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| **AGRICULTURAL RESOURCE MANAGEMENT SURVEY** |
|  | OMB No. 0535-0218Approval Expires: 7/31/2021Project Code: 906 SurveyID: 3247 Phase 2 |
|  |
|  |  | **NATIONAL****AGRICULTURAL****STATISTICS****SERVICE** |
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| --- |
| U.S. Department of AgricultureNational Operations Division9700 Page Avenue, Suite 400St. Louis, MO 63132-1547Phone: 1-888-424-7828Fax: 855-415-3687E-mail: nass@nass.usda.gov |

 |
| **SORGHUM PRODUCTION PRACTICES AND COSTS REPORT FOR 2019** |
|  | **VERSION****13** | **ID****\_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_** | **TRACT****01** | **SUBTRACT****\_\_\_ \_\_\_** | **C-TYPE****117** |  |
| **CONTACT RECORD** |
| DATE | TIME | NOTES |
|  |  |  |
|  |  |  |
|  |  |  |
|  INTRODUCTION:[Introduced yourself, and ask for the operator. Rephrase in your own words.]The information you provide will be used for statistical purposes only. Your responses will be kept confidential and any person who willfully discloses any identifiable information about you or your operation is subject to a jail term, a fine, or both. This survey is conducted in accordance with the Confidential Information Protection provisions of Title V, Subtitle A, Public Law 107-347 and other applicable Federal laws. For more information on how we protect your information please visit: https://www.nass.usda.gov/confidentiality. Response is voluntary.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 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 |  |

|  |
| --- |
| ☐[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  |

|  |  |  |
| --- | --- | --- |
| **A** | **SORGHUM FIELD SELECTION** | **A** |

|  |  |
| --- | --- |
|  | Total Planted Acres |
|

|  |  |
| --- | --- |
| 1. | How many acres of sorghum did this operation plant for the 2019 crop year?  |

 | 0050 |
| [If no acres planted, review Screening Survey Information Form, make notes, then go to item 4 on back page. |  |
| I will follow a simple procedure to make a random selection from the sorghum fields planted for the 2019 crop. | Total Number of Fields Planted |
|

|  |  |
| --- | --- |
| 2. | What is the total number of sorghum fields that were planted on this operation?  |

 | 0020 |
| [If only one field, enter "1" and go to item 5.] |  |
|

|  |  |
| --- | --- |
| 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 |

|  |  |
| --- | --- |
| 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 |
|  |  |
|

|  |  |
| --- | --- |
| 4. | The field selected is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (field name/number/description). During this interview, the sorghum questions will be about this selected sorghum field. [Be sure the operator can identify the selected field.] |

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| --- | --- |
| 5. | 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 |
|  |  |
|  | OFFICE USEOY Field Substituted |
|  | 0022 |

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

|  |  |
| --- | --- |
|  | Acres |
|

|  |  |
| --- | --- |
| 1. | How many acres of sorghum did this operation plant in the selected field for the 2019 crop?  |

 | 1301 |
|  | Code |
|

|  |  |  |
| --- | --- | --- |
|  | a. | Are the acres in the selected field Certified Organic?  |

 | Yes=1No=3 | 1300 |
|

|  |  |  |
| --- | --- | --- |
|  | b. | Was the selected field transitioning into organic sorghum production in 2019?  |

 | Yes=1No=3 | 1399 |
|  |  |
|

|  |  |
| --- | --- |
| 2. | Were the acres in the selected field--  |

 | 1 owned by this operation?2 rented for cash with the payment being a fixed cash amount3 rented for cash with the payment being a flexible cash amount?4 rented or a share of the crop?5 rented for some combination of cash and share of the crop?6 used rent free? |   | Code |
| 1302 |
|  |
|  |

|  |  |
| --- | --- |
| [If field is cash rented (item 2 = 2, 3, or 5), ask item 3, otherwise go to item 4.] | Dollars & Centsper Acre |
|

|  |  |
| --- | --- |
| 3. | What was the cash rent paid per acre for this 2019 sorghum field?  |

 | 1303 | **.** \_\_\_ \_\_\_ |
| [If field is share rented (item 2 = 4 or 5), ask--] | Percent |
|

|  |  |
| --- | --- |
| 4. | What was the landlord's share of the crop from the selected field?  |

 | 1304 |
| [If field is rented (item 2 = 2, 3, 4, 5, or 6) ask--] |  |  |  |
|

|  |  |
| --- | --- |
| 5. | What was the total cost for all inputs provided by any landlord for the 2019 crop on the selected field? INCLUDE the costs for all inputs, such as seed, fertilizer, chemicals, technical services, custom operations, and irrigation. EXCLUDE real estate tax expenses and lime costs paid by the landowner.)  |

 |  | **OR** |  |
| Dollars & Cents per Acre | Total Dollars |
| 1305 | **.** \_\_\_ \_\_\_ | 1306 |
|  |  |  |  | Year |
|

|  |  |
| --- | --- |
| 6. | In what year did you (the operator on the label) start operating the selected field?  |

 | 1312 \_\_\_ \_\_\_ \_\_\_ \_\_\_ |
|  | MM DD YY |
|

|  |  |
| --- | --- |
| 7. | On what date was the selected field planted?  |

 | 1308 \_\_ \_\_ \_\_ \_\_ \_\_ \_\_ |
|

|  |  |  |
| --- | --- | --- |
|  | a. | What was your yield goal at planting for the selected field?  |

 | **Units per Acre** |   |  |  Unit Codes1 Pounds2 CWT3 Tons4 Bushels |
| 1322 | **.** \_\_\_  | 1323 |
|  |  |
|

|  |  |
| --- | --- |
| 8. | Was the sorghum on the selected field planted with the intention of being harvested as--  |

 | 1 Grain2 Silage4 Seed25 Other |   | Code |
| 1327 |
|  |

|  |  |
| --- | --- |
|  | Inches |
|

|  |  |
| --- | --- |
| 9. | What was the average sorghum row width for the selected field?  |

 | 1322 |
|  |  |
|

|  |  |
| --- | --- |
| 10. | What was the source of the sorghum seed--  |

 | 1 Purchased?2 Homegrown or traded?3 Both? |   | Code |
| 1317 |
| [If item 10 = 2 or 3, ask--] | Percent |
|

|  |  |  |
| --- | --- | --- |
|  | a. | How much of the sorghum seed plated in the selected field was grown (or received in trade) by this operation?  |

 | 1318 |
|  | Dollars & Cents per Bushel |
|

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | i. | What was the cost per bushel for cleaning and treating this seed?  |

 | 1321 | **.**\_\_\_ \_\_\_ |
|  |  |  | 1242223 |  Unit Code Pound CWT Bushel Acre 50 Pound Bag |
|

|  |  |
| --- | --- |
| 11. | What was the total cost per unit (including operator, landlord, and contractor costs) of purchased seed for the selected field? INCLUDE cost of seed treatment and any seed technology fee.)  |

 | Dollars & Cents per Unit |  |
| 1319 | **.**\_\_\_ \_\_\_ | 1320 |
|  |  |  | 12423 |  Unit Code Pound CWT Bushel 50 Pound Bag |
|

|  |  |
| --- | --- |
| 12. | What was the seeding/planting rate per acre the first time the selected field was planted?  |

 | Units per Acre |  |
| 1313 | **.**\_\_\_ | 1314 |
|  |  |  |  |
|

|  |  |
| --- | --- |
| 13. | For the 2019 sorghum crop, was the sorghum seed--  |

 | 1 Treated with a pesticide prior to purchase?2 Treated with a pesticide after purchase?3 Not treated with a pesticide? |  | Code |
| 3062 |
|   |
| [If item 11 = 1 or 2, ask --] |  | Seed Treatment Name |  |
|

|  |  |  |
| --- | --- | --- |
|  | a. | What was the name of the seed treatment? Write seed treatment name in the box provided.  |

 |  |  |
|  |  |
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| --- | --- | --- |
|  | b. | What was the seed treatment code? Enter the appropriate seed treatment code from the Respondent Booklet (Pages 3 - 4), Enter "999" if a seed treatment was applied but is not listed. Enter "-1" if the seed treatment is not known.)  |

 | Code |
| 2325 |
|

|  |  |
| --- | --- |
| 14. | For the 2019 sorghum crop, did you plant a commercial seed product on the selected field?  |

 | Yes=1No=3 | 2340 |
| [If item 13 = 1, ask--] |  |  |
|

|  |  |  |
| --- | --- | --- |
|  | a. | What was the name of the seed product? Write the seed product name in the box provided (e.g. DKS30-28, MS9GB57, 722B, HG 35-W)  |

 | Commercial Seed Product Name |  |
|  |
|  | Acres |
|

|  |  |
| --- | --- |
| 15. | How many acres in he selected field had to be replanted to sorghum? (Acres replanted = number of acres x number of times replanted)  |

 | 1315 |
|  |  | Code |
|

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| --- | --- |
| 16. | Has harvest of the selected field been completed?  |

 | Yes=1No=3 | 1328 |

|  |  |  |
| --- | --- | --- |
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| --- | --- |
| 17. | Now I need information about the acres harvested or to be harvested and the yields from the selected field. |

 |
|  | Acres | What yield per acre did you or do you expect to get for sorghum--Units per Acre |  |  Unit Code1 Pounds2 CWT3 Tons4 Bushels Code |
| How many acres in this sorghum field were or will be-- |
|

|  |  |  |
| --- | --- | --- |
|  | a. | harvested for grain or seed?  |

 | 1346 | **.**\_\_\_ | 1347 | **.**\_\_\_ | 1348 |
|

|  |  |  |
| --- | --- | --- |
|  | b. | harvested for grain, ratoon crop?  |

 | 1336 | **.**\_\_\_ | 1337 | **.**\_\_\_ | 1338 |
|

|  |  |  |
| --- | --- | --- |
|  | c. | harvested for silage or green chop?  |

 | 1349 | **.**\_\_\_ | 1350 | **.**\_\_\_ | Tons |
|

|  |  |  |
| --- | --- | --- |
|  | d. | harvested for silage or green chop, ratoon crop?  |

 | 1352 | **.**\_\_\_ | 1353 | **.**\_\_\_ | Tons |
|

|  |  |  |
| --- | --- | --- |
|  | e. | abandoned?  |

 | 1351 | **.**\_\_\_ |  |  |
|

|  |  |  |
| --- | --- | --- |
|  | f. | used for some other purpose?  |

 | 1439 | **.**\_\_\_ |  |  |

|  |  |
| --- | --- |
|  | Code |
|

|  |  |
| --- | --- |
| 18. | Did any livestock graze this sorghum field after harvest of the 2019 sorghum crop?  |

 | 1400 |
|  |  |
|

|  |  |
| --- | --- |
| 19. | What type of livestock grazed this sorghum field after harvest of the 2019 sorghum crop?  |

 | 1 Cattle2 Sheep3 Other [Specify:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_] |   | Code |
| 1361 |
|  | Head |
|

|  |  |  |
| --- | --- | --- |
|  | a. | About how many head of livestock grazed on the selected sorghum field?  |

 | 1362 |
|  | Number of Days |
|

|  |  |  |
| --- | --- | --- |
|  | b. | How many days did this livestock graze on the selected field?  |

 | 1363 |
|  | Code |
|

|  |  |
| --- | --- |
| 20. | Was any of the residue from the prior crop (corn stover, wheat straw, etc.) removed post-harvest?  |

 | Yes=1No=3 |  |
| [If item 20 = 1 ask--] | Tons |
|

|  |  |
| --- | --- |
| 21. | How many tons per acre of residue were removed through harvest?  |

 | 1328 |

|  |
| --- |
| Crop Code List for item 24 - 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 |  |  |
|

|  |  |
| --- | --- |
| 22. | Please report the history of crops on the majority of the selected field, including cover crops. |

 |
|  |
| 1 | 2 | 3 | 4 | 5 |
|  | Was this a cover crop? | How did you manage this cover crop? | Was the selected field irrigated? | Was the selected field no-till or strip-tilled?1/ |
| Season and Year | Crop Name | Crop Code | Yes=1No=3 | 1 Tilled-in2 Herbicide3 Rolled4 Grazed5 Harvested for forage6 Harvested for grain | Yes=1No=3 | Yes=1No=3 |
|

|  |  |  |
| --- | --- | --- |
|  | a. | Spring/Summer of 2019?  |

 | Sorghum | 240 |  |  | 2345 | 1344 |
|

|  |  |  |
| --- | --- | --- |
|  | b. | Fall of 2018?  |

 |  | 1343 | 1470 | 1471 | 2344 | 1345 |
|

|  |  |  |
| --- | --- | --- |
|  | c. | Spring/Summer of 2018?  |

 |  | 1369 | 1472 | 1473 | 2370 | 1371 |
|

|  |  |  |
| --- | --- | --- |
|  | d. | Fall of 2017?  |

 |  | 1372 | 1474 | 1475 | 2373 | 1374 |
|

|  |  |  |
| --- | --- | --- |
|  | e. | Spring/Summer of 2017?  |

 |  | 1375 | 1476 | 1477 | 2376 | 1377 |
|

|  |  |  |
| --- | --- | --- |
|  | f. | Fall of 2016?  |

 |  | 1378 | 1478 | 1479 | 2379 | 1380 |
|

|  |  |  |
| --- | --- | --- |
|  | g. | Spring/Summer of 2016?  |

 |  | 1381 | 1480 | 1481 | 2382 | 1383 |
|

|  |  |  |
| --- | --- | --- |
|  | h. | Fall of 2015?  |

 |  | 1366 | 1482 | 1483 | 2367 | 1368 |
|

|  |  |  |
| --- | --- | --- |
|  | i. | Spring/Summer of 2015?  |

 |  | 1340 | 1484 | 1485 | 2341 | 1342 |
|

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| --- | --- |
|  | 1/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 Sprig/Summer/Fall 2018, ask--] | Dollars & Cents per Acre |
|

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| --- | --- | --- |
|  | j. | What was the seed cost per acre for the cover crop?  |

 | 1468 | **.**\_\_\_ \_\_\_ |
|

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| --- | --- | --- |
|  | k. | What was the per-acre cost-share or financial assistance payments received for the cover crop? Enter zero if no program payment was received. |

 | 1495 |

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| 23. | 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) requirements. Producers who receive farm program payments are required to have and apply a written soil conservation plan. A "written plan" is a plan prepared in accordance with Federal, State, or district standards.  |

 | Yes=1No=3 |  |
| Code |
| 1404 |
|

|  |  |
| --- | --- |
| 24. | Do you have a conservation plan that specified practices to control soil erosion?  |

 | Yes=1No=3 |  |
|

|  |  |
| --- | --- |
| 25. | 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=1No=3 | Code |
| 1405 |

|  |  |  |  |
| --- | --- | --- | --- |
|  | 1 Nearly level 0-2%2 Even, moderate grade 3 -9%3 Variable, moderate grade4 Even, steep grade over 10%5 Variable, steep grade |  | Code |
|

|  |  |
| --- | --- |
| 26. | What is the slope of the selected field?  |

 |   | 2400 |
|  |  |  |
|  |  |  |  |
|  | 1 Loam2 Clay3 Sandy4 Mixed5 Silty |  | Code |
|

|  |  |
| --- | --- |
| 27. | What is the primary soil texture of the select field?  |

 |   | 2401 |
|  |  |  |
|  |  |  |  |
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| --- | --- |
| 28. | Next we will ask about soil and water concerns that you have on the selected field. |

 |
|  |  |  |  |
|  |  | 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? | Code | 1 2 3 4  | USDA - NCRSCooperative Extension ServiceOther USDA staff, including Forest ServiceOther (e.g. Soil and Water Conservation District, state agency |
|  | Yes=1No=3 | Source 1 | Source 2 |
|

|  |  |  |
| --- | --- | --- |
|  | a. | Water-driven erosion  |

 | 2407 | 2417 | 2427 |
|

|  |  |  |
| --- | --- | --- |
|  | b. | Wind-driven erosion  |

 | 2408 | 2418 | 2428 |
|

|  |  |  |
| --- | --- | --- |
|  | c. | Soil compaction  |

 | 2409 | 2419 | 2429 |
|

|  |  |  |
| --- | --- | --- |
|  | d. | Poor drainage  |

 | 2410 | 2420 | 2430 |
|

|  |  |  |
| --- | --- | --- |
|  | e. | Low organic matter  |

 | 2411 | 2421 | 2431 |
|

|  |  |  |
| --- | --- | --- |
|  | f. | Water quality  |

 | 2412 | 2422 | 2432 |
|

|  |  |  |
| --- | --- | --- |
|  | g. | Other concerns  |

 | 2413 | 2423 | 2433 |
|

|  |  |  |
| --- | --- | --- |
|  | h. | \*No significant concerns  |

 | 2414 |  |  |
| \*Enumerator Note: Enter Yes=1 for item h, No significant concerns, only if the respondent replies No=3 to all other  concerns (items a - g). |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
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| --- | --- |
| 29. | 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 Code1 Current2 Past3 Never |
|

|  |  |  |
| --- | --- | --- |
|  | a. | Environmental Quality Incentives Program  |

 | 2611 |
|

|  |  |  |
| --- | --- | --- |
|  | b. | Conservation Stewardship Program  |

 | 2612 |
|

|  |  |  |
| --- | --- | --- |
|  | c. | Conservation Reserve Program  |

 | 2613 |
|

|  |  |  |
| --- | --- | --- |
|  | d. | Other Federal, State, Local, or non-Government source  |

 | 2614 |

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| --- | --- | --- |
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| 30. | 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. |

 |
|

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| --- | --- | --- |
|  | 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 | ☐ 11 | Water and sediment basins | ☐ 30 | Implement an integrated pest management plan - written plan |
| ☐ 2 | Conservation tillage except no-till | ☐ 12 | Grass waterway | ☐ 31 | Drift reducing spray nozzles |
| ☐ 3 | Cover crop - single species | ☐ 13 | Grade stabilization | ☐ 32 | Targeted sprayer - electrical control |
| ☐ 4 | Cover crop mix | ☐ 40 | Implement an energy management plan-written plan |  | **Adjacent to Field** |
| ☐ 5 | Contour farming | ☐ 20 | Implement a nutrient management plan - written plan | ☐ 33 | Filter strip |
| ☐ 6 | Conservation crop rotation | ☐ 21 | Precision nutrient application | ☐ 34 | Field border |
| ☐ 10 10 | Terraces | ☐ 22 | Subsurface phosphorous application | ☐ 35 | Riparian buffer - grass or forest |
|

|  |  |  |
| --- | --- | --- |
|  | b. | For each practice or activity checked in 30a, please complete one line of this table. |

 |
|  |
| 1 | 2 | 3 | 4 | 5 |
| Practice or Activity on the selected field | Practice Code(see item 30a) | On the selected field for this practice, have you ever received at any time-- | Does this practice or activity help satisfy-- | Was this practice or plan used on the selected field in 2019? |
| Technical or planning assistance? | Financial Assistance? |
| 123 | USDA NRCS field staff, cooperative extension, or technical service providersOther sources of outside Assistance, such as Soil and Water Conservation Service or a conservation organizationNo assistance needed | 12345 | Environmental Quality Incentives Program (EQIP)Conservation Stewardship Program (CSP)Conservation Reserve Program (CRP)Other Federal, lState, and Local ProgramsNo Assistance Needed | 123 | A federal regulatory requirementHighly erodible land complianceDoes not relate to any regulation or compliance requirement | Yes=1No=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 |

|  |  |
| --- | --- |
|  | Code |
|

|  |  |
| --- | --- |
| 31. | In 2019, was the sorghum in the selected field covered by a single or named peril crop insurance policy (e.g. hail, replant, wind, freeze)?  |

 | Yes=1No=3 | 2520 |
| [If item 31=1, ask, otherwise go to item 37.] |  |  |
|

|  |  |  |
| --- | --- | --- |
|  | a. | In 2019, was the sorghum in the selected field covered by more than one single or named peril crop insurance policies (e.g. hail, replant, wind, freeze)?  |

 | Yes=1No=3 | 2517 |
|  | Dollar & Cents per Acre |
|

|  |  |  |
| --- | --- | --- |
|  | b. | What was the dollar amount of coverage per acre for the single peril policy covering the selected field?  |

 | 2521 | **.**\_\_\_ \_\_\_ |
|  | Percent |
|

|  |  |  |
| --- | --- | --- |
|  | c. | What was the percent deductible for the single peril policy covering the selected field? Record no deductible as "0".  |

 | 2522 |  |
|  | Dollar & Cents per Acre |
|

|  |  |  |
| --- | --- | --- |
|  | d. | What premium cost per acre did you pay for the single peril policy covering the selected field?  |

 | 2523 | **.**\_\_\_ \_\_\_ |
|  | Code |
|

|  |  |  |
| --- | --- | --- |
|  | e. | Did you or will you collect an indemnity payment for the selected field from the single peril policy during 2019?  |

 | Yes=1No=3 | 1394 |
|  |  | Code |
|

|  |  |
| --- | --- |
| 32. | In 2019, was the sorghum in the selected field covered by a multi-peril crop insurance policy?  |

 | Yes=1No=3 | 1385 |
| [If item 32 = 1 continue, otherwise go to Section C] |  |
|

|  |  |
| --- | --- |
| 33. | Which coverage did you obtain?  |

 | 1 Federal CAT - basic catastrophic insurance2 Yield based3 Revenue based4 Other multi-peril crop insurance |   | Code |
| 1385 |
| [If item 32a = 2, ask--] | Percent |
|

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | i. | What percent of yield coverage did you select for the selected field?  |

 | 1387 |
|

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | ii. | What percent of price coverage did you select for the selected field?  |

 | 1388 |
| [If item 32a = 3, ask-- | Percent |
|

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | iii. | What percent of revenue coverage did you select for the selected field?  |

 | 1389 |
|  | Code |
|

|  |  |  |
| --- | --- | --- |
|  | a. | What type of unit coverage did you purchase for the selected field?  |

 | 1 Basic2 Optional3 Enterprise |   | 2524 |
|  | Year |
|

|  |  |  |
| --- | --- | --- |
|  | b. | In what year did you, the operator listed on the label, first purchase multi-peril crop insurance on the selected field?  |

 | 2525 \_\_\_ \_\_\_ \_\_\_ \_\_\_  |
|  | Bushels per Acre |
|

|  |  |  |
| --- | --- | --- |
|  | c. | What is the 2019 Approved Actual Production History (APH) yield for the selected field?  |

 | 2526 |
|  | Dollars & Cents per Acre |
|

|  |  |  |
| --- | --- | --- |
|  | d. | What was the premium paid for multi-peril crop insurance for the selected field in 2019? EXCLUDE any sign-up fee. |

 | 2527 | **.**\_\_\_ \_\_\_ |
|  | Code |
|

|  |  |  |
| --- | --- | --- |
|  | e. | Did you or will you collect an indemnity payment for the selected field from multi-peril crop insurance during 2019?  |

 | Yes=1No=3 | 2528 |
| **C** | **NUTRIENT or FERTILIZER APPLICATIONS--**SELECTED FIELD | **C** |

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | Code | Edit Table |
|

|  |  |
| --- | --- |
| 1. | Were commercial nutrients or fertilizers applied to the selected field for the 2019 sorghum crop?  |

 | Yes=1No=3 | 0202 | 0201 |
| [If item 1 = 1 continue, otherwise go to item 7] | Number |
|

|  |  |
| --- | --- |
| 2. | How many commercial nutrient or fertilizer applications were made to the selected field for the 2019 crop? INCLUDE applications made by airplanes and custom applicators.  |

 | 0203 |
|

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

 |
|  | **CHECKLIST** |  |  |  |
|  | INCLUDE |  | EXCLUDE |  |  |  |
| ☐ | Custom applied nutrients or fertilizers | ☐ | Micronutrients |  |  |  |
| ☐ | Nutrients or fertilizers applied in the fall of2018 and those applied earlier if the selected field was fallow in 2018. | ☐ | Unprocessed manure |  |  |  |
|  | ☐ | Nutrients or fertilizers applied to previous crops in the selected field |  | T-Type2 | Table001 |
| ☐ | Commercially prepared manure or compost | ☐ | Lime and gypsum/landplaster | Line99 | Office UseLines in Table | 0213 |

|  |  |
| --- | --- |
|  | Application Codes for Column 6 |
|  | 1 Broadcast, ground without incorporation2 Broadcast, ground with incorporation3 Broadcast, by aircraft4 In seed furrow | 5 In irrigation water6 Chisel/injected or knifed in7 Banded in or over row8 Foliar or directed spray |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2 | 3 | 4 | 5 | 6 | 7 |
|  | Materials Used[Enter percentage analysis or actual pounds of plant nutrients applied per acre.][Show Common Nutrients or Fertilizers in Respondent Booklet] | What quantity was applied per acre?[Leave this column blank if actual nutrients were reported] | [Enter material code]1 Pounds12 Gallons19 Pounds of actual nutrients | 1234 | When was this applied?In the fall before seedingIn the spring before seedingAt seedingAfter seeding | How was this applied?[Refer to code list above] | How many acres were treated in this application?Acres |
| NNitrogen | P2O5Phosphate | K2OPotash | SSulfur |
| 01 | 0205 | 0206 | 0207 | 0214 | 0208 | 0209 | 0210 | 0211 | 0212 | **.**\_\_\_ |
| 02 | 0205 | 0206 | 0207 | 0214 | 0208 | 0209 | 0210 | 0211 | 0212 | **.**\_\_\_ |
| 03 | 0205 | 0206 | 0207 | 0214 | 0208 | 0209 | 0210 | 0211 | 0212 | **.**\_\_\_ |
| 04 | 0205 | 0206 | 0207 | 0214 | 0208 | 0209 | 0210 | 0211 | 0212 | **.**\_\_\_ |
| 05 | 0205 | 0206 | 0207 | 0214 | 0208 | 0209 | 0210 | 0211 | 0212 | **.**\_\_\_ |
| 06 | 0205 | 0206 | 0207 | 0214 | 0208 | 0209 | 0210 | 0211 | 0212 | **.**\_\_\_ |
| 07 | 0205 | 0206 | 0207 | 0214 | 0208 | 0209 | 0210 | 0211 | 0212 | **.**\_\_\_ |
| 08 | 0205 | 0206 | 0207 | 0214 | 0208 | 0209 | 0210 | 0211 | 0212 | **.**\_\_\_ |

|  |  |  |  |
| --- | --- | --- | --- |
|  | T-Type0 | Table000 | Line00 |

|  |  |
| --- | --- |
|  | Code |
|

|  |  |
| --- | --- |
| 4. | Were any nutrients or fertilizers applied by custom applicators?  |

 | Yes=1No=3 |  |
| [If item 4=1 continue, otherwise go to item 5.] |  |
|

|  |  |  |
| --- | --- | --- |
|  | a. | Are you able to report the cost of nutrient or fertilizer materials and custom application separately?  |

 | Yes=1No=3 |  |
| [If item 4a =1 continue, otherwise go to item 5.] | Office Use |
|

|  |  |  |
| --- | --- | --- |
|  | 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. If material and application costs can't be separated, exclude them here and record the total in item 5. |

 |  |  | 0215 |
| Dollars & Centsper Acre | **OR** | Total Dollars |
| 0219 | **.**\_\_\_ \_\_\_ |  | 0220 |
|  |  |  |  |
|

|  |  |
| --- | --- |
| 5. | What was the total cost of all nutrient or fertilizer products applied to the selected field? INCLUDE operator, landlord, and contractor costs as well as the costs for sulfur and micronutrients. If custom applied and the cost of materials can be separated from application costs, include the cost of materials only; otherwise, include both the material and application costs. INCLUDE materials applied to the selected field if it was fallow in 2018. EXCLUDE lime, gypsum, purchased manure and purchased compost. |

 |  |  |  |  |
|  |  |  |  |
| Dollars & Centsper Acre | **OR** | Total Dollars |
| 0221 | **.**\_\_\_ \_\_\_ |  | 0222 |

|  |  |  |
| --- | --- | --- |
|  |  | Code |
|

|  |  |
| --- | --- |
| 6. | Was gypsum applied to the selected field for the 2019 sorghum crop?  |

 | Yes=1No=3 | 0218 |
|

|  |  |
| --- | --- |
| 7. | Was a soil test for soil organic matter performed on this sorghum field at some point in the last 10 years?  |

 | Yes=1No=3 | 3225 |
| [If item 7 = 1, ask--] |  | Percent |
|

|  |  |  |
| --- | --- | --- |
|  | a. | What was the percentage of soil organic matter on the field for the most recent test?  |

 |  3226 | **.**\_\_\_ \_\_\_ |
|  |  | Number |
|

|  |  |  |
| --- | --- | --- |
|  | b. | How many times have you tested the selected field for soil organic matter in the last 10 years?  |

 | 3227 |
| [If item 7b is more than 1, ask--] |  | Code |
|

|  |  |  |
| --- | --- | --- |
|  | c. | Based on these tests, is your soil organic matter content?  |

 | 1 Increasing2 Decreasing3 Staying roughly the same |   | 3228 |
|  |  |
|

|  |  |
| --- | --- |
| 8. | Was a soil or plant tissue test performed on this sorghum field in 2018 or 2019 for the 2019 crop?  |

 | Yes=1No=3 | 0225 |
| [If item 8 = 1, ask--] | Pounds per Acre |
|

|  |  |  |
| --- | --- | --- |
|  | a. | How many pounds of phosphorus per acre were recommended by the phosphorus test?  |

 | 0226 |
|  |  | Code |
|

|  |  |
| --- | --- |
| 9. | Was a soil test for nitrogen performed on this sorghum field in 2018 or 2019 for the 2019 crop?  |

 | Yes=1No=3 | 0227 |
| [If 9 = 1, ask--] |  | Pounds per Acre |
|

|  |  |  |
| --- | --- | --- |
|  | a. | How many pounds of nitrogen per acre were recommended by the nitrogen test?  |

 |  |

|  |  |  |
| --- | --- | --- |
|  |  | Code |
|

|  |  |
| --- | --- |
| 10. | Was a plant tissue test or leaf analysis for nutrient deficiency performed on the selected field for the 2019 crop?  |

 | Yes=1No=3 | 0229 |
|  | Dollars & Cents per Acre | **OR** | Total Dollars |
|

|  |  |
| --- | --- |
| 11. | 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 11b. |  |  |
|  |  |  |
|

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

 | 123 | Soil/plant tissue test provided free of charge by dealer, crop consultant, or extension serviceSoil/plant tissue test costs were included in the total fertilizer costs reported in item 5Some other reason |   | Code |
| 0232 |
|  |
|  |  |  |
|

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

 | Yes=1No=3 | 0321 |

|  |  |  |
| --- | --- | --- |
| [Enumerator Action: Refer to the Fertilizer Table, column 2. If nitrogen (N) was applied, complete item12. If no nitrogen applied, go to item 13.] |  |  |
|

|  |  |
| --- | --- |
| 12. | Was the amount of nitrogen you decide to apply to the selected field based on-- |

 |  | Code |
|

|  |  |  |
| --- | --- | --- |
|  | a. | Results of a soil or plant tissue test?  |

 | Yes=1No=3 | 0233 |
|

|  |  |  |
| --- | --- | --- |
|  | b. | Crop consultant recommendation?  |

 | Yes=1No=3 | 0234 |
|

|  |  |  |
| --- | --- | --- |
|  | c. | Fertilizer dealer recommendation?  |

 | Yes=1No=3 | 0235 |
|

|  |  |  |
| --- | --- | --- |
|  | d. | Extension Service recommendation?  |

 | Yes=1No=3 | 0236 |
|

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

 | Yes=1No=3 | 0237 |
|

|  |  |  |
| --- | --- | --- |
|  | f. | Contractor recommendation?  |

 | Yes=1No=3 | 0238 |
|

|  |  |  |
| --- | --- | --- |
|  | g. | Routine practice - operator's own determination based on past experience, yield goal, etc.? |

 | Yes=1No=3 | 0239 |
| [If nitrogen inhibitors were used, continue, otherwise go to item 13.] | Pounds per Acre | **OR** | Gallons per Acre |
|

|  |  |  |
| --- | --- | --- |
|  | h. | How much nitrogen inhibitor did you mix with the nitrogen applied to the selected field?  |

 | 2561 |  | 2562 |
|  |  | Code |
|

|  |  |
| --- | --- |
| 13. | Is lime ever applied to the selected field?  |

 | Yes=1No=3 | 0242 |
| [If item 13 = 1 continue, otherwise go to item 14.] |  | Years |
|

|  |  |  |
| --- | --- | --- |
|  | a. | On average, how many years are there between application of lime to the selected field?  |

 | 0243 |
|  |  | Ton per Acre |
|

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

 | 0244 |
|  |  | Code |
|

|  |  |  |
| --- | --- | --- |
|  | c. | Was lime applied to the selected field in 2018 or 2019 for the 2019 crop?  |

 | Yes=1No=3 | 0240 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|

|  |  |
| --- | --- |
| 14. | Was non-commercial (unprocessed) manure from own farm, farm a neighbor's farm, etc., or other organic material, including compost, applied to the selected field for the 2019 sorghum crop? EXCLUDE commercially prepared manure.  |

 | Yes=1No=3 | Code |
| 0246 |
| [If item 14 = 1 continue, otherwise go to Section D.] |  | Acres |
|

|  |  |  |
| --- | --- | --- |
|  | a. | How many acres in the selected field was manure or compost applied?  |

 | 0247 | **.**\_\_\_ |
|  |  |  |
|

|  |  |  |
| --- | --- | --- |
|  | b. | What was the amount of manure or compost applied to the selected field?  |

 | 1 Tons2 Gallons3 Bushels4 Cubic yards |  | Code |  | Units per Acre |  | Total Units |
|   | 0248 | **AND** | 0249 | **.**\_\_\_ \_\_\_ | **OR** | 0250 | **.**\_\_\_ |
|  |  |  |  |  |  |
|

|  |  |  |
| --- | --- | --- |
|  | c. | Of the total manure applied to the selected field for the 2019 sorghum crop, what was the percent of manure or compost applied-- |

 |  | Percent |
|

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | i. | in the fall before planting?  |

 | + | 0254 |
|

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | ii. | in the spring before planting?  |

 | + | 0255 |
|

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | iii. | after planting?  |

 | + | 0256 |
|  |  | 100% |
|  | 1 Lagoon liquid?2 Slurry liquid?3 Semi-dry or dry? |  | Code |
|

|  |  |  |
| --- | --- | --- |
|  | d. | Was the manure or compost--  |

 |   | 0257 |
|  |  |  |  |
|  | 1 Broadcast or sprayed without incorporation?2 Broadcast or sprayed with incorporation?3 Injected/knifed in?4 Sprayed using irrigation systems? |  | Code |
|

|  |  |  |
| --- | --- | --- |
|  | e. | Was the manure or compost--  |

 |   | 0258 |
|  |  |  |
|  |  |  |  |
|  | 1 Beef cattle?2 Dairy cattle?3 Hogs?4 Sheep?5 Poultry?6 Equine?7 Biosolids - municipal sludge? 8 Food waste?9 Other? Specify:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  | Code |
|

|  |  |  |
| --- | --- | --- |
|  | f. | Was the manure or compost--  |

 |   | 0259 |
|  |  |  |
|  |  |  |  |
|  | 1 Produced on this operation?2 Purchased?3 Obtained at no cost off this operation?4 Obtained with compensation - operator received payment for accepting the manure? |  | Code |
|

|  |  |  |
| --- | --- | --- |
|  | g. | Was the manure or compost--  |

 |   | 0260 |
|  |  |  |
| [If item 14g = 2, continue, otherwise go to item 14h.] |
|

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | 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?  |

 | Yes=1No=3 | 0286 |
|  |  |  |
| [If item 14gii=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. Do not report custom application cost if it was included with the purchased manure cost.  |

 | Dollars & Cents per Acre | **OR** | Total Dollars |
| 0287 | **.**\_\_ \_\_ |  | 0288 |
|  | Miles |
|

|  |  |  |
| --- | --- | --- |
|  | h. | What is the distance in miles between the manure or compost storage/production location and the selected field?  |

 | 0291 | **.**\_\_\_ |
|  | Code |
|

|  |  |  |
| --- | --- | --- |
|  | i. | Of the manure or compost applied to the selected field, was any tested for nutrient content?  |

 | Yes=1No=3 | 0261 |

|  |  |  |
| --- | --- | --- |
|  |  | Code |
|

|  |  |
| --- | --- |
| 15. | Were the manure application rates to the selected field influenced by Federal, State, or local restrictions? |

 |  Yes=1No=3 | 0264 |
| [If item 18 = 1, ask--] |  |  |
|

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

 |  | Code |
|

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | i. | Nitrogen requirement of the crop?  |

 | Yes=1No=3 |  |
|

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | ii. | Phosphorus requirement of the crop?  |

 | Yes=1No=3 |  |

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

|  |
| --- |
| Now I have some questions about all the bio controls or pesticides used on the selected ield for the 2019 sorghum crop, including both custom applications and applications made by this operation. |
|  |  | Code | Edit Table |
|

|  |  |
| --- | --- |
| 1. | Were any herbicides, insecticides, fungicides or other biocontrols or pesticides used on this sorghum field for the 2019 crop?  |

 | Yes=1No=3 | 0302 | 0301 |
| [Probe for applications made in the fall of INSTANCE\_YEAR\_MINUS\_1] and those made earlier if the selected field was fallow.] |  |  |  |
| If no biocontrols or pesticides applied, go to Section E. |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| INCLUDEINCLUDE | defoliants, fungicides, herbicides, insecticides, and other pesticidesbiological and botanical pesticides. | EXCLUDE | nutrients or fertilizers reported earlier and seed treatments. |  | T-Type | Table001 |
| Line99 | Office UseLine in Table | 0319 |
|  |
|  |  | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Chemical Product Name | LINE | What products were applied to the selected field?[Show product codes from Respondent Booklet.] | What 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? | How much was applied per acre per application? | What was the total amount applied per application in the selected field? | 1121314152830 |  [Enter unit code]PoundsGallonsQuartsPintsLiquid OuncesDry OuncesGrams |
| 123 | Before plantingAt plantingAfter planting |
|  | 01 | 0305 |  | 0306 |  | 0308 | **.**\_\_ \_\_ | 0309 | **.**\_\_ \_\_ | 0310 |
|  | 02 | 0305 |  | 0306 | 307 | 0308 | **.**\_\_ \_\_ | 0309 | **.**\_\_ \_\_ | 0310 |
|  | 03 | 0305 |  | 0306 | 0307 | 0308 | **.**\_\_ \_\_ | 0309 | **.**\_\_ \_\_ | 0310 |
|  | 04 | 0305 |  | 0306 | 0307 | 0308 | **.**\_\_ \_\_ | 0309 | **.**\_\_ \_\_ | 0310 |
|  | 05 | 0305 |  | 0306 | 0307 | 0308 | **.**\_\_ \_\_ | 0309 | **.**\_\_ \_\_ | 0310 |
|  | 06 | 0305 |  | 0306 | 0307 | 0308 | **.**\_\_ \_\_ | 0309 | **.**\_\_ \_\_ | 0310 |
|  | 07 | 0305 |  | 0306 | 0307 | 0308 | **.**\_\_ \_\_ | 0309 | **.**\_\_ \_\_ | 0310 |
|  | 08 | 0305 |  | 0306 | 0307 | 0308 | **.**\_\_ \_\_ | 0309 | **.**\_\_ \_\_ | 0310 |
|  | 09 | 0305 |  | 0306 | 0307 | 0308 | **.**\_\_ \_\_ | 0309 | **.**\_\_ \_\_ | 0310 |
|  | 10 | 0305 |  | 0306 | 0307 | 0308 | **.**\_\_ \_\_ | 0309 | **.**\_\_ \_\_ | 0310 |
|  | 11 | 0305 |  | 0306 | 0307 | 0308 | **.**\_\_ \_\_ | 0309 | **.**\_\_ \_\_ | 0310 |
|

|  |  |
| --- | --- |
| 2. | For biocontrols or pesticides not listed in Respondent Booklet, specify-- |

 |
| Line |  | Pesticide Type(Herbicide, Insecticide,Fungicide, etc.) |  | EPA No. or Trade Nameand Formulation |  | Form Purchased(Liquid or Dry |  | Where Purchased(Ask only if EPA No.cannot be reported |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |

|  |
| --- |
|  |
| Applications Codes for Column 9 |  |  |  |
| 12345 | Broadcast, ground without incorporationBroadcast, ground with incorporationBroadcast, by aircraftIn seed furrowIn irrigation water | 6789 | Chiseled/injected or knifed inBanded in or over rowFoliar or directed spraySpot treatments |  |  |  |
|  |  |  |
|  | ENUMERATOR NOTE: |  |
|  |  |  |
|  |  |  |  |  | Use the Optional Item 4 columns shown below only if Total Cost, item 4 on next page cannot be provided. |  |
|  |  |
|  |
|  | 9 | 10 | 11 | 12 |  | Optional Item 4 |
| LINE | How was this product applied?[Enter code from above.] | How many acres in this field were treated with this product? | How many times was it applied? | 123 |  Were these applications made by--Operator, partner, or family member?Custom applicator?Employee/Other? |  |  What was the cost per unit of the product? |
| Dollars & Cents per Unit | Unit Code |
| Acres | Number | 1121314 | PoundsGallonsQuartsPints | 152830 | Liquid OuncesDry OuncesGrams |
| 01 | 0311 | 0312 | **.**\_\_\_ | 0313 | 0316 |  | 0317 | **.**\_\_ \_\_ | 0318 |
| 02 | 0311 | 0312 | **.**\_\_\_ | 0313 | 0316 |  | 0317 | **.**\_\_ \_\_ | 0318 |
| 03 | 0311 | 0312 | **.**\_\_\_ | 0313 | 0316 |  | 0317 | **.**\_\_ \_\_ | 0318 |
| 04 | 0311 | 0312 | **.**\_\_\_ | 0313 | 0316 |  | 0317 | **.**\_\_ \_\_ | 0318 |
| 05 | 0311 | 0312 | **.**\_\_\_ | 0313 | 0316 |  | 0317 | **.**\_\_ \_\_ | 0318 |
| 06 | 0311 | 0312 | **.**\_\_\_ | 0313 | 0316 |  | 0317 | **.**\_\_ \_\_ | 0318 |
| 07 | 0311 | 0312 | **.**\_\_\_ | 0313 | 0316 |  | 0317 | **.**\_\_ \_\_ | 0318 |
| 08 | 0311 | 0312 | **.**\_\_\_ | 0313 | 0316 |  | 0317 | **.**\_\_ \_\_ | 0318 |
| 09 | 0311 | 0312 | **.**\_\_\_ | 0313 | 0316 |  | 0317 | **.**\_\_ \_\_ | 0318 |
| 10 | 0311 | 0312 | **.**\_\_\_ | 0313 | 0316 |  | 0317 | **.**\_\_ \_\_ | 0318 |
| 11 | 0311 | 0312 | **.**\_\_\_ | 0313 | 0316 |  | 0317 | **.**\_\_ \_\_ | 0318 |
| 12 | 0311 | 0312 | **.**\_\_\_ | 0313 | 0316 |  | 0317 | **.**\_\_ \_\_ | 0318 |
| 13 | 0311 | 0312 | **.**\_\_\_ | 0313 | 0316 |  | 0317 | **.**\_\_ \_\_ | 0318 |
| 14 | 0311 | 0312 | **.**\_\_\_ | 0313 | 0316 |  | 0317 | **.**\_\_ \_\_ | 0318 |
|  |

|  |  |  |
| --- | --- | --- |
|  |  | Code |
|  |
|  |
|

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

 | Yes=1No=3 |  |
| [If item 3 = 1, ask, otherwise go to item 4.] |  |  |
|

|  |  |  |
| --- | --- | --- |
|  | a. | Are you able to report the cost of chemical, biocontrol, and pesticide products and custom application of such materials on the selected field? |

 | Yes=1No=3 | 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 2018 fallow period. EXCLUDE seed treatments.  |

 |  |  |  |
| Dollars & Cents per Acre | OR | Total Dollars |
| 0334 | **.**\_\_ \_\_ |  | 0335 |
|  | Dollars & Cents per Acre | OR | Total Dollars |
|

|  |  |  |
| --- | --- | --- |
|  | a. | How much was spent for herbicide products applied to the selected field? INCLUDE operator, landlord, and contractor costs.  |

 | 3034 | **.**\_\_ \_\_ |  | 3035 |
|  | Dollars & Cents per Acre | OR | Total Dollars |
|

|  |  |  |
| --- | --- | --- |
|  | b. | How much was spent for insecticide products applied to the selected field? INCLUDE operator, landlord, and contractor costs.  |

 | 3036 | **.**\_\_ \_\_ |  | 3037 |
|  |
| Note 1:Note 2: | If respondent cannot report total cost, itemize cost for each product in optional columns in Biocontrol or Pesticide Table.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. |
|  |

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

|  |
| --- |
| Now I have some questions about your pest management decisions and practices used on the selected field for the 2019 sorghum crop. By pests, we mean weeds, insects, and diseases. |
| [Enumerator Action: Were pesticide applications reported in Section D?] ☐ Yes - Continue ☐ No - Go to item 8 | Code |
|

|  |  |
| --- | --- |
| 1. | Were weather data used to assist in determining either the need or when to make pesticide applications?  |

 | Yes=1No=3 | 0800 |
|

|  |  |
| --- | --- |
| 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=1No=3 |  |
| 0801 |
|

|  |  |
| --- | --- |
| 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=1No=3 | 0802 |
| [Enumerator Action: Were herbicide (pesticide product codes 3000-4999) applications reported in Section D, item 1, column 2?] ☐ Yes - Continue ☐ No - Go to item 8 |  | Code |
|

|  |  |
| --- | --- |
| 4. | Were herbicides applied to this sorghum field before weeds emerged?  |

 | Yes=1No=3 | 0803 |
|

|  |  |
| --- | --- |
| 5. | Were herbicides applied to this sorghum field after weeds emerged?  |

 | Yes=1No=3 | 0805 |
|

|  |  |
| --- | --- |
| 6. | Did you use published information on infestation thresholds to determine when to take measures to manage pests in the selected field?  |

 | Yes=1No=3 | 0824 |
|

|  |  |
| --- | --- |
| 7. | Were records kept for the selected field to track the activity or numbers of weeds, insects, or diseases?  |

 | Yes=1No=3 | 0823 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|

|  |  |
| --- | --- |
| 8. | In 2019, how was the selected field primarily scouted for insects, weeds, diseases, and/or beneficial organisms?  |

 | 123 | By deliberately going to the field specifically for scouting activities [Enter code 1 and go to item 9.]By conducting general observations while performing routine tasks [Enter code 2 and go to item 11.]The selected field was not scouted. [Enter code 3 and go to item 16.] |  | Code |
|   | 0808 |
|  |  |
|

|  |  |
| --- | --- |
| 9. | Was an established scouting process such as systematic sampling, recording counts, etc. used or were insect traps used in the selected field?  |

 | Yes=1No=3 | 0809 |
|

|  |  |
| --- | --- |
| 10. | Was scouting for pests done in the selected field due to-- |

 |  |  |
|

|  |  |  |
| --- | --- | --- |
|  | a. | a pest advisory warning?  |

 | Yes=1No=3 | 0810 |
|

|  |  |  |
| --- | --- | --- |
|  | b. | a pest development model?  |

 | Yes=1No=3 | 0811 |
| 1 | 2 | 3 | 4 |
|

|  |  |
| --- | --- |
| 11. | Was this sorghum field scouted for-- |

 |  | [If Yes, ask--]What was the infestation level for [column 1]? | [If column 1 is Yes, ask--]Who did the majority of the scouting for [column 1]? |
| Yes=1No=3 | 1 Worse than normal2 Normal3 Less than normal | 1 Operator, partner or family member2 An employee3 Farm supply or chemical dealer4 Independent crop consultant or commercial scout |
| Code | Code |
|

|  |  |  |
| --- | --- | --- |
|  | a. | weeds?  |

 | 0812 | 0813 | 0814 |
|

|  |  |  |
| --- | --- | --- |
|  | b. | insects or mites?  |

 | 0815 | 0816 | 0817 |
|

|  |  |  |
| --- | --- | --- |
|  | c. | diseases?  |

 | 0818 | 0819 | 0820 |
| [If scouted by crop consultant or commercial scout, ask item 12, otherwise go to item 13. |
|  | Dollars & Centsper Acre | **OR** | Total Dollars |
|

|  |  |
| --- | --- |
| 12. | How much was charged for the scouting services for the selected field? INCLUDE operator, landlord, and contractor costs.  |

 | 0821 | **.**\_\_ \_\_ |  | 0822 |
|  | Office Use |
|

|  |  |  |
| --- | --- | --- |
|  | a. |  If scouting performed at no cost, explain: |

 |   |  |  |
|  |  | Code |
|

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

 | Yes=1No=3 | 0825 |
|

|  |  |
| --- | --- |
| 14. | Did you do any of the following other types of pest management for the specific purpose of managing or reducing the spread of pests in the selected field? |

 |  | Code |
|

|  |  |  |
| --- | --- | --- |
|  | a. | Use the services of a diagnostic laboratory for pest identification or soil plant tissue pest analysis for the selected field?  |

 | Yes=1No=3 | 0841 |
|

|  |  |  |
| --- | --- | --- |
|  | b. | Plow down crop residue using conventional tillage?  |

 | Yes=1No=3 | 0842 |
|

|  |  |  |
| --- | --- | --- |
|  | c. | Remove/burn down crop residue?  |

 | Yes=1No=3 | 0843 |
|

|  |  |  |
| --- | --- | --- |
|  | d. | Rotate crops in the selected field during the past three years?  |

 | Yes=1No=3 | 0844 |
|

|  |  |  |
| --- | --- | --- |
|  | e. | Maintain ground covers, mulches, or other physical barriers?  |

 | Yes=1No=3 | 0845 |
|

|  |  |  |
| --- | --- | --- |
|  | f. | Choose crop variety because of specific resistance to a certain pest?  |

 | Yes=1No=3 | 0846 |
|

|  |  |  |
| --- | --- | --- |
|  | g. | Use no-till or minimum till?  |

 | Yes=1No=3 | 0847 |
|

|  |  |  |
| --- | --- | --- |
|  | h. | Plan planting locations to avoid cross infestation of pests?  |

 | Yes=1No=3 | 0848 |
|

|  |  |  |
| --- | --- | --- |
|  | i. | Adjust planting or harvesting dates?  |

 | Yes=1No=3 | 0849 |
|

|  |  |  |
| --- | --- | --- |
|  | j. | Chop, spray, mow, plow, or burn field edges, lanes, ditches, roadways, or fence lines?  |

 | Yes=1No=3 | 0850 |
|

|  |  |  |
| --- | --- | --- |
|  | k. | Clean equipment and field implements after completing field work to reduce the spread of pests?  |

 | Yes=1No=3 | 0851 |
|

|  |  |  |
| --- | --- | --- |
|  | l. | Adjust row spacing, plant density or row directions?  |

 | Yes=1No=3 | 0852 |
|

|  |  |  |
| --- | --- | --- |
|  | m. | Have the seed treated for insect or disease control after you purchased the seed for the selected field? |

 | Yes=1No=3 | 0854 |
|

|  |  |  |
| --- | --- | --- |
|  | n. | Maintain a beneficial insect or vertebrate habitat?  |

 | Yes=1No=3 | 0855 |
|

|  |  |  |
| --- | --- | --- |
|  | o. | Maintain buffer strips or border rows to isolate sorghum from non-organic crops or land, or did you take a buffer harvest?  |

 | Yes=1No=3 | 0856 |
|

|  |  |  |
| --- | --- | --- |
|  | p. | Use a flamer to kill weeds?  |

 | Yes=1No=3 | 0857 |
|

|  |  |  |
| --- | --- | --- |
|  | q. | Plant earlier or later to avoid weeds?  |

 | Yes=1No=3 | 0865 |
|  |  | Code |
|

|  |  |
| --- | --- |
| 15. | Were any beneficial organisms such as insects, pheromone traps or other biological pest controls used on the selected fields?  |

 | Yes=1No=3 | 0853 |
|

|  |  |
| --- | --- |
| 16. | Were floral lures, attractant repellants, pheromone traps or other biological pest controls used on the selected field? |

 | Yes=1No=3 | 0858 |
| [If item 15 or item 16 = 1, 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.  |

 | Dollars & Centsper Acre | OR | Total Dollars |
| 0859 | **.**\_\_ \_\_ |  | 0860 |

|  |  |  |
| --- | --- | --- |
|  |  | Code |
|

|  |  |
| --- | --- |
| 17. | Was a trap crop, excluding fallow, grown to help manage insects in the selected field?  |

 | Yes=1No=3 | 0863 |
|

|  |  |
| --- | --- |
| 18. | Was the selected field left fallow in 2018 to help manage insects on the selected field?  |

 | Yes=1No=3 | 0864 |
|

|  |  |
| --- | --- |
| 19. | Were water management practices such as irrigation scheduling, controlled drainage, or treatment of retention water used on the selected field to manage pests or toxin-producing fungi and bacteria?  |

 | Yes=1No=3 | Code |
| 0861 |
|

|  |  |
| --- | --- |
| 20. | Was protection of beneficial organisms a factor in your pest control decisions for the selected field?  |

 | Yes=1No=3 | 0862 |
| [If item 20 = 1, continue, otherwise go to item 21.] |  | Code |
|

|  |  |  |
| --- | --- | --- |
|  | a. | Did you change timing of, reduce application rate of, or eliminate a pesticide application?  |

 | Yes=1No=3 | 0866 |
|

|  |  |  |
| --- | --- | --- |
|  | b. | Did you change to an alternative pesticide, biocontrol, or non-pesticide practice?  |

 | Yes=1No=3 | 0867 |
|  |  |  |  |  |  |  |  |
|

|  |  |
| --- | --- |
| 21. | If untreated, either with herbicides, tillage, or cultivation, how much yield loss (e.g. bushels per acre) do you think weeds would most likely cause on the selected field?  |

 |  Unit Code1 Pounds2 CWT3 Bushels4 Tons |   | Code |  | Units per Acre |  | Total Units |
| 0828 | AND | 0829 | OR | 0830 |
|  |  |  |  |  |

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

|  |  |  |
| --- | --- | --- |
| **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 2019 sorghum crop. Please...* begin with the first field operation after harvest of previous crop, including operations for a cover crop established since the previous crop harvested. If fallow during 2018, list operations starting will fall 2017.
* 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.
 |

 |  |  Check ListINCLUDE 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 saleEXCLUDE ☐ Lime & Gypsum/land plaster applications ☐ Compost & Non-commercial manure applications |
|  |  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 UseLines in Table |
| 0499 |
| 1 | 2 | 3 | 4 | 5 | [If Column 5 = code 6, skip columns 6 thru 10] |
| LINENo. | SEQUENCENo. | What operation or equipment was used? | [Record machine code from Respondent Booklet.]Code | Who was the machine operator?[Enter code from above.]Code | 6What was the size or swath of the [machine] used? | 7[Record size unit code.]1 Feet2 Row3 Moldboard  bottomsHauling4 Pounds5 Bushels6 TonsCode | 8How many acres were covered?[EXCLUDE land forming and hauling operations.]Acres | 9How many total hours were spent on land forming and hauling?[Example: backhoes, disk border maker, ditcher, rear mounted blade, trucks, wagons, forklift etc.]Hours | 10What power source was used?1/1 <40 HP2 40-99 HP3 100-149 HP4 150-199 HP5 >=200 HP OR66 Animal Drawn77 Pick up99 Self-Propelled1/Code | 11What was the fuel type of the tractor?[Record fuel type only if Power code equals 1-51 diesel2 gasoline3 LP gas4 other  Code |
| 01 | 0351 |  | 0352 | 0353 | 0354 | 0355 | 0357 | **.**\_\_\_ | 0359 | 94 | 95 |
| 02 | 0361 |  | 0362 | 0363 | 0364 | 0365 | 0367 | **.**\_\_\_ | 0369 | 94 | 95 |
| 03 | 0371 |  | 0372 | 0373 | 0374 | 0375 | 0377 | **.**\_\_\_ | 0379 | 94 | 95 |
| 04 | 0381 |  | 0382 | 0383 | 0384 | 0385 | 0387 | **.**\_\_\_ | 0389 | 94 | 95 |
| 05 | 0391 |  | 0392 | 0393 | 0394 | 0395 | 0397 | **.**\_\_\_ | 0399 | 94 | 95 |
| 06 | 0401 |  | 0402 | 0403 | 0404 | 0405 | 0407 | **.**\_\_\_ | 0409 | 94 | 95 |
| 07 | 0411 |  | 0412 | 0413 | 0414 | 0415 | 0417 | **.**\_\_\_ | 0419 | 94 | 95 |
| 08 | 0421 |  | 0422 | 0423 | 0424 | 0425 | 0427 | **.**\_\_\_ | 0429 | 94 | 95 |
| 09 | 0431 |  | 0432 | 0433 | 0434 | 0435 | 0437 | **.**\_\_\_ | 0439 | 94 | 95 |
| 10 | 0441 |  | 0442 | 0443 | 0444 | 0445 | 0447 | **.**\_\_\_ | 0449 | 94 | 95 |
| 11 | 0451 |  | 0452 | 0453 | 0454 | 0455 | 0457 | **.**\_\_\_ | 0459 | 94 | 95 |
| 12 | 0461 |  | 0562 | 0463 | 0464 | 0465 | 0467 | **.**\_\_\_ | 0469 | 94 | 95 |
| 13 | 0471 |  | 0572 | 0473 | 0474 | 0475 | 0477 | **.**\_\_\_ | 0479 | 94 | 95 |
| 14 | 0481 |  | 0482 | 0483 | 0484 | 0485 | 0487 | **.**\_\_\_ | 0489 | 94 | 95 |
| 1/If trucks other than pick-ups are used as the power source, use truck codes in Respondent Booklet | Office Use |
|  | 0032 |

|  |  |  |
| --- | --- | --- |
|

|  |  |
| --- | --- |
| 2. | Now I need some additional information about your labor.Please report the paid and unpaid labor that worked on the selected field to produce the 2019 sorghum crop.EXCLUDE labor that was reported for field work performed by machines. |

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

|  |  |
| --- | --- |
|  | Dollars & CentsPer Hour |
|

|  |  |
| --- | --- |
| 3. | What was the average hourly wage rate paid to part-time or seasonal hired workers? EXCLUDE custom and contract workers, payroll taxes and benefits.  |

 | 1119 | **.**\_\_\_ \_\_\_ |
|

|  |  |
| --- | --- |
| 4. | What was the average hourly wage rate paid to full-time hired workers? EXCLUDE custom and contract workers, payroll taxes and benefits.  |

 | 1118 | **.**\_\_\_ \_\_\_ |
|  | Code |
|

|  |  |
| --- | --- |
| 5. | Was any contract labor used on the selected field?  |

 | Yes=1No=3 | 1116 |
| [If item 5 = 1, ask--] | Dollars & CentsPer Acre |
|

|  |  |  |
| --- | --- | --- |
|  | a. | What was the average cost per acre for this contract labor? INCLUDE operator, landlord, and contractor costs.  |

 | 1117 | **.**\_\_\_ \_\_\_ |
|

|  |  |
| --- | --- |
| 6. | What percent of the total number of unpaid hours worked on the selected field was performed by workers under 16 years of age? Estimates of labor costs for unpaid workers are based on off-farm wage rates, which are different for workers under 16 relative to those 16 and older.  |

 | Percent |
| 1120 |

|  |  |  |
| --- | --- | --- |
|

|  |  |
| --- | --- |
| 7. | Now I need some information on how much was spent or will be spent for custom services used on the selected field for the 2019 sorghum crop.  |

 |
|  | 1 | 2 |
|  | Custom Service | Including operator, landlord, and contractor costs, how much was spent for [column1] on the selected field for the 2019 sorghum crop? |
|  |  |
|  | Which of the following services were performed for the 2019 sorghum crop on the selected field? |
|  |
|  | [Check box for each service performed; refer to item 3 if necessary.] | Dollars & Centsper Acre |
| ☐ |

|  |  |  |
| --- | --- | --- |
|  | a. | Custom land preparation, shaping and/or leveling  |

 | 1121 | **.**\_\_\_ \_\_\_ |
| ☐ |

|  |  |  |
| --- | --- | --- |
|  | b. | Custom cultivating  |

 | 1122 | **.**\_\_\_ \_\_\_ |
| ☐ |

|  |  |  |
| --- | --- | --- |
|  | c. | Custom planting and/or reseeding  |

 | 1123 | **.**\_\_\_ \_\_\_ |
| ☐ |

|  |  |  |
| --- | --- | --- |
|  | d. | Custom harvesting  |

 | 1124 | **.**\_\_\_ \_\_\_ |
| ☐ |

|  |  |  |
| --- | --- | --- |
|  | e. | Custom hauling to storage or point of first sale \_\_ \_\_**.\_\_** **\_\_** **X** \_\_\_\_\_\_\_\_\_\_\_\_\_ **÷ \_\_\_\_\_\_\_\_\_\_\_\_**  **= \_\_ \_\_.\_\_ \_\_**(Dollars & cents per unit x Total units hauled from field ÷ Acres harvested in field = Dollars & cents per acre)  |

 | 1126 | **.**\_\_\_ \_\_\_ |
| ☐ |

|  |  |  |
| --- | --- | --- |
|  | f. | 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 |
|

|  |  |
| --- | --- |
| 8. | Was the sorghum harvested and hauled from the selected field dried or will be dried before being sold or stored?  |

 | Yes=1No=3 | 1195 |
|

|  |  |
| --- | --- |
| 9. | Did you hire any technical or consultant services to make recommendations such as for nutrient, pest control, irrigfation, or precision farming for the selected field?  |

 | Yes=1No=3 |  |
| [If item 9 = 1 continue, otherwise go to item 11.] |  |  |
|

|  |  |
| --- | --- |
| 10. | Which of the following services did you obtain? |

 |  | Code |
|

|  |  |  |
| --- | --- | --- |
|  | a. | Nutrient recommendations/management service?  |

 | Yes=1No=3 | 1129 |
|

|  |  |  |
| --- | --- | --- |
|  | b. | Soil or tissue sample collection?  |

 | Yes=1No=3 | 1130 |
|

|  |  |  |
| --- | --- | --- |
|  | c. | Pest control recommendations/management service?  |

 | Yes=1No=3 | 1131 |
|

|  |  |  |
| --- | --- | --- |
|  | d. | Pest scouting?  |

 | Yes=1No=3 | 1132 |
|

|  |  |  |
| --- | --- | --- |
|  | e. | Irrigation management service (i.e. irrigation scheduling)?  |

 | Yes=1No=3 | 1133 |
|

|  |  |  |
| --- | --- | --- |
|  | f. | Yield map or remote sensing map development/interpretation?  |

 | Yes=1No=3 | 1134 |
|

|  |  |  |
| --- | --- | --- |
|  | g. | Other custom or technical service? [Specify:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_]  |

 | Yes=1No=3 | 1135 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |
| --- | --- |
| 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 cost of materials and/or application.  |

 | Dollars & Centsper Acre | OR | Total Dollars |
| 1136 | **.**\_\_ \_\_ |  | 1137 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|

|  |  |
| --- | --- |
| 12. | Please report how your farm data will be stored and accessed. |

 |  |  |
|

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

 |  | Code |
|

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | i. | Paper hard copy?  |

 | Yes=1No=3 | 2485 |
|

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | ii. | Personal computer?  |

 | Yes=1No=3 | 2486 |
|

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | iii. | Mobile device?  |

 | Yes=1No=3 | 2487 |
|

|  |  |  |
| --- | --- | --- |
|  | b. | Did you access the data collected from the selected field through an agricultural technology provider website?  |

 | Yes=1No=3 | 2488 |
|

|  |  |
| --- | --- |
| 13. | Were there or will there be any data collection tools such as yield monitors, GPS mapping, etc. used during field operations on this sorghum field?  |

 | Yes=1No=3 | 2460 |
| [If item 13 = 1, continue, otherwise go to item 14.] |  |  |
| Please report the data collection technologies you used on the selected field to produce this crop. In the fifth column, report how much it would cost you to replace the data collection tool. In 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 the cell in that column blank. |
| 1 | 2 | 3 | 4 | 5 | 6 |
| Data Collection Tool | Tool UsedYes = 1No = 3 | Collected GPS coordinatesYes = 1No = 3 | Data was/will be used to create a mapYes = 1No = 3 | Replacement CostTotal Dollars | Annual FeeTotal 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 15.] |  |  |
|

|  |  |
| --- | --- |
| 14. | Did you use the yield monitor information to-- |

 |  | Code |
|

|  |  |  |
| --- | --- | --- |
|  | a. | add/improve tile drainage?  |

 | Yes=1No=3 | 2491 |
|

|  |  |  |
| --- | --- | --- |
|  | b. | negotiate new crop leases?  |

 | Yes=1No=3 | 2492 |
|

|  |  |  |
| --- | --- | --- |
|  | c. | Help determine input use for management zones?  |

 | Yes=1No=3 | 2493 |
| [If any of item 13 column 2 = 1, continue, otherwise go to item 16] |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|

|  |  |
| --- | --- |
| 15. | Did you obtain crop management recommendations (i.e. data interpretation) based on that data you collected from-- |

 |  | Code |
|

|  |  |  |
| --- | --- | --- |
|  | a. | input dealers without other fee-for-services?  |

 | Yes=1No=3 | 2491 |
|

|  |  |  |
| --- | --- | --- |
|  | b. | input dealers with other fee-for-services?  |

 | Yes=1No=3 | 2492 |
|

|  |  |  |
| --- | --- | --- |
|  | c. | custom service providers?  |

 | Yes=1No=3 | 2493 |
|

|  |  |  |
| --- | --- | --- |
|  | d. | USDA/university extension services?  |

 | Yes=1No=3 | 2494 |
| [If crop management recommendations were obtained, ask--] |  |  |  |
|

|  |  |  |
| --- | --- | --- |
|  | 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.  |

 | Dollars & Centsper Acre | OR | Total Dollars |
|  | **.**\_\_ \_\_ |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|

|  |  |
| --- | --- |
| 16. | Was any of the following GPS-enabled (Global Positioning System) equipment used to produce sorghum on the selected field?  |

 |  | Code |
|

|  |  |  |
| --- | --- | --- |
|  | a. | Mounted in-cab heads-up displays?  |

 | Yes=1No=3 | 2155 |
|

|  |  |  |
| --- | --- | --- |
|  | b. | Automatic section control (e.g., auto sprayer boom controls or automatic section shut offs)?  |

 | Yes=1No=3 |  |
|

|  |  |  |
| --- | --- | --- |
|  | c. | Smart phones or computer tablets?  |

 | Yes=1No=3 | 2156 |
|

|  |  |
| --- | --- |
| 17. | If any GPS-enabled equipment was used, what was the cost to purchase and install all GPS-enabled equipment, not including guidance auto-steering equipment? INCLUDE cost for GPS receiver and annual GPS subscription fee, and operator, landlord, and contractor costs. Do not report costs for any of this equipment if they were previously reported as part of the costs of materials and/or application.  |

 | Dollars & Centsper Acre | OR | Total Dollars |
|  | **.**\_\_ \_\_ |  |  |
|  |  | Code |
|

|  |  |
| --- | --- |
| 18. | Was any guidance auto-steering equipment, excluding Light Bar, used on the selected field?  |

 | Yes=1No=3 | 2148 |
| [If item 18 = 1 continue, otherwise go to item 19.] |  |  |
|

|  |  |  |
| --- | --- | --- |
|  | a. | Was the guidance auto-steering equipment  |

 | 1 New, owned2 Used, owned3 Leased |   | Code |
| 2158 |
|  | Year |
|

|  |  |  |
| --- | --- | --- |
|  | b. | What year was guidance auto-steering equipment first purchased?  |

 | 2159 |
|  | Dollars & Centsper Acre | OR | Total Dollars |
|

|  |  |  |
| --- | --- | --- |
|  | c. | What is the replacement cost for guidance auto-steering equipment?  |

 | 2160 | **.**\_\_ \_\_ |  | 2161 |

|  |  |  |
| --- | --- | --- |
|  |  | Code |
|

|  |  |
| --- | --- |
| 19. | Was a variable rate applicator used on this field?  |

 | Yes=1No=3 | 2491 |
| [If item 19 - 1 continue, otherwise go to Section G] |  |  |
| Please report the variable rate applicator types you used on the selected field to produce the sorghum in 2019. |
| 1 | 2 | 3 | 4 | 5 | 6 |
| Was a variable rate applicator used on the selected field for: | Tool UsedYes = 1No = 3 | Was this applicator1 Sensor-based2 GPS-based3 Both4 NeitherCode | Was this applicator1 New, owned2 Used, owned3 LeasedCode | What year was the applicator first used?Year | Premium paid for applicatorTotal Dollars |
|

|  |  |  |
| --- | --- | --- |
|  | a. | seeding  |

 | 1158 | 2170 | 2171 | 2172 | 2173 |
|

|  |  |  |
| --- | --- | --- |
|  | b. | fertilizer/lime applications  |

 | 1152 | 2174 | 2175 | 2176 | 2177 |
|

|  |  |  |
| --- | --- | --- |
|  | c. | Pesticide applications  |

 | 1159 | 2178 | 2179 | 2180 | 2181 |

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

|  |  |
| --- | --- |
|  | Acres |
|

|  |  |
| --- | --- |
| 1. | How many acres in the selected field were irrigated for the 2019 sorghum crop?  |

 | 1160 |
| [If none, go to Conclusion] |  |
|

|  |  |
| --- | --- |
| 2. | Now I have some questions about irrigation systems and water used on the selected field for the 2019 sorghum crop. |

 |  |
|  | Unit | System |
|

|  |  |  |
| --- | --- | --- |
|  | 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 AcreOR Total Acre Feet | 1162 |
| 1163 |
| [If operator cannot provide item 2b, ask (i) and (ii), otherwise go to 2c] |  |  |
|

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | i. | What is the total number of hours this system was used to apply water to the selected field during the sorghum 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 sorghum growing season using this system? INCLUDE any pre-plant irrigation.  |

 | Number of Irrigations | 1167 |
|  |  |  |
|

|  |  |  |
| --- | --- | --- |
|  | e. | What was the pump type? [If more than one pump in the system, enter type for pump closest to water source.]  |

 | 1 Turbine2 Submersible3 Centrifugal4 Booster5 Siphon99 No Pump[If code 99, go to item j.} |  |  |  |
| [If code 99, go to item j.]  | Code | 1168 |
|  |  |  |  |
|

|  |  |  |
| --- | --- | --- |
|  | f. | What was the average pumping rate?  |

 | Gallons per Minute | 1169 |
| [If item 2a = code 1-9 (Pressure System), ask- |  |  |
|

|  |  |  |
| --- | --- | --- |
|  | g. | What was the system operating pressure?  |

 | Pounds per Square Inch | 1170 |
|  |  |  |
|

|  |  |  |
| --- | --- | --- |
|  | h. | What was the primary motor type used to pump the water? |

 | 1 Diesel2 Gasoline3 LP Gas4 Natural Gas5 electricity6 Solar Power |  |  |  |
| Code | 1171 |
|  |  |
|  |  |  |  |  |
|

|  |  |  |
| --- | --- | --- |
|  | i. | `What was the average motor size?  |

 | Horsepower | 1172 |
| [If item 2e=99, ask-- |  |  |
|

|  |  |  |
| --- | --- | --- |
|  | j. | What was the average flow rate?  |

 | Gallons per Minute | 1173 |
|

|  |  |  |
| --- | --- | --- |
|  | k. | How many other acres on this operation were irrigated using the selected field's irrigation system during the 2019 growing season? EXCLUDE the selected field.  |

 | Acres | 1174 | **.**\_\_\_ |
|

|  |  |
| --- | --- |
| 3. | What was the cost of the fuel or electricity used to irrigate the selected field? INCLUDE operator, landlord, and contractor costs.  |

 | Dollars & Centsper Acre | OR | Total Dollars |
| 1189 | **.**\_\_ \_\_ |  | 1190 |
|  |  | Code |
|

|  |  |
| --- | --- |
| 4. | Was any water purchased to irrigate the selected field ? INCLDE landlord's share and purchases from all sources.  |

 | Yes=1No=3 | 1191 |
| [If item 4 = 1 continue, otherwise go to item 5.] |  |  |
|

|  |  |  |
| --- | --- | --- |
|  | a. | What was the total cost for the water purchased for the selected field during the 2019 growing season? INCLUDE operator, landlord, and contractor costs and ditch maintenance costs for the selected field.  |

 | Dollars & Centsper Acre | OR | Total Dollars |
| 1193 | **.**\_\_ \_\_ |  | 1194 |
| [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 |
| [If poly pipe system was used, item 2a = 14, ask--] |  |
|

|  |  |
| --- | --- |
| 6. | What was the total amount spent for poly pipe used on the selected field during the 2019 growing season? INCLUDE operator, landlord, and contractor costs.  |

 | 1202 |
| [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 |
|  | Code |
|

|  |  |
| --- | --- |
| 8. | Were wells used to supply irrigation water for the selected field?  |

 | Yes=1No=3 | 1205 |
| [If item 8 = 1 continue, otherwise go to item 9.] |  | 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 |
|  |  | Code |
|

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

 | Yes=1No=3 | 1210 |
| [If item 8d = 1 continue, otherwise go to item 9.] |  | Acres |
|

|  |  |  |
| --- | --- | --- |
|  | e. | Excluding the selected field, how many other acres on this operation were irrigated using the same wells during the 2019 growing season?  |

 | 1211 | **.**\_\_\_ |
|

|  |  |
| --- | --- |
| 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=1No=3 | Code |
|  |
| [If item 9 = 1 continue, otherwise 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 |

|  |  |  |
| --- | --- | --- |
|  | **CONCLUSION** |  |
| Location of Selected Field |
|

|  |  |
| --- | --- |
| 1. | I need to locate the selected field of sorghum on this map. |

 | County Name | Office UseState County FIPS Code |
|

|  |  |  |
| --- | --- | --- |
|  | a. | What county is the selected sorghum field in?  |

 |  | 0010 | \_\_ \_\_ \_\_ \_\_ \_\_ |
|  |  |
|

|  |  |  |
| --- | --- | --- |
|  | b. | Field description  |

 |  |
|  |
| For States with GPS Units Only |  | **LATITUDE** |  | **LONGITUDE** |
|

|  |  |  |
| --- | --- | --- |
|  | c. | Field location  |

 | N | 0054 | **\_\_\_ \_\_\_. \_\_\_ \_\_\_. \_\_\_ \_\_\_** | W | 0055 | **\_\_\_ \_\_\_ \_\_\_. \_\_\_ \_\_\_. \_\_\_ \_\_\_** |
|  |  |  |  *d d m m s s* |  |  |  *d d d m m s s* |
|  |  |  |  | OR |  |  |
|  |  |  |  **LATITUDE** |  |  |  **LONGITUDE** |
|  | 0051 | **\_\_\_ \_\_\_ . \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_** |  | 0052 | **\_\_\_ \_\_\_ \_\_\_. \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_** |
|  |  |  |  *decimal* |  |  *decimal* |
| [Enumerator Action: | Mark map to indicate where the selected sorghum field is located.Be sure the "X" marked on map is in the county identified above.] |  |
| We will need additional information to complete this study. We will contact you in February or March 20192020 to collect it. I'll call you then to set up a time that is good for you. |
| To receive the complete results of this survey on the release date, to http://www.nass.usda.gov/Surveys/Guide\_to\_NASS\_Surveys/ |  |
| To have a summary emailed to you at a later date, please enter your email address. | 1095 |
|  | H H M M |
| Ending time [Military]  | 0005 \_\_\_ \_\_\_ \_\_\_ \_\_\_ |
| Record Use |
|

|  |  |
| --- | --- |
| 2. | [Did respondent use farm/ranch records to report--] |

 |
|  | Code |  | Code |  | Code |
|  [fertilizer data]  | Yes=1No=3 | 0011 |  | [pesticide data]  | Yes=1No=3 | 0012 |  | [majority of this expense data?]........... | Yes=1No=3 | 0013 |
| Supplements Used |
|

|  |  |
| --- | --- |
| 3. | [Record the total number of each type of supplement used to complete this interview.] |

 |
|  | Number |  | Number |  | Number |
|  Fertilizer Applications  | 0041 |  | Pesticide Applications  | 0042 |  | Field Operations  | 0043 |
|  |
| Reported by:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | 9910 \_\_\_ \_\_\_ \_\_\_ \_\_\_ **18** **M M D D** | 9911Telephone: (\_\_\_\_\_\_)\_\_\_\_\_\_\_\_\_\_\_\_ |

|  |
| --- |
| **OFFICE USE** |
| **R. Unit** | **Ptr 1 Str** | **Ptr 2 Str** | **Ptr 3 Str** | **Ptr 4 Str** | **OPS** | **SSO 1** | **ADJ** | **Optional Use** |
| 9921 | 9922 | 9923 | 9927 | 9928 | 923 | 9907 | 922 | 9906 | 9916 |
| **Response** | **Respondent** | **Mode** | **Enum.** | **POID** |
| 1-Comp2-R3-Inac4-Office Hold | 9901 | 1-Op/Mgr2-Spouse3-Acct/Bkpr4-Partner9-Other  | 9902 |  2-PATI (tel) 3-PAPI (Face-to- Face) | 9903 | 9998 | 9989**\_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_ \_\_\_** |
|  |  |  |  |  |  |  | **Eval.** | **Change** |
|  |  |  |  |  |  |  | 9900 | 9985 |