

AGRICULTURAL RESOURCE MANAGEMENT SURVEY

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 Phase II



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RICE PRODUCTION PRACTICES AND COSTS REPORT FOR 2020

VERSION 9	ID _____	TRACT 01	SUBTRACT _____	C-TYPE 115
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CONTACT RECORD

DATE	TIME	NOTES

INTRODUCTION:

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

The information you provide will be used for statistical purposes only. Your responses will be kept confidential and any person who willfully discloses ANY identifiable information about you or your operation is subject to a jail term, a fine, or both. This survey is conducted in accordance with the Confidential Information Protection provisions of Title V, Subtitle A, Public Law 107-347 and other applicable Federal laws. For more information on how we protect your information please visit: <https://www.nass.usda.gov/confidentiality>. Response is **voluntary**. You may skip any question(s) you prefer not to answer.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0535-0218. The time required to complete this information collection is estimated to average 65 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

We encourage you to refer to your farm records during the interview.

H H M M

BEGINNING TIME
 [MILITARY]

0004	_____
------	-------

SCREENING BOX

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
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A

RICE FIELD SELECTION

A

1. **How many acres of rice did this operation plant for the 2020 crop year?** *[If no acres planted, review Screening Survey Information Form, make notes, then go to item 4 on back page].....*

TOTAL PLANTED ACRES

0050

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

0051
0052
0053

NUMBER OF FIELDS

+	0056
+	0057
+	0058

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

2. **What is the TOTAL number of rice fields that were planted on this operation?** *[If only one field enter "1" and go to item 5.].....*

TOTAL NUMBER OF FIELDS PLANTED

0020

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

1
2
3
4
5
6
7
8
9

FIELD NAME, NUMBER OR DESCRIPTION

10
11
12
13
14
15
16
17
18



APPLY "RANDOM NUMBER" LABEL HERE

4. [ENUMERATOR ACTION: Circle the pair of numbers on the above label associated with the last numbered field in item 3. Select the field according to the number you circled on the label, and record the selected number. If only one field, enter 1.]

SELECTED FIELD NUMBER

0021

5. 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.]

6. For the randomly selected field above, please provide the Farm Service Agency (FSA):

- a. Farm Number.
- b. Tract Number.
- c. Field Number.

NUMBER

1070
1071
1072

OFFICE USE
OY Field Substituted

0022

B FIELD CHARACTERISTICS---SELECTED FIELD

B

<p>1. How many acres of rice did this operation plant in this field for the 2020 crop?</p>	<p style="text-align: right; margin-right: 5px;">ACRES</p> <div style="border: 1px dashed black; padding: 2px; width: 100px; text-align: center;">1301</div>	
<p>a. Are the acres in this field CERTIFIED ORGANIC?</p> <p style="margin-left: 20px;"><i>[If YES, skip 1b and ask item 2.]</i></p>	<p style="text-align: right; margin-right: 5px;">CODE</p> <div style="border: 1px solid black; padding: 2px; width: 100px; text-align: center;">1300</div>	<p style="text-align: right; margin-right: 5px;">YES = 1</p>
<p>b. Was this field transitioning into organic rice production in 2020?</p>	<p style="text-align: right; margin-right: 5px;">CODE</p> <div style="border: 1px solid black; padding: 2px; width: 100px; text-align: center;">1399</div>	<p style="text-align: right; margin-right: 5px;">YES = 1</p>
<p>2. Were the acres in this field --</p>	<p>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?</p>	<p style="text-align: right; margin-right: 5px;">CODE</p> <div style="border: 1px solid black; padding: 2px; width: 100px; text-align: center;">1302</div>
<p>3. <i>[If field is CASH RENTED (item 2 = 2, 3 or 5), ask item 3, else go to item 4.]</i></p> <p>What was the cash rent paid per acre for this 2020 rice field?</p>	<p style="text-align: right; margin-right: 5px;">DOLLARS & CENTS PER ACRE</p> <div style="border: 1px solid black; padding: 2px; width: 100px; text-align: center;">1303</div>	<p style="text-align: right; margin-right: 5px;">. ____</p>
<p>4. <i>[If field is SHARE RENTED (item 2 = 4 or 5), ask--]</i></p> <p>What was the landlord's share of the crop from this field?</p>	<p style="text-align: right; margin-right: 5px;">PERCENT</p> <div style="border: 1px solid black; padding: 2px; width: 100px; text-align: center;">1304</div>	<p style="text-align: right; margin-right: 5px;">. ____</p>
<p>5. <i>[If field is RENTED (item 2 = 2, 3, 4, or 5), ask--]</i></p> <p>What was the total cost for all inputs provided by any landlord for the 2020 crop on the selected field? <i>(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.)</i></p>	<p style="text-align: right; margin-right: 5px;">DOLLARS & CENTS PER ACRE</p> <div style="border: 1px solid black; padding: 2px; width: 100px; text-align: center;">1305</div>	<p style="text-align: right; margin-right: 5px;">OR</p> <p style="text-align: right; margin-right: 5px;">TOTAL DOLLARS</p> <div style="border: 1px solid black; padding: 2px; width: 100px; text-align: center;">1306</div>
<p>6. What was the total cost for all inputs provided by any contractor for the 2020 crop on the selected field? <i>(Include the costs for all inputs, such as seed, fertilizer, chemicals, technical services, custom operations, drying and irrigation.)</i></p>	<p style="text-align: right; margin-right: 5px;">DOLLARS & CENTS PER ACRE</p> <div style="border: 1px solid black; padding: 2px; width: 100px; text-align: center;">1309</div>	<p style="text-align: right; margin-right: 5px;">OR</p> <p style="text-align: right; margin-right: 5px;">TOTAL DOLLARS</p> <div style="border: 1px solid black; padding: 2px; width: 100px; text-align: center;">1310</div>
<p>7. What year did you <i>(the operator listed on the label)</i> start operating this field?</p>	<p style="text-align: right; margin-right: 5px;">YEAR</p> <div style="border: 1px solid black; padding: 2px; width: 100px; text-align: center;">1312</div>	<p style="text-align: right; margin-right: 5px;">____</p>
<p>8. On what date was this field planted?</p>	<p style="text-align: right; margin-right: 5px;">MM DD YY</p> <div style="border: 1px solid black; padding: 2px; width: 100px; text-align: center;">1308</div>	<p style="text-align: right; margin-right: 5px;">____</p>
<p>a. What was your yield goal at planting for this field? <i>(Include any ratoon crop.)</i></p>	<p style="text-align: right; margin-right: 5px;">UNITS PER ACRE</p> <div style="border: 1px solid black; padding: 2px; width: 100px; text-align: center;">0216</div>	<p style="text-align: right; margin-right: 5px;">1=POUNDS 2=CWT 3-TONS 4-BUSHEL 5-BARRELS</p> <div style="border: 1px solid black; padding: 2px; width: 100px; text-align: center;">0217</div>



9. What type of rice was planted in this field?	<div style="border: 1px solid black; padding: 2px;"> 1 Long? 2 Medium? 3 Short? </div>	CODE
		1324

10. What was the source of the rice seed?	<div style="border: 1px solid black; padding: 2px;"> 1 Purchased? 2 Homegrown or traded? 3 Both? </div>	CODE
		1317

[If item10 = 2 or 3, ask--]

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

[If item 10 = 2 or 3, ask--]

b. How much of the rice seed planted in this field was grown (or received in trade) by this operation?

DOLLARS & CENTS PER POUND
1321 .__
PERCENT
1318

11. [If any seed purchased (item 10 = 1 or 3), ask --]

What was the total cost per unit (including both your and the landlord's share) of purchased seed for this field? (*Include cost of seed treatment.*)

DOLLARS & CENTS PER UNIT	UNIT CODE
1319 .__	1 = POUNDS 2 = CWT 3 = TONS 4 = BUSHEL 22 = ACRE 23 = 50 LB BAGS
1320	

12. What was the seeding rate per acre the first time this field was planted?

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

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

UNITS	UNIT CODE
1313 .__	1 = Pounds/Acre 2 = CWT/Acre 4 = Bushels/Acre 25 = Seeds/Acre 38 = Seeds/Foot
1314	
	CODE
	1316



		ACRES
13. How many acres in this field had to be replanted to rice? (Acres replanted = Number of acres x Number of times replanted.)		1315
		CODE
14. Was a hybrid rice seed planted in this field?	YES = 1	1326
15. Was a herbicide resistant rice seed (such as Clearfield) planted in this field?	YES = 1	1327
		CODE
16. If a genetically modified, herbicide-tolerant (such as glufosinate-tolerant) rice seed becomes available, how likely would you be to plant it in this field under the following conditions? [Assume total cost of seed includes technology fee.]		1 = Very likely to plant 2 = Somewhat likely to plant 3 = Uncertain 4 = Somewhat unlikely to plant 5 = Very unlikely to plant
a. seed cost does not increase.		1501
b. 10 percent seed cost increase.		1502
c. 20 percent seed cost increase.		1503
d. 30 percent seed cost increase.		1504
		CODE
17. If a genetically modified insect-resistant (such as Bt) rice seed becomes available, how likely would you be to plant it in this field under the following conditions? [Assume total cost of seed includes technology fee.]		1 = Very likely to plant 2 = Somewhat likely to plant 3 = Uncertain 4 = Somewhat unlikely to plant 5 = Very unlikely to plant
a. seed cost does not increase.		1505
b. 10 percent seed cost increase.		1506
c. 20 percent seed cost increase.		1507
d. 30 percent seed cost increase.		1508
		CODE
		1 = Very likely to plant 2 = Somewhat likely to plant 3 = Uncertain 4 = Somewhat unlikely to plant 5 = Very unlikely to plant
18. If a genetically modified, nutritionally-enhanced, such as golden rice with beta-carotene (pro vitamin A), rice seed becomes commercially available, how likely would you be to plant it in this field if seed costs and rice yields were the same as conventional rice?		1421

		CODE
19. Has harvest of this field been completed?	YES = 1	1328



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

How many acres in this rice field were (or will be)---	1		2	
	ACRES	What yield per acre did you (or do you expect to) get for rice---	UNIT CODE	CODE
a. harvested for grain, first crop?	1346	1347	1 Pounds 2 CWT 3 Tons 4 Bushels	1348
b. harvested for grain, ratoon crop?	1332	1333		1334
c. harvested for commercial seed contract?	1431	1432		1433
d. abandoned?	1351			
e. used for some other purpose?	1439			

31. Did any livestock graze this corn field after harvest of the 2020 corn crop?

- YES - [Enter code 1 and continue] NO - [Go to item 30]

32. What type of livestock grazed this corn field after harvest of the 2020 corn crop?

1 Cattle
2 Sheep
3 Other [Specify: _____]

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

b. How many **days** did this livestock graze on this corn field?

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

CODE	CODE
Yes=1	

[If yes, ask --]

22. How many tons per acre of residue were removed through harvest?

TONS
1328

a. About how many **head** of cattle grazed the residue?

HEAD
1362

DAYS



b. How many **days** did cattle graze on the residue?

1363

c. How many days did any other livestock graze the residue?

--

23. **Did you purchase seed treated with---**

CODE

a. a fungicide (e.g., Trilex, Allegiance, or other seed treatments)? **YES = 1**

2320

b. an insecticide (e.g., Poncho, Gaucho or Cruiser seed treatment)? **YES = 1**

2322

c. a nematicide (e.g., Acceleron or Avicta seed treatment)? **YES = 1**

2321

CODE

24. *[If item 21a, 21b, or 21c is YES, ask—]* Enter the appropriate product code from the Respondent Booklet, Page 2. *(Enter 3 if a seed treatment was not applied, 999 if a seed treatment was applied but the product is not listed.)*

2325

[If item 21b is YES, ask--]

23. Please report what seed products were used in previous years.

	Seed Product Name	What seed product was used this year [Show product codes from Respondent Booklet.]
2020		
2019		
2018		
2017		
2016		

26. **Did you use an “air delivery” or “vacuum (pneumatic) planter”?** **YES = 1**

2323

[If item 23 is YES, ask--]

CODE

a. Did you use a talc and/or graphite seed flow lubricant? **YES = 1**

2324

b. Did you use an alternative seed flow lubricant (e.g. Bayer Fluency Agent) instead of talc and/or graphite? **YES = 1**

2394

CODE

27. **Has harvest of this field been completed?** **YES = 1**

1328



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

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

1	2	3	4	5	6	
What crops were PLANTED on this field in---	What type of crop was grown on this field? 1 GE Herbicide Tolerant (HT) 2 GE Insect Resistant (Bt) 3 Stacked (HT and BT) 4 GE or Non-GE drought tolerant 5 Not GE	Was this a cover crop?	How did you manage this cover crop?	Was this field irrigated?	Was this field no-tilled or strip-tilled? 1/	
SEASON AND YEAR	CROP NAME	CROP CODE	YES = 1	CODE	YES = 1	YES = 1
a. SPRING/SUMMER of ----	Rice	21				
a. FALL of ----		1343	1470	1471	2344	1345
b. SPRING/SUMMER of 2019? . . .		1369	1472	1473	2370	1371
c. FALL of ----		1372	1474	1475	2373	1374
d. SPRING/SUMMER of ----		1375	1476	1477	2376	1377
e. FALL of ----		1378	1478	1479	2379	1380
f. SPRING/SUMMER of ----		1381	1480	1481	2382	1383
g. FALL of ----		1366	1482	1483	2367	1368
h. SPRING/SUMMER of ----		1340	1484	1485	2341	1342

1/ No-till means leaving soil and previous crop residue undisturbed from harvest to planting. Strip-till means tilling a narrow strip over the row, leaving soil and previous crop residue between the rows undisturbed.

**DOLLARS & CENTS
PER ACRE**

i. [If a cover crop was planted in Spring/Summer/Fall 2019, ask—]
What was the seed cost per acre for the cover crop?

1468	_____	_____
------	-------	-------



Conservation Practice/Conservation Plan List for question 29					
328	Conservation Crop Rotation	590	Nutrient management	332	Contour Buffer Strips
329	No-Till/Strip-Till	???	Livestock Waste Management	386	Field Border
345	Reduced (Conservation) Till	595	Integrated Pest Management	393	Filter Strip
330	Contour Farming	449	Irrigation Water Management	412	Grassed Waterway
340	Cover Crop			410	Grade Stabilization Structure
585	Strip cropping			603	Herbaceous Wind Barriers
				600	Terraces

28. List all conservation practices or plans that were used on this field over the past 5 years.

- 1
- 2
- 3
- 4
- 5

Have you ever received at any time--

What conservation practices have been used on this field at least once in the past 5 years?

**Was this practice or plan used in 2020?
 Technical or planning assistance?
 Financial assistance?
 Does this practice or plan help satisfy?**

1

2

3

USDA including funding of Technical Service Providers

Other Sources of Outside Assistance

No Assistance Needed

1

2

3

4

5

EQIP

CSP

CRP

Other Federal, State and Local Programs

No Assistance Needed



1

2

3

A federal regulatory requirement?

USDA conservation compliance provisions?

Does not relate to any regulation or compliance requirement.

**CODE
YES = 1
CODE**

**CODE
CODE**

0706
0726
0736
0746

0707
0727
0737
0747

0708
0728
0738
0748

0709
0729
0739
0749

0702
0722
0732
0742

0703
0723
0733
0743

0704
0724
0734
0744



0705
0725
0735
0745

26. **Has the Natural Resource Conservation Service (NRCS) classified any part of this field as "Highly Erodible"?** (Cropland identified as highly erodible is subject to highly erodible land conservation (HELC) requirements. Producers who receive farm program payments are required to have (and apply) a written soil conservation plan.) (A "written plan" is a plan prepared in accordance with Federal, State, or district standards.)

YES = 1

CODE

1404

27. **Have you been notified by NRCS that this field contains a wetland?**

YES = 1

1405



33. Was the rice in this field covered by Federal Crop Insurance in 2020?

YES – [Enter code 1 and continue.] NO – [Go to item 31.]

CODE
1385

a. Which coverage did you obtain?

- | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 Federal CAT (basic catastrophic insurance)
2 Yield based (individual)
3 Yield plus SCO (Supplemental Coverage Option)
4 Revenue based (individual)
5 Revenue plus SCO (Supplemental Coverage Option)
6 Other Federal Crop insurance |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

CODE
1386

[If item a = 2 or 3, ask--]

What was your yield level of your buy-up coverage for this field?

PERCENT
1387

What was your price level of your buy-up coverage for this field?

1388

[If item a = 4 or 5, ask--]

What was the level of revenue coverage you obtained for this field?

PERCENT
1389

b. What type of unit coverage did you purchase for this field? (Basic = 1, Optional = 2, Enterprise = 3).

CODE

c. In what year did you (the operator listed on the label) first enroll this field in the Federal crop insurance program?

YEAR

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

CWT PER ACRE

e. What was the premium paid for Federal crop insurance for this field in 2020? (Exclude any sign-up fee).

DOLLARS AND CENTS PER ACRE

f. Did you (or will you) collect an indemnity payment for this field from federal crop insurance during 2020? YES = 1

CODE

34. If you were to plant rice in this field again, would you choose a higher, lower, or equal level of coverage under the same Federal crop insurance plan type as you bought this time?

1 - Higher 2 - Lower 3 - Equal.

CODE
1392



35. Was the rice in this field covered by private crop insurance in 2020
(hail, wind, freeze, etc.)?

YES – [Enter code 1 and continue] NO – [Go to **Section C**].

CODE
1393

DOLLARS & CENTS PER ACRE OR

TOTAL DOLLARS

a. What was the dollar amount of coverage for the private insurance policy covering this field in 2020?

1395

1396

b. What was the premium paid for private crop insurance for this field in 2020? (*Exclude any sign-up fee.*)

DOLLARS & CENTS PER ACRE

c. What was the percent deductible for the private crop insurance policy covering this field? (Record no deductible as 0%)

PERCENT

d. Did you (*or will you*) collect an indemnity payment for this field from private crop insurance during 2020?

CODE YES = 1



C NUTRIENT or FERTILIZER APPLICATIONS---SELECTED FIELD C

1. Were commercial nutrients or fertilizers applied to this field for the 2020 rice crop? YES = 1 [If COMMERCIAL nutrient or fertilizer applied, continue; else go to item 6.]	CODE	EDIT TABLE
	0202	0200

2. How many commercial nutrient or fertilizer applications were made to this 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.**

CHECKLIST	
<input checked="" type="checkbox"/> INCLUDE	<input checked="" type="checkbox"/> EXCLUDE
<input type="checkbox"/> Custom applied nutrients and fertilizers	<input type="checkbox"/> Micronutrients
<input type="checkbox"/> Nutrients or fertilizers applied in the fall of 2019 and those applied earlier if this 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 this field
	<input type="checkbox"/> Lime and Gypsum/landplaster

Office Use Lines in Table	TABLE 001	0299
----------------------------------	------------------	------

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

LINE	2 MATERIALS USED				3	4	5	6	7
	[Enter percentage analysis or actual pounds of plant nutrients applied per acre.]				What quantity was applied per acre?	[Enter material code.]	When was this applied?	How was this applied?	How many acres were treated in this application?
	N Nitrogen	P ₂ O ₅ Phosphate	K ₂ O Potash	S Sulfur	[Leave this column blank if actual nutrients were reported.]	1 Pounds 12 Gallons 19 Pounds of actual nutrients	1 In the fall before seeding 2 In the spring before seeding 3 At seeding 4 After seeding	[Refer to code list above.]	ACRES
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

TABLE 000	LINE 00
------------------	----------------



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

YES - [Continue] NO - [Go to item 5]

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

YES - [Continue] NO - [Go to item 5]

OFFICE USE

0215

b. Excluding the cost of the nutrient or fertilizer materials, how much was spent for custom application of nutrients or fertilizers on this field? (Include operator, landlord, and contractor costs. Include costs for sulfur and micronutrients. Exclude custom application of lime, gypsum, purchased manure and purchased compost.) [If material and application costs can't be separated, exclude them here and record the total in item 6.1.

DOLLARS & CENTS PER ACRE

0219

OR TOTAL DOLLARS

0220

5. What was the TOTAL COST of all nutrient or fertilizer products applied to this field? (Include operator, landlord, and contractor costs, as well as the costs for sulfur and micronutrients. [If custom applied and the cost of material can be separated from application costs, include the cost of materials ONLY; otherwise, include both the material and application costs.] Include materials applied to this field if it was fallow in 2019. Exclude lime,

DOLLARS & CENTS PER ACRE

0221

OR TOTAL DOLLARS

0222

CODE

0218

6. Was gypsum applied to this field for the 2020 rice crop? YES = 1

7. Was a soil test for Soil Organic Matter performed on this soybeans field at some point in the last 10 years? YES = 1

[If item 7 = 1, ask--]

a. What was the percentage of Soil Organic Matter on the field for the most recent test?

b. How many times have you tested this field for Soil Organic Matter in the last ten years?

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

c. Based on these tests, is your Soil Organic Matter content:

- 1 Increasing
- 2 Decreasing
- 3 Staying roughly the same

7. Was a soil or plant tissue test performed on this rice field in 2019 or 2020 for the 2020 crop?

YES [Continue.] NO [Go to item 12.]

CODE

0225

8. Was a soil test for phosphorus performed on this rice field in 2019 or 2020 for the 2020 crop? YES = 1

a. [If phosphorus test done, ask--]

How many pounds of phosphorus (per acre) were recommended (by the phosphorus test)?

POUNDS PER ACRE

0226

CODE

0227

9. Was a soil test for nitrogen performed on this rice field in 2019 or 2020 for the 2020 crop? YES = 1

a. [If nitrogen test done, ask--]

How many pounds of nitrogen (per acre) were recommended (by the nitrogen test)?

POUNDS PER ACRE

0228

CODE



10. Was a plant tissue test or leaf analysis for nutrient deficiency performed on this field for the 2020 crop? YES = 1 0229

11. How much was spent for these soil and plant tissue tests on this field? (Include operator, landlord, and contractor costs.) DOLLARS & CENTS PER ACRE OR TOTAL DOLLARS 0230 0231

a. If tests were done at no cost, explain--- 1 Soil/plant tissue test provided free of charge by dealer, crop consultant, or extension service. 2 Soil/plant tissue test costs were included in the total fertilizer costs reported in item 5. CODE 0232

[ENUMERATOR ACTION: Refer to the Fertilizer Table, column 2. If nitrogen (N) was applied, complete item 12. If NO nitrogen applied, go to item 13.]

12. Was the amount of nitrogen you decided to apply to this field based on--- CODE 0233 a. Results of a soil or plant tissue test? YES = 1 0234 b. Crop consultant recommendation? YES = 1 0235 c. Fertilizer dealer recommendation? YES = 1 0236 d. Extension Service recommendation? YES = 1 0237 e. Cost of nitrogen and/or expected commodity price? YES = 1 0238 f. Contractor recommendation? YES = 1 0239 g. Routine practice (operator's own determination based on past experience, yield goal, etc.)? YES = 1

13. Is lime ever applied to this field? YES = 1 CODE 0242

[If no lime applied, go to item 14; else continue.]

a. On average, how many years are there between applications of lime to this field? YEARS 0243

b. How many tons of lime were applied per acre the last time it was applied to this field? TONS PER ACRE 0244

c. Was lime applied to this field in 2019 or 2020 for the 2020 crop? YES = 1 CODE 0240

d. [If field is rented (Section B, item 2 = 2, 3, 4, or 5), ask---] PERCENT 0245 Considering the last time it was applied, what percent of the total cost of lime and its application was paid by the landlord(s)?

14. Was non-commercial manure (from own farm, from a neighbor's farm, etc.) or other organic material (excluding compost) applied to this field for the 2020 rice crop? (Exclude commercially prepared manure.) CODE 0246 [] YES - [Enter code 1 and continue] [] NO - [Go to item 16]

a. How many acres in this field was manure applied to? ACRES 0247

[] CODE UNITS PER ACRE OR TOTAL UNITS



b. What was the amount of manure applied to this field?.....

- 1 Tons
- 2 Gallons
- ~~3 Bushels~~

...

0248

AND

0249 .__ _

0250 .__ _



MILES

c. What is the distance between the manure storage/production location and this field?

0251	_____
------	-------

d. What was the capacity of the manure spreader (or other vehicle) used to haul manure to this field?

1 Tons
2 Gallons
3 Bushels

CODE	0252
------	------

AND

TOTAL UNITS	0253	_____
-------------	------	-------

e. Of the total manure applied to this field for the 2020 crop, what was the percent of manure applied---

PERCENT

(i) in the fall before planting? +

0254

(ii) in the spring before planting? +

0255

(iii) after planting? +

0256

100%

f. Was the manure---

1 Lagoon liquid?
2 Slurry liquid?
3 Semi-dry or dry?

CODE	0257
------	------

g. Was the manure---

1 Broadcast or sprayed <i>without</i> incorporation?
2 Broadcast or sprayed <i>with</i> incorporation?
3 Injected/knifed in?
4 Sprayed using irrigation systems?

CODE	0258
------	------

h. Was the major source of the manure from---

1 Beef cattle?
2 Dairy cattle?
3 Hogs?
4 Sheep?
5 Poultry?
6 Equine?
7 Biosolids (<i>municipal sludge</i>)?
8 Food waste?
9 Other? [<i>Specify: _____</i>]

CODE	0259
------	------

i. Was the manure---

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

CODE	0260
------	------

(i) [*If item 14i = 2, ask---*]

What was the total cost of the purchased manure applied to this field? (*Include any payment made for transportation costs.*)

DOLLARS & CENTS PER ACRE OR TOTAL DOLLARS

0284	_____	OR	0285
------	-------	----	------

(ii) Did you hire someone to custom apply the manure? YES = 1

CODE	0286
------	------

(a) [*If YES, ask---*]

What was the total cost paid to have manure custom applied to this field? [*Do not report custom application cost if it was included with the purchased manure cost.*]

DOLLARS & CENTS PER ACRE OR TOTAL DOLLARS

0287	_____	OR	0288
------	-------	----	------



j. Of the manure applied to this field, was any tested for nutrient content prior to application? YES = 1 CODE
0261

k. Was the application rate of commercial nitrogen fertilizer on this field reduced due to manure application? YES = 1 0262

(i) [If YES, ask---]
By what percent did you reduce the commercial nitrogen fertilizer application rate on this field? PERCENT
0263

l. Did you adjust the rice harvest date for this field due to the application of manure? YES = 1 CODE
0280

15. Were the manure APPLICATION RATES to this field influenced by Federal, State, or local restrictions? YES = 1 CODE
0264

a. [If item 14 is YES, ask---]
What basis was used to determine these manure application rate restrictions--

(i) Nitrogen requirement of the crop? YES = 1 CODE
0265

(ii) Phosphorus requirement of the crop? YES = 1 0266

16. Was compost applied to this field for the 2020 rice crop?
 YES - [Enter code 1 and continue] NO - [Go to item 17]. CODE
0267

a. How many acres in this field was the compost applied? ACRES
0268

b. What was the amount of compost applied to this field? CODE UNITS PER ACRE OR TOTAL UNITS

1 Tons	0269	AND	2 Cubic Yards	0270	0271
--------	------	-----	---------------	------	------

c. Were the major sources of the compost from---

1 Beef cattle? 2 Dairy cattle? 3 Hogs? 4 Sheep? 5 Poultry? 6 Equine? 7 Biosolids (municipal sludge)? 8 Food waste? 9 Crop? [Specify: _____] 10 Other? [Specify: _____]	[Enter up to 3 source codes] FIRST 0281 SECOND 0282 THIRD 0283
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------

d. Was the compost---

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

	CODE 0272
--	--------------



(i) [If item 16d = 2, ask---]

What was the total cost of the purchased compost applied to this field? (**Include** operator, landlord, and contractor costs and any payment made for transportation costs.)

DOLLARS & CENTS PER ACRE

OR

TOTAL DOLLARS

0273

0274

CODE

0275

(ii) Did you hire someone to custom apply the compost? YES = 1

(a) [If YES, ask---]

What was the total cost paid to have compost custom applied to this field? (**Include** operator, landlord, and contractor costs.) [Do not report custom application cost if it was included with the compost cost.]

DOLLARS & CENTS PER ACRE

OR

TOTAL DOLLARS

0276

0277

(iii) [If item 16d = 1, ask---]

What is the distance between the compost storage/production location and this field?

MILES

0291

17. 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 this field [e.g. less anhydrous ammonia and more urea]. YES=1
- b. Manage fertilizer use more closely, with such practices as soil testing, split applications, variable rate applications, or soil incorporation on this field? YES=1
- c. Change your crop rotation [e.g. plant rice on this field rather than usual crop rotation]? . . . YES=1
- d. Reduce the application of commercial nitrogen fertilizer? YES=1

1226

1228

1227

1224

(i) [If YES, ask--]

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 this field for the 2020 rice crop, including both custom applications and applications made by this operation.

CODE	EDIT TABLE
0302	0300

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

[Probe for applications made in the fall of 2019 (and those made earlier if this 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 nutrients or fertilizers reported earlier and seed treatments.
------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------

OFFICE USE LINES IN TABLE	TABLE 001	0399
------------------------------	--------------	------

CHEMICAL PRODUCT NAME	LINE	2	3	4	5	6	OR	7	8	
		What products were applied to this field? <small>[Show product codes from Respondent Booklet.]</small>	Was this product bought in liquid or dry form? <small>[Enter L or D]</small>	Was this part of a tank mix? <small>[If tank mix, enter line number of first product in mix.]</small>	When was this applied? 1 BEFORE planting 3 AT planting 4 AFTER Planting	How much was applied per acre per application?	What was the total amount applied per application in this field?	<small>[Enter unit code.]</small> 1 Pounds 12 Gallons 13 Quarts 14 Pints 15 Liquid Ounces 28 Dry Ounces 30 Grams		
	01	61		63	64	65	_____	73	_____	74
	02	61		63	64	65	_____	73	_____	74
	03	61		63	64	65	_____	73	_____	74
	04	61		63	64	65	_____	73	_____	74
	05	61		63	64	65	_____	73	_____	74
	06	61		63	64	65	_____	73	_____	74
	07	61		63	64	65	_____	73	_____	74
	08	61		63	64	65	_____	73	_____	74
	09	61		63	64	65	_____	73	_____	74
	10	61		63	64	65	_____	73	_____	74
	11	61		63	64	65	_____	73	_____	74
	12	61		63	64	65	_____	73	_____	74
	13	61		63	64	65	_____	73	_____	74
	14	61		63	64	65	_____	73	_____	74

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

LINE	Pesticide Type <small>(Herbicide, Insecticide Fungicide, etc.)</small>	EPA No. or Trade name and Formulation	Form Purchased <small>(Liquid or Dry)</small>	Where Purchased <small>[Ask ONLY if EPA No. cannot be reported.]</small>



APPLICATIONS CODES for column 9	
1 Broadcast, ground without incorporation	6 Chisel/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	

[ENUMERATOR NOTE:
 Use these columns only if
TOTAL COST
(item 4 on next page)
 cannot be provided.]



L I N E	9	10	11	12
	How was this product applied? <small>[Enter code from above.]</small>	How many acres in this 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?
01	76	77 .__	79	80
02	76	77 .__	79	80
03	76	77 .__	79	80
04	76	77 .__	79	80
05	76	77 .__	79	80
06	76	77 .__	79	80
07	76	77 .__	79	80
08	76	77 .__	79	80
09	76	77 .__	79	80
10	76	77 .__	79	80
11	76	77 .__	79	80
12	76	77 .__	79	80
13	76	77 .__	79	80
14	76	77 .__	79	80

OPTIONAL ITEM 4	
What was the cost per unit of the product?	
DOLLARS & CENTS PER UNIT	UNIT CODE
81 .__	82
81 .__	82
81 .__	82
81 .__	82
81 .__	82
81 .__	82
81 .__	82
81 .__	82
81 .__	82
81 .__	82
81 .__	82
81 .__	82
81 .__	82
81 .__	82
81 .__	82
81 .__	82
81 .__	82



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

- YES** – [Continue] **NO** – [Go to item 4]

a. Are you able to report the cost of chemical, biocontrol, and pesticide products and custom application separately?

OFFICE USE
0324

- YES** – [Continue] **NO** – [Go to item 4]

b. Excluding the cost of the chemical, biocontrol, and pesticide products, how much was spent for custom application of such materials on this field? (**Include** operator, landlord, and contractor costs.)

DOLLARS & CENTS PER ACRE	OR	TOTAL DOLLARS
0331		0332
. ____		

4. **What was the TOTAL COST of all chemical, biocontrol, or pesticide products applied to this field? (**Include** operator, landlord, and contractor costs, defoliants, herbicides, insecticides, fungicides, surfactants, wetting agents, growth regulators, and materials applied before planting and during 2019 fallow period. **Exclude** seed treatments.)**

DOLLARS & CENTS PER ACRE	OR	TOTAL DOLLARS
0334		0335
. ____		

NOTE 1: If respondent cannot report TOTAL COST, itemize cost for each product in optional columns in Biocontrol or Pesticide Table.

NOTE 2: If custom applied and the costs for materials can be separated from application costs, include the cost for materials only. Otherwise, report both the material and application costs in item 4.



E PEST MANAGEMENT PRACTICES---SELECTED FIELD

E

Now I have some questions about your pest management decisions and practices used on this 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]

- | | | CODE |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|------|
| 1. Was weather data used to assist in determining either the need or when to make pesticide applications? | YES = 1 | 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 this field? | YES = 1 | 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 | 0802 |

[ENUMERATOR ACTION: *Were HERBICIDE (pesticide product codes 40000-49999) applications reported in Section D, item 1, column 2?*

- YES – [Continue] NO – [Go to item 6]

- | | | |
|---------------------------------------------------------------------------|---------|------|
| 4. Were herbicides applied to this rice field BEFORE weeds emerged? | YES = 1 | 0803 |
| 5. Were herbicides applied to this rice field AFTER weeds emerged? | YES = 1 | 0805 |

- | | | |
|-------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| 6. In 2020, how was this field primarily scouted for insects, weeds, diseases, and/or beneficial organisms? | 1 By deliberately going to the field specifically for scouting activities [Enter code 1 and go to item 7.]
2 By conducting general observations while performing routine tasks [Enter code 2 and go to item 9.]
3 This field was not scouted. [Enter code 3 and go to item 14.] | CODE
.....
border: 1px solid black; text-align: center; padding: 2px 10px; |
|-------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|

- | | | |
|------------------------------------------------------------------------------------------------------------------------------------------|---------|------|
| 7. Was an established scouting process (systematic sampling, recording counts, etc.) used or were insect traps used in this field? | YES = 1 | 0809 |
| 8. Was scouting for pests done in this field due to--- | | |
| a. a pest advisory warning? | YES = 1 | 0810 |
| b. a pest development model? | YES = 1 | 0811 |



1	2	3
	[If YES, ask---] What was the infestation level for [column 1]?— 1 Worse than normal 2 Normal 3 Less than normal	[If column 1 = YES, ask---] Who did the majority of the scouting for [column 1]? 1 Operator, partner or family member 2 An employee 3 Farm supply or chemical dealer 4 Independent crop consultant or commercial scout
9. Was this rice field scouted for--	YES = 1	CODE
a. Weeds?	0812	0813
b. Insects or mites?	0815	0816
c. Diseases?	0818	0819

[If scouted by crop consultant or commercial scout, ask item 10; else go to item 11.]

10. How much was charged for the scouting services for this field? [Include operator, landlord and contractor cost.]

	DOLLARS & CENTS PER ACRE	OR	TOTAL DOLLARS
	0821		0822
a. [If scouting performed at no cost, explain: _____]			0333

	CODE
11. Were written or electronic records kept for this field to track the activity or numbers of weeds, insects or diseases? YES = 1	0823
12. Were scouting data compared to published information on infestation thresholds to determine when to take measures to manage pests in this field? YES = 1	0824
13. Did you use field mapping of previous weed problems to assist you in making weed management decisions? YES = 1	0825



14. **Did you do any of the following other type(s) of pest management practices for the specific purpose of managing or reducing the spread of pests in this field?**

[Enter code "1" for all that apply.]

		CODE
a.	Use the services of a diagnostic laboratory for pest identification or soil plant tissue pest analysis for this field?	0841
	YES = 1	
b.	Plow down crop residue (<i>using conventional tillage</i>)?	0842
	YES = 1	
c.	Remove/burn down crop residue?	0843
	YES = 1	
d.	Rotate crops in this field during the past three years?	0844
	YES = 1	
e.	Maintain ground covers, mulches, or other physical barriers?	0845
	YES = 1	
f.	Choose crop variety because of specific resistance to a certain pest?	0846
	YES = 1	
g.	Use no-till or minimum till?	0847
	YES = 1	
h.	Plan planting locations to avoid cross infestation of pests?	0848
	YES = 1	
i.	Adjust planting or harvesting dates?	0849
	YES = 1	
j.	Chop, spray, mow, plow, or burn field edges, lanes, ditches, roadways, or fence lines?	0850
	YES = 1	
k.	Clean equipment and field implements after completing field work to reduce the spread of pests?	0851
	YES = 1	
		0852
l.	Adjust row spacing, plant density or row directions?	0854
	YES = 1	
m.	Have the seed treated for insect or disease control after you purchased the seed for this field?	0855
	YES = 1	
n.	Maintain a beneficial insect or vertebrate habitat?	0856
	YES = 1	
o.	Maintain buffer strips or border rows to isolate organic rice from non-organic crops or land, or did you take a buffer harvest?	0857
	YES = 1	
p.	Use a flamer to kill weeds?	0865
	YES = 1	
q.	Plant earlier or later to avoid weeds?	0853
	YES = 1	
15.	Were any beneficial organisms (insects, nematodes, fungi) applied or released in this field to manage pests?	0858
	YES = 1	
16.	Were floral lures, attractants, repellants, pheromone traps or other biological pest controls used on this field?	0858
	YES = 1	

a. [If item 15 or item 16 is YES, ask--]

What were the TOTAL materials and application costs for all biological pest controls for this field?

Include operator, landlord, and contractor costs. **Include** cost for beneficial organisms (insects, nematodes, and fungi).

Exclude biological pesticides previously reported.

DOLLARS & CENTS PER ACRE	OR	TOTAL DOLLARS
0859 _____		0860



17. Was a trap crop (excluding fallow) grown to help manage insects in this field? YES = 1 CODE
0863
18. Was this field left in fallow in 2019 to help manage insects on this field? YES = 1 0864
19. Were water management practices such as irrigation scheduling, controlled drainage, or treatment of retention water used on this field to manage pests or toxin-producing fungi and bacteria? YES = 1 0861
-
20. Did you use any non-chemical controls for blackbirds on this rice field? YES = 1 1260

a. [If YES, ask--]

	DOLLARS & CENTS PER ACRE	OR	TOTAL DOLLARS
What was the cost of all non-chemical blackbird control used on this field in 2020? <i>Include guns, shotgun shells, propane, etc.</i>	1261		1262

PEST MANAGEMENT INFORMATION

21. [Show Pest Management Information Sources Code List from Respondent Booklet.]
Which is the most important outside source of information on pest management practices and products used for the 2020 rice crop?

PEST MANAGEMENT INFORMATION SOURCES CODE LIST

<ul style="list-style-type: none"> 1 County, Cooperative, or University Extension Advisor, Publications or Demonstrations 2 Farm Supply or Chemical Dealer 3 Commercial Scouting Service 4 Independent Crop Consultant or Pest Control Advisor/Custom Applicator 5 Other Growers or Producers 6 Producer Associations, Newsletters or Trade Magazines 7 Electronic Information Services (DTN, Internet, World Wide Web, etc.) 8 Employee Pest Advisor 9 Other – (Specify: _____) 10 None – Operator used no outside information source 	<p>CODE</p> <div style="border: 1px solid black; padding: 2px; text-align: center;">0826</div>
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------	------------------------------------------------------------------------------------------------

22. Did pests (weeds, insects, diseases, animals) cause any yield loss on this field in spite of your pest control efforts? YES = 1 CODE
0827

- UNIT CODES**
- 1 POUNDS
 - 2 CWT
 - 3 TONS
 - 4 BUSHELS

23. 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 this field?	UNITS PER ACRE	
	. ____	



Completion Code for Pest Management Data	
1 Incomplete/Refusal	0500



1. Including custom operations, I need to list field work performed by machines on this 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---	
<input type="checkbox"/>	Land Forming/Levee Building
<input type="checkbox"/>	Tillage
<input type="checkbox"/>	Preparing for Irrigation
<input type="checkbox"/>	Planting
<input type="checkbox"/>	Fertilizer & Pesticide applications
<input type="checkbox"/>	Harvesting & Hauling to storage or first point of sale
Exclude	
<input type="checkbox"/>	Lime & Gypsum/landplaster applications
<input type="checkbox"/>	Non-Commercial Manure applications & Compost

LINE No.	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 CUSTOM (column 5 = code 6), skip columns 6-11]					
					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, forklifts, etc.] HOURS	10 Which Power Source was used? ^{1/} Tractors: 1= (<40 HP) 2= (40-99 HP) 3= (100-149 HP) 4= (150-199 HP) 5= (>=200 HP) Other: 66=Animal Drawn 77=Pick up 99=Self Propelled 1/ CODE
01	87		88	89	90	91	92	93	94	95
02	87		88	89	90	91	92	93	94	95
03	87		88	89	90	91	92	93	94	95
04	87		88	89	90	91	92	93	94	95
05	87		88	89	90	91	92	93	94	95
06	87		88	89	90	91	92	93	94	95
07	87		88	89	90	91	92	93	94	95
08	87		88	89	90	91	92	93	94	95
09	87		88	89	90	91	92	93	94	95
10	87		88	89	90	91	92	93	94	95
11	87		88	89	90	91	92	93	94	95
12	87		88	89	90	91	92	93	94	95
13	87		88	89	90	91	92	93	94	95
14	87		88	89	90	91	92	93	94	95
15	87		88	89	90	91	92	93	94	95
16	87		88	89	90	91	92	93	94	95
17	87		88	89	90	91	92	93	94	95
18	87		88	89	90	91	92	93	94	95

^{1/} If trucks other than pick-ups are used as the power source, use truck codes in Respondent Booklet.

OFFICE USE

0400

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

1 CUSTOM SERVICE Which of the following services were performed for the 2020 rice crop on this field?	2 Including operator, landlord, and contractor costs, how much was spent for [column 1] on this field for the 2020 rice crop? DOLLARS & CENTS PER ACRE
✓ ← [Check box for each service performed; refer to item 1 if necessary.]	
<input type="checkbox"/> a. Custom laser leveling of land $\frac{\text{Cost per hour} \times \text{Total hours}}{\text{Total acres in the field}} = \text{Dollars \& cents per acre}$	1121 _____
<input type="checkbox"/> b. Other custom land preparation and/or shaping	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 $\frac{\text{Dollars \& cents per unit} \times \text{Total units hauled from field}}{\text{Acres harvested in field}} = \text{Dollars \& cents per acre}$	1126 _____
<input type="checkbox"/> Custom harvesting and hauling from field to storage or point of first sale $\frac{\text{Dollars \& cents per unit} \times \text{Total units hauled from field}}{\text{Acres harvested in field}} = \text{Dollars \& cents per acre}$	1127 _____

8. Is laser leveling ever performed on this field?

YES – [Continue] NO – [Go to item 9]

YEARS
1142
CODE

a. On average, how many years are there between laser leveling operations performed on this field?

9. Was the rice harvested and hauled from this field dried (or will be dried) before it was sold or stored?
YES=1



10 **Did you hire any technical or consultant services to make recommendations (such as for nutrient, pest control, irrigation, or precision farming) for this field?**

YES – [Continue] **NO** – [Go to item 11]

Which of the following services did you obtain?

		CODE
a. Nutrient recommendations/management service?.....	YES = 1	1129
b. Soil or tissue sample collection?.....	YES = 1	1130
c. Pest control recommendations/management service?.....	YES = 1	1131
d. Pest scouting?.....	YES = 1	1132
e. Irrigation management service (i.e. irrigation scheduling)?.....	YES = 1	1133
f. Yield map or remote sensing map development/interpretation?.....	YES = 1	1134
g. Other custom or technical service? [Specify: _____]	YES = 1	1135

11 **If YES to any of these services, what was the cost for all of these services? (Include operator, landlord, and contractor costs. Exclude cost of soil/tissue tests or scouting cost reported earlier. Do not report costs for any of these services if they were previously reported as part of the costs of materials and/or application.)**

DOLLARS & CENTS PER ACRE	OR	TOTAL DOLLARS
1136 _____		1137

12 **Were there (or will there be) any data collection tools (yield monitors, GPS mapping, etc.) used during field operations on this soybean**

YES = 1

CODE
2460

[If YES, continue; else go to Item 13]

Please report the data collection technologies you used on this field to produce this crop. Also indicate if the data is collected with Global Positioning System (GPS) coordinates and if the data will be used to create a map. (In the fifth column, report how much it would cost you to replace the data collection tool. In the sixth column, report the annual costs of using the data collection tool. Include custom service fees, data subscriptions, and online tool subscriptions. If the replacement cost or annual fee does not apply to a particular data collection tool, leave that row blank.)

1 Data Collection Tool	2 Tool Used YES = 1	3 Collected with GPS YES = 1	4 Data was/will be used to create a map Yes = 1	5 Replacement Cost total dollars	6 Annual Fee total dollars
a. Yield monitor.	2461	2462	2463		
b. Soil tests on core sample (performed on-farm or sent out to a laboratory).	2464	2465	2466		
c. Soil sensor tests.	2467	2468	2469		
d. Hard-wired crop condition sensors.	2470	2471	2472		
e. Wireless crop condition sensors.	2473	2474	2475		
f. Drones, aircraft or satellites.	2476	2477	2478		
g. Custom service applications (data from completed work on your field).	2479	2480	2481		
h. Public data downloaded from online sources. . .	2482	2483	2484		

13 **Please report how your farm data will be stored and accessed.** [Enter code "1" for all that apply.]

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

(i) Paper hard copy?..... YES = 1

CODE
2485

- (ii) Personal computer? YES = 1
- (iii) Mobile device? YES = 1
- b. Did you access the data collected from this field through an agricultural technology provider website? YES = 1

2486
2487
2488

[If item 12b = 1 continue, otherwise go to item 13]

- c. Did you opt-out of allowing your agricultural technology provider website to share data collected from this field with any third YES = 1
- d. Did you share any of the data collected from this field with a third party through an agricultural technology provider website? YES = 1

2489
2490

14 Did you obtain crop management recommendations (data interpretation) based on that data you collected from-- [Enter code "1" for all that apply.]

- a. Input dealers? YES = 1
- b. Integrated input providers? YES = 1
- c. Custom service providers? YES = 1
- d. USDA/University extension services? YES = 1

2491
2492
2493
2494

[If crop management recommendations were obtained, ask--]	DOLLARS & CENTS PER ACRE	OR	TOTAL DOLLARS
e. What was the cost for all of these services? (Include operator, landlord, and contractor costs. Do not report costs for any of these services if they were previously reported as part of the costs of materials and/or application).	3150		3151

15 Did you use the yield monitor information to--- [Enter code "1" for all that apply.]

- (i) monitor crop moisture content to determine need for crop drying? YES = 1
- (ii) add/improve tile drainage? YES = 1
- (iii) negotiate new crop leases? YES = 1
- (iv) Help determine input use for management zones? YES = 1
- (v) other uses [specify:] _____ YES = 1

1140
1141
1144
1147

16 Was any of the following GPS-enabled (Global Positioning System) equipment used to produce crops on this field? [Enter code "1" for all that apply.]

- a. Light Bar? YES = 1
- b. "Smart" technologies like Google Glass or other heads-up cab control displays? YES = 1
- c. Other GPS-enabled equipment? YES = 1
- d. Any farming-specific apps for phones and tablets? YES = 1

CODE
2148
2149
1158
1152

[If GPS-enabled, ask--]	DOLLARS & CENTS PER ACRE	OR	TOTAL DOLLARS
e. What was the cost to purchase and install all GPS-enabled 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.)			

17 Was guidance auto-steering (excluding Light Bar) used on this field? YES = 1

[If 17=1, ask--]

a Was the guidance auto-steering equipment:

- | | |
|---|--------|
| 1 | New |
| 2 | Used |
| 3 | Leased |

<input type="text"/>
<input type="text"/>

YEAR

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

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

DOLLARS & CENTS PER ACRE	O R	TOTAL DOLLARS
<input type="text"/>		<input type="text"/>

d. What is the annual fee for guidance auto-steering?

DOLLARS & CENTS PER ACRE	O R	TOTAL DOLLARS
<input type="text"/>		<input type="text"/>

CODE

18 Was a variable rate applicator used on this field? YES = 1

[If YES, continue; else go to Section G]

Please report the variable rate applicator types you used on this field to produce this crop. If a particular row's variable rate applicator was not used, leave that row blank.

1	2	3	4	5
Was a variable rate applicator used on this field for:	Was this applicator 1 Sensor-based 2 GPS-based 3 Both 4 Neither	Was this applicator 1 New 2 Used 3 Leased	What year was the applicator first used? Year	Premium paid for the applicator total dollars
a. Seeding				
b. Fertilizer/lime applications				
c. Pesticide applications				

G IRRIGATION G

ACRES

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

2. *[If none, go to Conclusion]*
 Now, I have some questions about irrigation systems and water used on this field
 for the 2020 rice crop.

↓	UNIT	SYSTEM 1	SYSTEM 2
a. What type(s) of irrigation system(s) was (or were) used to irrigate this field? <i>[Show System Type Codes in the Respondent Booklet. Enter System Type Code for up to two systems covering the most field acres.]</i>	SYSTEM TYPE CODE	1161	1175
b. What was the total quantity of water applied to this field during the entire growing season? <i>(Include ALL water used from both on-farm and off-farm sources.)</i>	INCHES PER ACRE	1162	1176
	OR TOTAL ACRE-FEET	1163	1177
<i>[If operator cannot provide item 2b, ask (i) & (ii), else go to 2c]</i>			
(i) What is the total number of hours this system was used to apply water to this field during the rice growing season?	TOTAL HOURS	1164	1178
(ii) How many gallons per minute were applied?	GALLONS PER MINUTE	1165	1179
c. What percent of the water used to irrigate this field through this system came from surface water sources?	PERCENT	1166	1180
d. What was the number of times this field was irrigated during the rice growing season using this system? <i>(Include any pre-plant irrigation.)</i>	NUMBER OF IRRIGATIONS	1167	1181
e. Was the pump type--- <i>[If more than one pump in the system, enter type for pump closest to water source.]</i>	CODE	1168	1182
1 TURBINE? 2 SUBMERSIBLE? 3 CENTRIFUGAL? 4 BOOSTER? 5 SIPHON? 99 NO PUMP? <i>[If code 99, go to item j.]</i>			
f. What was the average pumping rate?	GALLONS PER MINUTE	1169	1183
g. <i>[If item 2a = code 1-9 (PRESSURE SYSTEM), ask---]</i> What was the system operating pressure?	POUNDS PER SQUARE INCH	1170	1184
h. What was the primary motor type used to pump the water?	CODE	1171	1185
1 DIESEL 2 GASOLINE 3 LP GAS 4 NATURAL GAS 5 ELECTRICITY 6 SOLAR POWER			
i. What was the average motor size?	HORSEPOWER	1172	1186
j. <i>[If NO PUMP was used (item 2e = 99), ask---]</i> What was the average flow rate?	GALLONS PER MINUTE	1173	1187
k. How many other acres on this operation were irrigated using this field's irrigation system during the 2020 growing season? <i>(Exclude this field.)</i>	ACRES	1174	1188

3. What was the cost of the fuel or electricity used to irrigate this field?
(Include operator, landlord, and contractor costs.)

DOLLARS & CENTS PER ACRE	OR	TOTAL DOLLARS
1189		1190

4. **Was any water purchased to irrigate this field?** (*Include landlord's share and purchases from all sources.*) CODE

YES – [Enter code 1 and continue.] NO – [Go to item 5.]

1191

a. What percent of the water used on this field was purchased? PERCENT

1192

b. What was the total cost for the water purchased for this field during the 2020 growing season? (*Include operator, landlord, and contractor costs and ditch maintenance costs for this field.*)

DOLLARS & CENTS PER ACRE OR TOTAL DOLLARS

1193 1194

5. [If SIPHON TUBES were used (item 2a = 10 or 11), ask---] TOTAL DOLLARS

What would be the total cost to replace all the siphon tubes used on this field?

1201

6. [If POLY PIPE system was used (item 2a = 14) ask---] TOTAL DOLLARS

What was the total amount spent for poly pipe used on this field during the 2020 growing season? (*Include operator, landlord, and contractor costs.*)

1202

7. [If GATED PIPE system was used (item 2a = 15 or 16), ask---] INCHES

a. What was the average diameter of gated pipe used to irrigate this field? 1203

FEET

b. What was the total length of gated pipe used? 1204

8. **Were wells used to supply irrigation water for this field?** CODE

YES – [Enter code 1 and continue] NO – [Go to item 9].

1205

a. How many wells were used to irrigate this field? NUMBER

1206

b. What was the average diameter of the outer well casing? INCHES

1207

c. What was the average pumping depth of these wells during the irrigation season? FEET

[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

d. Did the well(s) have a water meter or other flow measurement device? CODE YES = 1

1209

e. Were other fields irrigated using water pumped from wells that supplied water to the selected field? CODE

YES – [Enter code 1 and continue] NO – [Go to item 9].

1210

f. Excluding this field, how many other acres on this operation were irrigated using the same wells during the 2020 growing season? ACRES

1211



9. Was any additional mainline or lateral pipe used to carry water from the source to the system in this field? (*Include* underground pipe. *Exclude* any system pipe within the selected field.)

- YES – [Continue] NO – [Go to item 10]

INCHES

a. What was the average diameter (*in inches*) of the most common type of this additional pipe used?

1212

FEET

b. How many feet of this additional pipe were used to bring water to this field?

1213

Notes:



H

CONCLUSION

H

LOCATION OF SELECTED FIELD

1. I need to locate the selected field of rice on this map. COUNTY NAME _____ OFFICE USE COUNTY FIPS CODE 0010

2. What county is the selected rice field in? []

Field description []

FOR STATES WITH GPS UNITS ONLY

Field location N 0054 _____ W 0055 _____

d d . m m . s s d d d . m m . s s

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

4. We will need additional information to complete this study. We will contact you in February or March 2014 to collect it. I'll call you then to set up a time that is good for you

5. To receive the complete results of this survey on the release date, go to www.nass.usda.gov/results/. Would you rather have a brief summary mailed to you at a later date? YES = 1 [] CODE 0099

6. ENDING TIME [MILITARY] [] HH MM 0005

RECORDS USE

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

a. [fertilizer data?] YES = 1 [] CODE 0011

b. [pesticide data?] YES = 1 [] CODE 0012

c. [majority of this expense data?] YES = 1 [] CODE 0013

SUPPLEMENTS USED

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

FERTILIZER APPLICATIONS 0041

PESTICIDE APPLICATIONS 0042

FIELD OPERATIONS 0043

Reported by: _____ 9910 _____ 9911 Telephone: (____) _____

13

OFFICE USE										
R. Unit	Ptr 1 Str	Ptr 2 Str	Ptr 3 Str	Ptr 4 Str	OPS	SSO 1	ADJ	Optional Use		
9921	9922	9923	9927	9928	923	9907	922	9906	9916	
Response		Respondent		Mode		Enum.	POID			
1-Comp 2-R 3-Inac 4-Office Hold		9901	1-Op/Mgr 2-Sp 3-Acct/Bkpr 4-Partner 9-Other	9902	2-PATI (Tel) 3-PAPI (Face-to-Face)	9903	9998	9989		
								Eval.	Change	
								9900	9985	

