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| AGRICULTURAL RESOURCE MANAGEMENT SURVEY | | | | | | | | | |
|  | | | | | | OMB No. 0535-0218  Approval Expires: 7/31/2018  Project Code: 906  SMetaKey: 1312  Phase II | | | |
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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 Service  U.S Department of Agriculture  NOC Division  9700 Page Avenue, Suite 400  St. Louis, MO 63132-1547  Phone: 1-888-424-7828  Fax: 1-855-415-3687  E-mail: nass@nass.usda.gov | | |

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|  |
| CORN PRODUCTION PRACTICES AND COSTS REPORT FOR 2020 |

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| VERSION  8 | STATE  \_\_\_ \_\_\_ | ID  \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ | TRACT  01 | SUBTRACT  \_\_\_ \_\_\_ | C-TYPE  105 |  |

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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 corn 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.  We encourage you to refer to your farm records during the interview. | | | | | |
|  | 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 | CORN FIELD SELECTION | A |

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|  | Total Planted Acres | |
| 1. How many total acres of corn did this operation plant for the 2020 crop year? . . . . . . . . . . . | 0050 | .\_\_\_\_ |
| [*If no acres were planted, review Screening Survey Information Form, make notes, then go to Conclusion on back page*.] | | |

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|  | | | |  | |  |
| a. Did you produce any acres of CERTIFIED ORGANIC corn?. . . . . . . . . . . . . . . . . . . . | | | | YES = 1 | | 1064 |
| b. Of the total (item 1) acres, how many were planted using/as -- | | | | | | |
|  | Total Acres | | | |  | Number Of Fields |
| (i) Conventional corn?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 583 | | .\_\_ | | + | 1065 |
| (ii) Certified organic corn?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 730 | .\_\_ | | | + | 1066 |

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| I will follow a simple procedure to make a random selection from the corn fields planted for the 2020 crop. | |
| 2. What is the TOTAL number of corn 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, and list only the 18 fields closest to the operator’s permanent residence. If respondent is unable to identify or describe the fields, use the Field Selection Grid Supplement.] | |

|  |  |  |
| --- | --- | --- |
|  |  |  |
| FIELD NAME, NUMBER OR DESCRIPTION |  | 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 |  | |
|  | | |
|  | | |
| [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 corn questions will be about this selected corn 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 corn did this operation plant in the selected field for the 2020 crop? . . . . . . . . . . . . | Acres | |
| 1301 | .\_\_ |

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|  | | Code | |
| a. Are the acres in the selected field Certified Organic?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | YES = 1 | 1300 | |
| [If item 1a = 1, go to item c.] |  | Dollars & Cents | |
| b. What was the cost, per acre, for third party organic certification?. . . . . . . . . . . . . . . . . . . . . . . . . . | | 1891 | .\_\_ \_\_ |
|  | | Code | |
| c. Was the selected field transitioning into organic corn production in 2020? . . . . . .. . . . . . . . . . . . . . . | | 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; otherwise go to item 4.]  What was the cash rent paid per acre for this 2020 corn 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 2020 crop on the selected field? [INCLUDE the costs for all inputs, such as seed, fertilizer, chemicals, technical services, custom operations, drying, and irrigation. EXCLUDE real estate tax expenses and lime costs paid by the landowner] . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | Dollars & Cents  Per Acre OR | | | Total Dollars |
|  | 1305 | .\_\_ \_\_ |  | 1305 |

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| 6. What was the total cost for all inputs provided by any contractor  for the 2020 crop on the selected field? (*Include the costs for all inputs,*  *such as seed, fertilizer, chemicals, technical services, custom operations, drying and irrigation.*) . . | Dollars & Cents  Per Acre Or | | | Total Dollars |
| 1309 | .\_\_ \_\_ |  | 1310 |

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|  | Year |
| 7. What year did you (the operator listed on the label) start operating the selected field? . . . . . .. . . . . . . . | 1312  \_\_\_ \_\_\_ \_\_\_ \_\_\_ |

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|  | MM DD |
| 8. On what date was the selected field planted? . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 1308  \_\_ \_\_ \_\_ \_\_ 2020 |

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|  |  | |  | | Unit Codes |
| a. What was your yield goal at planting for the selected field?. . . . . . . . . . . . . . | Units Per Acre | |  | | 1 Pounds  2 CWT  3 Tons  4 Bushels |
| 0216 | .\_\_ | |  | 0217 |

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| 9. Was the corn on the selected field planted  with the intention of being harvested as . . . . . . . . . . . . . . . . . . . . | 1 Grain  2 Silage  4 Seed  25 Other | . . . . . . . . . . . . . . . . . . | Code |
|  |  |  | 3327 |

|  |  |  |  |  |  |  |
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| 10. | |  | | |  | |
|  | Units | | AND | | | Unit Code  1 = Pounds/Acre  2 = CWT/Acre  4 = Bushels/Acre  25 = Kernels-Seeds/Acre  38 = Kernels-Seeds/Foot | |
| 11. What was the seeding rate per acre the first time the selected field was planted? | 1313  .\_\_\_\_ | | |  | | 1314 | |

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| 1. What method of seeding did you use on the selected field?...... | 1 Drilled?  2 Planted in conventional rows?  3 Broadcast on the selected field? | . . . . | CODE |
| 1316 |

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|  | Inches |
| 12. What was the average corn row width for the selected field? . . . . . . . . . . . . . . . . . . .. .. . . . . . . . . . | 1322 |

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|  | **ACRES** |
| 13. **How many acres in this field had to be replanted to corn?**  (*Acres replanted = Number of acres x Number of times replanted*) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 1315  **.\_\_\_** |

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|  |  | |  | Code |
| 14. For the 2020 corn crop, was the  corn seed--. . . . . . . . . . . . . . . . . . . . . . | 1 Treated with a pesticide prior to purchase?  2 Treated with a pesticide after purchase?  3 Not treated with a pesticide? | | . . . . . . . . . . . | 3062 |
| [If item 14 = 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. Enter 999 if a seed treatment was applied but is not listed.  Enter “-1” if the seed treatment is not known. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | | | 2325 |
| [If item 21b is YES, ask--] | | | | CODE |

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| 1. For the 2020 corn crop, did you plant a commercial seed product on the selected field? . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | | Yes = 1  No = 3 | 2340 |
| [If item 15 = 1, ask --] | Commercial Seed Product Name | | | |
| 1. What was the name of the seed product? Write the name in the box provided. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | | | |
|  | | | | Code |
| 1. What was the seed the product code? Enter the appropriate product code from the Respondent Booklet (page 5). Enter 999 if a seed product was purchased but the product is not listed. Enter “-1” if the product is not known. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | | |  |
|  | | 2020  1 Yes  3 No | | 2019  1 Yes  3 No  4 N/A no corn in field |
| 15. Did you plant genetically modified organism/genetically engineered (GMO/GE) seeds for the 2020 or 2019 crop years? . . . . . . . . . . . . | | 2300 | | 2301 |
| [If item 15 = 1 for either year, continue. Otherwise, go to item 16--] | |  | |  |

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| 15. Did the CORN planted on the selected field have any of the following genetically modified organism/genetically engineered (GMO/GE) traits in 2019 or 2020? | 2020  1 Yes  3 No | 2019  1 Yes  3 No  4 N/A no corn in field |
| a. Insect Resistance (Bt) to Corn Borer . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 2501 | 2502 |
| (i) With multiple (pyramided) modes of action . . . . . . . . . . . . . . . . . . . . . . . . . | 2503 | 2504 |
| b. Insect Resistance (Bt) to Rootworm . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 362 | 363 |
| (i) With multiple (pyramided) modes of action . . . . . . . . . . . . . . . . . . . . . . . . . | 2507 | 2508 |
| c. Insect Resistance (Bt) to Earworm . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 2509 | 2510 |
| d. Insect Resistance (Bt) to Armyworm . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 2511 | 2512 |
| e. Other Insect Resistance (Bt) Trait . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 2513 | 2514 |
| f. Herbicide Tolerance (HT) to Glyphosate (e.g. Roundup Ready®). . . . . . . . . . . . | 2306 | 2307 |
| g. Herbicide Tolerance (HT) to 2, 4-D (e.g. Enlist®). . . . . . . . . . . . . . . . . . . . . . . . . | 2308 | 2309 |
| h. Herbicide Tolerance (HT) to Dicamba (e.g. Extend®) . . . . . . . . . . . . . . . . . . . . . | 2310 | 2311 |
| i. Herbicide Tolerance (HT) to Glufosinate (e.g. Liberty Link®) . . . . . . . . . . . . . . . . | 2312 | 2313 |
| j. Other Herbicide Tolerant (HT) Trait . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 2514 | 2315 |
| k. Drought Resistance . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 2515 | 2516 |
| l. Enzyme technology for ethanol (e.g. Enogen). . . . . . . . . . . . . . . . . . . . . . . . . . . | XXXX | XXXX |

**Note:** Any genetically modified organism/genetically engineered HT trait other than Glyphosate tolerance, 2,4-D tolerance,

Dicamba Tolerance, or Glufosinate Tolerance should be accounted for using the “Other HT train” column.

|  |  |  |  |
| --- | --- | --- | --- |
|  | 2020  1 Yes  3 No | | 2019  1 Yes  3 No  4 N/A no corn in field |
|  |
| 16. Did you plant non-genetically modified/genetically engineered (non-GMO/GE) seeds for the 2020 or 2019 crop years? . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 2316 | | 2317 |
| [If item 16=1 for either year, continue. Otherwise, go to 19--] | 2020  1 Yes  3 No | | 2019  1 Yes  3 No  4 N/A no corn in field |
| 1. Did the corn planted on the selected field have non-GMO/GE herbicide tolerant (HT) traits in 2020 or 2019? . . . . . . . . . . . . . . . . . . . . . | 2318 | | 2319 |
| 1. Was the corn from the selected field sold (or will it be sold) through a market specifically for non-GMO/GE corn? . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 2518 | | 2519 |
|  | | Dollars & Cents per Bushel | | |
| 1. What was the price premium (or the expected premium if not yet sold) received for this non-genetically modified corn? . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | 2384  .\_\_ \_\_ | | |

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|  |  | Code |
| 19. Was the corn planted on the selected field drought tolerant?. . . . . . . . . . . . . . . . . . . . . . | Yes = 1  No = 3 | xxxx |
| [If item 19=1, continue. Otherwise, go to 21--] |  | Code |
| a. Were these GMO/GE drought-tolerant seeds (e.g., Genuity® DroughtGard®)? . . . . | Yes = 1  No = 3 | xxxx |
| b. Were these non-GMO/GE drought-tolerant seeds (e.g., Optimum® AQUAmax®, Agrisure Artesian ®)? . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | Yes = 1  No = 3 | xxxx |
| c. Since the time that drought-tolerant corn became available in your area, have you only planted drought-tolerant corn varieties? . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | Yes = 1  No = 3 | xxxx |

|  |  |
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| 1. Next we will ask about factors that influenced your decision to plant drought tolerant seeds on the selected field. | |
|  | Code  Yes = 1  No = 3 |
| In the selected field, was the decision to plant drought-tolerant corn based on any of the following? [Enter Yes = 1 for all that apply] |
|  |
| a. Ability to bundle drought tolerant seed traits with one or more GMO/GE traits, such as insect resistance or herbicide tolerance?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | xxxx |
| b. Price of drought tolerant seed compared to seeds without drought tolerance?. . . . . . . . . . . . . . . . . . | xxxx |
| c. Price of irrigation water and/or irrigation water applications?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | xxxx |
| d. Low soil moisture from frequent droughts?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | xxxx |
| e. Field conditions, other than soil moisture or seasonal forecasts, at planting time?. . . . . . . . . . . . . . . | xxxx |
| f. Drought in the prior crop year that at least partially damaged the crop?. . . . . . . . . . . . . . . . . . . . . . | xxxx |
| g. Concerns about changing growing conditions?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | xxxx |

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|  |  | Code |
| 21. Did you use a genetically engineered, insect resistant seed variety for the 2020 crop? . . . . . . | Yes = 1  No = 3 | 2326 |

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| [If item 21 = 1 , ask--] |  |  |
| 1. Did you choose the resistant seed variety used on the selected field primarily to-- |  |  |
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|  |  |  |  |
| --- | --- | --- | --- |
|  | 1 Increase yields through improved pest (weed or insect) control?  2 Decrease pesticide input costs?  3 Save management time or labor or improve ease of management?  4 Reduce refuge requirements  5 For some other reason(s)? [*Specify \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*] |  | Code |
|  | . . . . . . . . . . . . . . . . . . . . . . . | 2327 |
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|  | | | | Code | |
| 1. Was this a refuge-in-the-bag product?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | Yes = 1  No = 3 | | xxxx | |
|  | | | | | |
|  | |  | | Percent | |
| 1. What percentage of the bag was conventional seed? . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | |  | | xxxx | |
| [If item 21 = YES continue. Else go to item 23.] | |  | |  | |
|  | |  | | Code | |
| 22. Was a refuge for insect pests planted on the selected field? . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | Yes = 1  No = 3 | | 2328 | |
| [If item 22 is yes, continue, otherwise go to item 26] | |  | | Percent | |
| 23. What percent of the selected field was used as refuge for insect pests in order to comply with Bt corn insect resistance management guidelines? . . . . . . . . . . . . . . . . . . . . | |  | | xxxx | |
|  | |  | | Acres | |
| 1. What is the size in acres of the refuge? Refuge may be adjacent to the field or a separate block within ½ mile of the field . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | |  | | xxxx | .\_\_\_ |
|  | |  | | Unit Codes | |
|  | Units per Acre | | | 1  2  3  4 | Pounds  CWT  Tons  Bushels |
| 1. What was the difference in yields in the Bt crop with the yields in the non-bt refuge crop? | 2670 | | .\_\_\_\_ | 2671 | |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | CODE | | |
| 26. **Did you use an “air delivery” or “vacuum (pneumatic) planter”?** . . . . . . . . . . . . . . . . . . . | | **YES = 1** | | 2323 | | | |
| [*If item 23 is YES, ask--*] | | | | | **CODE** | |
| a. Did you use a talc and/or graphite seed flow lubricant?. . . . . . . . . . . . . . . . . . . . . . . . . . . . | | **YES = 1** | | 2324 | | | |
| b. Did you use an alternative seed flow lubricant (e.g. Bayer Fluency Agent) instead of talc and/or graphite?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | **YES = 1** | | 2394 | | | |
|  | | | | | Code | | |
| 1. Has harvest of the selected field been completed? . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | Yes = 1  No = 3 | | | 1328 | | |

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| --- | --- | --- | --- | --- | --- |
| 28. Please report the following information about the acres harvested (or to be harvested) and the yields  from the selected field. | | | | | |
| How many acres in this corn field were (*or will be*)--- | | 1  What yield per  acre did you (*or*  *do you expect to*)  get for corn---  Units per Acre | | 2  Unit Code  1 Pounds  2 CWT  3 Tons  4 Bushels  Code |
|  | Acres |
| a. harvested for grain, first crop?. . . . . . . . . . . . . . . . . . | 1346  .\_\_\_\_ | 1347 | .\_\_\_\_ | 1348 |
| b. harvested for silage or green chop?. . . . . . . . . . . . . . | 1349  .\_\_\_\_ | 1350 | .\_\_\_\_ | TONS |
| c. harvested for seed?. . . . . . . . . . . . . . . . . . . . . . . . . . | 1431  .\_\_\_\_ | 1432 | .\_\_\_\_ | 1433 |
| d. abandoned?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 1351  .\_\_\_\_ |  | |  |
| e. used for some other purpose?. . . . . . . . . . . . . . . . . . | 1439  .\_\_\_\_ |  | |  |

|  |  |
| --- | --- |
| 29. Were the stalks/stover harvested from the selected field?  YES - [*Enter Code 1 and go to item 30*] NO - [*Ask 26a, then go to item 31*]. . . . . . . . . . . | Code |
| 1754 |

|  |  |  |  |
| --- | --- | --- | --- |
| a. [*If the corn stalks/stover were not harvested, ask*---]  What was the primary reason for not harvesting the corn stalks/stover?. . . . . . | 1 No market/use for corn stalks/stover  2 Harvesting was not profitable  3 The corn stalks/stover were left as organic  matter for the soil  4 The stalks/stover were left for livestock grazing  5 The stalks/stover were used for animal bedding  6 Other [*Specify:* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_] | . . . . | Code |
| 1398 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | | | | | Acres |
| 30. How many acres of corn stalks/stover were harvested from this corn field? . . . . . . . . . . . . . . . . | | | | | | | | | | | | | | 1755  .\_\_\_ |
|  | | | | | | | | | | | | | | Total Tons |
| a. How many tons of corn stalks/stover were harvested from these corn acres (*item 30*)?. . . . . . . | | | | | | | | | | | | | | 1756 |
|  | \_\_\_\_\_\_\_.\_\_  Tons per Acre | X | \_\_\_\_  Acres | = | \_\_\_\_\_\_\_\_  Total Tons | OR | \_\_\_\_\_\_  Bales | X | \_\_\_\_\_\_\_\_\_  Lbs per Bale | ÷ | 2000  Lbs per Ton | = | \_\_\_\_\_\_\_  Total Tons |  |

|  |  |
| --- | --- |
| 31. Did any livestock graze this corn field after harvest of the 2020 corn crop? . . . . . . . . . . . . . . . . | Code |
| 1023 |
| YES - [*Enter Code 1 and continue*]  NO - [*Go to item 35*] |  |

|  |  |  |  |
| --- | --- | --- | --- |
| 32. What type of livestock grazed this corn field  after harvest of the 2020 corn crop? . . . . . . . . . . . . . . . | 1 Cattle  2 Sheep  3 Other [*Specify:* \_\_\_\_\_\_\_\_\_\_\_\_\_] | . . . . . . . | Code |
| 1024 |

|  |  |
| --- | --- |
|  | Head |
| a. About how many head of livestock (*item 28*) grazed this corn field?. . . . . . . . . . . . . . . . . . . . . . . . . | 1027 |

|  |  |
| --- | --- |
|  | Days |
| b. How many days did this livestock graze on this corn field?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 1028 |

|  |  |  |
| --- | --- | --- |
|  | | Code |
| 33. Was any of the residue from the prior crop (corn stover, wheat straw, etc.) removed post-harvest?. . . . . . . . . . . . . . . . . . . . . . . . . . . . | Yes=1  No = 3 | xxxx |
| [*If yes, ask* --] | | Tons |
| 34. How many tons per acre of residue were removed through harvest?. . . . . . . . . . . . . . . . |  | 1328 |

|  |  |
| --- | --- |
|  | Head |
| a. About how many head of cattle grazed the residue?. . . . . . . . . . . . . . . . . . . . . . . . | 1362 |

|  |  |
| --- | --- |
|  | Days |
| b. How many days did cattle graze on the residue?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 1363 |
| c. How many days did any other livestock graze the residue?. . . . . . . . . . . . . . . . . . . . | xxxx |

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| --- | --- | --- | --- | --- | --- | --- | --- |
| CROP CODE LIST for item 35 – 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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|  |
| 35. Please report what crops were previously PLANTED on the majority of the selected field, including cover crops. |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | | | | | 2 | 3 | 4 | 5 | 6 |
| What crops were planted on the selected field in--- | | | | | What type of crop was grown on the selected field? | Was this  a cover crop? | If a cover crop was planted, how did you terminate this cover crop? | Was the selected field  irrigated? | Was this  field  no-tilled or strip-tilled?  1/ |
| [For perennial crops (1, 11, 34, 292, 302, and 311), report the crop code in all seasons when the crop is growing.] | | | |  | 1 GMO/GE Herbicide Tolerant (HT) |  | 1 Tilled-in |  |  |
|  |  | 2 Herbicide |  |  |
|  | 2 GMO/GE Insect Resistant (Bt) |  | 3 Rolled |  |  |
|  |  | 4 Grazed |  |  |
|  | | |  |  | 3 Stacked (HT and Bt) |  | 5 Harvested for |  |  |
|  | | |  |  |  | Forage |  |  |
|  | | |  |  | 4 Not GMO/GE |  | 6 Harvested for Grain |  |  |
| Season And Year | | | Crop Name | Crop  Code |  | Yes = 1  No = 3 | Code | Yes = 1  No =3 | Yes = 1  No = 3 |
| A. Spring/Summer Of 2020? . . . . . . . | | | Corn |  | xxxx |  |  | xxxx | xxxx |
| B. Fall Of 2019? . . . . . . . . . . . . . . . . . | | |  | 1343 |  | 1470 | 1471 | 2344 | 1345 |
| C. Spring/Summer Of 2019?. . . . . . . | | |  | 1369 |  | 1472 | 1473 | 2370 | 1371 |
| D. Fall Of 2018? . . . . . . . . . . . . . . . . . | | |  | 1372 |  | 1474 | 1475 | 2373 | 1374 |
| E. Spring/Summer Of 2018? . . . . . . . | | |  | 1375 |  | 1476 | 1477 | 2376 | 1377 |
| F. Fall Of 2017? . . . . . . . . . . . . . . . . . | | |  | 1378 |  | 1478 | 1479 | 2379 | 1380 |
| G. Spring/Summer Of 2017? . . . . . . . | | |  | 1381 |  | 1480 | 1481 | 2382 | 1383 |
| H. Fall Of 2016? . . . . . . . . . . . . . . . . . | | |  | 1366 |  | 1482 | 1483 | 2367 | 1368 |
| I. Spring/Summer Of 2016? . . . . . . . | | |  | 1340 |  | 1484 | 1485 | 2341 | 1342 |
| 1/ |  | No-till means leaving soil and previous crop residue undisturbed from harvest to planting. Strip-till means tilling a narrow strip over the row, leaving soil and previous crop residue between the rows undisturbed. | | | | | | | |

|  |  |  |  |
| --- | --- | --- | --- |
| [If a cover crop was planted in Spring/Summer/Fall 2020, ask--] |  | DOLLARS & CENTS PER ACRE | |
| i. What was the seed cost per acre for the cover crop?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | 1468 | .\_\_ \_\_ |
| 1. What was the per-acre cost-share or financial assistance payments received for the cover crop? … | | 1495 | .\_\_ \_\_ |
| [Enter zero if no program payment was received] | |  |  |

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| --- | --- | --- |
| 36. Has any part of the selected field been classified as “Highly Erodible Land”? Cropland identified as highly erodible is subject to highly erodible land conservation (HELC) requirement. Producers who receive farm program payments are required to have and apply a written soil conservation plan. A “written plan” is a plan prepared in accordance with Federal, State, or district standards………………………………………………………………… | Yes = 1  No = 3 | Code |
| 1404 |
| 37. Do you have a written conservation plan that specifies practices to control soil erosion?.......... | Yes = 1  No = 3 | xxxx |
| 38. 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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|  | | |  |  |
| 39. What is the slope of the selected field?. . | 1  2  3  4  5 | Nearly level (0 - 2%)  Even, moderate grade (3 – 9%)  Variable, moderate grade  Even, steep grade (over 10%)  Variable, steep grade | . . . . . . . . . . . . . . . . . . . . . . . | Code |
| 2400 |
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| 40. What is the primary soil type of the selected field?. . . . . . . . . . . . . . . . . | 1  2  3  4 | Loam  Clay  Sandy  Mixed | . . . . . . . . . . . . . . . . . . . . . . . | Code |
| 2401 |
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| 41. Next we will ask about soil and water concerns that you have on the selected field. |

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| --- | --- | --- | --- |
|  | Code  Yes = 1  No = 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 | 2424 | 2434 | |
| [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)]. | | | |

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| --- | --- | --- |
|  |  | Code |
| 46. Did the land use practices for the selected field include subsurface drainage? | YES = 1 | 2402 |
| [If YES, ask--] |  | Year |
| a. In what year was the subsurface drainage installed?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | 2403  \_\_\_ \_\_\_ \_\_\_ \_\_\_ |

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| --- | --- | --- |
|  | | Inches |
| b. What is the average depth of your drainage system?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | 2604 |
| c. What is the diameter of your tiles?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | 2605 |
|  | | Hours |
| d. On average, how many hours does it take your field to return to normal soil moisture levels following a heavy storm?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | 2606 |
|  |  | Code |
| e. Does this system include a mechanism for controlled drainage (e.g. stop logs, risers, or float mechanisms)?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | Yes = 1  No = 3 | 2406 |

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|  | |
| 47. 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 = Current  2 = Past  3 = Never | |
| a. Environmental Quality Incentive Program (EQIP) | 2611 | |
| b. Conservation Security or Conservation Stewardship Programs (CSP) | 2612 | |
| c. Conservation Reserve Program (CRP) | 2613 | |
| d. Other Federal, State, Local or non-government source | 2614 | |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 48. 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 integrated pest 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 |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| b. For each practice or activity checked in 48a, please complete one line of this table. | | | | | | | | | |
| 1 | 2 | 3  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 2020? |
| Technical or planning assistance? | | Financial assistance? | |
| Practice or Activity  on the selected field | Practice Code  (see item 48a) | 1  2  3 | USDA NRCS field staff, cooperative extension, or technical service providers  Other sources of assistance  No Assistance Needed | 1  2  3  4  5 | Environmental Qualify Incentives Program (EQIP)  Conservation Stewardship Program (CSP)  Conservation Reserve Program (CRP)  Other Federal, State, and Local Programs  No Assistance Needed | 1  2  3 | A Federal regulatory requirement  Highly erodible land conservation compliance  Does 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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| --- | --- |
| 49. In 2020, was the corn in the selected field covered by a single or named peril crop insurance (e.g hail, replant, wind, freeze, etc.)? | **CODE** |
| □ YES – [*Enter code 1 and continue*] □ NO – [*Go to (multi peril crop insurance]*]. . . . . . . . . . . . | 1393 |
|  | **CODE** |
| 1. In 2020, was the rice 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 |

|  |  |  |  |
| --- | --- | --- | --- |
|  | **DOLLARS & CENTS**  **PER ACRE** | | |
| 1. What was the dollar amount of coverage per acre for the single peril policy covering the selected field? ?. . . . . . . . . . . . . . . . . . . . . . . . | 1395 | **.\_\_\_ \_\_\_** | |
|  | | | | | **DOLLARS & CENTS**  **PER ACRE** |
| 1. What was the premium cost per acre for the single peril policy coveringthe selected field in 2020? (***Exclude*** *any sign-up fee.*). . . . . . . . . . . . . . . . . . . . . . . | | | | |
|  | | | | | **PERCENT** |
| 1. What was the percent deductible for the single peril policy covering the selected field? (Record no deductible as 0%) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | |  | |  |
|  | | |  | | CODE |
| 1. Did you (*or will you*) collect an indemnity payment for the selected field from the single peril policy during 2020?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | |  | | YES = 1 |

|  |  |
| --- | --- |
| 50. In 2020, was the rice in the selected field covered by a multi-peril crop insurance policy? | **CODE** |

|  |  |  |  |
| --- | --- | --- | --- |
| **YES** – [*Enter code 1 and continue.*] | **NO** – [*Go to Section C.*]. . . . . . . . . . . . . . . . . . . . | | 1385 |
|  | | | |
| a. Which coverage did you obtain?. . . . . . . . . . | 1 Federal CAT (basic catastrophic insurance)  2 Yield protection (individual)  3 Yield plus SCO (Supplemental Coverage Option)  4 Revenue protection (individual)  5 Revenue plus SCO (Supplemental Coverage Option)  6 Other multi-peril Crop insurance |  | **CODE** |
| . . . . | 1386 |

|  |  |
| --- | --- |
| [*If item a = 2 or 3, ask--*] | **PERCENT** |
| 1. What percent of yield coverage did you selectfor the selected field?. . . . . . . . . . . . . | 1387 |
| 1. What percent of price coverage did you select for the selected field?. . . . . . . . . . . . . | 1388 |
| [*If item a = 4 or 5, ask--*] | **PERCENT** |
| 1. What percent of revenue coverage did you select for the selected field?. . . . . . . . . . | 1389 |
| b. What type of unit coverage did you purchase for the selected field? (Basic = 1, Optional = 2, Enterprise = 3). . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | CODE |
| 1. In what year did you (*the operator listed on the label*) first purchase multi-peril crop insurance on the selected field? ?. . . . . . . . . . . . . | YEAR |
| 1. What is the 2020 Approved APH (*actual production history*) yield for the selected field?. . . . . . . . . . . . | CWT PER ACRE |
| 1. What was the premium paid for multi-peril crop insurance on the selected field in 2020? (***Exclude*** *any sign-up fee.*). . . . . . . . . . . . . . . . . . . . . . . . | DOLLARS AND CENTS PER ACRE |
| 1. Did you (*or will you*)collect an indemnity payment for the selected field   From multi-peril crop insurance during 2020?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . **YES = 1** | CODE |
|  |  |

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

|  |  |  |  |
| --- | --- | --- | --- |
|  | | Code | Office Use  Edit Table |
| 1. Were commercial nutrients or fertilizers applied to the selected field for the 2020 corn crop? INCLUDE those from operators, landlords, and contractors.). . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | Yes = 1  No = 3 | 0202 | 0200 |
| [If item 1 = 1 continue, otherwise go to item 6.] | | | NUMBER |
| 2. How many commercial nutrient or fertilizer applications were made to the selected field  for the 2020 crop? INCLUDE applications made by airplanes and custom applicators.. . . . . . . . . . . . | | | 0203 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 3. Now I need to record information for each application. | | | | | | | | |
| CHECKLIST | | | |  | | | | |
|  | INCLUDE |  | EXCLUDE |  | | | | |
| Custom applied nutrients and fertilizers | | Micronutrients | |  | | | | |
| Nutrients or fertilizers applied  in the fall of 2019 and those applied earlier if the selected field was fallow in 2019. | | Unprocessed manure  Nutrients or fertilizers applied to previous crops in the selected field | |  | |  | |  |
| Commercially prepared manure  or compost | | Lime and Gypsum/landplaster | |  | Office Use  Lines in Table | TABLE  001 | 0299 |  |

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|  | | | | | | | | | | | | | | | | |
|  |  | | | | | | |  | APPLICATION CODES for COLUMN 6 | | | | | | |  |
|  |  | | |  | | | |  | 1 Broadcast, ground without incorporation  2 Broadcast, ground with incorporation  3 Broadcast, by aircraft  4 In seed furrow | | | | 5 In irrigation water  6 Chisel/Injected or knifed in  7 Banded in or over row  8 Foliar or directed spray | | |  |
|  | | | | | | | | | | | | | | | | |
| L  I  N  E | | 2  MATERIALS USED  [*Enter percentage analysis or actual*  *pounds of plant nutrients applied per acre*.]  [*Show Common Nutrients or Fertilizers*  *in Respondent Booklet*.] | | | | | 3  What quantity  was applied  per acre?  [*Leave this*  *column blank*  *if actual pounds of nutrients*  *were reported.*] | | | 4  [Enter  material  Code.]  1 Pounds  12 Gallons  19 Pounds  of actual  nutrients | 5  When was  this applied?  1 In the fall  before seeding  2 In the spring  before seeding  3 At seeding  4 After seeding | 6  How was  this  applied?  [*Refer to*  *Code list above.*] | | 7  How many  acres were  treated  in this  application?  ACRES | | |
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|
|
|
| N  Nitrogen | P2O5  Phosphate | | K2O  Potash | S  Sulfur |
| 01 | | 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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|  | | |  | | | Code | |
| 4. Were any nutrients or fertilizers applied by custom applicators? | | | Yes = 1  No = 3 | | | 0214 | |
| [If item 4 = 1 continue, otherwise go to item 5.] | | | | | | Code | |
| a. Are you able to report the cost of nutrient or fertilizer materials and custom application separately? | | | Yes = 1  No = 3 | | | 0216 | |
| [If item 4a = 1 continue, otherwise go to item 5.] | | | | | | 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 the selected field? INCLUDE operator, landlord, and contractor costs. INCLUDE costs  for sulfur and micronutrients. EXCLUDE custom application of lime, gypsum, purchased manure and purchased compost. . . . . . . . . . . . . . . . . . | DOLLARS & CENTS  PER ACRE | | | | OR | TOTAL DOLLARS | |
| 0219 | .\_\_\_ \_\_\_ | |  | | 0220 |  |
| [If material and application costs can’t be separated, exclude them here and record the total in item 5.] | | | | | | | |

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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. INCLUDE materials applied to the selected field if it was fallow in 2019. EXCLUDE lime, gypsum, purchased manure and purchased compost. . . . . . . . . . . . . . . | DOLLARS & CENTS  PER ACRE | | | OR | TOTAL DOLLARS |
| 0221 | .\_\_\_ \_\_\_ |  | | 0222 |
| [If custom applied and the cost of material can be separated from application costs, include the cost of materials ONLY; otherwise, include both the material and application costs.] | | | | | |

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|  | | | | | | | | | | | Code | |
| 1. Was gypsum applied to the selected field for the 2020 corn crop? . . . . . . . . . . . . . . . . .. . . | | | | | | | | | | Yes = 1  No = 3 | 0218 | |
| 1. Was a soil test for soil organic matter performed on this corn field at some point in the last 10 years? . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | | | | | | | | | Yes = 1  No = 3 | 3225 | |
| [if item 7 = 1, ask --] | | | | | | | | | |  | Percent | |
| 1. What was the percentage of soil organic matter on the selected field for the most recent test? | | | | | | | | | | | 3226 | |
| 1. How many times have you tested the selected field for soil organic matter in the past 10 years? | | | | | | | | | | | Number | |
| 3227 | |
| [If item 7b is more than 1, ask -- ] | | | | | | | | | |  | Code | |
| 1. Based on these tests, is your soil organic matter content………………………………………………. | | | 1 | Increasing? | | | ……………………….. | | | | 3228 | |
| 2 | Decreasing? | | |
| 3 | Staying roughly the same? | | | Code | |
| 1. Was a soil or plant tissue test performed on the selected corn field in 2019 or 2020 for the 2020 crop?............................................................................................................................. | | | | | | | | | | Yes = 1  No = 3 | 0224 | |
| [If item 8 = 1, continue, otherwise go to item 13.] | | | | | | | | | |  | Code | |
| 1. Was a soil test for phosphorus performed on the selected corn field in 2019 or 2020 for the 2020 crop?....................................................................................................................... | | | | | | | | | | Yes = 1  No = 3 | 0225 | |
| [If item 9 = 1 ask -- ] | | | | | | | | | |  | Pounds per Acre | |
| 1. How many pounds of phosphorus per acre were recommended by the phosphorus test?.......... | | | | | | | | | | | 0226 | |
|  | | | | | | | | | |  | Code | |
| 1. Was a soil test for nitrogen performed on this corn field in 2019 or 2020 for the 2020 crop?...... | | | | | | | | | | Yes = 1  No = 3 | 0227 | |
|  | | | | | | | | | |  | Pounds per Acre | |
| 1. How many pounds of nitrogen per acre were recommended by the nitrogen test?............... | | | | | | | | | |  | 0228 | |
|  | | | | | | | | | |  | Code | |
| 1. Was a plant tissue test or leaf analysis for nutrient deficiency performed on the selected field in 2019 or 2020 for the 2020 crop?.............................................................................................. | | | | | | | | | | Yes = 1  No = 3 | 0229 | |
|  | | | | | | Dollars & Cents per Acre | | | | OR | Total Dollars | |
| 1. How much was spent for these soil and plant tissue tests on the selected field? INCLUDE operator, landlord, and contractor costs………………………… | | | | | | 0230 | | .\_\_ \_\_ | |  | 0231 | |
| [If tests were done at no cost, continue, otherwise go to item 12b.] | | | | | | | | | |  |  | |
| 1. 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 service | | | | | | | |  | Code | |
| 2 | Soil/plant tissue test costs were included in the total fertilizer costs reported in item 5 | | | | | | | | Yes = 1  No = 3 | 0232 | |
| 3 | Some other reason | | | | | | | |  | Code | |
| 1. 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 | |
| [Enumerator Action: Refer to Fertilizer Table, column 2. If nitrogen (N) was applied, complete item 13. If no nitrogen applied, go to item 14.] | | | | | | | | | |  |  | |
| 1. Was the amount of nitrogen you decided to apply to the selected field based on -- | | | | | | | | | |  | Code | |
| 1. Results of a soil or plant tissue test?..................................................................................... | | | | | | | | | | Yes = 1  No = 3 | 0233 | |
| 1. Crop consultant recommendation?........................................................................................ | | | | | | | | | | Yes = 1  No = 3 | 0234 | |
| 1. Fertilizer dealer recommendation?........................................................................................ | | | | | | | | | | Yes = 1  No = 3 | 0235 | |
| 1. Extension service recommendation?..................................................................................... | | | | | | | | | | Yes = 1  No = 3 | 0236 | |
| 1. Cost of nitrogen and/or expected commodity price?............................................................ | | | | | | | | | | Yes = 1  No = 3 | 0237 | |
| 1. Contractor recommendation?................................................................................................ | | | | | | | | | | Yes = 1  No = 3 | 0238 | |
| 1. Routine practice – operator’s own determination based on past experience, yield goal, etc. | | | | | | | | | | Yes = 1  No = 3 | 0239 | |
| [If nitrogen inhibitors were used, continue, otherwise go to item 14.] | | | | | None | Pounds Per Acre | | | | OR | Gallons per Acre | |
| 1. How much nitrogen inhibitor did you mix with the nitrogen applied to the selected field?.......................................................................... | | | | | □ | 2561 | | | .\_\_ \_\_ |  | 2562 | .\_\_ \_\_ |
|  | | | | | | | | | |  | Code | |
| 1. Is lime ever applied to the selected field?...................................................................................... | | | | | | | | | | Yes = 1  No = 3 | 0242 | |
| [If item 14 = 1 continue, otherwise go to item 15.] | | | | | | | | | |  | Years | |
| 1. On average, how many years are there between applications of lime to the selected field?............... | | | | | | | | | | | 0243 | |
|  | | | | | | | | | | | Tons per Acre | |
| 1. How many tons of lime were applied per acre the last time it was applied to the selected field?....... | | | | | | | | | | | 0244 | .\_\_\_\_ |
|  | | | | | | | | | |  | Code | |
| 1. Was lime applied to the selected field in 2019 or 2020 for the 2020 crop?............................. | | | | | | | | | | Yes = 1  No = 3 | 0240 | |

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| 15. Was non-commercial (unprocessed) manure from own farm, from a neighbor’s farm, etc., or other organic material, including compost, applied to the selected field for the 2020 corn crop? EXCLUDE commercially prepared manure……………………………………………………………. | Yes = 1  No = 3 | Code | |
| 0246 | |
| [If item 15 = 1 continue, otherwise go to Section D.] | | Acres | |
| a. To how many acres in the selected field was manure or compost applied?.. . . . . . . . . . . . . . . . . . . | | 0247 | .\_\_\_ |

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| b. What was the amount of manure applied to the selected field?. . . . . . . . . . | 1 Tons  2 Gallons  3 Bushels  4 Cubic Yards |  | Code |  | Units Per Acre | | OR | Total Units | |
| . . | 0248 | AND | 0249 | .\_\_\_ \_\_\_ |  | 0250 | .\_\_\_ |
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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| c. Of the total manure or compost applied to the selected field for the 2020 crop, what was the percent of manure applied--- | | | | | | | | | | | | | | | Percent | |
| (i) in the fall before planting?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | | | | | | | | | | | | | + | 0254 | |
| (ii) in the spring before planting?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | | | | | | | | | | | | | + | 0255 | |
| (iii) after planting?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | | | | | | | | | | | | | + | 0256 | |
|  | | | | | | | | | | | | | | | 100% | |
| d. Was the manure or compost---. . . . . . | 1 Lagoon liquid?  2 Slurry liquid?  3 Semi-dry or dry? |  | | | | | | | | | | | | | Code | |
| . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | | | | | | | | | | | | 0257 | |
|  | | | | | | | | | | | | | | |
| e. Was the manure or compost---. . . . . . | 1 Broadcast or sprayed *without* incorporation?  2 Broadcast or sprayed *with* incorporation?  3 Injected/knifed in?  4 Sprayed using irrigation systems? | | | | |  | | | | | | | | | Code | |
| . . . . . . . . . . . . . . . . . . | | | | | | | | | 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 | |
|  |  | | | | | | | | | |  | |
|  | | | | | | | | | | | | | | | | |
| g. Was the manure or compost---. . . . . . | 1 Produced on this operation?   1. Purchased? 2. Obtained at no cost off this operation? 3. Obtained with compensation? - operator   received payment for accepting the manure. | | | | | | . . . . . . . . . . . . . . . | | | | | | | |  | |
| Code | |
| 0260 | |
| [If item 15g = 2, continue, otherwise go to item 15h.] | | | | | | | | | | | | | | | | |
| (i) What was the total cost of the purchased manure or compost applied to the selected field? INCLUDE operator, landlord, and contractor costs. 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 item 15gii = 1, ask--] | | | | | | | | | | | | | | | | |
| (a) What was the total cost paid to have manure or compost custom applied to the selected field? INCLUDE operator, landlord, and contractor costs………………………………………………………………. | | | | Dollars & Cents  Per Acre | | | | | | | | | OR | | | Total Dollars |
| 0287 | | | | | .\_\_\_ \_\_\_ | | | | 0288 |
| [Do not report custom application cost if it was included with the purchased manure or compost cost.] | | | | | | | | | | | | | | | | |
|  | | | | | | | | | | | | | | | | Miles |
| 1. What is the distance in miles between the manure or compost storage/production location and the selected field? . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | | | | | | | | | | | | | | | 0291 |
|  | | | | | | | | | | | | | | | | Code |
| 1. Of the manure or compost applied to the selected field, was any tested for nutrient content prior to application? . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | | | | | | | | | | Yes = 1  No = 3 | | | | | 0261 |
| 1. Was the application rate of commercial nitrogen fertilizer on the selected field reduced due to manure or compost application? | | | | | | | | | | | Yes = 1  No = 3 | | | | | 0262 |
| [If 15j = 1, ask --] | | | | | | | | | | | | | | | | Percent |
| 1. By when percent did you reduce the commercial nitrogen fertilizer application rate on the selected field? . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | | | | | | | | | | | | | | | 0263 |
|  | | | | | | | | | | | | | | | | Code |
| 1. Did you adjust the corn harvest date for the selected field due to the application of manure or compost? . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | | | | | | | | | | Yes = 1  No = 3 | | | | | 0280 |

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| 1. Were the manure or compost application rates to the selected field influenced by Federal, State, or local restrictions?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | | Code |
| Yes = 1  No = 3 | | 0264 |
| [*If item 16 is YES, ask---*] | | |  |
| a. 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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| 1. Compared to the last time you planted corn, did you make any of the following changes to your cropping practices with the intent of reducing commercial fertilizer use? | | |
|  | | Code |
| a. Change the type of commercial fertilizer products applied on the selected field, such as less anhydrous ammonia and more urea. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | Yes = 1  No = 3 | 1226 |
| b. Manage fertilizer use more closely, with such practices as soil testing, split applications, variable rate applications, or soil incorporation on the selected field?. . . . . . . . . . . . . . . . . . | Yes = 1  No = 3 | 1228 |
| c. Change your crop rotation, such as plant corn on the selected field rather than usual crop rotation?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | Yes = 1  No = 3 | 1227 |
| d. Reduce the application of commercial nitrogen fertilizer?. . . . . . . . . . . . . . . . . . . . . . . . . | Yes = 1  No = 3 | 1224 |
| [If 17d = 1, ask--] | | PERCENT |
| (i) By what percent did you reduce the amount of commercial nitrogen fertilizer  applied for 2020?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | 1225 |

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

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| Now I have some questions about all the biocontrols or pesticides used on the selected field for the 2020  corn crop, including both custom applications and applications made by this operation. |

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|  |  | CODE | EDIT TABLE |
| 1. Were any herbicides, insecticides, fungicides or other biocontrols  or pesticides used on this corn field for the 2020 crop? | YES = 1 | 0302 | 0300 |
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| [Probe for applications in the fall of 2019 and those made earlier if the selected field was fallow.] | | | | | | | | | | | | | | | | | | |
| If no biocontrols or pesticides applied, go to Section E. | | | | | | | | | | | | | | | | | |
| INCLUDE defoliants, fungicides, herbicides,  insecticides, and other pesticides. | | | | EXCLUDE adjuvants, nutrients or fertilizers reported earlier and seed treatments. | | | |  | | | | |  | |  | | | |
| INCLUDE biological and botanical pesticides. | | | |  | | | |  | OFFICE USE  LINES IN TABLE | | | | TABLE  001 | | 0399 | |  | |
|  | | | | | | | | | |  | | | | | | | | |
| 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] | | If this was part of a tank mix, enter line number of first product in mix | When  was this applied?  1 Before planting  3 At planting  4 After planting  5 Defoliation  prior to harvest | 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 | | |
| 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 | |  | |  |
|  | 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 | 13 | | | |
|  |  |  | |  |  | 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 the selected  field were  treated with  this product? | | How many  times was it  applied? | Were these  applications  made by---  1 Operator, partner  or family member?  2 Custom applicator?  3 Employee/Other? |  | | UNIT CODE | |
| DOLLARS & CENTS  PER UNIT | | 1 Pounds  12 Gallons  13 Quarts  14 Pints | 15 Liquid Ounces  28 Dry Ounces  30 Grams |
| ACRES | | NUMBER |  |  |
| 01 | 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 | 77 | .\_\_\_ | 79 | 80 | 81 | .\_\_\_ \_\_\_ | 82 | |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | |  | | Code | | |
| 3. Were any chemicals, biocontrols, or pesticides applied by custom applicators? | | | | | | Yes = 1  No = 3 | | 0323 | | |
| [If item 3 =1 ask, otherwise 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 | | |
| [If item 3a = 1, ask--] | | | | | | | | | | |
| 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 2019 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 |
|  | | | | | | | | | | |
| NOTE 1: If respondent cannot report TOTAL COST, itemize cost for each product in optional columns in Biocontrol or Pesticide Table. | | | | | | | | | | |
| NOTE 2: If custom applied and the costs for materials can be separated from application costs, include the cost for materials only.  Otherwise, report both the material and application costs in item 4. | | | | | | | | | | |

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

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| Now I have some questions about your pest management decisions and practices  used on the selected field for the 2020 corn crop. By pests, we mean weeds, insects, and diseases. | | |  | | |  |  |
|  | | |  | |
| [Enumerator Action: Were pesticide applications reported in Section D?] | | | | | | | |
| YES – [Continue] | NO – [Go to item 6] | | | | 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 40000-49999)  applications reported in Section D, item 1, column 2?] | | | |
| YES – [*Continue*] | NO – [Go to item 6] | | |
|  | |  | Code |
| 4. Were herbicides applied to this corn field before weeds emerged?. . . . . . . . . . . . . . . . . | | Yes = 1  No = 3 | 0803 |

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| --- | --- | --- |
| 5. Were herbicides applied to this corn field after weeds emerged? . . . . . . . . . . . . . . . . . . | Yes = 1  No = 3 | 0805 |
| 1. Were records kept for the selected field to track the activity or numbers of weeds, insects, or diseases? . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | Yes = 1  No = 3 | 0823 |
| 1. 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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| 1. In 2020, 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 10.]  3 The selected field was not scouted.  [Enter Code 3 and go to item 14.] |  | Code |
| . . . . | 0808 |
|  | Code |

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| 1. Was an established scouting process such as systematic sampling, recording counts, etc. used or were insect traps used in the selected field?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | | | Yes = 1  No = 3 | 0809 |
| 1. Was scouting for pests done in the selected field due to--- | | | |  | Code |
| a. a pest advisory warning?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | | | Yes = 1  No = 3 | 0810 |
| b. a pest development model?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | | | Yes = 1  No = 3 | 0811 |
|  | | | |  | Code |
| 1. Do you believe that rootworms damaged corn grown on the selected field? . . . . . . | | | | Yes = 1  No = 3 | 1923 |
| [If Item 11 =1, Continue. Else go to Item 12.] | | | |  | Count |
| 1. If you believe that rootworm damage lead to lodging, approximately how many stalks were lodged?. . . . . . | | | | | 1924 |
| 1. If you believe that rootworm damage stunted plant growth, approximately how many stalks were affected?. | 1  2  3 | One node eaten back to 1.5 inches of the stalk  Two complete nodes eaten  Three or more nodes eaten | . . . . . | | Code |
| 1925 |

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| 1 | | 2 | 3 | | |
| 12. Was this corn field scouted for-- | Yes = 1  No = 3 | [If Yes, ask---]  What was the  infestation level for [column 1]?—  1 Higher than normal  2 Normal  3 Lower than normal  CODE | [If column 1 = Yes, ask---]  Who did the majority of the scouting  for [column 1]?   1. Operator, partner or family member 2. An employee 3. Farm supply or chemical dealer 4. Independent crop consultant or commercial scout   CODE | | |
| a. Weeds?. . . . . . . . . . . . . . . . . | 0812 | 0813 | 0814 | | |
| b. Insects or mites?. . . . . . . . . . | 0815 | 0816 | 0817 | | |
| (i) Corn borer | 1731 | 1732 | 1733 | | |
| (ii) Corn rootworm | 1734 | 1735 | 1736 | | |
| c. Other insects | 1708 | 1738 | 1712 | | |
| d. Diseases?. . . . . . . . . . . . . . . | 0818 | 0819 | 0820 | | |

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| [If scouted by crop consultant or commercial scout, ask item 13; else go to item 14.] | | | | | |
| *13.* How much was charged for the scouting services for the selected field?  INCLUDE operator, landlord and contractor cost. . . . . . . . . . . . . . . . . . . . . . | Dollars & Cents  Per Acre | | | Or | Total Dollars |
|  | 0821 | .\_\_\_ \_\_\_ | |  | 0822 |
|  | | | | | OFFICE USE |
| a. [If scouting performed at no cost, explain:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_] | | | . . . . . . | | 0333 |
|  | | | | |  |

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|  |  | Code |
| 14. Did you use field mapping of previous weed problems to assist you in making weed management decisions? . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | Yes = 1  No = 3 | 0825 |

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| 15. Did you do any of the following other type(s) of pest management practices for the specific  purpose of managing or reducing the spread of pests in the selected field?  [*Enter Code “1” for all that apply*.] | | CODE |
| a. Use the services of a diagnostic laboratory for pest identification or soil plant tissue pest analysis for 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 work to 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. Use a flamer to kill weeds?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | Yes = 1  No = 3 | 0857 |
| p. Maintain buffer strips or border rows to isolate corn from non-organic crops or land,  or did you take a buffer harvest?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | Yes = 1  No = 3 | 0856 |
| q. Plant earlier or later to avoid weeds? . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | Yes = 1  No = 3 | 0865 |

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|  | Code |

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| 16. Were any beneficial organisms, such as insects, nematodes, fungi applied  or released in the selected field to manage pests? . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | Yes = 1  No = 3 | 0853 |
| 17. Were floral lures, attractants, repellants, pheromone traps or other biological pest controls used on the selected field? . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | Yes = 1  No = 3 | 0858 |

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| [If item 16 or item 17 is YES, ask--] | |  | | |  | |  | |
| a. 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 previously reported*.. . . . . . . . . . . . . . . . . .* | | Dollars & Cents  Per Acre | | | Or | | Total Dollars | |
| 0859 | | .\_\_\_ \_\_\_ |  | | 0860 | |

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|  | | Code | |
| 18. Was a trap crop (*excluding fallow*) grown to help manage insects in the selected field? . . . . . . | Yes = 1  No = 3 | 0863 | |
|  |  | | Code |
| 19. Was the selected field left in fallow in 2015 to help manage insects on the selected field? . . . . | Yes = 1  No = 3 | 0864 | |

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| 20. 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 | Code | |
| 0861 | |
|  | | |  | Code | |
| 21. Was protection of beneficial organisms a factor in your pest control decisions for the selected field?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | | Yes = 1  No = 3 | 1765 | |
| [*If Item 21 is YES, continue. Else go to Item 22.*] | | |  | Code | |
| a. Did you change timing of, reduce application rate of, or eliminate a  pesticide application?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | | Yes = 1  No = 3 | 1766 | |
| b. Did you change to an alternative pesticide, biocontrol, or non-pesticide practice?. . . . . . . | | | Yes = 1  No = 3 | 1767 | |
| 22. Did you cultivate the selected field for weed control? . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | | Yes = 1  No = 3 | 2453 | |
| [*If YES, ask--*] | | |  | Number | |
| a. How many times?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | | | 2454 | |
|  |  | | | Code | |
| 24. Did you use a soil-insecticide or insecticidal seed treatment in the refuge in 2020? . . . . | | | Yes = 1  No = 3 | 1812 | |
|  |  | | | Unit Codes | |
|  | Units Per Acre | | | 1  2  3  4 | Pounds  Cwt  Tons  Bushels |
| 25. If untreated (either with insecticide or Bt seed), how much yield loss (e.g. bushels per acre) do you think corn borers would most likely cause on the selected field? . . | 2670 | .\_\_\_ | | 2671 | |
| 26. If untreated (either with insecticides or Bt seed), how much yield loss (e.g. bushels per acre) do you think corn rootworms would most likely cause on the selected field? . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 2672 | .\_\_\_ | | 2673 | |
| 27. 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?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | xxxx | .\_\_\_ | | xxxxx | |

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| --- | --- | --- |
|  |  | Code |
| 28. Did pests (weeds, insects, pathogens, animals) cause any yield loss on the selected field in spite of your pest control efforts? . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | YES = 1 | 0827 |
| [*If YES, ask--*] |  |  |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| a. How much yield loss do you think was caused by all pests on the selected field in spite of the management practices you used to reduce those losses? |  |  | |  | Code |  | Units Per  Acre |  | Total Units |
|  | |
|  | 1  2 | BUSHELS  TONS | . . . . | 828 | AND | 829 | OR | 830 |
|  |  | |  |  |  |  |  |  |
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| --- | --- |
| 29. If you used genetically engineered, glyphosate resistant seeds on the selected field in 2020, indicate the number of consecutive years you have planted genetically engineered, glyphosate-resistant seeds. [Note: A producer who used HT corn in 2020 and 2019, but conventional corn in 2018, has used genetically engineered, glyphosate resistant seeds for “2” consecutive years.] |  |
| Number Of Years |
| 1970 |

|  |  |
| --- | --- |
|  | YEAR |
| a. What year did you first plant any glyphosate resistant seeds on the selected field?. . . . . . . . . . . . | 1971  \_\_\_ \_\_\_ \_\_\_ \_\_\_ |

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| --- | --- | --- |
|  | | CODE |
| 30. Have you noticed a decline in the effectiveness of glyphosate (e.g. Roundup) in controlling weeds in the selected field? . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | YES = 1 | 0834 |
| [*If item 27= YES, continue. If item 27 = NO, go to item 30*.] | | YEAR |
| a. What was the first year you noticed a decline in effectiveness of glyphosate in  controlling weeds on the selected field?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | 0835  \_\_\_ \_\_\_ \_\_\_ \_\_\_ |
| 31. After noticing the decline in the effectiveness of glyphosate in controlling weeds on  the selected field, did you-- | | CODE |
| a. stop planting glyphosate resistant crops?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | YES = 1 | 0837 |
| b. change tillage practices?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | YES = 1 | 0839 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 32. Have any of the following herbicides been used on the selected field in the specified years since: | | | | | | | | | | | | | | |
| 1  Active Ingredients | | 1  2020  Yes = 1  No = 3 | | 3  2019  Yes = 1  No = 3 | | 4  2018  Yes = 1  No = 3 | | 5  2017  Yes = 1  No = 3 | | | 6  2016  Yes = 1  No = 3 | | |
| 1. Glyphosate (e.g. Roundup®) | | 2001 | | 2002 | | 2003 | | 2004 | | | 2005 | | |
| 1. Glufosinate (e.g. Liberty®) | | 2006 | | 2007 | | 2008 | | 2009 | | | 2010 | | |
| 1. Dicamba (e.g. Xtend®, Xtendimax®, Engenia®) | | 2011 | | 2012 | | 2013 | | 2014 | | | 2015 | | |
| 1. 2, 4-D (e.g. Enlist®) | | xxxx | | xxxx | | xxxx | | xxxx | | | xxxx | | |
|  | | | | | | | | | | | **CODE** | | | |
| 28. Have herbicide-tolerant seeds been planted on the selected field any time since 2016?. . | | | | | | | | | **YES = 1** | | 2021 | | | |
| [*If item 28 is YES, continue, else skip.*] | | | | | | | | |  | |  | | | |
|  | |  | | *If column 2 = 1, ask questions in columns 3 - 6* | | | | | | | | | | |
| 1  For herbicide tolerant seeds that are tolerant of-- | | 2  Have you noticed a decline in the effectiveness of herbicides in controlling weeds in the selected field? | | 3  What was the first year you noticed a decline in the effectiveness of herbicides in controlling weeds in the selected field? | | After noticing the decline in the effectiveness of this herbicide in controlling weeds on the selected field, did you-- | | | | | | | | |
| 4 | | 5 | | | | 6 | | |
| Stop planting herbicide resistant crops with this trait? | | Change tillage practices? | | | | Switch to an alternative herbicide? | | |
|  | | **YES = 1**  **NO = 3** | | **YEAR** | | **YES = 1**  **NO = 3** | | **YES = 1**  **NO = 3** | | | | **YES = 1**  **NO = 3** | | |
| a. Glyphosate (e.g. Roundup®) | | 2022 | | 2023 | | 2034 | | 2025 | | | | 2026 | | |
| b. Glufosinate (e.g. Liberty®) | | 2027 | | 2028 | | 2029 | | 2030 | | | | 2031 | | |
| c. Dicamba (e.g. Xtend®, Xtendimax®, Engenia®) | | 2032 | | 2033 | | 2034 | | 2035 | | | | 2036 | | |
| d. Active Ingredients in the Sulfonylurea family (e.g. chlorimuron, foramsulfuron, Synchrony® XP, Leadoff®, Basis®) (Soybeans) | | 2037 | | 2038 | | 2039 | | 2040 | | | | 2041 | | |
| 1. 2, 4-D (e.g. Enlist®) | | xxxx | | xxxx | | xxxx | | xxxx | | | | xxxx | | |

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| 34. Considering each year you planted a glyphosate resistant crop on the selected field, have you ever used the following practices in order to reduce the rate that glyphosate resistance develops in weeds on the selected field? | | | | | |
| 1 | 2 | 3 | | 4 | |
| RESISTANCE MANAGEMENT PRACTICE |  | How often did you use this practice on the selected field? | | Did the cost of managing weeds on the selected field increase as a result of your use of the practice? | |
|  |  |  | 1 Every Year  2 Every Other Year  3 Multiple Years  4 One Year |  | 1 Yes  3 No  4 Don’t Know |
|  | Yes = 1  No =3 | CODE | | CODE | |
| a. Control weeds early | 0886 | 2871 | | 0878 | |
| b. Control weed escapes | 0887 | 2872 | | 0879 | |
| c. Clean equipment between moving from one field to the next | 0888 | 2873 | | 0880 | |
| d. Use herbicides other than glyphosate | 0889 | 2874 | | 0881 | |
| e. Use tillage | 0890 | 2875 | | 0882 | |
| f. Use the herbicide label recommended application rate | 0891 | 2876 | | 0883 | |
| g. Rotate crops | 0892 | 2877 | | 0884 | |

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| --- |
| [If item 34 column 2 contains at least one “1”, ask: otherwise go to item 32.] |

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| --- | --- | --- | --- |
| 35. Considering the above practices (i.e. a-g) do you believe resistance management practices are or would be more effective in reducing the rate that herbicide resistance develops in weeds on the selected field if operators of nearby farms also use them? . . . . . . . . . . . . . . . . . . . | 1 – Yes  2 – No  3 – Don’t Know  4 – The nearest farm is too far  away to affect the selected field | . . . . . |  |
| CODE |
| 0088 |

|  |  |  |
| --- | --- | --- |
|  |  | Code |
| 36. Did you plant genetically-engineered rootworm-resistant seed on the selected field in 2020? . | Yes = 1  No = 3 | 2926 |
|  |  | Years |
| a. How many consecutive years have you used rootworm resistant seeds on the selected field?. . . . |  | 2927 |
| [*If Item 32a is greater than 1, continue. Otherwise go to Section F.*] |  | Code |
| b. Have you ever switched from a rootworm resistant seed with one mode of action (MOA) to a pyramided rootworm resistant seed? *Note: Pyramided seeds have multiple MOAs*. | Yes = 1  No = 3 | 2928 |
| [*If Item 32b is YES, ask*--] |  | Year |
| c. What year did you switch from a rootworm resistant seed with one MOA to a pyramided rootworm resistant seed?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | 2929 |

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|  | Completion Code for  Pest Management Data | |
|  | 1 Incomplete/Refusal | 0500 |

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

|  |  |  |  |
| --- | --- | --- | --- |
| 1. Including custom operations, I need to list field work performed  by machines on the selected field for the 2020 corn 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* 2019*, list operations starting*  *with fall 2018*]; | | | 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 Partner  3 Unpaid Worker  4 Paid Part-time or Seasonal Worker  5 Paid Full-time Worker  6 Custom Applicator |  |
|  |  |
|  | OFFICE USE  LINES IN TABLE |
| 0499 |

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|  |  |  |  |  | [IF CUSTOM (*column 5 = Code 6* ), *skip columns 6-11*] | | | | | | | |
|  | 2 | 3 | 4 | 5 | 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 Feet  2 Row  3 Moldboard   (*bottoms*)  Hauling  4 Pounds  5 Bushels  6 Tons | How  many  acres  were  covered?  [*Exclude*  *land forming*  *and*  *hauling*  *operations*] | | How many TOTAL HOURS were spent on land forming, or hauling?  [*Example: backhoes, disk border maker, ditcher, rear mounted blade, trucks, wagons, forklifts, etc.*] | Which Power Source  was used? 1/  Tractors:  1= (<40 HP)  2= (40-99 HP)  3= (100-149 HP)  4= (150-199 HP)  5= (>=200 HP)  Other:  66=Animal Drawn  77=Pick-up  99=Self Propelled  1/ | | What was the fuel type of the tractor?  [*Record fuel type only if Power Code equals 1-5*]  1=diesel  2=gasoline  3=LP gas  4=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 |
| 14 | 87 |  | 88 | 89 | 90 | 91 | 92 | .\_\_\_ | 93 | 94 | | 95 |
| 15 | 87 |  | 88 | 89 | 90 | 91 | 92 | .\_\_\_ | 93 | 94 | | 95 |
| 16 | 87 |  | 88 | 89 | 90 | 91 | 92 | .\_\_\_ | 93 | 94 | | 95 |
| 17 | 87 |  | 88 | 89 | 90 | 91 | 92 | .\_\_\_ | 93 | 94 | | 95 |
| 18 | 87 |  | 88 | 89 | 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 | |
|  | | | | | | | | | | | 0400 | |

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

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| --- |
| Please report the paid and unpaid labor that worked on the selected field to produce the 2020 corn 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 for  weeds, insects  and diseases?  HOURS | | | irrigating?  HOURS | | | performing  other work  by hand?  HOURS | |
| You (*the operator*) | 1101 |  | | 1102 | |  | 1103 |  |
| Partner(s) | 1104 |  | | 1105 | |  | 1106 |  |
| Unpaid workers | 1107 |  | | 1108 | |  | 1109 |  |
| Paid part-time or seasonal workers  (*Exclude custom and contract labor*) | 1110 |  | | 1111 |  | | 1112 |  |
| Paid full-time workers  (*Exclude custom and contract labor*) | 1113 |  | | 1114 |  | | 1115 |  |
|  |  | |  | | | | | |

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| --- | --- | --- | --- | --- | --- | --- |
| 3. What was the average hourly wage rate paid to part-time or seasonal hired workers on the selected field? Part-time workers are defined as those who worked for ages or salaries for less than 30 hours a week on average. EXCLUDE custom and contract workers, payroll taxes and benefits*.* . . . . . . . . . . . | Dollars & Cents  Per Hour | | OR | Total Dollars per Week | AND | Number of Hours Worked Each Week |
| 1119 | .\_\_\_ \_\_\_ |  | 2119 |  | 3119 |
| 3. What was the average hourly wage rate paid to full-time hired workers on the selected field? EXCLUDE custom and contract workers, payroll taxes and benefits*.* . . . . . . . . . . . | Dollars & Cents  Per Hour | | OR | Total Dollars per Week | AND | Number of Hours Worked Each Week |
| 1119 | .\_\_\_ \_\_\_ |  | 2119 |  | 3119 |

|  |  |  |  |
| --- | --- | --- | --- |
|  | | Code | |
| 5. Was any contract labor used on the selected field? . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | Yes = 1  No = 3 | 1116 | |
| [If YES, ask --- | | Dollars & Cents  Per Acre | | |
| a. What was the average cost per acre for this contract labor?  (*Include operator, landlord, and contractor costs*.). . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | 1117 | .\_\_\_ \_\_\_ |

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| --- | --- |
|  | Percent |
| 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.*) . . . . . . . | 1120 |

|  |  |  |
| --- | --- | --- |
| 7. Now I need some information on how much was spent (or will be spent) for custom services used on this  field for the 2020 corn crop. | | |
|  | | |
| 🗸 | 1  CUSTOM SERVICE  Which of the following services were performed  for the 2020 corn crop on the selected field?  🡨 [*Check box for each service performed; refer to item 1 if necessary*.] | 2  Including  operator, landlord,  and contractor costs,  how much was spent  for [*column 1*] on  the selected field for the 2020  corn 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 | .\_\_\_ \_\_\_ |
|  | 1. Custom 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) . | 1126 | .\_\_\_ \_\_\_ |
|  | [If custom harvesting, module building, and hauling from field to storage or point of sale cannot be separated, ask -- | | |
|  | 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 | .\_\_\_ \_\_\_ |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | | | |  | Code | |
| 1. Was the corn harvested and hauled from the selected field dried (or will be dried) before it was sold or stored? | | | | Yes = 1  No = 3 | xxxx | |
| 1. 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 = 1  No = 3 | 1196 | |
| [If item 9 = 1 continue, otherwise go to item 12]   1. Which of the following technical or consultant services did you obtain to make recommendations for the selected field? | |  | | | Code | |
| a. Nutrient recommendations/management service?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | 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 | |

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| --- | --- | --- | --- | --- | --- |
| 11. If YES to any of these services in item 10a-g, 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 | |
| 36 | .\_\_ \_\_\_\_ |  | 1137 |  |

|  |  |  |
| --- | --- | --- |
| 12. **Please report how any data from the selected field in 2020 will be stored and accessed.**  [*Enter code “1” for all that apply.*] | |  |
| a. Did you access data collected from the selected field on a -- |  | **CODE** |
| (i) Paper hard copy?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** | 2485 |
| (ii) Personal computer?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** | 2486 |
| (iii) Mobile device?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** | 2487 |
| b. Did you access data collected from the selected field through an agricultural technology provider website? . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | **YES = 1** | 2488 |
| [*If item 12b = 1, 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** | 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** | 2490 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | Code | |
| 13. Were there (*or will there be*) any data collection tools (yield monitors, GPS mapping, etc.) used during field operations on this corn field? . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | | | Yes = 1  No = 3 | | 2460 | |
| [If YES, continue; else go to Item 14] | | | | | | | |
| Please report the data collection technologies you used on the selected field to produce this crop. Also indicate if the data is collected with Global Positioning System (GPS) coordinates and if the data will be used to create a map. (In the fifth column, report how much it would cost you to replace the data collection tool. In the sixth column, report the annual costs of using the data collection tool. 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, leave that row 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 13a column 2 = 1, continue, otherwise go to item 16.]

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 14. Did you use the yield monitor information to--- | | | | | | | Code | | | |
| 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 | | | xxxx | | | | | |
| [If any of item 13 column 2 = 1, continue, otherwise go to item 16.]  15. Using data collected from the previous tools table in item 13, did you obtain crop management recommendations, such as data interpretation, in 2020 for the selected field from any of the following-- | | | | | | | | | Code |
| a. Input dealers without other fee-for-services?.. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | | | | Yes = 1  No = 3 | | | 2491 | | |
| b. Input dealers 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 | | | | | | |

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| --- | --- | --- |
|  |  | Code |
| 1. Did you use an unmanned aerial vehicle (UAV, known as a drone) to produce corn on the selected field in 2020? . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | Yes = 1  No = 3 | xxxx |
| [If item 16 = Yes, then ask -- ]   1. For which of the following purposes did you use the UAV on the selected field? Answer all that apply. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | Code |
| 1. Weed analysis? . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | Yes = 1  No = 3 | xxxx |
| 1. Spraying herbicide or fungicide? . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | Yes = 1  No = 3 | xxxx |
| 1. Insect analysis? . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | Yes = 1  No = 3 | xxxx |
| 1. Insect control? . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | Yes = 1  No = 3 | xxxx |
| 1. Yield analysis? . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | Yes = 1  No = 3 | xxxx |
| 1. Moisture analysis? . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | Yes = 1  No = 3 | xxxx |
| 1. Equipment check? . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | Yes = 1  No = 3 | xxxx |
|  |  | Code |
| 1. Did you purchase the UAV? . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | Yes = 1  No = 3 | xxxx |
| If 16b = Yes, then ask – |  | Total Dollars |
| i. What is the replacement cost of the UAV? . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  |  |
|  |  | Code |
| 1. Do you pay an annual fee for use of UAV? . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | Yes = 1  No = 3 | xxxx |
| If 16c = Yes, then ask -- |  | Total Dollars |
| i. What is the annual fee for use of the UAV? . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | xxxx |

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| --- | --- | --- |
| 15. **Was any of the following GPS-enabled** (Global Positioning System) **equipment used to produce crops on the selected field?** [*Enter code “1” for all that apply*.] |  | **CODE** |
|  |  |  |
| a. Mounted in-cab heads-up displays?. . . . . . . . | **YES = 1** | 2149 |
|  |  |  |
| 1. Smartphones or computer tablets?. . . . . . . . . . . . . . . .. | **YES = 1** | 1152 |
| c. Automatic section control, such as auto sprayer boom controls or automatic section shut offs? |  |  |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 1. 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.) . . . . . . . . . . . . . . . | | Dollars & Cents Per Acre | | | OR | Total Dollars | |
| .\_\_\_\_ \_\_\_\_ | | |  |  | |
|  | | | | | | | Code |
| 19. Was guidance auto-steering (excluding Light Bar) used on the selected field?. . . . . . . . . . . . . | | | | Yes = 1  No = 3 | | | xxxx |
| [If 18=1, ask--] | | | |  | | | Code |
| a Was the guidance auto-steering equipment: . . . . . . . . . . . . . | 1. New, owned 2. Used, owned   3 Leased | | . . . . | | | | xxxx |
|  | | | |  | | | Year |
| b. What year was guidance auto-steering first purchased?. . . . . . . . . . . . . . . . . . . . . . . . . . . | | | |  | | | \_\_ \_\_ \_\_ \_\_ |

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|  | | Dollars & Cents  Per Acre | | | | Or | Total Dollars | | |
| c. What is the replacement cost for guidance auto-steering equipment?. . . . | | 2160 | | .\_\_\_ \_\_\_ | |  | 2161 | | |
|  | | Dollars & Cents  Per Acre | | | | | Or | Total Dollars | |
| d. What is the annual fee for guidance auto-steering?. . . . . . . . . . . . . . . . . . | |  | | .\_\_\_ \_\_\_ | | |  |  | |

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|  | | Code |
| 20. Was a variable rate applicator used on the selected field? . . . . . . . . . . . . . . . . . . . . . . . . . . . . | Yes = 1  No = 3 | 2164 |

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| [If YES, continue; else go to Section G] |
| Please report the variable rate applicator types you used on the selected field to produce this crop. If a particular row’s variable rate applicator was not used, leave that row blank. |

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| 1 | 2 | 3 | 4 | 5 | 6 |
| Was a variable rate applicator used on the selected field for-- | Tool Used | Was this applicator—  1 Sensor-based  2 GPS-based  3 Both  4 Neither | Was this applicator—  1 New, owned  2 Used, owned  3 Leased | What year was the applicator first used? | Premium paid for the applicator |
|  | Yes = 1  No = 3 | Code | Code | Year | Total 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 |
| d. Irrigation Applications | xxxx | xxxx | xxxx | xxxx | xxxx |

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| G | IRRIGATION | G |

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| 1. How many acres in the selected field were irrigated for the 2020 corn crop?  [*If none, go to Conclusion*]. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | ACRES | |
| 1160 | .\_\_\_ |
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| 2. Now, I have some questions about irrigation systems and water used on the selected field  for the 2020 corn crop. | | |

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| ↓ | | Unit | System 1 | |
| a. What type(s) of irrigation system(s) was (*or were*) used to irrigate  the selected field? [*Show System Type Codes in the Respondent Booklet. Enter System Type Code for 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 field during the corn 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  corn 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 2020 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*.). . . . . . . . . . . . . . . . . . . . . . . | | 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 |

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| a. What was the total cost for the water purchased for the selected field  during the 2020 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*---] | TOTAL DOLLARS |
| 5. What would be the total cost to replace all the siphon tubes used on the selected field? . . . . . . . . . . . . | 1201 |

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| [*If POLY PIPE system was used* (item 2a = 14) *ask*---] | TOTAL DOLLARS |
| 6. What was the total amount spent for poly pipe used on the selected field during the  2020 growing season? (*Include operator, landlord, and contractor costs*.). . . . . . . . . . . . . . . . . . . . | 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 |

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| 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 2020 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 Conclusion*] | |
|  | 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 corn on this map. | | | COUNTY NAME | | | | OFFICE USE  COUNTY FIPS CODE | |
| 2. What county is the selected corn field in?. . . . . . . . . . | | |  | | | |  | 0010 |
|  | | |  | | | |  |  |
| Field description. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | |  | | | | | |
| FOR STATES WITH GPS UNITS ONLY |  | LATITUDE | |  | LONGITUDE | | | |
| Field location. . . . . . . . . . . . . . . . . . . . . . . . . | N | 0054 | \_\_\_ \_\_\_. \_\_\_ \_\_\_. \_\_\_ \_\_\_ | W | 0055 | \_\_\_ \_\_\_ \_\_\_. \_\_\_ \_\_\_. \_\_\_ \_\_\_ | | |
|  |  |  | *d d m m s s* |  |  | *d d d m m s s* | | |
| 3. [ENUMERATOR ACTION: *Mark map to indicate where the selected corn field is located*.   *Be sure the “X” marked on map is in the county identified above*.] | | | | | | | | |
| 4. We will need additional information to complete this study. We will contact you in February  or March 2017 to collect it. I’ll call you then to set up a time that is good for you. | | | | | | | | |

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| 5. To receive the complete results of this survey on the release date, go to  www.nass.usda.gov/results/. Would you rather have a brief summary  mailed to you at a later date?. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | CODE | |
| YES = 1 | 9990 | |
|  |  | HH MM | |
| 6. ENDING TIME [*MILITARY*]. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | 0005  \_\_ \_\_ \_\_ \_\_ | |
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| RECORDS USE | | | | | |
| 7. [*Did respondent use farm/ranch records to report---*] | | | | | CODE |
| a. [*fertilizer data*?]. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | | | YES = 1 | 0011 |
| b. [*pesticide data?*]. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | | | YES = 1 | 0012 |
| c. [*majority of this expense data*?]. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | | | YES = 1 | 0013 |
|  | | | | | NUMBER |
| SUPPLEMENTS USED | | | FERTILIZER  APPLICATIONS | | 0041 |
| 8. [*Record the total number of each type of supplement*  *used to complete this interview.*]. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | | PESTICIDE  APPLICATIONS | | 0042 |
|  | | | FIELD  OPERATIONS | | 0043 |
|  | | | | | |
| Reported by:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | 9910  \_\_\_ \_\_\_ \_\_\_ \_\_\_ 16  M M D D | 9911  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-Comp  2-R  3-Inac  4-Office Hold | | 9901 | | 1-Op/Mgr  2-Sp  3-Acct/Bkpr  4-Partner  9-Other | | 9902 | 2-Tel  3-Face-to-Face | | | 9903 | 9998 | | 9989  \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ | | | |
| Eval. | | Change | |
| 9900 | | 9985 | |