determining the pest management practices used*  *on this operation, enter codes for up to three sources.*] | | | |
|  | **PEST MANAGEMENT INFORMATION SOURCES CODE LIST** |  | [Enter up to 3  source codes.] |
|  | 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 |  |
|  |  | **FIRST** |
|  | . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 0826 |
|  |  |  |
|  |  | **SECOND** |
|  |  | 0827 |
|  |  |  |
|  |  | **THIRD** |
|  |  | 0828 |

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

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

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| 1. **Now I need to list all tractors used to**  **produce barley on the selected field.** | | |  | | | | | | |
| **CHECK LIST** | | | | | | |
|  | | **Include** | **Exclude** | |  | |
|  | | Tractors owned, rented,  leased or borrowed | Tractors provided by custom  operators | |  | |
|  | | |  | | | |
| **1** | **2** | **3** | | **4** | | | **5** | |
|  | **What is the**  **model year?**  (*Example: 2004*)  **YEAR** | **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** | | **What is its**  **PTO Horsepower?**  **PTO HORSEPOWER** | | | **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 | |

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| 2. **Was a self-propelled combine and/or swather used to harvest the barley field?** | | |
| **YES** – [*Continue*] | **NO** – [*Go to item 2c*] | |
| 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** |
| 0830  \_\_\_ \_\_\_ \_\_\_ \_\_\_ |

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| --- | --- |
| b. What is the model year of the self-propelled swather(s) used in preparing to harvest  winter wheat from this field? (*Report the average year if more than one was used*.) . . . . . . . . . . . . . . . . . . . . | **YEAR** |
| 0831  \_\_\_ \_\_\_ \_\_\_ \_\_\_ |
| c. Did you use a defoliant in place of a swather in preparing to harvest the winter wheat  from this field? . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . **YES = 1** | **CODE** |
| 0832 |

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| 3. **Including custom operations, I need to list field work performed**  **by machines on this field for the 2019 barley crop. Please…** | | |  |
| **CHECK LIST** |
| ► 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 2010, list operations starting with fall* *2009*]; | | | **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/landplaster applications |
| ► 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 |  |
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| **2** | **3** | **4** | **5** | **[ IF CUSTOM (*column 5 = code 6* ),skip columns 6-10]** | | | | | |
|  |  |  |  | **6** | **7** | **8** | **9** | | **10** |
| **S**  **E**  **Q**  **U**  **E**  **N**  **C**  **E** | **What**  **operation or**  **equipment**  **was used?** | [*Record machine*  *code from*  *Respondent*  *Booklet.*] | **Who**  **was the**  **machine**  **operator?**  [*Enter*  *code*  *from*  *above*.] | **What was**  **the size**  **or swath**  **of the**  [*machine*]  **used?** | [*Record*  *size*  *unit code*.]  1 Feet  2 Row  3 Moldboard  (*bottoms*)  **Hauling**  4 Pounds  5 Bushels  6 Tons | **What was the power source?**  [*Record tractor line number*  *from item 1*.]  **OR**  66 Animal Drawn  77 Pick up  99 Self-Propelled  **1/** | **How many**  **acres were**  **covered?**  [*Exclude*  *land forming*  *and hauling*  *operations*] | | **How many**  **TOTAL HOURS**  **were spent**  **on land forming**  **and hauling?**  [*Example: backhoes,*  *disk border maker,*  *ditcher, rear mounted blade, trucks, wagons*  *forklifts, etc.*] |
| **No.** |  | **CODE** | **CODE** |  | **CODE** |  | **ACRES** | | **HOURS** |
| 0351 |  | 0352 | 0353 | 0354 | 0355 | 0356 | 0357 | **.\_\_\_** | 0359 |
| 0361 |  | 0362 | 0363 | 0364 | 0365 | 0366 | 0367 | **.\_\_\_** | 0369 |
| 0371 |  | 0372 | 0373 | 0374 | 0375 | 0376 | 0377 | **.\_\_\_** | 0379 |
| 0381 |  | 0382 | 0383 | 0384 | 0385 | 0386 | 0387 | **.\_\_\_** | 0389 |
| 0391 |  | 0392 | 0393 | 0394 | 0395 | 0396 | 0397 | **.\_\_\_** | 0399 |
| 0401 |  | 0402 | 0403 | 0404 | 0405 | 0406 | 0407 | **.\_\_\_** | 0409 |
| 0411 |  | 0412 | 0413 | 0414 | 0415 | 0416 | 0417 | **.\_\_\_** | 0419 |
| 0421 |  | 0422 | 0423 | 0424 | 0425 | 0426 | 0427 | **.\_\_\_** | 0429 |
| 0431 |  | 0432 | 0433 | 0434 | 0435 | 0436 | 0437 | **.\_\_\_** | 0439 |
| 0441 |  | 0442 | 0443 | 0444 | 0445 | 0446 | 0447 | **.\_\_\_** | 0449 |
| 0451 |  | 0452 | 0453 | 0454 | 0455 | 0456 | 0457 | **.\_\_\_** | 0459 |
| 0461 |  | 0462 | 0463 | 0464 | 0465 | 0466 | 0467 | **.\_\_\_** | 0469 |
| 0471 |  | 0472 | 0473 | 0474 | 0475 | 0476 | 0477 | **.\_\_\_** | 0479 |
| 0481 |  | 0482 | 0483 | 0484 | 0485 | 0486 | 0487 | **.\_\_\_** | 0489 |
| 0491 |  | 0492 | 0493 | 0494 | 0495 | 0496 | 0497 | **.\_\_\_** | 0499 |
| 0501 |  | 0502 | 0503 | 0504 | 0505 | 0506 | 0507 | **.\_\_\_** | 0509 |
| 0511 |  | 0512 | 0513 | 0514 | 0515 | 0516 | 0517 | **.\_\_\_** | 0519 |
| 0521 |  | 0522 | 0523 | 0524 | 0525 | 0526 | 0527 | **.\_\_\_** | 0529 |
| 1/ *If trucks other than pick-ups are used as the power source, use truck codes in Respondent Booklet.* | | | | | | | | | **OFFICE USE** |
|  | | | | | | | | | 0032 |

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

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| Please report the paid and unpaid labor that worked on this field to produce the 2019 barley crop.  (***Exclude*** *labor that was reported for field work performed by machines.*) |

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|  | **1**  **How many hours did** (*type of worker*)**spend on this field---** | | | | | | | |
| **TYPE OF WORKERS** | a. | | | b. | | | c. | |
| scouting for  weeds, insects  and diseases?  **HOURS** | | | irrigating?  **HOURS** | | | performing  other work  by hand?  **HOURS** | |
| You (*the operator*) | 1101 |  | | 1102 | |  | 1103 |  |
| Partner(s) | 1104 |  | | 1105 | |  | 1106 |  |
| Unpaid workers | 1107 |  | | 1108 | |  | 1109 |  |
| Paid part-time or seasonal workers  (***Exclude*** *custom and contract labor*) | 1110 |  | | 1111 |  | | 1112 |  |
| Paid full-time workers  (***Exclude*** *custom and contract labor*) | 1113 |  | | 1114 |  | | 1115 |  |
|  |  | |  | | | | | |

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|  | **DOLLARS & CENTS**  **PER HOUR** | | |
| 5. **What was the average hourly wage rate paid to part-time or seasonal hired workers?**  (***Exclude*** *custom and contract workers, payroll taxes and benefits.*). . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | 1119 | **.\_\_\_ \_\_\_** |

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|  | **DOLLARS & CENTS**  **PER HOUR** | | |
| 6. **What was the average hourly wage rate paid to full-time hired workers?**  (***Exclude*** *custom and contract workers, payroll taxes and benefits.*). . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | 1118 | **.\_\_\_ \_\_\_** |

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|  | | **CODE** | |
| 7. **Was any contract labor used on this field?**. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** | 1116 | |
| a.[*If YES, ask* ---]  What was the average cost per acre for this contract labor?  (***Include*** *operator, landlord, and contractor costs*.). . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | **DOLLARS & CENTS**  **PER ACRE** | | |
| 1117 | **.\_\_\_ \_\_\_** |

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| --- | --- |
| 8. **What percent of the total number of unpaid hours worked on this field was performed by workers under 16 years of age?** (*Estimates of labor costs for unpaid workers are based on*  *off-farm wage rates, which are different for workers under 16 relative to those 16 and older.*) . . . . . . . . | **PERCENT** |
| 1120 |

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| --- | --- | --- |
| 9. **Now I need some information on how much was spent (or will be spent) for custom services used on this**  **field for the 2019 barley crop.** | | |
|  | | |
| 🗸 | 1  **CUSTOM SERVICE**  **Which of the following services were performed**  **for the 2019 barley crop on this field?**  🡨 [*Check box for each service performed; refer to item 3 if necessary*.] | 2  **Including**  **operator, landlord,**  **and contractor costs,**  **how much was spent**  **for** [*column 1*] **on**  **this field for the 2019**  **barley crop?**  **DOLLARS & CENTS**  **PER ACRE** |

|  |  |  |  |
| --- | --- | --- | --- |
|  | a. Custom land preparation, shaping and/or leveling  \_\_ \_\_**.\_\_** **\_\_** **X** \_\_\_\_\_\_\_\_\_\_\_ =\_\_\_\_\_\_\_\_\_\_\_**÷ \_\_\_\_\_\_\_\_\_\_\_\_ = \_\_ \_\_.\_\_ \_\_**  (Cost per hour X Total hours = Total dollars ÷ Total acres in the field = Dollars & cents per acre) . . . . | 1121 | **.\_\_\_ \_\_\_** |
|  | b. Custom cultivating . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 1122 | **.\_\_\_ \_\_\_** |
|  | c. Custom planting and/or reseeding . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 1123 | **.\_\_\_ \_\_\_** |
|  | d. Custom harvesting . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 1124 | **.\_\_\_ \_\_\_** |
|  | e. Custom hauling to storage or point of first sale  \_\_ \_\_**.\_\_** **\_\_** **X** \_\_\_\_\_\_\_\_\_\_\_\_\_ **÷ \_\_\_\_\_\_\_\_\_\_\_\_**  **= \_\_ \_\_.\_\_ \_\_**  (Dollars & cents per unit x Total units hauled from field ÷ Acres harvested in field = Dollars & cents per acre) . . | 1126 | **.\_\_\_ \_\_\_** |
|  | 1. Custom harvesting and hauling from field to storage or point of first sale   \_\_ \_\_**.\_\_** **\_\_** **X** \_\_\_\_\_\_\_\_\_\_\_\_\_ **÷ \_\_\_\_\_\_\_\_\_\_\_\_**  **= \_\_ \_\_.\_\_ \_\_**  (Dollars & cents per unit x Total units hauled from field ÷ Acres harvested in field = Dollars & cents per acre) . . | 1127 | **.\_\_\_ \_\_\_** |
|  | 1. Custom raking, baling, and hauling the straw from this field   \_\_ \_\_**.\_\_** **\_\_** **X** \_\_\_\_\_\_\_\_\_\_\_\_\_ **÷ \_\_\_\_\_\_\_\_\_\_\_\_**  **= \_\_ \_\_.\_\_ \_\_**  (Dollars & cents per unit x Total units hauled from field ÷ Acres harvested in field = Dollars & cents per acre) . . . . | 1128 | **.\_\_\_ \_\_\_** |
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| --- | --- | --- | --- | --- | --- | --- | --- |
| 10. **Did you hire any technical or consultant services to make recommendations**  (*such as for nutrient, pest control, irrigation, or precision farming*) **for this field?**  **YES** – [*Continue*]  **NO** – [*Go to item 12*] | | | | | | | |
| Which of the following services did you obtain?  a. Nutrient recommendations/management service?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | | |  | | **CODE** | |
| **YES = 1** | | 1129 | |
| b. Soil or tissue sample collection?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | | | **YES = 1** | | 1130 | |
| c. Pest control recommendations/management service?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | | | **YES = 1** | | 1131 | |
| d. Pest scouting?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | | | **YES = 1** | | 1132 | |
| e. Irrigation management service (*i.e. irrigation scheduling*)?. . . . . . . . . . . . . . . . . . . . . . . . . | | | | **YES = 1** | | 1133 | |
| f. Yield map or remote sensing map development/interpretation?. . . . . . . . . . . . . . . . . . . . . . | | | | **YES = 1** | | 1134 | |
| g. Other custom or technical service? [*Specify:* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ] | | | . . . . | **YES = 1** | | 1135 | |
| 11. **If YES to any of these services, what was the cost for all of these services?** (***Include*** *operator, landlord, and contractor costs.* ***Exclude*** *cost of*  *soil/tissue tests or scouting cost reported earlier*. *Do not report costs for any of these*  *services if they were previously reported as part of the costs of materials and/or application.*). . . . . |  | | | | | | |
| **DOLLARS & CENTS**  **PER ACRE OR** | | | | | **TOTAL DOLLARS** | |
| 1136 | **.\_\_\_ \_\_\_** | | |  | 1137 |  |

|  |  |  |  |
| --- | --- | --- | --- |
|  | | | **CODE** |
| 12. **Was there** (*or will there be*) **a yield monitor on the equipment used to harvest**  **this barley field?**. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** | | 1138 |
| [*If YES, continue; else go to item 13*]  a. Was there (*or will there be*) a yield map produced from this harvest  using information from the yield monitor?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | | |
| **YES = 1** | 1139 | |
| b. Did you use the yield monitor information to--- | | | |
| (i) monitor crop moisture content to determine need for crop drying?. . . . . . . . . . . . . . . . | **YES = 1** | | 1140 |
| (ii) add/improve tile drainage?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** | | 1141 |
| (iii) add/improve irrigation equipment / irrigation water application?. . . . . . . . . . . . . . . . . . | **YES = 1** | | 1142 |
| (iv) conduct in-field experiments (*e.g., compare fertilizer applications*,  *seed varieties, herbicides, pesticides, etc.*)?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** | | 1143 |
| (v) negotiate new crop leases?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** | | 1144 |
| (vi) document yields for crop insurance, real estate tax, or farm  program purposes?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** | | 1145 |
| (vii) accurately divide crop production among partners and/or for  landlord crop shares?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** | | 1146 |
| (viii) other uses [*specify:* ] . . . . . . . . | **YES = 1** | | 1147 |

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| 13. **During 2010 or 2019, was a GPS** (*Global Positioning System*) **device used to produce**  **a map of the soil properties** (*such as nitrate levels, PH, soil type, etc*.) **of this field?** . . . . . . | | |  |  |
| **YES = 1** | 1148 |
|  | | | |  |
| a. [*If YES, ask*---] | 1 soil tests from this field?  2 a machine that measured electrical conductivity  of the soil in this field (*e.g. Veris machine*)?  3 other? [*Specify:* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ] |  | |  |
| Was the information  collected above based on--- | . . . . . . . . . . . . . . | | 1149 |

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| 14. **Did you have an airplane or satellite provide an image or photograph**  **of this field either at the start or during the 2019 growing season?**. . . . . . . . . . . . . . . . . . |  |  |
| **YES = 1** | 1151 |

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| 15. **Was a variable rate applicator used on this field for---** |  |  |
| 1152 |
| a. fertilization or lime application?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** |  |
|  |
| (i) [*If YES, ask*---]  Did you use a variable rate applicator for--- |  |  |
| 1153 |
| (1) nitrogen applications?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** |  |
| 1154 |
| (2) phosphorus applications?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** |  |
| 1155 |
| (3) potash applications?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** |  |
| 1156 |
| (4) lime applications?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** |  |
| 1157 |
| (5) manure applications?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** |  |
|  |
| b. seeding?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** | 1158 |
| c. pesticide applications?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** | 1159 |

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| 16. **Was a guidance or parallel swathing system** (*connected to GPS*) **used**  **with any machine operation on this field** (*e.g. light bar*)*?*. . . . . . . . . . . . . . . . . . . . . . . . . . . . |  |  |
| **YES = 1** | 1150 |

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| **G** | **IRRIGATION** | **G** |

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| 1. **How many acres in this field were irrigated for the 2019 barley crop?**  [*If none, go to* ***Section******H***]. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **ACRES** | |
| 1160 | **.\_\_\_** |
|  | | |
| 2. **Now, I have some questions about irrigation systems and water used on this field**  **for the 2019 barley crop.** | | |

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| **↓** | | **UNIT** | **SYSTEM 1** | | **SYSTEM 2** | |
| a. What type(s) of irrigation system(s) was (*or were*) used to irrigate  this field? [*Show* ***System Type Codes*** *in the Respondent Booklet. Enter*  ***System Type Code*** *for up to two systems covering the most field acres*.]. . . . . . . . . . | | **SYSTEM**  **TYPE**  **CODE** | 1161 | | 1175 | |
| b. What was the total quantity of water applied to this field during  the entire growing season? (***Include*** *ALL water used from both on-farm*  *and off-farm sources*.). . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | **INCHES**  **PER ACRE**  **OR**  **TOTAL**  **ACRE-FEET** | 1162 | | 1176 | |
|  | |  | 1163 | | 1177 | |
| [*If operator cannot provide item 2b, ask* *(i) & (ii),* *else go to 2c*] | |  |  | |  | |
| (i) What is the **total** number of **hours** this system was used to  apply water to this fieldduring the barley growing season?. . . . . . . | | **TOTAL**  **HOURS** | 1164 | | 1178 | |
| (ii) How many gallons per minute were applied?. . . . . . . . . . . . . . . . . | | **GALLONS**  **PER MINUTE** | 1165 | | 1179 | |
| c. What percent of the water used to irrigate this field through this  system came from surface water sources?. . . . . . . . . . . . . . . . . . . . . . | | **PERCENT** | 1166 | | 1180 | |
| d. What was the number of times this field was irrigated during the  barley growing season using this system? (***Include*** *any pre-plant irrigation*.). | | **NUMBER OF**  **IRRIGATIONS** | 1167 | | 1181 | |
| e. Was the pump type---  [*If more than one pump in the system, enter*  *type for pump closest to water source.*] | 1. **TURBINE?** 2. **SUBMERSIBLE?** 3. **CENTRIFUGAL?** 4. **BOOSTER?** 5. **SIPHON?**   99 **NO PUMP?**  [*If code 99, go to item* *j*.] | **CODE** | 1168 | | 1182 | |
| f. What was the average pumping rate?. . . . . . . . . . . . . . . . . . . . . . . . . . | | **GALLONS**  **PER MINUTE** | 1169 | | 1183 | |
| g. [*If item 2a = code 1-9* (PRESSURE SYSTEM)*, ask---*]  What was the system operating pressure?. . . . . . . . . . . . . . . . . . . . . . | | **POUNDS**  **PER**  **SQUARE INCH** | 1170 | | 1184 | |
| h. What was the primary motor type  used to pump the water? | 1. **DIESEL** 2. **GASOLINE** 3. **LP GAS** 4. **NATURAL GAS** 5. **ELECTRICITY** 6. **SOLAR POWER** | **CODE** | 1171 | | 1185 | |
| i. What was the average motor size?. . . . . . . . . . . . . . . . . . . . . . . . . . . . | | **HORSEPOWER** | 1172 | | 1186 | |
| j. [*If NO PUMP was used* (item 2e = 99)*, ask*---]  What was the average flow rate?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | **GALLONS**  **PER MINUTE** | 1173 | | 1187 | |
| k. How many other acres on this operation were irrigated using  this field’s irrigation system during the 2019 growing season? (***Exclude*** *this field*.). . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | **ACRES** | 1174 | **.\_\_\_\_** | 1188 | **.\_\_\_\_** |

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|  | **DOLLARS & CENTS**  **PER ACRE** | | | **OR** | **TOTAL DOLLARS** |
| 3. **What was the cost of the fuel or electricity used to irrigate this field?**  (***Include*** *operator, landlord, and contractor costs*.). . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | 1189 | **.\_\_\_ \_\_\_** |  | 1190 |

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| 4. **Was any water purchased to irrigate this field?** (***Include*** *landlord's share and purchases from all sources*.)  **YES** – [*Enter code 1 and continue*.]  **NO** – [*Go to item 5.*]. . . . . . . . . . . . . . . . . . . . . . . | | | | **CODE** |
| 1191 |
|  | | | | **PERCENT** |
| a. What percent of the water used on this field was purchased?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | | | 1192 |
| b. What was the total cost for the water purchased for this field  during the 2019 growing season? (***Include*** *operator, landlord, and*  *contractor costs and ditch maintenance costs for this field*.). . . . . . . . . . . . . . . . . . . . . . | **DOLLARS & CENTS**  **PER ACRE OR** | | | **TOTAL DOLLARS** |
| 1193 | **.\_\_\_ \_\_\_** |  | 1194 |

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| 5. [*If SIPHON TUBES were used* (item 2a = 10 or 11)*, ask*---]  **What would be the total cost to replace all the siphon tubes used on this field?**. . . . . . . . . . . . . . | **TOTAL DOLLARS** |
| 1201 |
| 6. [*If POLY PIPE system was used* (item 2a = 14) *ask*---]  **What was the total amount spent for poly pipe used on this field during the**  **2019 growing season?** (***Include*** *operator, landlord, and contractor costs*.). . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **TOTAL DOLLARS** |
| 1202 |

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| 7. [*If GATED PIPE system was used* (item 2a = 15 or 16), *ask*---] | **INCHES** |
| a. What was the average diameter of gated pipe used to irrigate this field?. . . . . . . . . . . . . . . . . . . . . | 1203 |
|  | **FEET** |
| b. What was the total length of gated pipe used?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 1204 |

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| 8. **Were wells used to supply irrigation water for this field?**  **YES** – [*Enter code 1 and continue*]  **NO** – [*Go to item 9*]. . . . . . . . . . . . . . . . . . . . . . . . | | **CODE** | |
| 1205 | |
|  | | **NUMBER** | |
| a. How many wells were used to irrigate this field?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | 1206 | |
|  | | **INCHES** | |
| b. What was the average diameter of the outer well casing?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | 1207 | |
| c. What was the average pumping depth of these wells during the irrigation season?  [*Pumping depth is the depth to water at the start of the irrigation season, plus an average decline in the*  *water level caused by pumping during the irrigation season*.]. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | **FEET** | |
| 1208 | |
|  | | **CODE** | |
| d. Did the well(s) have a water meter or other flow measurement device?. . . . . . . . . . . . . . . | **YES = 1** | 1209 | |
| e. 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*]. . . . . . . . . . . . . . . . . . . . . | | **CODE** | |
| 1210 | |
| f. Excludingthis field,how many other acres on this operation were irrigated  using the same wells during the 2019 growing season?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | **ACRES** | |
| 1211 | **.\_\_\_** |

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| 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* ***Section H***] | |
|  | **INCHES** |
| a. What was the average diameter (*in inches*) of the most common type  of this additional pipe used?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 1212 |
|  | **FEET** |
| b. How many feet of this additional pipe were used to bring water to this field?. . . . . . . . . . . . . . . . . . | 1213 |
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| **H** | **MANAGEMENT** | **H** |

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| 1. **In response to higher or more volatile fuel prices during the 2019 crop year**  **for barley, did you---** | |  |
| a. reduce the number of field operations such as tillage, cultivation, or nutrient  and pesticide applications on this field (*i.e., compared to what you would have*  *otherwise applied*)? . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . **YES = 1** | | **CODE** |
| 1220 |
|  |  |  |
| b. reduce the amount of irrigation water on this field (*i.e., compared to what you*  *would have otherwise applied*)?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .**YES = 1** | | 1222 |
|  |  |  |
| c. change other production practices on this field? [*If yes, specify:* ] . . . . **YES = 1** | | 1223 |

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| 2. **In response to higher or more volatile fertilizer prices during the 2019 crop year**  **for barley, did you---** | | **CODE** |
| a. reduce the application rate of commercial nitrogen fertilizer on this field  (*i.e., compared to what you would have otherwise applied*)? . . . . . . . . . . . . . . . . . . . . . . . . **YES = 1** | | 1224 |
| (i) [*If YES, ask*---]  By what percent did you reduce the amount of commercial  nitrogen fertilizer applied for 2019?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | **PERCENT** |
| 1225 |
| b. change the type of commercial nitrogen fertilizer products applied on this field  (*i.e., compared to what you would have otherwise applied*)?  [*e.g*. *less anhydrous ammonia and more UAN*] . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . **YES = 1** | | **CODE** |
| 1226 |
|  |  |  |
| c. increase the application rate of manure or other organic fertilizers on this field  (*i.e., compared to what you would have otherwise applied*)? . . . . . . . . . . . . . . . . . . . . . . . . **YES = 1** | | 1227 |
| d. manage fertilizer more closely, with such practices as soil testing, split applications,  variable rate applications, or soil incorporation on this field (*i.e., compared to what*  *you would have otherwise done*)? . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . **YES = 1** | |  |
| 1228 |

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| **CONCLUSION** |

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| **LOCATION OF SELECTED FIELD** | | | |
| 1. **I need to locate the selected field of barley on this map.** | **COUNTY NAME** | **OFFICE USE**  **COUNTY FIPS CODE** | |
| 2. **What county is the selected barley field in?**. . . . . . . . |  |  | 0010 |
|  |  |  |  |
| **Field description**. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | | |
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| **FOR STATES WITH GPS UNITS ONLY** |  | **LATITUDE** | |  | **LONGITUDE** | |
| **Field location**. . . . . . . . . . . . . . . . . . . . . . . . . | **N** | 0054 | **\_\_\_ \_\_\_. \_\_\_ \_\_\_. \_\_\_ \_\_\_** | **W** | 0055 | **\_\_\_ \_\_\_ \_\_\_. \_\_\_ \_\_\_. \_\_\_ \_\_\_** |
|  |  |  | *d d m m s s* |  |  | *d d d m m s s* |

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

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| 4. **We will need additional information to complete this study. We will contact you in February**  **or March** **2012 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?**. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | **CODE** | |
| **YES** = **1** | 0099 | |
|  |  | **HH MM** | |
| 6. **ENDING TIME** [*MILITARY*]. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | 0005  \_\_ \_\_ \_\_ \_\_ | |
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| **RECORDS USE** | | | | |
| 7. [*Did respondent use farm/ranch records to report---*] | | | | **CODE** |
| a. [***fertilizer*** *data*?]. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | | **YES = 1** | 0011 |
| b. [***pesticide*** *data?*]. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | | **YES = 1** | 0012 |
| c. [*majority of this* ***expense*** *data*?]. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | | **YES = 1** | 0013 |
|  | | | | **NUMBER** |
| **SUPPLEMENTS USED** | | **FERTILIZER**  **APPLICATIONS** | | 0041 |
| 8. [*Record the total number of each type of supplement*  *used to complete this interview.*]. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | **PESTICIDE**  **APPLICATIONS** | | 0042 |
|  | | **FIELD**  **OPERATIONS** | | 0043 |
|  | | | | |
| Reported by:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Telephone: (\_\_\_\_\_\_)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | | |

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| **Response** | | **Respondent** | | **Mode** | | **Enum** | **Eval.** | **Date** | **Optional** | |
|  | |  | |  | |  |  | **MM DD YY** |  | |
| 1-Comp  2-R  3-Inac | 9901 | 1- Op/Mgr  2-Sp  3-Acct/Bkpr  4-Partner  9-Other | 9902 | 2-Tel  3-Face-to-Face | 9903 | 0098 | 0100 | 9910  **\_\_\_ \_\_\_ \_\_\_ \_\_\_ 11** | 0002 | 0003 |
| S/E Name | | | | | | | | | | |