

# AGRICULTURAL RESOURCE MANAGEMENT SURVEY

OMB No. 0535-0218  
Approval Expires: 5/31/2023  
Project Code: 906  
SurveyID: 2038 Phase 2

**FINAL - 7/16/20**



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## RICE PRODUCTION PRACTICES AND COSTS REPORT FOR 2020

VERSION <b>9</b>	ID	TRACT <b>01</b>	SUBTRACT	C-TYPE <b>115</b>
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### CONTACT RECORD

DATE	TIME	NOTES

**INTRODUCTION:**

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

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

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB number is 0535-0218. The time required to complete this information collection is estimated to average 75 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.

BEGINNING TIME 

H	H	M	M
0004			
[MILITARY] _____			

SCREENING BOX  

0006
------

[Name, address and partners verified and updated if necessary.]

POID _____	POID _____
PARTNER NAME	PARTNER NAME
ADDRESS	ADDRESS
CITY STATE ZIP	CITY STATE ZIP
PHONE NUMBER <input type="checkbox"/> Check if cell phone	PHONE NUMBER <input type="checkbox"/> Check if cell phone
POID _____	POID _____
PARTNER NAME	PARTNER NAME
ADDRESS	ADDRESS
CITY STATE ZIP	CITY STATE ZIP
PHONE NUMBER <input type="checkbox"/> Check if cell phone	PHONE NUMBER <input type="checkbox"/> Check if cell phone

RICE FIELD SELECTION

Total Planted Acres

1. How many acres of rice did this operation plant for the 2020 crop year?.....

0050
------

[If no acres planted, review Screening Information Form, make notes, then go to Conclusion on back page.]

a. Of the total (item 1) acres, how many were planted with the intention of harvesting--

- i. Long grain?.....
- ii. Medium grain?.....
- iii. Short grain?.....

Total Acres		Number of Fields
0051	+	0056
0052	+	0057
0053	+	0058

I will follow a simple procedure to make a random selection from the cotton fields planted for the 2020 crop.

Total Number of Fields Planted

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

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

3. Please list the field(s) 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
2
3
4
5
6
7
8
9

10
11
12
13
14
15
16
17
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 rice questions will be about this selected rice field.  
[Be sure the operator can identify the selected field.]

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.]

- a. Farm Number (up to 8 digits).....
- b. Tract Number (up to 7 digits).....
- c. Field Number (up to 4 digits, exclude subfield letters).....

Number

1070
1071
1072

OFFICE USE  
OY Field Substituted

0022

B

## FIELD CHARACTERISTICS - SELECTED FIELD

B

1. How many acres of rice did this operation plant in the selected field for the 2020 crop?.....
- Acres  
1301
- Code
- a. Are the acres in the selected field Certified Organic?.....
- Yes=1 1300  
No=3
- [If item 1a = 3, go to item 2.]
- b. What was the cost, per acre, for third party organic certification?.....
- Dollars & Cents  
1891
- Code
- c. Was the selected field transitioning into organic rice production in 2020?.....
- Yes=1 1399  
No=3
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
- [If field is cash rented (item 2 = 2, 3, or 5), ask item 3, otherwise go to item 4.]
3. What was the cash rent paid per acre for the selected 2020 rice field?.....
- Dollars & Cents  
per Acre  
1303
- [If field is share rented (item 2 = 4 or 5), ask--]
4. What was the landlord's share of the crop from the selected field?.....
- Percent  
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 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 1306
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
7. In what year did you (the operator listed on the label) start operating the selected field?.....
- Year  
1312

M M D D

8. On what date was the selected field planted?.....

1308
_____ 2020

1=Pounds  
2=CWT  
3=Tons  
4=Bushels  
5=Barrels

Units per Acre

a. What was your yield goal at planting for the selected field? INCLUDE any ratoon crop.....

0216	0217
------	------

Number of Acres

9. How many acres in the selected field had to be replanted to rice?  
(Acres replanted = number of acres X number of times replanted)

1315
_____

Code

10. What type of rice grain was planted on the selected field?..

1 Long
2 Medium
3 Short

1550
------

[If item 10 = 1 or 2, ask--]

a. Did you plant an aromatic variety?.....

Yes= 1  
No = 3

Code
1551

[If item 10 = 3, ask--]

b. Did you plant a glutinous or sweet variety?.....

Yes= 1  
No = 3

Code
1552

Code

11. What was the source of the rice seed?.....

1 Purchased?
2 Homegrown or traded?

1317
------

[If item 11 = 2, ask--]

a. What was the cost per pound for cleaning and treating this seed?.....

Dollars & Cents  
per Pound

1321
_____

[If any seed purchased (item 11 = 1), ask--]

Unit Code

1 Pounds  
2 CWT  
3 Tons  
4 Bushel  
22 Acres  
23 50 Lb. Bags

Dollars & Cents  
per Unit

12. What was the total cost per unit of purchased seed for the selected field? INCLUDE operator, landlord, and contractor costs, cost of seed treatment, and technology fee.

1319	1320
_____	_____

Unit Code

1 Pounds/Acre  
2 CWT/Acre  
4 Bushels/Acre  
25 Seeds/Acre  
38 Seeds/Foot

Units

13. What was the seeding rate per acre the first time the selected field was planted?.....

1313	1314
------	------

a. What method of seeding did you use on the selected field?.....

1 Water seeded (airplane)?
2 Drilled (dry)?
3 Airplane (dry)?
4 Other, Broadcast (dry)?

Code

1316
------

	Code
14. For the 2020 rice crop, was the rice 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.....	1289
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.....	Code 2325

Code	
15. For the 2020 rice 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	
a. What was the name of the seed product? Write seed product name in the box provided..	2342
b. What was the seed product code? Enter the appropriate product code from the Respondent Booklet (page 5). Enter "999" if a seed product was purchased but is not listed. Enter "-1" if the product is not known.....	Code 2343

Code	
16. Was a hybrid rice seed planted in the selected field?.....	Yes = 1 No = 3 1326

	2020		Last Year Rice was Planted	
	1 Yes 3 No		1 Yes 3 No	
17. Did the rice planted on the selected field have any of the following herbicide resistant traits in 2020? Did you use any of the following herbicide resistant traits the last time rice was planted on the selected field?				
a. Herbicide tolerance to imidazolinone (IMI) herbicides.....	2060		2061	
b. Herbicide tolerance to quizalofop (e.g. Provisia®) such as Provisia® Rice.....	2062		2063	
c. Herbicide tolerance to oxyfluorfen (e.g. GoalTender®) such as ROXY Rice.....	2064		2065	
d. Herbicide tolerance to glyphosate (e.g. RoundUp®).....	2066		2067	
e. Herbicide tolerance to glufosinate (e.g. Liberty Link®).....	2068		2069	
f. Other herbicide tolerant trait.....	2070		2071	

18. Did you use an "air delivery" or "vacuum (pneumatic) planter"?..... Yes = 1  
 No = 3

Code
2323

[If item 18 = 1, ask--]

a. Did you use a talc and/or graphite seed flow lubricant?..... Yes = 1  
 No = 3

b. Did you use an alternative seed flow lubricant (e.g. Bayer Fluency Agent) instead of talc  
 and/or graphite?..... Yes = 1  
 No = 3

Code
2324
2394

19. Has harvest of the selected field been completed?..... Yes = 1  
 No = 3

Code
1328

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

How many acres in this rice field were or will be--

a. harvested for grain, first crop?.....

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

c. harvested for commercial seed contract?.....

d. abandoned?.....

e. used for some other purpose?.....

Acres	What yield per acre did you get or do you expect to get for rice--	Unit Code
		Code
1346	1347	1348
1332	1333	1334
1431	1432	1433
1351		
1439		

1 Pounds  
 2 CWT  
 3 Tons  
 4 Bushels

## Crop Code List for item 22 - Previously Planted Crops

6 Corn for grain	1 Hay, alfalfa	240 Sorghum, all	Other field 291 crop
5 Corn for silage	11 Hay, all other	26 Soybeans	292 Other crop
283 Cotton, all	15 Oats	28 Sugarbeets	Cover crop 312 mix
946 Crawfish	21 Rice	263 Wheat, spring	
302 CRP	22 Rye	165 Wheat, winter	
311 Grasses including clover	34 Rye grass	318 No crop planted	

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

1 What crops were planted on the selected field in-- [For perennial crops, (1, 11, 34, 292, 302, and 311) report the crop code in all seasons when the crop was growing.]			2 Was this a cover crop?	3 If a cover crop was planted, how did you terminate this cover crop?	4 Was the selected field irrigated?	5 Was the selected field no-till or strip-tilled? <sup>1/</sup>
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?...	Rice	21			2345	1344
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

<sup>1/</sup>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 2019, ask--]

Dollars & Cents  
per Acre

- j. What was the seed cost per acre for the cover crop?.....
- k. What was the per-acre cost-share or financial assistance payments received for the cover crop? If no program payment was received, enter zero.....

1468	_____
1495	_____



22. 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.

<b>On-field Soil and Crop Management</b>		10 <input type="checkbox"/> Terraces	30 <input type="checkbox"/> Implement an integrated pest management plan - written plan
1 <input type="checkbox"/> No-till/strip-till	12 <input type="checkbox"/> Grass waterway	31 <input type="checkbox"/> Drift reducing spray nozzles	
2 <input type="checkbox"/> Conservation tillage except no-till/strip-till	20 <input type="checkbox"/> Implement a nutrient management plan - written plan.	32 <input type="checkbox"/> Targeted sprayer - electrical control	
3 <input type="checkbox"/> Cover crop - single species	21 <input type="checkbox"/> Precision nutrient application	<b>Adjacent to Field</b>	
4 <input type="checkbox"/> Cover crop mix	22 <input type="checkbox"/> Subsurface phosphorous application	33 <input type="checkbox"/> Filter strip	
5 <input type="checkbox"/> Contour farming	23 <input type="checkbox"/> No fertilizer application more than 30 days before planting	34 <input type="checkbox"/> Field border	
6 <input type="checkbox"/> Conservation crop rotation	24 <input type="checkbox"/> Controlled release fertilizer	35 <input type="checkbox"/> Riparian buffer - grass or forest	
7 <input type="checkbox"/> Laser levelling	26 <input type="checkbox"/> Split nitrogen application with at least 50% applied after planting		

- b. For each practice or activity checked in 22a, please complete one line of this table.

1	2	3		4	5
Practice or Activity on the Selected Field	Practice Code (see item 22a)	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 2020?
		Technical or planning assistance?	Financial Assistance?		
	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
	1650	1651	1652	1653	1654
	1655	1656	1657	1658	1659
	1660	1661	1662	1663	1664

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

	Code
Yes=1	1404
No=3	

24. Do you have a written conservation plan that specifies practices to control soil erosion?.....

Yes=1	0702
No=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.....

	Code
Yes=1	1405
No=3	

26. What is the primary soil texture of the selected field?.....

- |         |
|---------|
| 1 Loam  |
| 2 Clay  |
| 3 Sandy |
| 4 Mixed |

	Code
	2401

27. Next we will ask about soil and water concerns that you have on the selected field.

In the selected field, are you concerned about any of the following?	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:  1 USDA - NRCS 2 Cooperative Extension Service 3 Other USDA staff, including Forest Service 4 Other (e.g. Soil and Water Conservation District, state agency)	
		Source 1	Source 2
a. Water-driven erosion.....	2407	2417	2427
b. Wind-driven erosion.....	2408	2418	2428
c. Soil compaction.....	2409	2419	2429
d. Poor drainage.....	2410	2420	2430
e. Low organic matter.....	2411	2421	2431
f. Water quality.....	2412	2422	2432
g. Other concerns.....	2413	2423	2433
h. *No significant concerns.....	2414		

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

28. Has the selected field been in any conservation program contracts for which you or your landlord received or expected to receive cost-sharing payments, stewardship payments, or incentive payments?.....

- |   |           |
|---|-----------|
|   | Unit Code |
| 1 | Current   |
| 2 | Past      |
| 3 | Never     |

a. Environmental Quality Incentives Program (EQIP).....	2611
b. Conservation Security or Conservation Stewardship Program (CSP).....	2612
c. Conservation Reserve Program (CRP).....	2613
d. Other Federal, State, Local, or non-Government source.....	2614

29. Did you harvest both rice and crawfish from the selected field during 2020?.....

Yes= 1	Code	2620
No = 3		

[If item 29 = 1, ask--]

a. Do you believe the crawfish harvest reduced the rice yield in the selected field during 2020?.....

Yes= 1	Code	2621
No = 3		

[If item 29a = 1, ask--]

b. By what percentage do you believe the rice yield in the selected field was reduced as a result of the harvest of crawfish?.....

Code	2622
------	------

30. Did you maintain a flood on the selected field during the winter season as a beneficial habitat for wildlife or waterfowl?.....

Yes= 1	Code	2623
No = 3		

[If item 30 = 1, ask--]

a. How much water was left on the selected field as a winter flood?.....

Inches per Acre	OR	Total Acre-Feet
2624		2625

b. Did you receive payment for maintaining a flood on the selected field?.....

Yes= 1	Code	2626
No = 3		

[If item 30b = 1, ask--]

i. What was the payment you received for maintaining a winter flood on the selected field?.....

Dollars & Cents per Acre	OR	Total Dollars
2627		2628

31. In 2020, was the rice in the selected field covered by a single or named peril crop insurance policy (e.g. hail, replant, wind, freeze)?.....

Yes=1	Code	2520
No=3		

[If item 31 = 1 ask, otherwise go to item 32.]

a. 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	Code	2517
No=3		

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

Dollar & Cents per Acre	2521
-------------------------	------

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

Percent	2522
---------	------

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

Dollar & Cents per Acre	2523
-------------------------	------

e. Did you or will you collect an indemnity payment for the selected field from the single peril policy during 2020?.....

Yes=1	Code	1394
No=3		

32. In 2020, was the rice in the selected field covered by a multi-peril crop insurance policy?..... Yes=1  
No=3

Code  
1385

[If item 32 = 1 ask, otherwise go to Section C]

a. Which coverage did you obtain?..

1 Federal CAT - basic catastrophic insurance  
2 Yield Protection (YP)  
3 Revenue Protection (RP)  
4 Other multi-peril crop insurance

Code  
1386

[If item 32a = 2, ask--]

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

Percent  
1387

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

Percent  
1388

[If item 32a = 3, ask--]

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

Percent  
1389

b. Did you purchase a policy for Hurricane Insurance Protection - Wind Index in 2020?..... Yes=1  
No=3

Code  
1391

c. What type of unit coverage did you purchase for the selected field?.....

1 Basic  
2 Optional  
3 Enterprise

Code  
2524

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

Year  
2525

e. What is the 2020 Approved APH (actual production history) yield for the selected field?.....

CWT per Acre  
2526

f. What was the premium paid for multi-peril crop insurance for the selected field in 2020? EXCLUDE any sign-up fee.....

Dollars & Cents per Acre  
2527

g. Did you or will you collect an indemnity payment for the selected field from multi-peril crop insurance during 2020?..... Yes=1  
No=3

Code  
2528

1. Were commercial nutrients or fertilizers applied to the selected field for the 2020 rice crop? INCLUDE those from operators, landlords, and contractors....

Yes=1 No=3

Code	Office Use Edit Table
0202	0200

[If item 1 = 1 continue, otherwise go to item 6]

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.....

Number
0203

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

INCLUDE		EXCLUDE	
<input type="checkbox"/>	Custom applied nutrients or fertilizers	<input type="checkbox"/>	Micronutrients
<input type="checkbox"/>	Nutrients or fertilizers applied in the fall of 2019 and those applied earlier if the selected field was fallow in 2019.	<input type="checkbox"/>	Unprocessed manure
<input type="checkbox"/>	Commercially prepared manure or compost	<input type="checkbox"/>	Nutrients or fertilizers applied to previous crops in the selected field
		<input type="checkbox"/>	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	5 In irrigation water
2 Broadcast, ground with incorporation	6 Chisel/injected or knifed in
3 Broadcast, by aircraft	7 Banded in or over row
4 In seed furrow	8 Foliar or directed spray

L I N E	2 Materials Used				3 What quantity was applied per acre?  [Leave this column blank if actual nutrients were reported]	4 [Enter material code]  1 Pounds 12 Gallons 19 Pounds of actual nutrients	5 When was this applied?  1 In the fall before seeding 2 In the spring before seeding 3 At seeding 4 After seeding	6 How was this applied?  [Refer to code list above]	7 How many acres in the selected field were treated in this application?  Acres
	[Enter percentage analysis or actual pounds of plant nutrients applied per acre.]  [Show Common Nutrients or Fertilizers in Respondent Booklet]								
	N Nitrogen	P <sub>2</sub> O <sub>5</sub> Phosphate	K <sub>2</sub> O 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
09	31	32	33	34	36	37	38	39	40
10	31	32	33	34	36	37	38	39	40

4. Were any nutrients or fertilizers applied by custom applicators?..... Yes=1 Code 0214  
 No=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=1 Code 0216  
 No=3

[If item 4a = 1 continue, otherwise go to item 5.]

b. Excluding the cost of the nutrient or fertilizer materials, how much was spent for custom application of nutrients or fertilizers on 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 OR 0220

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

5. What was the total cost of all nutrient or fertilizer products applied to 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 OR 0222

[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.]

6. Was gypsum applied to the selected field for the 2020 rice crop?..... Code 0218  
 Yes=1  
 No=3

7. Was a soil test for soil organic matter performed on this rice field at some point in the last 10 years?..... Code 3225  
 Yes=1  
 No=3

[If item 7 = 1, ask--]

a. What was the percentage of soil organic matter on the field for the most recent test?..... Percent 3226

b. How many times have you tested the selected field for soil organic matter in the last 10 years?..... Number 3227

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

c. Based on these tests, is your soil organic matter content?..... Code 3228  
 1 Increasing  
 2 Decreasing  
 3 Staying roughly the same

8. Was a soil or plant tissue test performed on the selected rice field in 2019 or 2020 for the 2020 crop?..... Code 0224  
 Yes=1  
 No=3

[If item 8 = 1, continue, otherwise go to item 13.]

9. Was a soil test for phosphorus performed on the selected rice field in 2019 or 2020 for the 2020 crop?..... Code 0225  
 Yes=1  
 No=3

[If item 9 = 1 ask--]

a. How many pounds of phosphorus per acre were recommended by the phosphorus test?..... Pounds per Acre 0226

10. Was a soil test for nitrogen performed on this rice field in 2019 or 2020 for the 2020 crop?..... Code 0227  
 Yes=1  
 No=3

[If item 10 = 1, ask--]

a. How many pounds of nitrogen per acre were recommended by the nitrogen test?..... Pounds per Acre 0228

11. 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

Code 0229

12. How much was spent for these soil and plant tissue tests on the selected field? INCLUDE operator, landlord, and contractor costs.....

Dollars & Cents per Acre 0230

OR Total Dollars 0231

[If tests were done at no cost, continue, otherwise go to item 12b.]

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

1 Soil/plant tissue test provided free of charge by dealer, crop consultant, or extension service	.....	Code 0232
2 Soil/plant tissue test costs were included in the total fertilizer costs reported in item 5		
3 Some other reason		

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

Yes=1 No=3

Code 3231

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

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

a. Results of a soil or plant tissue test?.....	Yes=1 No=3	Code 0233
b. Crop consultant recommendation?.....	Yes=1 No=3	Code 0234
c. Fertilizer dealer recommendation?.....	Yes=1 No=3	Code 0235
d. Extension Service recommendation?.....	Yes=1 No=3	Code 0236
e. Cost of nitrogen and/or expected commodity price?.....	Yes=1 No=3	Code 0237
f. Contractor recommendation?.....	Yes=1 No=3	Code 0238
g. Routine practice - operator's own determination based on past experience, yield goal, etc.?...	Yes=1 No=3	Code 0239

[If nitrogen inhibitors were used, continue, otherwise go to item 14.]

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

None  Pounds per Acre 2561

OR Gallons per Acre 2562

14. Was time-released fertilizer applied to the selected field?.....

Yes=1 No=3

Code 2567

15. Is lime ever applied to the selected field?.....

Yes=1 No=3

Code 0242

[If item 15 = 1 continue, otherwise go to item 16.]

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

Years 0243

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

Tons per Acre 0244

c. Was lime applied to the selected field in 2019 or 2020 for the 2020 crop?.....

Yes=1 No=3

Code 0240

16. 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 rice crop? EXCLUDE commercially prepared manure.....

Yes=1	Code
No=3	0246

[If item 16 = 1 continue, otherwise go to Section D.]

a. To how many acres in the selected field was manure or compost applied?.....

Acres
0247
Unit Codes
1 Tons
2 Gallons
3 Bushels
4 Cubic yards

b. What was the amount of manure or compost applied per acre to the selected field?.....

Units per acre	0249	0248
----------------	------	------

c. Of the total manure or compost applied to the selected field for the 2020 rice crop, what was the percent of manure or compost applied--

i. in the fall before planting?..... +

ii. in the spring before planting?..... +

iii. after planting?..... +

Percent
0254
0255
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

f. Was the major source of manure or compost--.....

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
0259

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

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

Code
0260

[If item 16g = 2, continue, otherwise go to item 16h.]

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 have someone to custom apply the manure or compost?.....

Yes=1	Code
No=3	1316



[If item 16gii = 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 cost.....

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.]

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

Miles

0291

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

Code

Yes=1  
No=3

0261

j. 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 16j = 1, ask--]

i. By what percent did you reduce the commercial nitrogen fertilizer application rate on the selected field?.....

Percent

0263

ii. Did you adjust the rice harvest date for the selected field due to the application of manure or compost?.....

Code

Yes=1  
No=3

0280

17. 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 17 = 1, 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

18. Compared to the last time you planted rice, 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, e.g. 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, e.g. plant rice 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 item 18d = 1, ask--]

i. By what percent did you reduce the amount of commercial nitrogen fertilizer applied for 2020?..

Percent

1225

**D**

**BIOCONTROL or PESTICIDE APPLICATIONS - SELECTED FIELD**

**D**

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

1. Were any herbicides, insecticides, fungicides or other biocontrols or pesticides used on this rice field for the 2020 crop?.....

Yes=1  
No=3

Code	Office Use Edit Table
0302	0300

[Probe for applications made 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 defoliant, fungicides, herbicides, insecticides, and other pesticides.  
INCLUDE biological and botanical pesticides.

EXCLUDE adjuvants, nutrients or fertilizers reported earlier and seed treatments.

Office Use Line in Table	Table 001	0399
-----------------------------	--------------	------

Chemical Product Name	L I N E	2 What products were applied to the selected field? [Show product codes from Respondent Booklet.]	3 Was this product bought in liquid or dry form? [Enter L or D]	4 If this was part of a tank mix, enter line number of first product in mix.	5 When was this applied? 1 Before planting 3 At planting 4 After planting 5 Defoliation prior to harvest	6 OR 7		8 [Enter unit code] 1 Pounds 12 Gallons 13 Quarts 14 Pints 15 Liquid Ounces 28 Dry Ounces 30 Grams
						How much was applied per acre per application?	What was the total amount applied per application in the selected field?	
	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--

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)

## Applications Codes for Column 9

- |   |                                  |
|---|----------------------------------|
| 1 Broadcast, ground without incorporation | 6 Chiseled/injected or knifed in |
| 2 Broadcast, ground with incorporation    | 7 Banded in or over row          |
| 3 Broadcast, by aircraft                  | 8 Foliar or directed spray       |
| 4 In seed furrow                          | 9 Spot treatments                |
| 5 In irrigation water                     |                                  |

L I N E	9	10	11	12	13	14
	How was this product applied? [Enter code from above.]	How many acres in the selected field were treated with this product?  Acres	How many times was it applied?  Number	Were these applications made by-- 1 Operator, partner, or family member? 2 Custom applicator? 3 Employee/Other?	What was the cost per unit of the product?  Dollars & Cents per Unit	Unit Code 1 Pounds    15 Liquid Ounces 12 Gallons    28 Dry Ounces 13 Quarts    30 Grams 14 Pints
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

3. Were any chemicals, biocontrols, or pesticides applied by custom applicators?..... Yes=1 No=3 Code  
0323

[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 separately?..... Yes=1 No=3 Code  
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, defoliant, 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.

Now I have some questions about your pest management decisions and practices used on the selected field for the 2020 rice crop. By pests, we mean weeds, insects, and diseases.

[Enumerator Action: Were pesticide applications reported in Section D?]

Yes - Continue     No - Go to item 6

- |  |               |              |
|--|---------------|--------------|
| 1. Were weather data used to assist in determining either the need or when to make pesticide applications?.....  | Yes=1<br>No=3 | Code<br>0800 |
| 2. Were any biological pesticides such as Bt ( <i>Bacillus thuringiensis</i> ), insect growth regulators, neem or other natural/biological based products sprayed or applied to manage pests in the selected field?..... | Yes=1<br>No=3 | Code<br>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=1<br>No=3 | Code<br>0802 |

[Enumerator Action: Were herbicide (pesticide product codes 10000-99000) applications reported in Section D, item 1, column 2?]

Yes - Continue     No - Go to item 6

- |   |               |              |
|---|---------------|--------------|
| 4. Were herbicides applied to the selected rice field before weeds emerged?.....  | Yes=1<br>No=3 | Code<br>0803 |
| 5. Were herbicides applied to the selected rice field after weeds emerged?.....   | Yes=1<br>No=3 | Code<br>0805 |
| 6. Were records kept for the selected field to track the activity or numbers of weeds, insects, or diseases?.....                             | Yes=1<br>No=3 | Code<br>0823 |
| 7. Did you use published information on infestation thresholds to determine when to take measures to manage pests in the selected field?..... | Yes=1<br>No=3 | Code<br>0824 |

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.]

- |   |               |              |
|---|---------------|--------------|
| 8. In 2020, how was the selected field primarily scouted for insects, weeds, diseases, and/or beneficial organisms?.....                              | .....         | Code<br>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=1<br>No=3 | Code<br>0809 |
| 10. Was scouting for pests done in the selected field due to--  |               |              |
| a. a pest advisory warning?.....  | Yes=1<br>No=3 | Code<br>0810 |
| b. a pest development model?.....   | Yes=1<br>No=3 | Code<br>0811 |

1	2	3	4
11. Was this rice field scouted for--		[If Yes, ask--] What was the infestation level for [column 1]? 1 Higher than normal 2 Normal 3 Lower than normal  Code	[If column 2 = 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?.....	Yes=1 No=3 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 & Cents per 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: _____			0333
			Code
13. Were scouting data compared to published information on infestation thresholds to determine when to take measures to manage pests in the selected field?.....		Yes=1 No=3	0824
14. Did you use field mapping of previous weed problems to assist you in making weed management decisions?.....		Yes=1 No=3	0825
15. 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=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	0057
p. Maintain buffer strips or border rows to isolate rice 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
			Code
16. Were any beneficial organisms, such as insects, nematodes, or 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

Code
0858

[If item 16 or item 17 = 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 previously reported.....

Dollars & Cents per Acre	OR	Total Dollars
0859		0860

18. Was a trap crop, excluding fallow, grown to help manage insects in the selected field?..... Yes=1 No=3

Code
0863

19. Was the selected field left fallow in 2019 to help manage insects on the selected field?..... Yes=1 No=3

Code
0864

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

21. Did pests, such as weeds, insects, pathogens, animals, cause any yield loss on the selected field in spite of your pest control efforts?..... Yes=1 No=3

Code
0827

[If item 21 = 1, continue, otherwise go to item 22.]

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

Units per Acre	Unit Codes
0829	0828

22. If the selected field were not treated with herbicides, tillage, or cultivation, how much yield loss per acre would you expect from weeds?.....

Units per Acre	Unit Codes
0869	0870

Completion Code for Pest Management Data	
1 Incomplete/Refusal	0500

**F FIELD OPERATIONS - SELECTED FIELD**

1. Including custom operations, I need to list field work performed by machines on the selected field for the 2020 rice 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 2019, list operations starting with fall 2018.
- 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

**Check List**

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/land plaster applications
- Compost & Non-commercial manure applications

1 LINE No.	2 SEQUENCE No.	3 What operation or equipment was used?	4 [Record machine code from Respondent Booklet.] Code	5 Who was the machine operator? [Enter code from above.] Code	[If Column 5 = code 6, skip columns 6 thru 11]						
					6 What was the size or swath of the [machine] used? Code	7 [Record size unit code.] 1 Feet 2 Row 3 Moldboard bottoms Hauling 4 Pounds 5 Bushels 6 Tons Code	8 How many acres were covered? [EXCLUDE land forming and hauling operations.] Acres	OR	9 How many total hours were spent on land forming and hauling? [Example: backhoes, disk border maker, ditcher, rear mounted blade, trucks, wagons, forklift etc.] Hours	10 What power source was used? Tractors 1 <40 HP 2 40-99 HP 3 100-149 HP 4 150-199 HP 5 >=200 HP OR 66 Animal Drawn 77 Pick up <sup>1/</sup> 99 Self-Propelled Code	11 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 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

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

Office Use  
0400



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 2020 rice crop.  
 EXCLUDE labor that was reported for field work performed by machines.

Type of Workers	How many hours did (type of worker) spend on the selected field--		
	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

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 wages 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

4. 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
1118     .__ __		2118		3118

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

	Code
Yes=1 No=3	1116

[If item 5 = 1, ask--]

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

	Dollars & Cents Per Acre
1117     .__ __	

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

	Percent
1120	

7. Now I need some information on how much was spent or will be spent for custom services used on the selected field for the 2020 rice crop.

1 Custom Service	2 Including operator, landlord, and contractor costs, how much was spent for [column1] on the selected field for the 2020 rice crop?  Dollars & Cents per Acre
Which of the following services were performed for the 2020 rice crop on the selected field?  [Check box for each service performed; refer to item 1 if necessary.]	
<input type="checkbox"/> a. Custom land preparation, shaping and/or leveling?.....	1121      .__ __
<input type="checkbox"/> b. Custom cultivating?.....	1122      .__ __
<input type="checkbox"/> c. Custom planting and/or reseeding?.....	1123      .__ __
<input type="checkbox"/> d. Custom harvesting?.....	1124      .__ __
<input type="checkbox"/> e. Custom hauling to storage or point of first sale? (Dollars & cents per unit x Total units hauled from field ÷ Acres harvested in field = Dollars & cents per acre)	1126      .__ __
<input type="checkbox"/> f. Custom harvesting and hauling from field to storage or point of first sale? (Dollars & cents per unit x Total units hauled from field ÷ Acres harvested in field = Dollars & cents per acre)	1127      .__ __
<input type="checkbox"/> g. Custom raking, baling, and hauling the straw from the selected field? (Dollars & cents per unit x Total units hauled from field ÷ Acres harvested in field = Dollars & cents per acre)	1128      .__ __

8. Is laser leveling ever performed on the selected field?.....	Code Yes=1 1153 No=3
[If item 8 = 1, ask--]	
a. On average, how many years are there between laser leveling operations performed on the selected field?.....	Years Yes=1 1142 No=3
9. Was the rice harvested and hauled from the selected field dried or will be dried before being sold or stored?.....	Code Yes=1 1195 No=3
10. 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?.....	Code Yes=1 1196 No=3
11. 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 1129 No=3
b. Soil or tissue sample collection?.....	Yes=1 1130 No=3
c. Pest control recommendations/management service?.....	Yes=1 1131 No=3
d. Pest scouting?.....	Yes=1 1132 No=3
e. Irrigation management service (i.e. irrigation scheduling)?.....	Yes=1 1133 No=3
f. Yield map or remote sensing map development/interpretation?.....	Yes=1 1134 No=3
g. Other custom or technical service? [Specify: _____].....	Yes=1 1135 No=3

[If any item in 11a-g = 1, continue, otherwise go to item 13.]

12. What was the cost for any technical or consultant services reported in item 11, on previous page. INCLUDE operator, landlord, and contractor costs. EXCLUDE cost of soil or tissue tests or scouting costs previously reported. Do not report costs for any of these services reported above if they were previously reported as part of the cost of materials and/or application.....

Dollars & Cents  
per Acre

OR

Total Dollars

1136	.	__	__
------	---	----	----

1137
------

13. Please report how any data from the selected field in 2020 will be stored and accessed.

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

Code

i. Paper hard copy?.....

Yes=1	2485
No=3	

ii. Personal computer?.....

Yes=1	2486
No=3	

iii. Mobile device?.....

Yes=1	2487
No=3	

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

Yes=1	2488
No=3	

[If item 13b = 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
No=3	

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
No=3	

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

Yes=1	2460
No=3	

[If item 14 = 1, continue, otherwise go to item 17.]

Please report the data collection technologies you used on the selected field in 2020 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 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 14a column 2 = 1, continue, otherwise go to item 17.]

15. Did you use the yield monitor information to--

- a. add/improve tile drainage?.....
- b. negotiate new crop leases?.....
- c. help determine chemical input use?.....

Code	
Yes=1	1141
No=3	
Yes=1	1144
No=3	
Yes=1	1143
No=3	

[If any item 15 column 2 = 1, continue, otherwise go to item 18]

16. Using data collected from the previous tools table in item 14, did you obtain crop management recommendations, such as data interpretation, in 2020 for the selected field from any of the following--

- a. input dealers without other fee-for-services?.....
- b. input dealers with other fee-for-services?.....
- c. custom service providers?.....
- d. USDA/university extension services?.....

Code	
Yes=1	2491
No=3	
Yes=1	2492
No=3	
Yes=1	2493
No=3	
Yes=1	2494
No=3	

[If item 16a-d = 1, ask--]

e. What was the cost for all of these services? INCLUDE operator, landlord and contractor costs. EXCLUDE 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
3150		3151

17. Did you use an unmanned aerial vehicle (UAV), known as a drone, to help produce or manage the production of rice in the selected field in 2020?.....

Code	
Yes=1	3160
No=3	

[If item 17 = 1, ask--]

a. In the selected field, did you use the UAV for any of the following purposes?

- i. Soil analysis?.....
- ii. Spraying herbicide or fungicide?.....
- iii. Insect analysis?.....
- iv. Insect control?.....
- v. Yield analysis?.....
- vi. Moisture analysis?.....
- vii. Equipment check?.....

Code	
Yes=1	3161
No=3	
Yes=1	3162
No=3	
Yes=1	3163
No=3	
Yes=1	3164
No=3	
Yes=1	3165
No=3	
Yes=1	3166
No=3	
Yes=1	3167
No=3	
Yes=1	3168
No=3	

b. Did you purchase the UAV?.....

[If item 17b = 1, ask--]

i. What is the replacement cost of the UAV?.....

Total Dollars
3169

c. Do you pay an annual fee for use of UAV?

Code	
Yes=1	3170
No=3	

[If item 17c = 1, ask--]

i. What is the annual fee for use of the UAV?.....

Total Dollars
3171

18. Was any of the following GPS-enabled (Global Positioning System) equipment used to produce rice on the selected field in 2020?

	Code
a. Mounted in-cab heads-up displays?..... Yes=1 No=3	2155
b. Smart phones or computer tablets?..... Yes=1 No=3	2156
c. Automatic section control, such as auto sprayer boom controls or automatic section shut offs?..... Yes=1 No=3	2165

19. 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. EXCLUDE 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
2166		2167

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

Code
2148

[If item 20 = 1 continue, otherwise go to item 21.]

	Code
a. Was the guidance auto-steering equipment 1 New, owned 2 Used, owned 3 Leased	2158

	Year
b. What year was guidance auto-steering equipment first purchased?.....	2159

Dollars & Cents per Acre	OR	Total Dollars
2160		2161

Dollars & Cents per Acre	OR	Total Dollars
2162		2163

21. Was a variable rate applicator used on the selected field?.....

Code
2164

[If item 21 = 1 continue, otherwise go to Section G]

Please report the variable rate applicator types you used on the selected field to produce the rice in 2020.

1	2	3	4	5	6
Was a variable rate applicator used on the selected field for:	Tool Used Yes = 1 No = 3	Was this applicator 1 Sensor-based 2 GPS-based 3 Both 4 Neither Code	Was this applicator 1 New, owned 2 Used, owned 3 Leased Code	What year was the applicator first used? Year	Premium paid for the applicator 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.....	1197	2182	2183	2184	2185

Acres

1. How many acres in the selected field were irrigated for the 2020 rice crop?..... 

1160	.____
------	-------

[If none, go to Conclusion]

2. Now I have some questions about the irrigation system and water that covers the most acres on the selected field for the 2020 rice 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 that applied the most water.].....	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 and applied by any irrigation system.....	Inches per Acre	1162
	OR Total Acre Feet	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 rice 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 rice growing season using any 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.].....	Code	1168

1 Turbine
2 Submersible
3 Centrifugal
4 Booster
5 Siphon
99 No Pump

[If code 99, go to item j.].....

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?.....	Code	1171

1 Diesel
2 Gasoline
3 LP Gas
4 Natural Gas
5 Electricity
6 Solar Power

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 2020 growing season? EXCLUDE the selected field.....	Acres	1174 _____

	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
			Code
4. Was any water purchased to irrigate the selected field ? INCLUDE landlord's share and purchases from all sources.....		Yes=1 No=3	1191
[If item 4 = 1 ask, otherwise go to item 5.]			
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.....	1193		1194
			Total Dollars
[If siphon tubes were used, item 2a = 10 or 11, ask--]			
5. What would be the total cost to replace all the siphon tubes used on the selected field?.....			1201
			Total Dollars
[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 2020 growing season? INCLUDE operator, landlord, and contractor costs.....			1202
			Inches
[If gated pipe system was used, item 2a = 15 or 16, ask--]			
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=1 No=3	1205
			Number
[If item 8 = 1 continue, otherwise go to item 9.]			
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
			Feet
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.....			1208
			Code
d. Were other fields irrigated using water pumped from wells that supplied water to the selected field?.....		Yes=1 No=3	1210
			Acres
[If item 8d = 1 continue, otherwise go to item 9.]			
e. Excluding the selected field, how many other acres on this operation were irrigated using the same wells during the 2020 growing season?.....			1211
			Code
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=1 No=3	2211
			Inches
[If item 9 = 1 continue, otherwise go to Conclusion.]			
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

10. Is the run-off from this field--.....

1 Retained at the end of the field? 2 Reused to irrigate on the farm? 3 Collected in evaporation ponds on the farm? 4 Drained from the farm? 5 There is no run-off	Code
--	------

1214
------

11. Did you reduce the water applied to the selected field in 2020 due to reduced availability of water supplies?.....

Yes=1 No=3	Code
---------------	------

1215
------

12. Which of these water management approaches best describes the irrigation water management on the selected field?.....

1 Permanent flooding 2 Pinpoint flooding 3 Delayed flooding 4 Intermittent, controlled, or alternate wetting and drying (AWD) irrigation 5 Furrow, or raised bed irrigation 6 None of the above	Code
--	------

1216
------

13. Which of the following approaches are used to manage drainage of this field?

a. Natural drying of the field when weather allows.....	Yes=1 No=3	Code
b. Opening of levee gates or intentional breach of levee.....	Yes=1 No=3	1230
c. Controlled drainage outlet.....	Yes=1 No=3	1231
d. Treatment of drainage water with saturated buffers, filter strips, or constructed wetlands.....	Yes=1 No=3	1232
e. Treatment of drainage water with a bioreactor.....	Yes=1 No=3	1233
		1234



## CONCLUSION

**Location of Selected Field**

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

	County Name	Office Use State County FIPS Code
1. What county is the selected rice field in?.....		0010 _ _ _ _ _

a. Field description.....

b. Field location.....

	N	<div style="border: 1px solid black; padding: 2px;"> <p style="text-align: center; margin: 0;">L A T I T U D E</p> <p style="text-align: center; margin: 0;">0054 _ . _ . _ ' _ . _ . _ ' _ . _ . _</p> <p style="text-align: center; margin: 0; font-size: small;"><i>d d m m s s</i></p> </div>	W	<div style="border: 1px solid black; padding: 2px;"> <p style="text-align: center; margin: 0;">L O N G I T U D E</p> <p style="text-align: center; margin: 0;">0055 _ . _ . _ . _ ' _ . _ . _ . _ ' _ . _ . _</p> <p style="text-align: center; margin: 0; font-size: small;"><i>d d d m m s s</i></p> </div>
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OR

<div style="border: 1px solid black; padding: 2px;"> <p style="text-align: center; margin: 0;">L A T I T U D E</p> <p style="text-align: center; margin: 0;">0051 _ . _ . _ . _ ' _ . _ . _ . _ ' _ . _ . _</p> <p style="text-align: center; margin: 0; font-size: small;"><i>decimal</i></p> </div>	<div style="border: 1px solid black; padding: 2px;"> <p style="text-align: center; margin: 0;">L O N G I T U D E</p> <p style="text-align: center; margin: 0;">0052 _ . _ . _ . _ ' _ . _ . _ . _ ' _ . _ . _</p> <p style="text-align: center; margin: 0; font-size: small;"><i>decimal</i></p> </div>
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[Enumerator Action: Mark map to indicate where the selected rice 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 2021 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, go to [https://www.nass.usda.gov/Surveys/Guide\\_to\\_NASS\\_Surveys/](https://www.nass.usda.gov/Surveys/Guide_to_NASS_Surveys/)

2. To have a summary emailed to you at a later date, please enter your email address.

1095

3. Ending time [Military].....

	<div style="border: 1px solid black; padding: 2px;"> <p style="text-align: center; margin: 0; font-size: small;">H H M M</p> <p style="text-align: center; margin: 0;">0005 _ _ _ _ _</p> </div>
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Record Use

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

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

Supplements Used

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

	Number		Number		Number
Fertilizer Supplement.....		0041	Pesticide Supplement.....		0042
			Field Operations.....		0043

Operation Email: (if different from above)

Operation Phone:

9937	9936 (    ) - _____	check if cell phone <input type="checkbox"/>
------	------------------------	---

Respondent Name:

Respondent Phone (if different from above)

9912	9911 (    ) - _____	check if cell phone <input type="checkbox"/>	9910	MM	DD	YY
Date: ____			Date: ____			

**This completes the survey. Thank you for your help.**

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-Spouse 3-Acct/Bkpr 4-Partner 9-Other		9902 2-PATI (tel) 3-PAPI (Face-to-Face)		9903 9998		9989		
								Eval.		Change
								9900		9985