

Asked on Previous Survey?	New Question for Rice?	Section	Item	Item Code	Topic Area	Question as Asked
	No	A	3	listed 1-8	Field Selection	Please list these fields according to identifying name/number or describe each field, then I will tell you which field has been selected.
Yes	No	A	5	1070, 1071, 1072	Conservation	For the randomly selected field above, please provide the Farm Service Agency (FSA): a. Farm Number b. Tract Number, c. Field Number
Yes	Yes	B	1.c	1891	Organics	New question
No	yes	B	10.a	1551	Production Practices	New question
No	Yes	B	10.b	1552	Production Practices	New question
yes	No	B	14	3062	Seeds	Did you purchase a seed treated with a. a fungicide, b. an insecticide, c. a nematicide?
Yes	Yes	B	14.a	1289	seeds	New question
Yes	No	B	15a/b	2340/43	Seeds	Please report what seed products were used in previous years. Seed Product Name...Seed Product Code
No	No	B	17a-d	table	Seeds	

Was an herbicide resistant rice seed (such as Clearfield) planted in the selected field?

Yes Yes B 21.k 1495 Conservation  
New question

Yes No B 22 taable Conservation

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

No No B 22.b column 5 table Conservation Does this practice or activity help satisfy? 1 a federal regularity requirement 2 USDA conservation compliance provisions 3 Does not related to any regulation or compliance requirement

Yes Yes B 24 702 Conservation  
New question

Yes Yes B 26 2401 Conservation  
New question

Yes Yes B 27 Table Conservation  
New question

Yes Yes B 28 2611, 2612, 2613, 2614 Conservation  
New question

No	Yes	B	29	2620, 2621, 2622	Production Practices
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New question

No	Yes	B	30	2623/24 2625/26 2627/28	Production Practices
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New question

Yes	No	B	31	2520	Crop Insurance	Was the rice in this field covered by private crop insurance in 2020 (hail, wind, freeze, etc.)?
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Yes	No	B	31.a	2517	Crop Insurance
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New question

Yes	No	B	31.b	2521	Crop Insurance	What was the dollar amount of coverage for the private insurance policy covering this field in 2020?
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Yes	No	B	31.c	2522	Crop Insurance	What was the percent deductible for the private crop insurance covering the selected field?
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Yes	No	B	31.d	2523	Crop Insurance	What premium cost per acre did you pay for the private crop insurance covering the selected field?
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Yes	No	<b>B</b>	31.e	1394	Crop Insurance	Did you (Or will you) collect an indemnity payment for the selected field from the private crop insurance during 2020?
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Yes	No	<b>B</b>	32	1385	Crop Insurance	Was the rice in this field covered by Federal Crop Insurance in 2020?
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Yes	No	<b>B</b>	32.d	2525	Crop Insurance	In what year did you (the operator listed on this field) first enroll this field in the Federal crop insurance program?
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Yes	No	B	32.f	2527	Crop Insurance	What was the premium paid for Federal crop insurance for hit field in 2020?
Yes	No	B	32.g	2528	Crop Insurance	Did you (or will you) collect an indemnity payment for this field from federal crop insurance during 2020?
Yes	Yes	C	14.a	2561 2562	Nutrient management	New question
Yes	No	D-1	columns 13/14	81 82	Pesticide Use	OPTIONAL : What was the cost per unit of the product?
Yes	Yes	E	21	1765 1766 1767	Pesticide Use	New question
Yes	Yes	E	22a	828 829	Pesticide Use	New question
No	yes	F	17	3160	Precision Agriculture	New item
No	yes	F	17.a	3161	Precision Agriculture	new item
No	yes	F	17.b/i	3168	Precision Agriculture	new item

No	yes	F	17.c/i	3170, 3171	Precision Agriculture	new item
No	yes	F	18-c	2165	Precision Agriculture	new item
No	No	F	21.d	table	Precision Agriculture	New item
Yes	Yes	G	10	1215	Irrigation	New item
Yes	Yes	G	11	1216	Irrigation	New item
Yes	Yes	G	12	1214	Irrigation	New item

No	Yes	G	13a-e	1230, 1231, 1232, 1233, 1234	Irrigation
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New Item

## Requested Change

## Reason

Now, I need to identify a rice field to be used for this survey. The rice field pre-selected for this interview is the:

Due to covid, no face to face is allowed. The cardinal will be selected and then the enumerator will be able to ask the respondent if they have a field clockwise of the cardinal.

Add enumerator instruction to the items a, b, and c specifying the number of digits to record. A. Farm Number (up to 8 digits) b. Tract Number (up to 7 digits), c. Field Number (up to 4 digits, exclude subfield letters)

Added to previous surveys (2018, 2019), add for consistency

What was the cost, per acre, for third party organic certification?

Included in the 2021 corn survey, include in rice for consistency across surveys

Did you plant an aromatic variety?

We added these items to see the market breakout for specialty rice

Did you plant a glutinous or sweet variety?

We added these items to see the market breakout for specialty rice

For the 2021 rice crop, was the rice seed 1 treated with a pesticide prior to purchase 2 treated with a pesticide after purchase 3 not treated with a pesticide?

We reformatted this item in 2018 to allow for us to specify products with codes in the respondent booklet

What was the name of the seed treatment?

We added this into the 2018 soybeans, 2019 cotton and want to add it here for consistency across surveys

For the 2021 rice crop, did you plant a commercial seed product on the selected field? What was the name of the seed product? What was the seed product code?

We reformatted this item in 2018 to allow for us to specify products with codes in the respondent booklet

Did the rice planted on the selected field have any of the following herbicide resistant traits in 2021? Did you use any of the following herbicide resistant traits the last time rice was planted on the selected field? a. Herbicide tolerance to imazethapyr and other imidazolinone (IMI) herbicides (e.g. ClearField®) such as Clearfield® Rice or FullPage® Rice b. Herbicide tolerance to quizalofop (e.g. Provisia®) such as Provisia® Rice c. Herbicide tolerance to oxyfluorfen (e.g. GoalTender®) such as ROXY Rice d. Other herbicide tolerant trait. Also added N/A=4 as an option in column 2.

We started breaking out specific traits for seeds with herbicide resistance in the 2016 corn survey and have done so since that survey. Here, we wanted to break out the specific types of herbicide resistant rice seeds on the market. Since 2013, there are many more varieties available other than just Clearfield which have herbicide tolerance.

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

item added in 2018 soybeans and 2019 cotton

Now I need information on soil, crop, and land management practices or activities used on the selected field and any financial or technical assistance you may have received in conjunction with those practices. From this list, please check any practices or activities that you used on the selected field this year or at any time in the past. 22b. For each practice or activity checked in 22a, please complete one line of this table.

We reformatted and edited this item in the 2018 soybeans survey for clarity. We are including the same change now for consistency

Does this practice or activity help satisfy? 1 A federal regulatory requirement 2 Highly Erodible Land Conservation compliance 3 Does not relate to any regulation or compliance requirement

Options for response changed in the 2019 cotton surveys

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

item added in 2019 cotton

What is the primary soil type of the selected field? Loam Clay Sandy Mixed Silty

This item was added to the survey in 2015 and has been included in every survey since then. We want to include this item for consistency across surveys

In the selected field, are you concerned about any of the following? a. Water-driven erosion b. Wind-driven erosion c. Soil compaction d. Poor drainage e. Low organic matter f. Water quality g. Other concerns h. If the answer to all of the above was "Not a Concern", is it the case that there are no significant concerns on this field? yes or no

This item was added to the survey in 2016 and has been included in every survey since then. We want to include this item for consistency across surveys

Has the selected field been in any conservation contracts for which you or your landlord received or expected to receive cost-sharing payments, stewardship payments, or incentive payments? A. Environmental Quality Incentive Program? b. Conservation security or Conservation Stewardship Program (CSP)? c. Conservation Reserve Program (CRP)? d. Other federal, state or local or non-governmental source?

We added this question in the 2018 soybeans survey to replace how we previously asked about conservation programs. We mistakenly left this item out during the original revisions.



<p>Did you harvest both rice and crawfish from the selected field during 2021? a. Do you believe the crawfish harvest reduced the rice yield in the selected field during 2021? b. By what percentage do you believe the rice yield in the selected field was reduced as a result of the harvest of crawfish?</p>	<p>We added this question to the survey to determine how income will be affected on the selected field due to different production aspects with crawfish. We expect that rice fields in the delta will have significant effects from crawfish production</p>
<p>Did you maintain a flood on the selected field during the winter season as a beneficial habitat for wildlife or waterfowl? a. During the average winter flooding, how much was left on the selected field? b. Did you receive payment for maintaining a flood on the selected field? i. What was the payment you received for maintaining a winter flood on the selected field?</p>	<p>We added this question to the survey to determine how income will be affected on the selected field due to conservation payments on the selected field that are specific to rice. We expect that there will be rice fields with local (non-governmental) payments made for wildlife habitats</p>
<p>In 2021, was the rice in the selected field covered by a single or named peril crop insurance policy (e.g. hail, replant, wind, freeze)?</p>	<p>changed question from asking about private crop insurance to asking about single or named peril crop insurance in the 2018 soybeans survey</p>
<p>In 2021, was the rice in the selected field covered by more than one single or named peril crop insurance policies (e.g. hail, replant, wind, freeze)</p>	<p>added item into the 2019 cotton survey</p>
<p>What was the dollar amount of coverage per acre for the single peril policy covering the selected field?</p>	<p>changed question from asking about private crop insurance to asking about single or named peril crop insurance in the 2018 soybeans survey</p>
<p>What was the percent deductible for the single peril policy covering the selected field?</p>	<p>changed question from asking about private crop insurance to asking about single or named peril crop insurance in the 2018 soybeans survey</p>
<p>What premium cost per acre did you pay for the single peril policy covering the selected field?</p>	<p>changed question from asking about private crop insurance to asking about single or named peril crop insurance in the 2018 soybeans survey</p>
<p>Did you or will you collect an indemnity payment for the selected field from the single peril policy during 2021?</p>	<p>changed question from asking about private crop insurance to asking about single or named peril crop insurance in the 2018 soybeans survey</p>
<p>In 2021, was the rice in this field covered by a multi-peril crop insurance policy?</p>	<p>changed question from asking about Federal crop insurance to asking about multi-peril crop insurance in the 2018 soybeans survey</p>
<p>In what year did you, the operator listed on this field, first purchase multi-peril crop insurance on the selected field?</p>	<p>changed question from asking about Federal crop insurance to asking about multi-peril crop insurance in the 2018 soybeans survey</p>

What was the premium paid for multi peril crop insurance for the selected field in 2021?

changed question from asking about Federal crop insurance to asking about multi peril crop insurance in the 2018 soybeans survey

Did you or will you collect an indemnity payment for the selected field from multi-peril crop insurance during 2021?

changed question from asking about Federal crop insurance to asking about multi peril crop insurance in the 2018 soybeans survey

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

question was added to the 2019 cotton survey

What was the cost per unit of the product?

Remove the optional statement and ask all respondents to fill out the cost information

Was protection of beneficial organisms a factor in your pest control decisions for the selected field? Did you change timing of, reduce application rate of, or climate a pesticide application? Did you change to an alternative pesticide, biocontrol, or non-pesticide practice?

This item is present in our previous surveys, 2018 soybeans and 2019 cotton. We want to include it here as well

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

Item subpart was included in previous surveys, 2018 soybeans and 2019 cotton. We want to include it in this survey as well

Did you use an unmanned aerial vehicle (UAV), known as a drone, to help produce or manage the production of rice in the selected field in 2021?

Reason for question: There growing interest in the use of drone technology in field crop production, but little comprehensive information on how drones are used. This question will provide data on the extent of use and the reasons for use, and will help to evaluate the costs and benefits of current drone technology in corn production.

In the selected field, did you use the UAV for any of the following purposes. i. weed analysis ii. Spraying herbicide or fungicide. Iii. Insect analysis iv. Insect control v. yield analysis. Vi. Moisture analysis vii. Equipment check

Reason for question: There growing interest in the use of drone technology in field crop production, but little comprehensive information on how drones are used. This question will provide data on the extent of use and the reasons for use, and will help to evaluate the costs and benefits of current drone technology in corn production.

Did you purchase the UAV? i. what is the replacement cost for the UAV?

Reason for question: There growing interest in the use of drone technology in field crop production, but little comprehensive information on how drones are used. This question will provide data on the extent of use and the reasons for use, and will help to evaluate the costs and benefits of current drone technology in corn production.

<p>Do you pay an annual fee for use of the UAV? i. What is the annual fee for use of the UAV?</p>	<p>Reason for question: There growing interest in the use of drone technology in field crop production, but little comprehensive information on how drones are used. This question will provide data on the extent of use and the reasons for use, and will help to evaluate the costs and benefits of current drone technology in corn production.</p>
<p>Was any of the following GPS-enabled (Global Positioning System) equipment used to produce corn on the selected field in 2021? .... C. Automatic section control, such as auto sprayer boom controls or automatic section shut offs?</p>	<p>item was added into the 2019 cotton survey, added for consistency across surveys</p>
<p>Please report the variable rate applicator types you used on the selected field to produce the rice in 2021.....Was a variable rate applicator used on the selected field for -- d. Irrigation Applications</p>	<p>Precision agriculture technologies, including those aimed at variable rate application of inputs, are spreading through agriculture. They affect resource use, finances, and the environmental impacts of agricultural production. We need to add this question in order to accurately track farm finances and productivity.</p>
<p>Did you reduce the water applied to the selected field in 2021 due to reduced availability of water supplies?</p>	<p>We asked this item in the 2013 rice survey and would like to include it again in the 2020 survey</p>
<p>Which of these water management approaches best describes the irrigation water management on the selected field? 1 Permanent flooding? 2 Pinpoint flooding? 3 Delayed Flooding 4 Intermittent, controlled, or alternate wetting and drying (AWD) irrigation? 5 Furrow, or raised bed irrigation? 6 None of the above</p>	<p>We asked this item in the 2013 rice survey and would like to include it again in the 2020 survey</p>
<p>Is the run-off from this field- 1 Reused to irrigate on the farm? 2 Collected in evaporation ponds on the farm? 3 Drained from the farm 4 There is no run-off</p>	<p>We asked this item in the 2013 rice survey and would like to include it again in the 2020 survey</p>

Which of the following approaches are used to managed drainage of this field?"

- Natural drying of the field (when weather allows)? (Yes=1, No=3)
- Opening of levee gates or intentional breach of levee? (Yes=1, No=3)
- Controlled drainage outlet?
- Treatment of drainage water with saturated buffers, filter strips or constructed wetlands?
- Treatment of drainage water with a bioreactor?"

## Additional Information

Why does the question need to be in ARMS? The survey encompasses a large and representative sample of producers. Because the survey also gathers information on production practices, yields, inputs, and finances, it is the only channel to evaluate the impact of drone adoption of farm productive and financial outcomes.

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