AGRICULTURAL RESOURCE MANAGEMENT SURVEY

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Phase II

NATIONAL AGRICULTURAL STATISTICS SERVICE

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RICE PRODUCTION PRACTICES AND COSTS REPORT FOR 2020

VERSION	ID	TRACT	SUBTRACT	C-TYPE
9	__ __ __ __ __ __ __ __ __ __	01	__ __	115

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	SCREENING BOX
BEGINNING TIME [*MILITARY*]	0004 __ __ __ __	0006

☐ [*Name, address and partners verified and updated if necessary*]

POID __ __ __ __ __ __ __ __ __ __	**POID** __ __ __ __ __ __ __ __ __ __
PARTNER NAME	PARTNER NAME
ADDRESS	ADDRESS
CITY STATE ZIP PHONE NUMBER	CITY STATE ZIP PHONE NUMBER
POID __ __ __ __ __ __ __ __ __ __	**POID** __ __ __ __ __ __ __ __ __ __
PARTNER NAME	PARTNER NAME
ADDRESS	ADDRESS

CITY	STATE	ZIP	PHONE NUMBER	CITY	STATE	ZIP	PHONE NUMBER

A RICE FIELD SELECTION A

TOTAL PLANTED ACRES

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*]**.** . . . . . 0050 .____

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

	TOTAL ACRES		NUMBER OF FIELDS
(i) Long grain?	0051	+	0056
(ii) Medium grain?	0052	+	0057
(iii) Short grain?	0053	+	0058

I will follow a simple procedure to make a random selection from the rice 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?** [*If only one field enter "1" and go to item 5*.]. 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	FIELD NAME, NUMBER OR DESCRIPTION
1	10
2	11
3	12
4	13
5	14
6	15
7	16
8	17
9	18

APPLY "RANDOM NUMBER" LABEL HERE

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):

	NUMBER
a. Farm Number.	1070
b. Tract Number.	1071
c. Field Number.	1072

OFFICE USE OY Field Substituted
0022

B FIELD CHARACTERISTICS---SELECTED FIELD B

1. **How many acres of rice did this operation plant in this field for the 2020 crop?** . . . . . ACRES 1301 .___

a. Are the acres in this field **CERTIFIED ORGANIC**? . . . . . **YES = 1** CODE 1300

[*If **YES**, skip 1b and ask item 2*.]

b. Was this field transitioning into organic rice production in 2020? . . . . . **YES = 1** 1399

2. **Were the acres in this field --** CODE 1302

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?

3. [*If field is CASH RENTED (item 2 = 2, 3 or 5), ask item 3, else go to item 4.*]

What was the cash rent paid per acre for this 2020 rice field? . . . . . DOLLARS & CENTS PER ACRE 1303 . __ __

4. [*If field is SHARE RENTED (item 2 = 4 or 5), ask*--]
What was the landlord's share of the crop from this field? . . . . . PERCENT 1304

5. [*If field is RENTED* (*item 2 = 2, 3, 4,or 5*), ask--]

What was the total cost for all inputs provided by any landlord for the 2020 crop on the selected field? (***Include*** *the costs for all inputs, such as seed, fertilizer, chemicals, technical services, custom operations, drying and irrigation.* ***Exclude*** *real estate tax expenses and lime costs paid by the landowner*.) . . . . . DOLLARS & CENTS PER ACRE 1305 . __ __ OR TOTAL DOLLARS 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 1309 . __ __ OR TOTAL DOLLARS 1310

7. **What year did you** (*the operator listed on the label*) **start operating this field?** . . . . . YEAR 1312 ___ ___ ___ ___

8. **On what date was this field planted?** . . . . . MM DD YY 1308 __ __ __ __ __ __

a. What was your yield goal at planting for this field?
(***Include*** *any ratoon crop.*) . . . . . UNITS PER ACRE 0216 .___

1=POUNDS
2=CWT
3-TONS
4-BUSHELS
5-BARRELS

0217

9. **What type of rice was planted in this field?** . . . .

1 Long?
2 Medium?
3 Short?

. . . . . .

CODE

1324

10. **What was the source of the rice seed?** . . . . . .

1 Purchased?
2 Homegrown or traded?
3 Both?

. . . . . .

CODE

1317

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

DOLLARS & CENTS PER POUND

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

1321 . __ __

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

PERCENT

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

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** 1 = POUNDS 2 = CWT 3 = TONS 4 = BUSHEL 22 = ACRE 23 = 50 LB BAGS
1319 . __ __	1320

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

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

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)?

. . . . . .

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*)---	**ACRES**	1 **What yield per acre did you** (*or do you expect to*) **get for rice---** **UNITS PER ACRE**	2 **UNIT CODE** 1 Pounds 2 CWT 3 Tons 4 Bushels **CODE**
a. harvested for grain, first crop?	1346 .	1347 .	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** Yes=1 **CODE**

[*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

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*.). . . . . **CODE** 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

27. **Has harvest of this field been completed?** . . . . . **YES = 1** **CODE** 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 **What crops were PLANTED on this field in---** SEASON AND YEAR	CROP NAME	2 **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** CROP CODE	3 **Was this a cover crop?** YES = 1	4 **How did you manage this cover crop?** 1 Plowed-in 2 Chiseled-in 3 Chemical- 4 Rolled 5 Grazed 6 Harvested 7 Disked CODE	5 **Was this field irrigated?** YES = 1	6 **Was this field no-tilled or strip-tilled? 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**?

CODE

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

PERCENT

What was your yield level of your buy-up coverage for this field?. 1387

What was your price level of your buy-up coverage for this field?. 1388

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

PERCENT

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

CODE

1 - Higher 2 – Lower 3 - Equal. 1392

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

CODE

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

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

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

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

	CODE	EDIT TABLE
1. **Were commercial nutrients or fertilizers applied to this field for the 2020 rice crop?** . . . . . YES = 1	0202	0200

[*If COMMERCIAL nutrient or fertilizer applied, continue; else go to item 6.*]

	NUMBER
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*.)	0203

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

CHECKLIST

√	INCLUDE
☐	Custom applied nutrients and fertilizers
☐	Nutrients or fertilizers applied in the fall of 2019 and those applied earlier if this field was fallow in 2019.
☐	Commercially prepared manure or compost

√	EXCLUDE
☐	Micronutrients
☐	Unprocessed manure
☐	Nutrients or fertilizers applied to previous crops in this field
☐	Lime and Gypsum/landplaster

Office Use Lines in Table	TABLE 001	0299

APPLICATION CODES for COLUMN 6

1 Broadcast, ground without incorporation
2 Broadcast, ground with incorporation
3 Broadcast, by aircraft
4 In seed furrow
5 In irrigation water
6 Chisel/Injected or knifed in
7 Banded in or over row
8 Foliar or directed spray

LINE	2 MATERIALS USED [*Enter percentage analysis or actual pounds of plant nutrients applied per acre*.] [*Show Common Nutrients or Fertilizers in Respondent Booklet*.]				3 What quantity was applied per acre? [*Leave this column blank if actual nutrients were reported.*]	4 [Enter material code.] 1 Pounds 12 Gallons 19 Pounds of actual nutrients	5 When was this applied? 1 In the fall before seeding 2 In the spring before seeding 3 At seeding 4 After seeding	6 How was this applied? [*Refer to code list above.*]	7 How many acres were treated in this application? ACRES
	N Nitrogen	P_2O_5 Phosphate	K_2O 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 .___

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? **OFFICE USE** 0215

☐ **YES** - [*Continue*] ☐ **NO** - [*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 this field? (***Include*** *operator, landlord, and contractor costs.* ***Include*** *costs for sulfur and micronutrients.* ***Exclude*** *custom application of lime, gypsum, purchased manure and purchased compost.*) *[If material and application costs can't be separated,* ***exclude*** *them here and record the total in item 6.*]. . . . . **DOLLARS & CENTS PER ACRE** 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

6. **Was gypsum applied to this field for the 2020 rice crop?** . . . . . **YES = 1** 0218

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

8. **Was a soil test for phosphorus performed on this rice field in 2019 or 2020 for the 2020 crop?**. . . . . **YES = 1** 0225

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

POUNDS PER ACRE

How many pounds of phosphorus (*per acre*) were recommended (*by the phosphorus test*)?. 0226

CODE

9. **Was a soil test for nitrogen performed on this rice field in 2019 or 2020 for the 2020 crop?**. . . . . **YES = 1** 0227

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

POUNDS PER ACRE

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

	DOLLARS & CENTS PER ACRE	OR	TOTAL DOLLARS
11. **How much was spent for these soil and plant tissue tests on this field?** (***Include*** *operator, landlord, and contractor costs*.)	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
a.	Results of a soil or plant tissue test? . . . . . **YES = 1**	0233
b.	Crop consultant recommendation? . . . . . **YES = 1**	0234
c.	Fertilizer dealer recommendation? . . . . . **YES = 1**	0235
d.	Extension Service recommendation? . . . . . **YES = 1**	0236
e.	Cost of nitrogen and/or expected commodity price? . . . . . **YES = 1**	0237
f.	Contractor recommendation? . . . . . **YES = 1**	0238
g.	Routine practice (*operator's own determination based on past experience, yield goal, etc.*)? . . . . . **YES = 1**	0239

CODE

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

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

YEARS

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

TONS PER ACRE

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

CODE

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

d. [*If field is rented* (Section B, item 2 = 2, 3, 4, or 5), *ask*---]

PERCENT

Considering the last time it was applied, what percent of the total cost of lime and its application was paid by the landlord(s)? 0245

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

☐ **YES** - [*Enter code 1 and continue*] ☐ **NO** - [*Go to item 16*] 0246

ACRES

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

c. What is the distance between the manure storage/production location and this field? . . . . . MILES 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 dr . . . . . CODE 0257

g. Was the manure--- 1 Broadcast or sprayed *without* incorporation? 2 Broadcast or sprayed *with* incorporation? 3 Injected/knifed in? 4 Sprayed using irrigation systems? . . . . . CODE 0258

h. Was the major source of the manure from--- 1 1 Beef cattle? 2 2 Dairy cattle? 3 3 Hogs? 4 4 Sheep? 5 5 Poultry? 6 6 Equine? 7 7 Biosolids (*municipal sludge*)? 8 8 Food waste? 9 9 Other? [*Specify:* _____] . . . . . 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? (*Operator received payment for accepting the manure.*) . . . . . 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 0284 .___ ___ OR TOTAL DOLLARS 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 0287 .___ ___ OR TOTAL DOLLARS 0288

CODE

j. Of the manure applied to this field, was any tested for nutrient content prior to application? . . . . . YES = 1 — 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*---]

PERCENT

By what percent did you reduce the commercial nitrogen fertilizer application rate on this field? 0263

CODE

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

CODE

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

a. [*If item 14 is YES, ask*---]

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

CODE

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

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

CODE

16. **Was compost applied to this field for the 2020 rice crop?**

☐ **YES** - [*Enter code 1 and continue*] ☐ **NO** - [*Go to item* 17] 0267

ACRES

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

b. What was the amount of compost applied to this field? . . . . . 1 Tons / 2 Cubic Yards . . . CODE 0269 **AND** UNITS PER ACRE 0270 .___ ___ **OR** TOTAL UNITS 0271 .___

[Enter up to 3 source codes]

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:* _____] . . . . . .

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

(ii) Did you hire someone to custom apply the compost? . . . . . **YES = 1** CODE 0275

(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**	1226
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**	1228
c.	Change your crop rotation [e.g. plant rice on this field rather than usual crop rotation]?. . . **YES=1**	1227
d.	Reduce the application of commercial nitrogen fertilizer?. . . . . **YES=1**	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 defoliants, fungicides, herbicides, insecticides, and other pesticides.

Include biological and botanical pesticides.

Exclude nutrients or fertilizers reported earlier and seed treatments.

OFFICE USE **TABLE** 0399
LINES IN TABLE **001**

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

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

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 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.]

↓

LINE	9 **How was this product applied?** [*Enter code from above*.]	10 **How many acres in this field were treated with this product?** **ACRES**	11 **How many times was it applied?** **NUMBER**	12 **Were these applications made by---** 1 Operator, partner or family member? 2 Custom applicator? 3 Employee/Other?	**OPTIONAL ITEM 4** **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** – [*Continue*] ☐ **NO** – [*Go to item 4*]

OFFICE USE

a. Are you able to report the cost of chemical, biocontrol, and pesticide products and custom application separately? 0324

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

	DOLLARS & CENTS PER ACRE	OR	TOTAL DOLLARS
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.*).	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** (*Bacillus thuringiensis*)**, 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*

		CODE
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 0808

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 9. **Was this rice field scouted for--**	**YES = 1**	2 [*If* ***YES****, ask*---] **What was the infestation level for** [*column 1*]**?**— 1 Worse than normal 2 Normal 3 Less than normal **CODE**	3 [*If column 1 =* ***YES****, ask*---] **Who did the majority of the scouting for** [*column 1*]**?** 1 Operator, partner or family member 2 An employee 3 Farm supply or chemical dealer 4 Independent crop consultant or commercial scout **CODE**
a. Weeds?	0812	0813	0814
b. Insects or mites?	0815	0816	0817
c. Diseases?	0818	0819	0820

[*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** 0821 .___ ___ **OR** **TOTAL DOLLARS** 0822

a. [*If scouting performed at no cost, explain*:_____] . . . . . **OFFICE USE** 0333

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

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

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

CODE

17. **Was a trap crop** (*excluding fallow*) **grown to help manage insects in this field?** . . . . . **YES = 1** 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? *Include* *guns, shotgun shells, propane, etc.*	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

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

CODE

. 0826

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 .____ | UNIT CODE

Completion Code for Pest Management Data	
1 Incomplete/Refusal	0500

F FIELD OPERATIONS--SELECTED FIELD F

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---
- ☐ Land Forming/Levee Building
- ☐ Tillage
- ☐ Preparing for Irrigation
- ☐ Planting
- ☐ Fertilizer & Pesticide applications
- ☐ Harvesting & Hauling to storage or first point of sale

Exclude
- ☐ Lime & Gypsum/landplaster applications
- ☐ Non-Commercial Manure applications & Compost

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 CUSTOM (*column 5 = code 6*), *skip columns 6-11*] 6 What was the size or swath of the [*machine*] used?	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	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

1/ *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 this field to produce the 2020 rice crop.
(***Exclude*** *labor that was reported for field work performed by machines.*)

	1 **How many hours did** (*type of worker*) **spend on this field---**		
TYPE OF WORKERS	a. scouting for weeds, insects and diseases? **HOURS**	b. irrigating? **HOURS**	c. 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

DOLLARS & CENTS PER HOUR

3. **What was the average hourly wage rate paid to part-time or seasonal hired workers?** (***Exclude*** *custom and contract workers, payroll taxes and benefits.*) . . . . . 1119 .___ ___

DOLLARS & CENTS PER HOUR

4. **What was the average hourly wage rate paid to full-time hired workers?** (***Exclude*** *custom and contract workers, payroll taxes and benefits.*) . . . . . 1118 .___ ___

CODE

5. **Was any contract labor used on this field?** . . . . . **YES = 1** 1116

a. [*If YES, ask* ---]

DOLLARS & CENTS PER ACRE

What was the average cost per acre for this contract labor? (***Include*** *operator, landlord, and contractor costs*.) . . . . . 1117 .___ ___

PERCENT

6. **What percent of the total number of unpaid hours worked on this field was performed by workers under 16 years of age?** (*Estimates of labor costs for unpaid workers are based on off-farm wage rates, which are different for workers under 16 relative to those 16 and older.*) 1120

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

✓	1 **CUSTOM SERVICE** **Which of the following services were performed for the 2020 rice crop on this field?** ← [*Check box for each service performed; refer to item 1 if necessary*.]	2 **Including operator, landlord, and contractor costs, how much was spent for** [*column 1*] **on this field for the 2020 rice crop?** **DOLLARS & CENTS PER ACRE**
☐	a. Custom laser leveling of land __ __.__ __ x _____ =_____÷ _____ = __ __.__ __ (Cost per hour X Total hours = Total dollars ÷ Total acres in the field = Dollars & cents per acre)	1121 .___ ___
☐	b. Other custom land preparation and/or shaping	1122 .___ ___
☐	c. Custom planting and/or reseeding	1123 .___ ___
☐	d. Custom harvesting	1124 .___ ___
☐	e. Custom hauling to storage or point of first sale __ __.__ __ x _____ ÷ _____ = __ __.__ __ (Dollars & cents per unit x Total units hauled from field ÷ Acres harvested in field = Dollars & cents per acre) . .	1126 .___ ___
☐	Custom harvesting and hauling from field to storage or point of first sale __ __.__ __ x _____ ÷ _____ = __ __.__ __ (Dollars & cents per unit x Total units hauled from field ÷ Acres harvested in field = Dollars & cents per acre) . .	1127 .___ ___

8. **Is laser leveling ever performed on this field?**

☐ **YES** – [*Continue*] ☐ **NO** – [*Go to item 9*]

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

YEARS
1142
CODE

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--

		CODE
(i) Paper hard copy?	**YES = 1**	2485

(ii) Personal computer? . . . . . YES = 1 | 2486

(iii) Mobile device? . . . . . YES = 1 | 2487

b. Did you access the data collected from this field through an agricultural technology provider website? . . . . . YES = 1 | 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 | 2489

d. Did you share any of the data collected from this field with a third party through an agricultural technology provider website? . . . . . YES = 1 | 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 | 2491

b. Integrated input providers? . . . . . YES = 1 | 2492

c. Custom service providers? . . . . . YES = 1 | 2493

d. USDA/University extension services? . . . . . YES = 1 | 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 | 1140

(ii) add/improve tile drainage? . . . . . YES = 1 | 1141

(iii) negotiate new crop leases? . . . . . YES = 1 | 1144

(iv) Help determine input use for management zones? . . . . . YES = 1 |

(v) other uses [*specify:*] _____ . . . . . YES = 1 | 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*.]

CODE

a. Light Bar? . . . . . YES = 1 | 2148

b. "Smart" technologies like Google Glass or other heads-up cab control displays? . . . . . YES = 1 | 2149

c. Other GPS-enabled equipment? . . . . . YES = 1 | 1158

d. Any farming-specific apps for phones and tablets? . . . . . YES = 1 | 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.)	.___ ___		

CODE

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 . . . . ☐

☐

YEAR

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

	DOLLARS & CENTS PER ACRE	OR	TOTAL DOLLARS
c. What is the replacement cost for guidance auto-steering equipment?	.___		

	DOLLARS & CENTS PER ACRE	OR	TOTAL DOLLARS
d. What is the annual fee for guidance auto-steering?	.___		

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 **Was a variable rate applicator used on this field for:**	2 Was this applicator 1 Sensor-based 2 GPS-based 3 Both 4 Neither	3 Was this applicator 1 New 2 Used 3 Leased	4 What year was the applicator first used? Year	5 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?** 1160 .___

[*If none, go to* ***Conclusion***]

2. **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? [*Show* ***System Type Codes*** *in the Respondent Booklet. Enter* ***System Type Code*** *for up to two systems covering the most field acres*.]	**SYSTEM TYPE CODE**	1161	1175
b. What was the total quantity of water applied to this field during the entire growing season? (***Include*** *ALL water used from both on-farm and off-farm sources*.)	**INCHES PER ACRE OR TOTAL ACRE-FEET**	1162 / 1163	1176 / 1177
[*If operator cannot provide item 2b, ask (i) & (ii), else go to 2c*]			
(i) What is the **total** number of **hours** this system was used to apply water to 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? (***Include*** *any pre-plant irrigation*.)	**NUMBER OF IRRIGATIONS**	1167	1181
e. Was the pump type--- [*If more than one pump in the system, enter type for pump closest to water source*.] 1 **TURBINE?** 2 **SUBMERSIBLE?** 3 **CENTRIFUGAL?** 4 **BOOSTER?** 5 **SIPHON?** 99 **NO PUMP?** [*If code 99, go to item j*.]	**CODE**	1168	1182
f. What was the average pumping rate?	**GALLONS PER MINUTE**	1169	1183
g. [*If item 2a = code 1-9* (PRESSURE SYSTEM)*, ask*---] What was the system operating pressure?	**POUNDS PER SQUARE INCH**	1170	1184
h. What was the primary motor type used to pump the water? 1 **DIESEL** 2 **GASOLINE** 3 **LP GAS** 4 **NATURAL GAS** 5 **ELECTRICITY** 6 **SOLAR POWER**	**CODE**	1171	1185
i. What was the average motor size?	**HORSEPOWER**	1172	1186
j. [*If NO PUMP was used* (item 2e = 99)*, ask*---] 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? (***Exclude*** *this field*.)	**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*.)
☐ **YES** – [*Enter code 1 and continue*.] ☐ **NO** – [*Go to item 5*.]. . . . . **CODE** 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** 1193 .___ ___ **OR** **TOTAL DOLLARS** 1194

5. [*If SIPHON TUBES were used* (item 2a = 10 or 11), *ask*---]
What would be the total cost to replace all the siphon tubes used on this field?. . . . . **TOTAL DOLLARS** 1201

6. [*If POLY PIPE system was used* (item 2a = 14) *ask*---]
What was the total amount spent for poly pipe used on this field during the 2020 growing season? (***Include*** *operator, landlord, and contractor costs*.). . . . . **TOTAL DOLLARS** 1202

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

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

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

8. **Were wells used to supply irrigation water for this field?**
☐ **YES** – [*Enter code 1 and continue*] ☐ **NO** – [*Go to item 9*]. . . . . **CODE** 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? [*Pumping depth is the depth to water at the start of the irrigation season, plus an average decline in the water level caused by pumping during the irrigation season*.]. . . . . **FEET** 1208

d. Did the well(s) have a water meter or other flow measurement device?. . . . . **YES = 1** **CODE** 1209

e. Were other fields irrigated using water pumped from wells that supplied water to the selected field?
☐ **YES** – [*Enter code 1 and continue*] ☐ **NO** – [*Go to item 9*]. . . . . **CODE** 1210

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*]

a. What was the average diameter (*in inches*) of the most common type of this additional pipe used?. . . . . **INCHES** 1212

b. How many feet of this additional pipe were used to bring water to this field?. . . . . **FEET** 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
2. **What county is the selected rice field in?**		0010

Field description . . . . . .

FOR STATES WITH GPS UNITS ONLY

		LATITUDE		LONGITUDE	
Field location	**N**	0054 __ __ . __ __ . __ __	**W**	0055 __ __ __ . __ __ . __ __	
		d d m m s s		*d d d m m s s*	

3. [**ENUMERATOR ACTION:** *Mark map to indicate where the selected 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.**

	CODE
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**	0099

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

RECORDS USE

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

	CODE
a. [***fertilizer*** *data?*] . . . . . **YES = 1**	0011
b. [***pesticide*** *data?*] . . . . . **YES = 1**	0012
c. [*majority of this* ***expense*** *data?*] . . . . . **YES = 1**	0013

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 __ __ __ __ **13**	9911 Telephone: (_____)_____

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