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| **AGRICULTURAL RESOURCE MANAGEMENT SURVEY** |
|  | OMB No. 0535-0218 Approval Expires: 07/31/2021Project Code: 906 SMetaKey: 2604Phase 2 |
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| **SURVEY_LOGO_1:USDA_logo_bw.gif** | **new_nass_logo_bw** | **NATIONAL****AGRICULTURAL****STATISTICS****SERVICE** |
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|  |  |  |  |  |  | National Agricultural Statistics ServiceU.S Department of AgricultureNOC Division9700 Page Avenue, Suite 400St. Louis, MO 63132-1547Phone: 1-888-424-7828Fax: 1-855-415-3687E-mail: nass@nass.usda.gov |

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| **BARLEY PRODUCTION PRACTICES AND COSTS REPORT FOR 2019** |

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| **VERSION****14** | **ID****\_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_** | **TRACT****01** | **SUBTRACT****\_\_\_ \_\_\_** | **C-TYPE****103** |  |

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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*.]We are collecting information on practices and costs used to produce cotton and need your help to make the information as accurate as possible. The information you provide will be used for statistical purposes only. In accordance with the Confidential Information Protection provisions of Title V, Subtitle A, Public Law 107-347 and other applicable Federal laws, your responses will be kept confidential and will not be disclosed in identifiable form to anyone other than employees or agents. By law, every employee and agent has taken an oath and is subject to a jail term, a fine, or both if he or she willfully discloses ANY identifiable information about you or your operation Response is voluntary.According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0535-0218. The time required to complete this information collection is estimated to average 65 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. |
|  |  **H H M M** |  | **SCREENING BOX** |  |
|  **BEGINNING TIME** [*MILITARY*] | 0004 |  |  | 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*.] |
| Of the total (*item 1*), how many acres were planted for--- |  |
| a. feed barley? . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | 0051**.\_\_\_\_** |
| b. malt barley? . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | 0052**.\_\_\_\_** |
| c. other uses? . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | XXXX**.\_\_\_\_** |

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|  **I will follow a simple procedure to make a random selection from the barley fields planted for the 2019 crop.** |  |
| **2. What is the TOTAL number of** **barley fields that were planted on this operation?**[*If only one field, enter “1” and go to item 4.*] . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | **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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| 6. For the randomly selected field above, please provide the Farm Service Agency (FSA):[If the physical field in this survey spans multiple FSA administrative fields, please include the farm, tract, and field number for the largest administrative field. These numbers are field identifiers that USDA uses to administer farm programs like crop insurance, commodity programs, and conservation programs. Having this information helps USDA make better use of other data you have provided to USDA and will improve the types of statistical analysis that can be done with the responses from this survey.] | **NUMBER** |
| a. Farm Number (up to 8 digits) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | 1070 |
| b. Tract Number (up to 7 digits) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | 1071 |
| c. Field Number (up to 4 digits, exclude subfield letters). . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | 1072 |

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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 the selected field for the** **2019 crop?**. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | **ACRES** |
| 1301 | .\_\_\_\_ |
|  |  |
| 1. Was the selected field planted for---
 | 1 feed?2 malt?3 other uses? | . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | **CODE** |
| 1324 |
|  | **CODE** |
| b. Are the acres in the selected field **CERTIFIED ORGANIC**? . . . . . . . . . . . . . . . . . . .. . . .  | **YES = 1****NO = 3** | 1300 |
|  [*If YES, skip 1c and ask item 2*.] |  | **CODE** |
| c. Was the selected field transitioning into organic barley production in 2019? . . . . . . . .  | **YES = 1****NO = 3** | 1399 |

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| 2. **Were the acres in the selected 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 the selected field?**  . . . . . . . . . . . . . . . . . . . . . . . .  | **PERCENT** |
| 1304 |
| 5. [*If field is RENTED* (item 2 = 2, 3, 4, 5, or 6)*, ask*---] **What was the total cost for all inputs provided by any landlord** **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 |
|  | **YEAR** |
| 6. **In what year did you** (*the operator listed on the label*) **start operating the selected field?** . . . . . . . . . . .  | 1312**\_\_\_ \_\_\_ \_\_\_ \_\_\_** |
|  | **MM DD YY** |
| 7. **On what date was the selected field planted?** . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | 1308**\_\_ \_\_ \_\_ \_\_ \_\_ \_\_** |

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| 8. 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** |
|  |  | . . . . . . . . . .  | 1307 |
| **[if item 8 = 1 or 2, ask --}** | **BUSHELS PER ACRE** |
| a.. What was your yield goal at planting for the selected field?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | 1311 |  |
|  | **CODE** |
| 9. **Was the source of the barley seed---** | 1 Purchased?2 Homegrown or traded?3 Both? | . . . . . . . . .  |  |
|  |  |  | 1317 |
| a. [*If item 9 = 2 or 3, ask---*] | **PERCENT** |
|  How much of the barley seed planted in the selected field was grown (*or received in trade*) by this operation?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | 1318 |
|  | **DOLLARS & CENTS** **PER BUSHEL** |
| (i) What was the cost per bushel for cleaning and treating this seed? . . . . . . . . . . . . . . . . . . .  | 1321**.\_\_\_ \_\_\_** |
|  |  |
|  |  | **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 the selected field?** (***Include*** *cost of seed treatment*.) . . . . . . . . . . . . . . . . .  | 1319 | **.\_\_\_ \_\_\_** | 1320 |
|  | **UNIT CODE** |
|  | **UNITS PER ACRE** |  1 = POUNDS 2 = CWT 3 = TONS 4 = BUSHELS23 = 50 LB BAGS |
| 11. **What was the seeding rate per acre the first time the selected field was planted?**. . . . . .  | 1313 | **.\_\_\_** | 1314 |

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|  |  |  | **CODE** |
| 12. **For the 2019 barley crop, was the**  **barley seed**--. . . . . . . . . . . . . . . . . . . . . . | 1 Treated with a pesticide prior to purchase?2 Treated with a pesticide after purchase?3 Not treated with a pesticide? | . . . . . . . . . . .  | 3062 |

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| [If item 12 = 1 or 2, ask--] | **SEED TREATMENT NAME** |
| a. What was the name of the seed treatment? Write seed treatment name in the box provided. . . . . . . . . . . . . . . . . .  |  |
|  |  | **CODE** |
| b. What was the seed treatment code? Enter the appropriate seed treatment code from the Respondent Booklet (Pages 3 - 4). (*Enter 999 if a seed treatment was applied but is not listed.*  *Enter “-1” if the seed treatment is not known*.). . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | 2325 |

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|  |  | **CODE** |
| 13. **For the 2019 barley crop, did you plant a commercial seed product** **on the selected field?**. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | **YES = 1** | 2340 |
| [*If item 13 is “Yes”, ask*--] | **COMMERCIAL SEED PRODUCT NAME** |
| a. What was the name of the seed product?  Write the seed product name in the box provided (e.g. LCE Genie, AAC Synergy, AC Metcalfe). . . . . . . . . . . . . . . .  |  |
| 14. **How many acres in the selected field had to be replanted to barley?** (*Acres replanted = Number of acres x Number of times replanted*) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | 1315**.\_\_\_\_** |
| 15. **Was straw harvested from the selected field?** [ ]  **YES** – [*Enter code 1 and continue*] [ ]  **NO** – [*Go to item 19*]. . . . . . . . . . . . . . . . . . . . . . . . . .  | **CODE** |
| 1354 |

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|  | **ACRES** |
| 16 **How many acres of** **barley straw were harvested from the selected barley field?**. . . . . . . . . . . .  | 1355**.\_\_\_** |
|  | **TOTAL TONS** |
| a. How many **tons** of barley **straw** were harvested from the selected barley (*item 13*) acres?. . . . . . . . . . . .  | 1356 |
|  | \_\_\_\_\_\_\_**.\_\_**Tons per Acre | X | \_\_\_\_\_\_\_ Acres | = | \_\_\_\_\_\_\_\_\_ Total Tons | **OR** | \_\_\_\_\_\_\_ Bales | X | \_\_\_\_\_\_\_\_\_\_Lbs per Bale | ÷ | 2000Lbs per Ton | = | \_\_\_\_\_\_\_\_Total Tons |  |
|  | **TOTAL DOLLARS** |
| b. What was the total cost of baler twine/wire used to bale the barley straw from the selected barley field? (***Include*** *landlord’s share*.). . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | 1359 |
| c Was any barley straw sold? | **DOLLARS & CENTS****PER TON** |
|  If yes, what was the price received per ton for all barley straw (*item* *13a*) sold from the selected barley field?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | 1360**.\_\_\_ \_\_\_** |
|  | **CODE** |
| 17. **Has harvest of this field been completed?**. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | **YES = 1****NO = 3** | 1328 |
| 18. **Now I need information about the acres harvested** (*or to be harvested*) **and the yields from this field.** |
|  **How many acres in the barley** **field were** (*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 POUNDS2 CWT3 TONS4 BUSHELS**CODE** |
| a. harvested for grain or seed?. . . . . . . . . . . . . . . . . . . . . . . . . .  | 1346**.**\_\_\_\_ | 1347 | **.\_\_\_\_** | 1348 |
| b. harvested for hay, silage or green chop?. . . . . . . . . .  | 1349**.\_\_\_\_** | 1350 | **.\_\_\_\_** | TONS |
| c. abandoned?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | 1351**.\_\_\_\_** |  |  |
| d. used for some other purpose?. . . . . . . . . . . . . . . . . .  | 1439**.\_\_\_\_** |  |  |

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| 19. **Did any livestock graze the selected barley field during the 2019 crop year?** [ ]  **YES** - [*Enter code 1 and continue*] [ ]  **NO** - [*Go to item 21*]. . . . . . . . . . . . . . . . . . . . . . . . . . .  | **CODE** |
| 1400 |
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| 20. **What type of livestock grazed the selected barley field during the 2019 crop year?** (***Include*** *livestock* *grazing before barley harvest and livestock “grazing-out”* *the field instead of harvesting barley*.) . . . . . . . . . . . . . . . . . . .  | 1 Cattle2 Sheep3 Other [*Specify:* \_\_\_\_\_\_\_\_\_\_\_\_\_] | . . . . . . . .  | **CODE** |
| 1361 |
|  | **HEAD** |
| a. About how many **head** of livestock (*item 17*) grazed the selected barley field?. . . . . . . . . . . . . . . . . . . . . . .  | 1362 |

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|  | **DAYS** |
| b. How many **days** did this livestock graze on the selected barley field?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | 1363 |
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|  |  |
| d. Was payment received from others for livestock grazing on this field? [ ]  **YES** - [*Enter code 1 and continue*] [ ]  **NO** - [*Go to item 21*]. . . . . . . . . . . . . . . . . . . . . . . .  | **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 21 – PREVIOUSLY PLANTED CROPS** |
|  |
| 190 | Barley | 311 | Grasses including clover | 22 | Rye | 318 | No crop planted |
| 6 | Corn for grain | 1 | Hay, alfalfa | 240 | Sorghum, all | 291 | Other field crop |
| 5 | Corn for silage | 11 | Hay, all other | 26 | Soybeans | 292 | Other crop |
| 283 | Cotton (all) | 15 | Oats | 263 | Wheat, spring | 312 | Cover crop mix |
| 302 | CRP | 21 | Rice | 165 | Wheat, winter |  |  |

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| 21. **Please report the history of crops on the majority of the selected field, including cover crops.** |

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| 1 | 2 | 3 | 4 | 5 |
| **What crops were PLANTED on the selected field in---** | **Was this****a cover crop?** | **How did you terminate this** **cover crop?** | **Was the selected****field****irrigated?** | **Was the selected****field****no-tilled or strip-tilled? 1/****1/** |
|  |  |  |  | 1 Tilled-in |  |  |
|  |  |  | 2 Herbicide |  |  |
|  |  |  | 3 Rolled |  |  |
|  |  |  | 4 Grazed |  |  |
|  |  |  | 5 harvested for forage |  |  |
|  |  |  | 6 Harvested for grain  7 Disked |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
| **SEASON AND YEAR** | **CROP NAME** | **CROP CODE** | **YES = 1****NO=3** | **CODE** | **YES = 1****NO=3** | **YES = 1****NO=3** |
| a. **SPRING/SUMMER of 2019?** . . . . . . . |  | XXXX | XXXX | XXXX | 2345 | 1344 |
| b **FALL of 2018?** . . . . . . . . . . . . . . . . .  |  | 1343  | 1470 | 1471 | 2344 | 1345 |
| c **SPRING/SUMMER of 2018?**. . . . . . . |  | 1369 | 1472 | 1473 | 2370 | 1371 |
| d **FALL of 2017?** . . . . . . . . . . . . . . . . .  |  | 1372 | 1474 | 1475 | 2373 | 1374 |
| e **SPRING/SUMMER of 2017?** . . . . . . .  |  | 1375 | 1476 | 1477 | 2376 | 1377 |
| f **FALL of 2016?** . . . . . . . . . . . . . . . . .  |  | 1378 | 1478 | 1479 | 2379 | 1380 |
| g **SPRING/SUMMER of 2016?** . . . . . . .  |  | 1381 | 1480 | 1481 | 2382 | 1383 |
| h **FALL of 2015?** . . . . . . . . . . . . . . . . .  |  | 1366 | 1482 | 1483 | 2367 | 1368 |
| i**SPRING/SUMMER of 2015?** . . . . . . .  |  | 1340 | 1484 | 1485 | 2341 | 1342 |

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

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| j [*If a cover crop was planted in Spring/Summer/Fall 2018, ask*---] What was the seed cost per acre for the cover crop?. . . . . . . . . . . . . . . . . . . .. . . . . . . . . .  | **DOLLARS & CENTS****PER ACRE** |
| 1468**.\_\_\_ \_\_\_** |

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| k. What was the per-acre cost-share or financial assistance payments received for the cover crop (enter zero if no program payment was received)? . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | 1495 | **.**\_\_ \_\_ |

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| 22. **Has any part of the selected field as “Highly Erodible Land”?** (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****NO = 3** | 1404 |
|  |  |  |
| 23. Do you have a conservation plan that specifies practices to control soil erosion?..................... | **YES = 1****NO = 3** | XXXX |
| 24. **Does the selected field contain a wetland?** (Wetlands are subject to Wetland Conservation (WC) or “swampbuster” requirements. Producers who receive farm program payments must refrain from draining wetlands to make them ready for crop production.)**?**. . . . . . . . . . . . . . . . .  | **YES = 1****NO = 3** | 1405 |

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| 25 **What is the slope of the selected field?**. . . . . .  | 1 Nearly level 0 – 2%2 Even, moderate grade 3 – 9%3 Variable, moderate grade4 Even, steep grade over 10%5 Variable, steep grade | . . . . . . . . . . . . . . .  | **CODE** |
| 2400 |
|  |
| 26. **What is the primary soil texture of the selected field?** . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | 1 Loam2 Clay3 Sandy4 Mixed5 Silty | . . . . . . . . . . . . . . . . . . . . . . .  | **CODE** |
| 2401 |
|  |
| 27. **Next we will ask about soil and water concerns that you have on the selected field.** |

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|  | CODEYES = 1NO = 3 | Have you received technical assistance from any of the following sources to evaluate this resource concern? (Report up to 2 sources that you received assistance from.) |
| In the selected field, are you concerned about any of the following? | 1. USDA – NRCS
2. Cooperative Extension Service
3. Other USDA staff, including Forest Service
4. Other (e.g. Soil and Water Conservation District, state agency)
 |
|  | Source 1 | Source 2 |
| a. Water-driven erosion. . . . . . . . . . . . . . . . . .  | 2407 | 2417 | 2427 |
| b. Wind-driven erosion. . . . . . . . . . . . . . . . . .  | 2408 | 2418 | 2428 |
| c. Soil compaction. . . . . . . . . . . . . . . . . . . . . .  | 2409 | 2419 | 2429 |
| d. Poor drainage. . . . . . . . . . . . . . . . . . . . . . .  | 2410 | 2420 | 2430 |
| e. Low organic matter. . . . . . . . . . . . . . . . . . .  | 2411 | 2421 | 2431 |
| f. Water quality. . . . . . . . . . . . . . . . . . . . . . . .  | 2412 | 2422 | 2432 |
| g. Other concerns. . . . . . . . . . . . . . . . . . . . . .  | 2413 | 2423 | 2433 |
| h. \*No significant concerns. . . . . . . . . . . . . . . .  | 2414 |  |  |

\***ENUMERATOR NOTE**: Enter Yes = 1 for item h, *No significant concerns*, **ONLY** if the respondent replies NO = 3 to all other concerns (items a – g).

|  |  |
| --- | --- |
| 28. **Has the selected field been in any conservation program contracts for which you or your landlord received** (or expected to receive) **cost-sharing payments, stewardship payments, or incentive payments?** | **UNIT CODE**1 = Current2 = Past3 = Never |
| a. Environmental Quality Incentives Program. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | 2611 |
| b. Conservation Stewardship Program. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | 2612 |
| c. Conservation Reserve Program. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | 2613 |
| d. Other Federal, State, Local, or non-Government source. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | 2614 |

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| 29.  **Now I need information on soil, crop, and land management practices or activities used on the selected field and any financial or technical assistance you may have received in conjunction with those practices.** |
| a. From this list, please check any practices or activities that you used on the selected field this year or at any time in the past. |
|  | **On-field Soil and Crop Management** |   |  |  |
| [ ]  1 | No-Till/Strip-Till | [ ]  12 | Grass Waterway | [ ]  30 | Implement an integratedpest management plan (written plan) |
|  | [ ]  2 | Conservation Tillage(except no-till/strip-till) | [ ]  20 | Implement a nutrient management plan (written plan) | [ ]  31 | Drift reducing spray nozzles |
|  | [ ]  3 | Cover crop (single species) | [ ]  26 | Split nitrogen application with at least 50% applied after planting | [ ]  32 | Targeted sprayer(electrical control) |
|  | [ ]  4 | Cover crop mix | [ ]  21 | Precision nutrient application | **Adjacent to Field** |
|  | [ ]  5 | Contour Farming | [ ]  23 | No fertilizer application more than 30 days before planting | [ ]  33 | Filter strip |
|  | [ ]  6 | Conservation crop rotation | [ ]  24 | Controlled release fertilizer | [ ]  34 | Field border |
|  | [ ]  10 | Terraces | [ ]  22 | Subsurface phosphorous application | [ ]  35 | Riparian Buffer (grass or forest) |

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| b. For each practice or activity checked in 27a, please complete one line of this table. |
| 1 | 2 | 3On this field, for this practice, have you ever received at any time ---- | 4**Does this practice or activity help satisfy--** | 5**Was this practice or plan used on this selected field in 2018?** |
| **Technical or planning assistance**? | **Financial assistance?** |
| **Practice or Activity****on the selected field** | **Practice Code**(see item 27a) | 123 | USDA NRCS field staff, cooperative extension, or Technical Service ProvidersOther Sources of Outside Assistance, such as Soil and Water Conservation Service or a conservation organizationNo Assistance Needed | 12345 | Environmental Qualify Incentives Program (EQIP)Conservation Stewardship Program (CSP)Conservation Reserve Program (CRP)Other Federal, State, and Local ProgramsNo Assistance Needed | 123 | A Federal regulatory requirementHighly Erodible Land Conservation CompliacnceDoes not relate to any regulation or compliance requirement | **YES = 1****NO = 3** |
|  | 1610 | 1611 | 1612 | 1613 | 1614 |
|  | 1615 | 1616 | 1617 | 1618 | 1619 |
|  | 1620 | 1621 | 1622 | 1623 | 1624 |
|  | 1625 | 1626 | 1627 | 1628 | 1629 |
|  | 1630 | 1631 | 1632 | 1633 | 1634 |
|  | 1635 | 1636 | 1637 | 1638 | 1639 |
|  | 1640 | 1641 | 1642 | 1643 | 1644 |
|  | 1645 | 1646 | 1647 | 1648 | 1649 |
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| 30. **In 2019, was the barley in the selected field covered by a single or named peril crop insurance policy** (e.g. hail, replant, wind, freeze)**?** . . . . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1****NO = 3** | 2520 |
| [*If YES, ask*--] |  |  |
| a. In 2019, was the barley in the selected field covered by more than one single or named peril crop insurance policies (e.g. hail, replant, wind, freeze)?. . . . . . . . . . . . . . .  | **YES = 1****NO = 3** | 2517 |
|  |  | **DOLLARS & CENTS PER ACRE** |
|  b. What was the dollar amount of coverage per acre for the single peril policy covering the  selected field?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | 2521 | **. \_\_ \_\_** |
|  |  | **PERCENT** |
| c. What was the percent deductible for the single peril policy covering the selected field? (Record no deductible as 0.). . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | 2522 |
|  |  | **DOLLARS & CENTS PER ACRE** |
| d. What premium cost per acre did you pay for the single peril policy covering the selected field?. . .  | 2523 | **. \_\_ \_\_** |
|  |  | **CODE** |
| e. Did you (or will you) collect an indemnity payment for the selected field from the single peril policy during 2019?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | **YES = 1****NO = 3** | 1394 |

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| 31.  **In 2019, was the barley in the selected field covered by a multi-peril crop insurance policy?**  [ ]  **YES** – [*Enter code 1 and continue*] [ ]  **NO** – [*Go to Section C*]. . . . . . . . . . . . . . . . . . . . . . . . . .  |  |
| **CODE** |
| 1385 |
|  | **CODE** |
| a. Which coverage did you obtain?. . . .  | 1 Federal CAT (basic catastrophic insurance)2 Yield based 3 Revenue based 4 Other multi-peril crop insurance | . . . . . .  |
| 1386 |
| **PERCENT** |
|  [If item 31a = 2, ask--]  (i) What percent of yield coverage did you select for the selected field? . .. . . . . . . . . . . . .  |
| 1387 |
|  (ii) What percent of price coverage did you select for the selected field?  | 1388 |
|  [*If item 34a = 3, ask---*] (iii) What percent of revenue coverage did you select for the selected field?. . . . . . . . . . . . . . .  | **PERCENT** |
| 1389 |

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| b. What type of unit coverage did you purchase for the selected field?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | 1 Basic2 Optional3 Enterprise | . . . . . . . . . . . . . . . . | **CODE** |
| 2524 |

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|  | **YEAR** |
| c In what year did you (*the operator listed on the label*) first purchase multi-peril crop insurance on the selected field??. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | 2525 \_\_\_ \_\_\_ \_\_\_ \_\_\_ |
|  |  | **BUSHELS PER ACRE** |
| d. What is the 2019 Approved APH (*actual production history*) yield for the selected field? . . . .  | 2526 |
|  | **DOLLARS & CENTS** **PER ACRE**  |  |
| e. What was the premium paid for multi-peril crop insurancefor the selected field in 2019? (***Exclude*** *any sign-up fee.*). . . . . . . . . . . . . . . . . . . . . . . .  | 2527 | **.\_\_\_ \_\_\_** |  |  |
| f. Did you (*or will you*)collect an indemnity payment for the selected field from multi-peril crop insurance during 2019?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  |  | **CODE** |
| **YES = 1** | 2528 |

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

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| 3. **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 2018 and those applied earlier if the selected field was fallow in 2018 | [ ]  Unprocessed manure[ ]  Nutrients or fertilizers applied to previous crops in the selected 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 incorporation2 Broadcast, ground with incorporation3 Broadcast, by aircraft4 In seed furrow | 5 In irrigation water6 Chisel/Injected or knifed in7 Banded in or over row8 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**[Entermaterialcode.] 1 Pounds12 Gallons19 Pounds  of actual nutrients | **5****When was****this applied?**1 In the fall before seeding2 In the spring before seeding3 At seeding4 After seeding | **6****How was** **this** **applied?**[*Refer to* *code list above.*] | **7****How many****acres were****treated****in this****application?****ACRES** |
|
|
|
|
| **N**Nitrogen | **P2O5**Phosphate | **K2O**Potash | **S**Sulfur |
| **01** | 31 | 32 | 33 | 34 | 36 | 37 | 38 | 39 | 40 | **.\_\_\_** |
| **02** | 31 | 32 | 33 | 34 | 36 | 37 | 38 | 39 | 40 | **.\_\_\_** |
| **03** | 31 | 32 | 33 | 34 | 36 | 37 | 38 | 39 | 40 | **.\_\_\_** |
| **04** | 31 | 32 | 33 | 34 | 36 | 37 | 38 | 39 | 40 | **.\_\_\_** |
| **05** | 31 | 32 | 33 | 34 | 36 | 37 | 38 | 39 | 40 | **.\_\_\_** |
| **06** | 31 | 32 | 33 | 34 | 36 | 37 | 38 | 39 | 40 | **.\_\_\_** |
| **07** | 31 | 32 | 33 | 34 | 36 | 37 | 38 | 39 | 40 | **.\_\_\_** |
| **08** | 31 | 32 | 33 | 34 | 36 | 37 | 38 | 39 | 40 | **.\_\_\_** |

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| 4. **Were any nutrients or fertilizers applied by custom applicators?**  | CODE |
| [ ]  **YES** - [*Continue*] | [ ]  **NO** - [*Go to item 6*] | **YES=1** |  | XXXX |
| 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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| 5. **What was the TOTAL COST of all nutrient or fertilizer products** **applied to the selected 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 the selected 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** |
| 6. **Was gypsum applied to the selected field for the 2019 barley crop?**. . . . . . . . . . .. . . . . . . **YES = 1** NO = 3 | 0218 |

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| 7. **Was a soil test for Soil Organic Matter performed on this barley field at some point in the last 10 years?** . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | **YES = 1****NO = 3** | 3225 |
|  [*If item 7 = 1, ask---*] |  | **PERCENT** |
| a. What was the percentage of Soil Organic Matter on the field for the most recent test?. . . . . . . . . .  | 3226 | **.** \_\_\_ \_\_\_ |
|  | **NUMBER** |
| b. How many times have you tested the selected field for Soil Organic Matter in the last ten years?.. .  | 3227 |
|  [*If item 7b is more than 1 ask---*] | **CODE** |
| c. Based on these tests, is your Soil Organic Matter content:. .  | 1. Increasing
2. Decreasing
3. Staying roughly the same
 | . . . .  | 3228 |
| 8. **Was a soil or plant tissue test performed on this barley field** **in 2018 or 2019 for the 2019 crop?** [ ]  **YES** [*Continue*] **[ ]**  **NO** [*Go to item 13*] |  |
|  | **CODE** |
| 9. **Was a soil test for phosphorus performed on the selected barley field** **in 2018 or 2019 for the 2019 crop?**. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | **YES = 1** | 0225 |
| a. [*If item 9 = 1, 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 the selected barley field** **in 2018 or 2019 for the 2019 crop?**. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | **YES = 1** | 0227 |
| a. [*If item 10 = 1, 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 the selected 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 the selected field in 2018 or 2019 for the 2019 crop?** (***Include*** *operator, landlord, and contractor costs*.). . . . . . . . . . . . . . . . . . . .  | 0230 | **.\_\_\_ \_\_\_** |  | 0231 |
|  |
| *[if tests were done at no cost continue, otherwise go to item 12b.]* |  |  |  |
| a. What is the reason why tests were done at no cost?--- | 1 Soil/plant tissue test provided free of charge  by dealer, crop consultant, or extension service2 Soil/plant tissue test costs were included in the total fertilizer costs reported in item 63 Some other reason |  | **CODE** |
|  |  | . . . . . . .  | 0232 |
| b. Did you receive a payment from the Conservation Stewardship Program for performing a stalk or leaf tissue test for nitrogen application?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | **YES = 1****NO = 3** | 3231 |
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| [**ENUMERATOR ACTION*:*** *Refer to the Fertilizer Table, column 2. If nitrogen (N) was applied,* *complete items 13. If NO nitrogen applied, go to item 14.*] |
|  |
| 13. **Was the amount of nitrogen you decided to apply to the selected field based on---** | **CODE** |
| a. Results of a soil or plant tissue test?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | **YES = 1****NO = 3** | 0233 |
| b. Crop consultant recommendation?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | **YES = 1****NO = 3** | 0234 |
| c. Fertilizer dealer recommendation?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | **YES = 1****NO = 3** | 0235 |
| d. Extension Service recommendation?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | **YES = 1****NO = 3** | 0236 |
| e. Cost of nitrogen and/or expected commodity price?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | **YES = 1****NO = 3** | 0237 |
| f. Contractor recommendation?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | **YES = 1****NO = 3** | 0238 |
| g. Routine practice (*operator’s own determination based on past* *experience, yield goal, etc.*)?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | **YES = 1****NO = 3** | 0239 |

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| h. [*If nitrogen inhibitors were used, continue; else go to item 14*.] | **POUNDS PER ACRE** | **OR** | **GALLONS PER ACRE** |
|  How much nitrogen inhibitor did you mix with the nitrogen applied  to the selected field?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | 2561 | .\_\_\_ |  | 2562 | .\_\_\_ |

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|  | **CODE** |
| 14. **Is lime ever applied to the selected field?** . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | **YES = 1****NO = 3** | 0242 |
| [*If no lime applied, go to item 15; else continue*.] | **YEARS** |
| a. On average, how many years are there between applications of **lime** to the selected field? . .  | 0243 |
|  | **TONS PER ACRE** |
| b. How many tons of **lime** were applied per acre the last time it was applied to the selected field?  | 0244.\_\_\_ |
|  | **CODE** |
| c. Was lime applied to the selected field in 2018 or 2019 for the 2019 crop?. . . . . . . . . . . . .  | **YES = 1****NO = 3** | 0240 |

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| 15. **Was non-commercial manure** (*from own farm, from a neighbor’s farm, etc.*) **or other organic** **material** (*including compos*t) **applied to the selected field for the 2019 barley crop?** (***Exclude*** *commercially prepared manure*.) [ ]  **YES** - [*Enter code 1 and continue*] [ ]  **NO** - [*Go to Section D*]. . . . . . . . . . . . . . . . . . . . . . . .  | **CODE** |
| 0246 |
|  | **ACRES** |
| a. How many acres in the selected field was manure or compost applied to?. . . . . . . . . . . . . . . . . . . .  | 0247**.\_\_\_** |

|  |
| --- |
|  |
| b. What was the amount of manure or compost applied to the selected field?. . . . . . . . . . . .  | 1 TONS2 GALLONS3 BUSHELS4 Cubic Yards | . . .  | **CODE** |  | **UNITS PER ACRE** | **OR** | **TOTAL UNITS** |
|  |  |  |  |  |
| 0248 | **AND** | 0249 | **.\_\_\_ \_\_\_** |  | 0250 | **.\_\_\_** |
| c. Of the total manure applied to the selected field for the 2019 crop, what was the percent of manure or compost 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** |
| d. Was the manure or compost--- | . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | 0257 |
|  |
|  | 1 Broadcast or sprayed *without* incorporation?2 Broadcast or sprayed *with* incorporation?3 Injected/knifed in?4 Sprayed using irrigation systems? |  | **CODE** |
| e. Was the manure or compost--- | . . . . . . . . . . . . . . . . . . .  | 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** |
| f. Was the major source of the manure or compost from--- | . . . . . . . . . . . . . . . . . . .  | 0259 |
|  |  |  |
|  |

|  |
| --- |
|  CODE |

|  |  |  |  |
| --- | --- | --- | --- |
| g. Was the manure or 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 manure*.) | CODE |  |
| 0260 |

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| --- | --- | --- |
|  [*If item 15g = 2, ask*---] (i) What was the total cost of the purchased manure or compost applied to the selected field? (***Include*** *operator, landlord, and contractor cost.* ***Include*** *any payment made for transportation costs.*) . . . . . . . . . . .  | **DOLLARS & CENTS** **PER ACRE OR** | **TOTAL DOLLARS** |
| 0284 | **.\_\_\_ \_\_\_** |  | 0285 |

|  |  |
| --- | --- |
|  | **CODE** |
| (ii) Did you hire someone to custom apply the manure or compost? . . . . . . . . . . .. . . **YES = 1** **NO = 3**  | 0286 |

|  |  |  |
| --- | --- | --- |
|  [*If YES, ask---*] (a) What was the total cost paid to have manure or compost custom applied to the selected 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 |

|  |  |
| --- | --- |
|  | **MILES** |
| h. What is the distance in miles between the manure or compost storage/production location and the selected field?. . . . . . . . . . .  | 0291**.\_\_\_** |
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|  |  | **CODE** |
| i. Of the manure applied to the selected field, was any tested for nutrient content prior to application?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | **YES = 1****NO = 3** | 0261 |

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| 16. **Were the manure APPLICATION RATES to the selected field influenced by Federal,** **State, or local restrictions?**. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  |  | **CODE** |
| **YES = 1****NO = 3** | 0264 |
| a. [*If item 16 is YES, ask---*]What basis was used to determine these manure application rate restrictions-- | **CODE** |
| (i) Nitrogen requirement of the crop?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | **YES = 1****NO = 3** | 0265 |
| (ii) Phosphorus requirement of the crop?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | **YES = 1****NO = 3** | 0266 |

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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 the selected 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 2018* (and those made earlier If the selected 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 the selected 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 ATplanting 4 AFTER planting | **How much****was applied****per acre****per****application?** | **What was****the total****amount****applied per****application****in the selected field?** | [*Enter unit code.*] 1 Pounds 12 Gallons 13 Quarts 14 Pints 15 Liquid Ounces 28 Dry Ounces 30 Grams |
|  | **01** | 61 |  | 63 | 64 | 65 | **.\_\_\_ \_\_\_** | 73 | **.\_\_\_ \_\_\_** | 74 |
|  | **02** | 61 |  | 63 | 64 | 65 | **.\_\_\_ \_\_\_** | 73 | **.\_\_\_ \_\_\_** | 74 |
|  | **03** | 61 |  | 63 | 64 | 65 | **.\_\_\_ \_\_\_** | 73 | **.\_\_\_ \_\_\_** | 74 |
|  | **04** | 61 |  | 63 | 64 | 65 | **.\_\_\_ \_\_\_** | 73 | **.\_\_\_ \_\_\_** | 74 |
|  | **05** | 61 |  | 63 | 64 | 65 | **.\_\_\_ \_\_\_** | 73 | **.\_\_\_ \_\_\_** | 74 |
|  | **06** | 61 |  | 63 | 64 | 65 | **.\_\_\_ \_\_\_** | 73 | **.\_\_\_ \_\_\_** | 74 |
|  | **07** | 61 |  | 63 | 64 | 65 | **.\_\_\_ \_\_\_** | 73 | **.\_\_\_ \_\_\_** | 74 |
|  | **08** | 61 |  | 63 | 64 | 65 | **.\_\_\_ \_\_\_** | 73 | **.\_\_\_ \_\_\_** | 74 |
|  | **09** | 61 |  | 63 | 64 | 65 | **.\_\_\_ \_\_\_** | 73 | **.\_\_\_ \_\_\_** | 74 |
|  | **10** | 61 |  | 63 | 64 | 65 | **.\_\_\_ \_\_\_** | 73 | **.\_\_\_ \_\_\_** | 74 |
|  | **11** | 61 |  | 63 | 64 | 65 | **.\_\_\_ \_\_\_** | 73 | **.\_\_\_ \_\_\_** | 74 |
|  | **12** | 61 |  | 63 | 64 | 65 | **.\_\_\_ \_\_\_** | 73 | **.\_\_\_ \_\_\_** | 74 |
|  | **13** | 61 |  | 63 | 64 | 65 | **.\_\_\_ \_\_\_** | 73 | **.\_\_\_ \_\_\_** | 74 |
|  | **14** | 61 |  | 63 | 64 | 65 | **.\_\_\_ \_\_\_** | 73 | **.\_\_\_ \_\_\_** | 74 |

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| 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 ifTOTAL 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 Ounces28 Dry Ounces30 Grams |
| **ACRES** | **NUMBER** |  |  |
| **01** | 76 | 77 | **.\_\_\_** | 79 | 80 |  | 81 | **.\_\_\_ \_\_\_** | 82 |
| **02** | 76 | 77 | **.\_\_\_** | 79 | 80 |  | 81 | **.\_\_\_ \_\_\_** | 82 |
| **03** | 76 | 77 | **.\_\_\_** | 79 | 80 |  | 81 | **.\_\_\_ \_\_\_** | 82 |
| **04** | 76 | 77 | **.\_\_\_** | 79 | 80 |  | 81 | **.\_\_\_ \_\_\_** | 82 |
| **05** | 76 | 77 | **.\_\_\_** | 79 | 80 |  | 81 | **.\_\_\_ \_\_\_** | 82 |
| **06** | 76 | 77 | **.\_\_\_** | 79 | 80 |  | 81 | **.\_\_\_ \_\_\_** | 82 |
| **07** | 76 | 77 | **.\_\_\_** | 79 | 80 |  | 81 | **.\_\_\_ \_\_\_** | 82 |
| **08** | 76 | 77 | **.\_\_\_** | 79 | 80 |  | 81 | **.\_\_\_ \_\_\_** | 82 |
| **09** | 76 | 77 | **.\_\_\_** | 79 | 80 |  | 81 | **.\_\_\_ \_\_\_** | 82 |
| **10** | 76 | 77 | **.\_\_\_** | 79 | 80 |  | 81 | **.\_\_\_ \_\_\_** | 82 |
| **11** | 76 | 77 | **.\_\_\_** | 79 | 80 |  | 81 | **.\_\_\_ \_\_\_** | 82 |
| **12** | 76 | 77 | **.\_\_\_** | 79 | 80 |  | 81 | **.\_\_\_ \_\_\_** | 82 |
| **13** | 76 | 77 | **.\_\_\_** | 79 | 80 |  | 81 | **.\_\_\_ \_\_\_** | 82 |
| **14** | 76 |  | **.\_\_\_** | 79 | 80 |  | 81 | **.\_\_\_ \_\_\_** | 82 |

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|  | CODE |
| 3. **Were any chemicals, biocontrols, or pesticides applied by custom applicators?** | **YES=1** | XXXX |

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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 the selected 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 the selected field?** (**Include** *operator, landlord, and contractor costs, defoliants, herbicides, insecticides, fungicides, surfactants, wetting agents, growth regulators,* *and materials applied before planting and during 2018 fallow period.* **Exclude** *seed treatments.*). .  | **DOLLARS & CENTS** **PER ACRE OR** | **TOTAL DOLLARS** |
| 0334 | **.\_\_\_ \_\_\_** |  | 0335 |
| a. How much was spent for **herbicide** products applied to the selected field? ***Include*** *operator, landlord, and contractor costs.. . . . . . . . . . . . . . . . . . . .*  | **DOLLARS & CENTS****PER ACRE** | **OR** | **TOTAL DOLLARS** |
| 3034 | **.\_\_\_ \_\_\_** |  | 3035 |
| b. How much was spent for **insecticide** products applied to the selected field? ***Include*** *operator, landlord, and contractor costs.. . . . . . . . . . . . . . . .*  | **DOLLARS & CENTS****PER ACRE** | **OR** | **TOTAL DOLLARS** |
| 3036 | **.\_\_\_ \_\_\_** |  | 3037 |
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| **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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| **NOTES** |
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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 the selected field for the 2019 barley crop. By pests, we mean WEEDS, INSECTS, and DISEASES.** |  |  |  |
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|  [**ENUMERATOR ACTION:** *Were PESTICIDE applications reported in Section D?*] |
|  [ ]  **YES** – [*Continue*] |  [ ]  **NO** – [*Go to item 8* ] |
|  | **CODE** |
| 1. **Were weather data used to assist in determining either the need or when** **to make pesticide applications?**. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . **YES = 1****NO = 3** | 0800 |

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| 2. **Were any biological pesticides such as Bt** (*Bacillus thuringiensis*)**, insect growth** **regulators, neem or other natural/biological based products sprayed or applied** **to manage pests in the selected field?**. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . **YES = 1** **NO = 3** |  |
| 0801 |

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| 3. **Were pesticides with different mechanisms of action rotated or tank mixed** **for the primary purpose of keeping pests from becoming resistant to pesticides?**. . . . . . **YES = 1** **NO = 3** |  |
| 0802 |
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|  [**ENUMERATOR ACTION*:*** *Were HERBICIDE* (pesticide product codes 3000-4999) *applications reported in Section D, item 1, column 2?*] |
|  [ ]  **YES** – [*Continue*] |  [ ]  **NO** – [*Go to item 6*] |
| 4. **Were herbicides applied to the selected barley field** **BEFORE weeds emerged?**. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . **YES = 1** **NO = 3** |  |
| 0803 |

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| 5. **Were herbicides applied to the selected barley field** **AFTER weeds emerged?**. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . …. . **YES = 1** **NO = 3** | 0805 |
| 6. **Did you use published information on infestation thresholds to determine when to take measures to manage pests in the selected field?** . . . . . . . . . . . . . . . . . . . . . . . . . . ….. . . . . **YES = 1** NO = 3 | 0824 |

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| 7. **Were records kept for the selected field to track the activity or numbers of weeds, insects or diseases?** . .. . . . | **YES = 1****NO = 3** | 0823 |

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| 8.. **In 2019, how was the selected 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 The selected field was not scouted. [*Enter code 3 and go to item 14.*] |  | **CODE** |
| . . . . .  | 0808 |
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| 9. **Was an established scouting process** (*systematic sampling, recording counts, etc*.) **used** **or were insect traps used in the selected field?**. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | **YES = 1** | 0809 |
| 10. **Was scouting for pests done in the selected 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****NO = 3** | [*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. insects or mites?. . . . . . . . . . . . . . . . . . . .  | 0815 | 0816 | 0817 |
| c. diseases?. . . . . . . . . . . . . . . . . . . . . . . . .  | 0818 | 0819 | 0820 |
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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 the selected 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. **Did you use field mapping of previous weed problems to assist you in making** **weed management decisions?**. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . **YES = 1** **NO = 3** | CODE |
| 0825 |

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| 14. **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 the selected field?** [*Enter code “1****”*** *for all that apply*.] | **CODE** |
| a. Use the services of a diagnostic laboratory for pest identificationor soil plant tissue pest analysis for the selected field?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | **YES = 1****NO = 3** | 0841 |
| b. Plow down crop residue (*using conventional tillage*)?. . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | **YES = 1****NO = 3** | 0842 |
| c. Remove / burn down crop residue?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | **YES = 1****NO = 3** | 0843 |
| d. Rotate crops in the selected field during the past three years?. . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | **YES = 1****NO = 3** | 0844 |
| e. Maintain ground covers, mulches, or other physical barriers?. . . . . . . . . . . . . . . . . . . . . . .  | **YES = 1****NO = 3** | 0845 |
| f. Choose crop variety because of specific resistance to a certain pest?. . . . . . . . . . . . . . . .  | **YES = 1****NO = 3** | 0846 |
| g. Use no-till or minimum till?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | **YES = 1****NO = 3** | 0847 |
| h. Plan planting locations to avoid cross infestation of pests?. . . . . . . . . . . . . . . . . . . . . . . . .  | **YES = 1****NO = 3** | 0848 |
| i. Adjust planting or harvesting dates?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | **YES = 1****NO = 3** | 0849 |
|  |  |  |
| j. Chop, spray, mow, plow, or burn field edges, lanes, ditches,roadways, or fence lines?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | **YES = 1****NO = 3** | 0850 |
|  |  |  |
| k. Clean equipment and field implements after completing field workto reduce the spread of pests?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | **YES = 1****NO = 3** | 0851 |
| l. Adjust row spacing, plant density or row directions?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | **YES = 1****NO = 3** | 0852 |
|  |  |  |
| m. Have the seed treated for insect or disease control after you purchased the seed for the selected field?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | **YES = 1****NO = 3** | 0854 |
| n. Maintain a beneficial insect or vertebrate habitat?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | **YES = 1****NO = 3** | 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****NO = 3** | 0856 |
| p. Use a flamer to kill weeds?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | **YES = 1****NO = 3** | 0857 |
| q. Plant earlier or later to avoid weeds?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | **YES = 1****NO = 3** | 0865 |

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|  |  | **CODE** |
| 15 **Were any beneficial organisms** (*insects, nematodes, fungi*) **applied** **or released in the selected field to manage pests?**. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | **YES = 1****NO = 3** | 0853 |
|  |
| 16 **Were floral lures, attractants, repellants, pheromone traps or other** **biological pest controls used on the selected field?**. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | **YES = 1****NO = 3** | 0858 |
| a. [*If item 15 or item 16 is YES, ask*---] **What were the TOTAL materials and application costs** **for all biological pest controls for the selected 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** |
| 17 **Was a trap crop** (*excluding fallow*) **grown to help manage insects in the selected field?** . .  | **YES = 1****NO = 3** | 0863 |

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| 18. **Was the selected field left fallow in 2018 to help manage insects on the selected field?**..  | **YES = 1****NO = 3** | 0864 |

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| --- | --- | --- |
| 19. **Were water management practices such as irrigation scheduling, controlled** **drainage, or treatment of retention water used on the selected field to manage pests** **or toxin-producing fungi and bacteria?**. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | **YES = 1****NO = 3** |  |
| 0861 |
|  |  |  |
| 20. **Was protection of beneficial organisms a factor in your pest control decisionsfor the selected field?**  |  | **CODE** |
|  [*If Item 20 is YES, continue. Else go to Item 21.*].  |  | 0862 |
|  |  |  |
| a. Did you change timing of, reduce application rate of, or eliminate a pesticide application?.  | **YES = 1****NO = 3** | 0866 |
| b. Did you change to an alternative pesticide, biocontrol, or non-pesticide practice?. . . . . . . .  | **YES = 1****NO = 3** | 0867 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 21. **If untreated** (either with herbicides, tillage, or cultivation), **how much yield loss** (e.g. bushels per acre) **do you think weeds would most likely cause on the selected field?**  |  | **UNIT CODE** |  | **CODE** |  | **UNITS PER****ACRE** |  | **TOTAL UNITS** |
|  |
| . . . .  | 1234 | POUNDSCWTBUSHELSTONS | . . . .  | 0828 | **AND** | 0829 | **OR** | 0830 |
|  |  |  |  |  |  |  |  |
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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. **Including custom operations, I need to list field work performed** **by machines on the selected 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 2018, list operations starting with fall 2017*]; | **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[ ]  Compost & non-commercial manure 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 Partner3 Unpaid Worker4 Paid Part-time or Seasonal Worker5 Paid Full-time Worker6 Custom Applicator | Office Use |
|  | Lines in Table |
|  | 0499 |

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| **1** | **2** | **3** | **4** | **5** | **[ IF CUSTOM (*column 5 = code 6* ),skip columns 6-10]** |
|  |  |  |  |  | **6** | **7** | **8** | **OR** | **9** | **10** | **11** |
| **L****I****N****E** | **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 Feet2 Row3 Moldboard (*bottoms*)**Hauling**4 Pounds5 Bushels6 Tons | **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.*] | **Which power source was used?1/**[*Record tractor line number**from item 1*.]1= (<40 HP)2= (40-99 HP)3= (100-149 HP)4= (150-199 HP)5= (>=200 HP)**OR**66 Animal Drawn77 Pick up99 Self-Propelled**1/** | **What was the fuel type of the tractor?**[*Record fuel type only if Power code equals 1-5*]1=diesel2=gasoline3=LP gas4=other |
| **No.** | **No.** |  | **CODE** | **CODE** |  | **CODE** | **ACRES** | **HOURS** | **CODE** | **CODE** |
| **01** | 87 |  | 88 | 89 | 90 | 91 | 92 | **.\_\_\_** | 93 | 94 | 95 |
| **02** | 87 |  | 88 | 89 | 90 | 91 | 92 | **.\_\_\_** | 93 | 94 | 95 |
| **03** | 87 |  | 88 | 89 | 90 | 91 | 92 | **.\_\_\_** | 93 | 94 | 95 |
| **04** | 87 |  | 88 | 89 | 90 | 91 | 92 | **.\_\_\_** | 93 | 94 | 95 |
| **05** | 87 |  | 88 | 89 | 90 | 91 | 92 | **.\_\_\_** | 93 | 94 | 95 |
| **06** | 87 |  | 88 | 89 | 90 | 91 | 92 | **.\_\_\_** | 93 | 94 | 95 |
| **07** | 87 |  | 88 | 89 | 90 | 91 | 92 | **.\_\_\_** | 93 | 94 | 95 |
| **08** | 87 |  | 88 | 89 | 90 | 91 | 92 | **.\_\_\_** | 93 | 94 | 95 |
| **09** | 87 |  | 88 | 89 | 90 | 91 | 92 | **.\_\_\_** | 93 | 94 | 95 |
| **10** | 87 |  | 88 | 89 | 90 | 91 | 92 | **.\_\_\_** | 93 | 94 | 95 |
| **11** | 87 |  | 88 | 89 | 90 | 91 | 92 | **.\_\_\_** | 93 | 94 | 95 |
| **12** | 87 |  | 88 | 89 | 90 | 91 | 92 | **.\_\_\_** | 93 | 94 | 95 |
| **13** | 87 |  | 88 | 89 | 90 | 91 | 92 | **.\_\_\_** | 93 | 94 | 95 |
| **17** | 87 |  | 88 | 0513 | 90 | 91 | 92 | **.\_\_\_** | 93 | 94 | 95 |
| **18** | 87 |  | 88 | 0523 | 90 | 91 | 92 | **.\_\_\_** | 93 | 94 | 95 |
|  | 1/ *If trucks other than pick-ups are used as the power source, use truck codes in Respondent Booklet.* | **OFFICE USE** |  |  |
|  |  | 0032 |  |  |

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

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

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| --- | --- |
|  | **How many hours did** (*type of worker*)**spend on the selected field---** |
|  **TYPE OF WORKERS** | 1 | 2 | 3 |
| scouting forweeds, insects and diseases?**HOURS** | irrigating?**HOURS** | performingother 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** |
| 3. **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 | **.\_\_\_ \_\_\_** |

|  |  |
| --- | --- |
|  | **DOLLARS & CENTS****PER HOUR** |
| 4. **What was the average hourly wage rate paid to full-time hired workers?**(***Exclude*** *custom and contract workers, payroll taxes and benefits.*). . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | 1118 | **.\_\_\_ \_\_\_** |

|  |  |
| --- | --- |
|  | **CODE** |
| 5. **Was any contract labor used on the selected 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 | **.\_\_\_ \_\_\_** |

|  |  |
| --- | --- |
| 6. **What percent of the total number of unpaid hours worked on the selected 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 |

|  |
| --- |
| 7. **Now I need some information on how much was spent (or will be spent) for custom services used on the** **Selected field for the 2019 barley crop.** |
|  |
| 🗸 | 1**CUSTOM SERVICE****Which of the following services were performed****for the 2019 barley crop on the selected field?** 🡨 [*Check box for each service performed; refer to item 3 if necessary*.] | 2Includingoperator, landlord,and contractor costs,how much was spentfor [*column 1*] onthe selected field for the 2019barley crop?**DOLLARS & CENTS****PER ACRE** |

|  |  |  |  |
| --- | --- | --- | --- |
| [ ]   | a. Custom land preparation, shaping and/or leveling  | 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 the selected 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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| --- | --- | --- |
|  |  | **CODE** |
| 8. **Was the barley harvested and hauled from the selected field dried** (or will be dried) **before being sold or stored?** . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ..  | **YES = 1****NO = 3** | 1195 |

9. **Did you hire any technical or consultant services to make recommendations**(*such as for nutrient, pest control, irrigation, or precision farming*) **for the selected field?** [ ]  **YES** – [*Continue*] [ ]  **NO** – [*Go to item 11*] |
|  Which of the following services did you obtain? a. Nutrient recommendations/management service? . . . . . . . . . . . . . . . . . . . . . . . . . .  |  | **CODE** |
| **YES = 1****NO = 3** | 1129 |
| b. Soil or tissue sample collection? . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | **YES = 1****NO = 3** | 1130 |
| c. Pest control recommendations/management service? . . . . . . . . . . . . . . . . . . . . . . . . .  | **YES = 1****NO = 3** | 1131 |
| d. Pest scouting? . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | **YES = 1****NO = 3** | 1132 |
| e. Irrigation management service (*i.e. irrigation scheduling*)? . . . . . . . . . . . . . . . . . . . . . .  | **YES = 1****NO = 3** | 1133 |
| f. Yield map or remote sensing map development/interpretation? . . . . . . . . . . . . . . . . . .  | **YES = 1****NO = 3** | 1134 |
| g. Other custom or technical service? [*Specify:* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ] | . . . .  | **YES = 1****NO = 3** | 1135 |

|  |  |
| --- | --- |
| 10 **If YES to any of these services, what was the cost for all of these services?** (***Include*** *operator, landlord, and contractor costs.* ***Exclude*** *cost of* *soil/tissue tests or scouting cost reported earlier*. *Do not report costs for any of these* *services if they were previously reported as part of the costs of materials and/or application.*). . . . .  |  |
| **DOLLARS & CENTS** **PER ACRE OR** | **TOTAL DOLLARS** |
| 1136 | **.\_\_\_ \_\_\_** |  | 1137 |  |

|  |
| --- |
| 11. **Please report how your farm data will be stored and accessed.** [*Enter code “1” for all that apply.*] |
| a. Did you access the data collected from the selected field on a-- |  | **CODE** |
| (i) Paper hard copy?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | **YES = 1****NO = 3** | 2485 |
| (ii) Personal computer?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | **YES = 1****NO = 3** | 2486 |
| (iii) Mobile device?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . .  | **YES = 1****NO = 3** | 2487 |
| b. Did you access the data collected from the selected field through an agricultural technology provider website?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | **YES = 1****NO = 3** | 2488 |
| [*If item 11b = YES, ask --*] |  |  |
| c. Did you opt-out of allowing your agricultural technology provider website to share data collected from the selected field with any third party?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | **YES = 1****NO = 3** | 2489 |
| d. Did you share any of the data collected from the selected field with a third party through an agricultural technology provider website?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | **YES = 1****NO = 3** | 2490 |
|

|  |  |
| --- | --- |
|  | **CODE** |
| 12. **Were there** (*or will there be*) **any data collection tools** (yield monitors, GPS mapping, etc.) **used during field operations on this barley field?** . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | **YES = 1****NO = 3** | 2460 |

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| --- |
| [If YES, continue; else go to Item 13] |
| **Please report the data collection technologies you used on the selected field to produce this crop.** In the fifth column, report how much it would cost you to replace the data collection tool in total dollars. In the sixth column, report the annual costs of using the data collection tool in total dollars. Include custom service fees, data subscriptions, and online tool subscriptions. *[If the replacement cost ($) or annual fee ($) does not apply to a particular data collection tool or is not known,* ***leave the cell in that column blank****.]* |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 1 | 2 | 3 | 4 | 5 | 6 |
| **Data Collection Tool** | **Tool Used** | **Collected GPS coordinates** | **Data was/will be used to create a map** | **Replacement Cost** | **Annual Fee** |
|  | **YES = 1****NO=3** | **YES = 1****NO=3** | **Yes = 1****NO=3** | **Total Dollars** | **Total Dollars** |
| a. Yield monitor. . . . . . . . . . . . . . . . . . . . . . . . . . . .  | 2461 | 2462 | 2463 | 2570 | 2571 |
| b. Soil tests on core sample (performed on-farm or sent out to a laboratory). . . . . . . . . . . . . . . . . . .  | 2464 | 2465 | 2466 | 2572 | 2573 |
| c. Soil sensor tests. . . . . . . . . . . . . . . . . . . . . . . . .  | 2467 | 2468 | 2469 | 2574 | 2575 |
| d. Hard-wired crop condition sensors. . . . . . . . . . .  | 2470 | 2471 | 2472 | 2576 | 2577 |
| e. Wireless crop condition sensors. . . . . . . . . . . . .  | 2473 | 2474 | 2475 | 2578 | 2579 |
| f. Drones, aircraft or satellites. . . . . . . . . . . . . . . .  | 2476 | 2477 | 2478 | 2580 | 2581 |
| g. Custom service applications (data from completed work on your field). . . . . . . . . . . . . . .  | 2479 | 2480 | 2481 | 2582 | 2583 |
| h. Public data downloaded from online sources. . .  | 2482 | 2483 | 2484 |  |  |

[*If item 12a = 1 in column 2, continue, else go to item 14.*]

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| 13. **Did you use the yield monitor information to---**  |
|  |  |  |
| a. add/improve tile drainage?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | **YES = 1****NO = 3** | 1141 |
| b. negotiate new crop leases?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | **YES = 1****NO = 3** | 1144 |
| c. Help determine input use for management zones? . . . . . . . . . . . . . . . . . . . . . . . . . . .  | **YES = 1****NO = 3** |  |
|  |  |  |  |

[*If any tools used in item 12, continue, else go to item 15*.]

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| --- |
| 14. **Did you obtain crop management recommendations** (data interpretation) **based on that data you collected from--**[*Enter code “1” for all that apply.*] |
| a. Input dealers without other fee-for-services?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | **YES = 1****NO = 3** | 2491 |
| b. Input deaers with other fee-for services? . . . . .. . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | **YES = 1****NO = 3** | 2492 |
| c. Custom service providers? . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . . . . .  | **YES = 1****NO = 3** | 2493 |
| d. USDA/University extension services? . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | **YES = 1****NO = 3** | 2494 |
|  |
| [*If crop management recommendations were obtained, ask--*] | **DOLLARS & CENTS PER ACRE** | **OR** | **TOTAL DOLLARS** |
| e. What was the cost for all of these services? (Include operator, landlord, and contractor costs. Do not report costs for any of these services if they were previously reported as part of the costs of materials and/or application). . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | 3150**.\_\_\_\_ \_\_\_\_** |  | 3151 |
| 15. **Was any of the following GPS-enabled** (Global Positioning System) **equipment used to produce b**arley **on the selected field?** [*Enter code “1” for all that apply*.] |  | **CODE** |
|  |  |  |
| a. Mounted in-cab heads-up displays?“. . . . . . . | **YES = 1****NO = 3** | 2155 |
|  |  |  |
| 1. Automatic section control (e.g. auto sprayer boom controls or automatic section shut-offs?
 | **YES = 1****NO = 3** | xxxx |
| c. Smartphones or computer tablets?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | **YES = 1****NO = 3** | 2156 |
|  |  |

|  |  |  |  |
| --- | --- | --- | --- |
|  | **DOLLARS & CENTS PER ACRE** | **OR** | **TOTAL DOLLARS** |
| 17.. If any GPS- enabled equipment was used, what was the cost to purchase and install all GPS-enabled equipment, not including guidance auto-steering equipment? (Include cost for GPS receiver and annual GPS subscription fee, and operator, landlord, and contractor costs. Do not report costs for any of this equipment if they were previously reported as part of the costs of materials and/or application.) . . . . . . . . . . . . . . .  | **.\_\_\_\_ \_\_\_\_** |  |  |
|  | **CODE** |
| 17. **Was any guidance auto-steering equipment (excluding Light Bar) used on selected field?**. . . . . . . . . . . . . . . .  | **YES = 1****NO = 3** | 2148 |
| [*If item 17 = 1 continue, else go to Item 18* |  |  |
| (i) Was the guidance auto-steering equipment: . . . . . . . . . . . . .  | 1. New, owned
2. Used, owned

3 Leased | . . . .  | 2158 |
|  |  | **YEAR** |
| (ii) What year was guidance auto-steering first purchased?. . . . . . . . . . . . . . . . . . . . . . . . . . .  |  | 2159 |
|  |  |

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| --- | --- | --- | --- |
|  | **DOLLARS & CENTS****PER ACRE** | **OR** | **TOTAL DOLLARS** |
| (iii) What is the replacement cost for guidance auto-steering equipment?. . . .  | 2160 | **.\_\_\_ \_\_\_** |  | 2161 |
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| --- | --- |
|  | **CODE** |
| 18. **Was a variable rate applicator used on the selected field?** . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | **YES = 1****NO = 3** | 2164 |

|  |
| --- |
| [If item 18 = 1 , continue; else go to Section G] |
| 16. Please report the variable rate applicator types you used on the selected field to produce the barley crop in 2019.  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 1 | 2 | 3 | 4 | 5 | 6 |
| **Was a variable rate applicator used on the selected field for:** | Tool Used | Was this applicator1 Sensor-based2 GPS-based3 Both4 Neither | Was this applicator1 New, owned2 Used, owned3 Leased | What year was the applicator first used? | Premium paid for the applicator  |
|  | **YES = 1****NO = 3** | **CODE** | **CODE** | **Year** | **TOT**AL DOLLARS |
| a. Seeding | 1158 | 2170 | 2171 | 2172 | 2173 |
| b. Fertilizer/lime applications | 1152 | 2174 | 2175 | 2176 | 2177 |
| c. Pesticide applications | 1159 | 2178 | 2179 | 2180 | 2181 |

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

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

|  |  |  |  |
| --- | --- | --- | --- |
| **↓** | **UNIT** | **SYSTEM 1** |  |
| a. What type of irrigation system was used to irrigate the selected field? [*Show* ***System Type Codes*** *in the Respondent Booklet. Enter****System Type Code*** *system covering the most field acres*.]. . . . . . . . . .  | **SYSTEM****TYPE****CODE** | 1161 |  |
| b. What was the total quantity of water applied to the selected 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 |  |
|  |  | 1163 |  |
|  [*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 the selected fieldduring the barley growing season?. . . . . . .  | **TOTAL****HOURS** | 1164 |  |
| (ii) How many gallons per minute were applied? . . . . . . . . . . .  | **GALLONS****PER MINUTE** | 1165 |  |
| c. What percent of the water used to irrigate the selected field through this system came from surface water sources?. . . . . . . . . . . . . . . . . . . . . .  | **PERCENT** | 1166 |  |
| d. What was the number of times the selected field was irrigated during the barley growing season using this system? (***Include*** *any pre-plant irrigation*.).  | **NUMBER OF****IRRIGATIONS** | 1167 |  |
| 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 |  |
| f. What was the average pumping rate? . . . . . . . . . . . . . . . . .  | **GALLONS****PER MINUTE** | 1169 |  |
| g. [*If item 2a = code 1-9* (PRESSURE SYSTEM)*, ask---*] What was the system operating pressure? . . . . . . . . . . . . . . . . .  | **POUNDS****PER****SQUARE INCH** | 1170 |  |
| 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 |  |
| i. What was the average motor size? . . . . . . . . . . . . . . . . . . . . . .  | **HORSEPOWER** | 1172 |  |
| j. [*If NO PUMP was used* (item 2e = 99)*, ask*---] What was the average flow rate? . . . . . . . . . . . . . . . . . . . . . . .  | **GALLONS****PER MINUTE** | 1173 |  |
| k. How many other acres on this operation were irrigated using the selected field’s irrigation system during the 2019 growing season?(***Exclude*** *the selected field*.) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | **ACRES** | 1174 | **.\_\_\_\_** |  |  |

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

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

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

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

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| 8. **Were wells used to supply irrigation water for the selected field?** [ ]  **YES** – [*Enter code 1 and continue*] [ ]  **NO** – [*Go to item 9*]. . . . . . . . . . . . . . . . . . . . . . . .  | **CODE** |
| 1205 |
|  | **NUMBER** |
| a. How many wells were used to irrigate the selected 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 |
| d. Were other fields irrigated using water pumped from wells that supplied water to the selected field? [ ]  **YES** – [*Enter code 1 and continue*] [ ]  **NO** – [*Go to item 9*]. . . . . . . . . . . . . . . . . . . . .  | **CODE** |
| 1210 |
| e Excludingthe selected 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 the selected 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 the selected field?. . . . . . . . . . .  | 1213 |

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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** |
|  **What county is the selected barley field in?**. . . . . . . .  |  |  | 0010 |
|  |  |  |  |
|  **Field description**. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  |  |
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|  |  | **LATITUDE** |  | **LONGITUDE** |
|  **Field location**. . . . . . . . . . . . . . . . . . . . . . . . .  | **N** | 0054 | **\_\_\_ \_\_\_. \_\_\_ \_\_\_. \_\_\_ \_\_\_** | **W** | 0055 | **\_\_\_ \_\_\_ \_\_\_. \_\_\_ \_\_\_. \_\_\_ \_\_\_** |
|  | d d m m s s |  d d d m m s s |
|  |  | **LATITUDE** |  | **LONGITUDE** |
|  **Field location**. . . . . . . . . . . . . . . . . . . . . . . . .  |  | 0051 | \_\_\_\_ \_\_\_. \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ |  | 0052 | **\_\_\_ \_\_\_ \_\_\_. \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_** |
|  | decimal |  decimal |

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| 2. [**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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| 3. **We will need additional information to complete this study. We will contact you in February** **or March 2020 to collect it. I’ll call you then to set up a time that is good for you.** |
| 4. **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** |
| 5. **ENDING TIME** [*MILITARY*]. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  | 0005\_\_ \_\_ \_\_ \_\_ |
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| **RECORDS USE** |
| 6. [*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 |
| 7. [*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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| **OFFICE USE** |
| **R. Unit** | **Ptr 1 Str** | **Ptr 2 Str** | **Ptr 3 Str** | **Ptr 4 Str** | **OPS** | **SSO 1** | **ADJ** | **Optional Use** |
| 9921 | 9922 | 9923 | 9927 | 9928 | 923 | 9907 | 922 | 9906 | 9916 |
| **Response** | **Respondent** | **Mode** | **Enum.** | **POID** |
| 1-Comp2-R3-Inac4-Office Hold | 9901 | 1-Op/Mgr2-Sp3-Acct/Bkpr4-Partner9-Other  | 9902 |  2-PATI (Tel) 3-PAPI (Face-to- Face) | 9903 | 9998 | 9989**\_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_** |
| **Eval.** | **Change** |
| 9900 | 9985 |