

# AGRICULTURAL RESOURCE MANAGEMENT SURVEY

OMB No. 0535-0218  
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 Phase II



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## SOYBEAN PRODUCTION PRACTICES AND COSTS REPORT FOR 2018

VERSION <b>7</b>	ID _____	TRACT <b>01</b>	SUBTRACT _____	C-TYPE <b>120</b>
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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.

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

<b>BEGINNING TIME</b> <i>[MILITARY]</i>	<table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td style="text-align: center;">H H M M</td></tr> <tr><td style="text-align: center;">0004</td></tr> <tr><td style="text-align: center;">_ _ _ _</td></tr> </table>	H H M M	0004	_ _ _ _	<table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td style="text-align: center;"><b>SCREENING BOX</b></td></tr> <tr><td style="text-align: center;">0006</td></tr> </table>	<b>SCREENING BOX</b>	0006
H H M M							
0004							
_ _ _ _							
<b>SCREENING BOX</b>							
0006							
<input type="checkbox"/> <i>[Name, address and partners verified and updated if necessary]</i>							

<b>POID</b> _____	<b>POID</b> _____
PARTNER NAME	PARTNER NAME
ADDRESS	ADDRESS
CITY                      STATE      ZIP                      PHONE NUMBER	CITY                      STATE      ZIP                      PHONE NUMBER
<b>POID</b> _____	<b>POID</b> _____
PARTNER NAME	PARTNER NAME
ADDRESS	ADDRESS
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According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB number is 0535-0218. The time required to complete this information collection is estimated to average 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.

TOTAL PLANTED ACRES

1. How many acres of soybeans did this operation plant for the 2018 crop year? [If no acres planted, review Screening Survey Information Form, make notes, then go to item 4 on back page].....

0050

2. I will follow a simple procedure to make a random selection from the soybean fields planted for the 2018 crop.

TOTAL NUMBER OF FIELDS PLANTED

What is the TOTAL number of soybean 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
2
3
4
5
6
7
8
9

- 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 soybean questions will be about this selected soybean 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**

1. How many acres of soybeans did this operation plant in this field for the 2018 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 soybean production in 2018? ..... YES = 1 1399

2. Were the acres in this field -- 
 1 owned by this operation?  
 2 rented for CASH with the payment being a fixed cash amount?  
 3 rented for CASH with the payment being a flexible cash amount?  
 4 rented for a SHARE of the crop?  
 5 rented for some combination of CASH and SHARE of the crop?  
 6 used RENT FREE?
  CODE  
1302

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 2018 soybean 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 2018 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 2018 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 the intended purpose for the soybeans-- ..... 
 1 Animal Feed?  
 2 Human Consumption?  
 3 Seed?  
 4 Unknown (Delivered to elevator/grain broker)  
 5 Other uses [Specify: \_\_\_\_\_]
  CODE  
1307

b. What was your yield goal at planting for this field? ..... BUSHELS PER ACRE  
1311



1 Purchased?
2 Homegrown or traded?
3 Both?

9. Was the source of the soybean seed --.....

CODE
1317

a. [If item 9 = 2 or 3, ask--]

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

PERCENT
1318

(i) What was the cost per bushel for cleaning and treating this seed?.....

DOLLARS & CENTS PER BUSHEL
1321

- UNIT CODE**  
 1 = POUNDS  
 2 = CWT  
 3 = TONS  
 4 = BUSHEL  
 22 = ACRE  
 23 = 50 LB BAGS

10. [If any seed purchased (item 9 = 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	1319	1320
	_____	_____

- UNIT CODES for Seeding Rate**  
 1 = Pounds/Acre  
 2 = CWT/Acre  
 4 = Bushels/Acre  
 25 = Seeds/Acre  
 38 = Seeds/Foot

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

UNITS	1313	1314
	_____	_____

1 Drilled?
2 Planted in Conventional Rows?
3 Broadcast on this field?

a. Was the soybean seed----.....

CODE
1316

12. [If Drilled or Planted (item 11a = 1 or 2), ask--]

What was the average soybean row width?.....

INCHES
1322

13. How many acres in this field had to be replanted to soybeans?

(Acres replanted = Number of acres times the number of times replanted.).....

ACRES
1315

14. For the 2018 soybean crop, did you purchase pre-treated seed or have the seed treated after purchase with a fungicide or insecticide?.....

YES = 1

CODE
3062

[If item 14 is yes, ask--]

a. List the name of the seed treatment product. Enter the appropriate product code from the Respondent Booklet (Page 2) (enter 999 if a seed treatment was applied but the product is not listed).....

CODE
2325

[If item 14a is 999, ask--]

b. Write the seed treatment product name in the box provided.....

Seed Treatment Product Name

XXXX

15. Did the SOYBEAN planted on this field have any of the following traits in 2018 or 2017?

- a. Herbicide-resistant seed variety with sulfonylurea tolerance.... .
- b. Nematode-resistant seed variety with cyst nematode resistance
- c. Disease-resistant seed variety with root-rot tolerance
- d. Insect-resistant seed variety with aphid resistance

2018 YES = 1	2017 YES = 1
2501	2502
2509	2510
2511	2512
2513	2514

16. Did the SOYBEAN planted on this field have any of the following GMO/GE seed traits in 2018 or 2017? --

- a. Genetically-modified herbicide-resistant seed variety with glyphosate tolerance. . .
- b. Genetically-modified herbicide-resistant seed variety with glufosinate tolerance
- c. Genetically-modified herbicide-resistant seed variety with dicamba tolerance
- d. Genetically-modified herbicide-resistant seed variety with HPPD tolerance

2018 YES = 1	2017 YES = 1
2501	2502
2509	2510
2511	2512
2513	2514



**CROP CODE LIST for item 21 – PREVIOUSLY PLANTED CROPS**

190 Barley	311 Grasses, including clover	22 Rye	318 No crop planted
6 Corn for grain	1 Hay, alfalfa	XX Sorghum, all	XX Other field crop
5 Corn for silage	11 Hay, all other	26 Soybeans	XX Other crop
XXX Cotton (all)	15 Oats	XX Wheat, spring	XX Cover crop mix
302 CRP	21 Rice	165 Wheat, winter	

1 What crops were PLANTED on this field in---			2 What type of crop was grown on this field? <small>1 GE Herbicide Tolerant (HT) 2 GE Insect Resistant (Rt) 3 Stacked (HT and Rt) 4 Not GE</small>	3 Was this a cover crop?	4 How did you manage this cover crop? <small>1 Plowed-in 2 Chiseled-in 3 Chemical-killed 4 Rolled 5 Grazed 6 Harvested 7 Disked</small>	5 Was this field irrigated?	6 Was this field no-tilled or strip-tilled? 1/
SEASON AND YEAR	CROP NAME	CROP CODE	CODE	YES = 1	CODE	YES = 1	YES = 1
a. SPRING/SUMMER of 2018? . . . . .	Soybeans	26	XXX			XXX	XXX
a. FALL of 2017? . . . . .		1343	XXX	1470	1471	2344	1345
b. SPRING/SUMMER of 2017? . . . . .		1369	XXX	1472	1473	2370	1371
c. FALL of 2016? . . . . .		1372	XXX	1474	1475	2373	1374
d. SPRING/SUMMER of 2016? . . . . .		1375	XXX	1476	1477	2376	1377
e. FALL of 2015? . . . . .		1378	XXX	1478	1479	2379	1380
f. SPRING/SUMMER of 2015? . . . . .		1381	XXX	1480	1481	2382	1383
g. FALL of 2014? . . . . .		1366	XXX	1482	1483	2367	1368
h. SPRING/SUMMER of 2014? . . . . .		1340	XXX	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.



21. Please report what crops were previously PLANTED on the majority of this field, including cover crops.



22. **Is any part of this field been classified 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, prepared in accordance with Federal standards.) . . . . .

**CODE**

YES = 1

23. **Does this field contain a wetland?** (Wetlands are subject to Wetland Conservation (WC) or “swampbuster” requirements. Producers who receive farm program payments must refrain from draining wetland to make them ready for crop production.) . . . . .

**CODE**

YES = 1

24. **What is the slope of this field?** . . . . .

- |                                 |
|---------------------------------|
| 1 Nearly level (0 - 2%)         |
| 2 Even, moderate grade (3 – 9%) |
| 3 Variable, moderate grade      |
| 4 Even, steep grade (over 10%)  |
| 5 Variable, steep grade         |

**CODE**

25. **What is the primary soil type of this field?** . . . . .

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

**CODE**

26. **Which of the following resource Concerns do you have on this field**

RESOURCE CONCERNS	CODE	Have you received technical assistance from any of the following sources to evaluate this resource concern? (Report up to 3 sources that you received assistance from.)	
		Source 1	Source 2
a. Water-driven erosion. . . . .	2407	2417	2427
b. Wind-driven erosion. . . . .	2408	2418	2428
c. Soil compaction. . . . .	2409	2419	2429
d. Poor drainage. . . . .	2410	2420	2430
e. Low organic matter. . . . .	2411	2421	2431
f. Water quality. . . . .	2412	2422	2432
g. Other concerns. . . . .	2413	2423	2433

- 1 USDA – NRCS
- 2 Cooperative Extension Service
- 3 Other USDA staff, including Forest Service
- 4 Other (e.g. Soil and Water Conservation District, state agency)

YES = 1

h. No significant concerns. ....	2414		
----------------------------------	------	--	--

27. Did the land use practices for this field include subsurface drainage? ..... YES = 1

[If YES, ask--]

a. In what year was the subsurface drainage installed? .....

b. What is the average width (space between rows) of your drainage system? (Feet) .....

c. What is the diameter of your tiles? .(inches) .....

d. On average, how many hours does it take your field to return to normal soil moisture levels following a heavy storm? .....

e. Does this system include a mechanism for controlled drainage (e.g. stop logs, risers, or float mechanisms)? ..... YES = 1

CODE

2402
------

YEAR

2403
------

INCHES

XXXX
------

2605
------

HOURS

2606
------

2406
------

28. Have you ever applied for conservation funding, through any Federal, State, or local program, for this field? .....

[If item 28=1, go to Item 29-- if not, skip to item 33.]

29. Has this field been in any conservation program contracts for which you or your landlord received (or expect to receive) cost-sharing payments, stewardship payments, or incentive payments? (1=current in a contract, 2=previously in a contract, 3=never in a contract)

a. Environmental Quality Incentives Program.....	1=current, 2=past, 3=never
b. Conservation Stewardship Program.....	1=current, 2=past, 3=never
c. Conservation Reserve Program.....	1=current, 2=past, 3=never
d. Other Federal, State, Local or non-government source.....	1=current, 2=past, 3=never

30. Has this field been included in an application that was rejected or has not yet been funded? .....yes/no

--

Conservation Practice/Conservation Plan List for question 31					
328	Conservation Crop Rotation	590	Nutrient Management Plan?	332	Contour Buffer Strips
329	No-Till/Strip-Till	???	Manure Management Plan?	386	Field Border
345	Reduced (Conservation) Till	595	Integrated Pest Management Plan	393	Filter Strip
330	Contour Farming	449	Irrigation Water Management Plan	412	Grassed Waterway
340	Cover Crop	644	Wetland	410	Grade Stabilization Structure
585	Strip cropping		Conservation Plan	603	Herbaceous Wind Barriers
				600	Terraces
				390	Riparian Buffer
				380	Field Windbreak/Shelterbelt or Hedgerow

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

1 What conservation practices or plans have been used on this field at least once in the past 5 years?	2 CODE	3 Was this practice or plan used in 2018? YES = 1	4 Have you ever received at any time--		5 Does this practice or plan help satisfy? 1 A federal regulatory requirement? 2 USDA conservation compliance provisions? 3 Does not relate to any regulation or compliance requirement. CODE
			Technical or planning assistance? 1 USDA including funding of Technical Service Providers 2 Other Sources of Outside Assistance 3 No Assistance Needed CODE	Financial assistance? 1 EQIP 2 CSP 3 CRP 4 Other Federal, State, and Local Programs 5 No Assistance Needed 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

32. Was the soybean in this field covered by private crop insurance in 2018? (hail, wind, freeze, etc.) . . . . .

YES = 1

CODE

2520

[If YES, ask--]

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

DOLLARS & CENTS PER ACRE  
2521

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

PERCENT  
2522

c. What premium cost per acre did you pay for the private insurance policy covering this field? . . . . .

DOLLARS & CENTS PER ACRE  
2523

d. Did you (or will you) collect an indemnity payment for this field from private crop insurance during 2018? . . . . .

YES = 1

1394

33. Was the soybean in this field covered by Federal Crop Insurance in 2018?

YES – [Enter code 1 and continue.]

NO – [Go to Section C.] . . . . .

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 40a = 2 or 3, ask--]

(i) What yield level did you select for your buy-up coverage for this field? . . . . .

PERCENT  
1387

(ii) What price level did you select for your buy-up coverage for this field? . . . . .

1388

[If item 40a = 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 2018 Approved APH (actual production history) yield for this field? . . . . .

BUSHEL PER ACRE

e. What was the premium paid for Federal crop insurance for this field in 2018? (Exclude any sign-up fee.). . . . .

DOLLARS & CENTS PER ACRE

f. Did you (or will you) collect an indemnity payment for this field from federal crop insurance during 2018? . . . . .

CODE Yes = 1



C

# NUTRIENT or FERTILIZER APPLICATIONS---SELECTED FIELD

C

1. **Were commercial nutrients or fertilizers applied to this field for the 2018 soybeans crop?** (Include those from operators, landlords, and contractors.) . . . . . **YES = 1**

<b>CODE</b>	<b>EDIT TABLE</b>
0202	0200

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

2. **How many commercial nutrient or fertilizer applications were made to this field for the 2018 crop?** (Include applications made by airplanes and custom applicators.) . . . . .

<b>NUMBER</b>
0203

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

## CHECKLIST

✓ INCLUDE	✓ EXCLUDE
<input type="checkbox"/> Custom applied nutrients or fertilizers	<input type="checkbox"/> Micronutrients
<input type="checkbox"/> Nutrients or fertilizers applied in the fall of 2017 and those applied earlier if this field was fallow in 2017	<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

<b>OFFICE USE LINES IN TABLE</b>	<b>TABLE 001</b>	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     |

L I N E	2 MATERIALS USED				3 What quantity was applied per acre?	4 [Enter material code.]	5 When was this applied?	6 How was this applied?	7 How many acres were treated in this application?
	[Enter percentage analysis or actual pounds of plant nutrients applied per acre.]								
	N Nitrogen	P <sub>2</sub> O <sub>5</sub> Phosphate	K <sub>2</sub> O Potash	S Sulfur					
	[Show Common Nutrients or Fertilizers in Respondent Booklet.]				[Leave this column blank if actual pounds of 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
<b>01</b>	31	32	33	34	36	37	38	39	40
<b>02</b>	31	32	33	34	36	37	38	39	40
<b>03</b>	31	32	33	34	36	37	38	39	40
<b>04</b>	31	32	33	34	36	37	38	39	40
<b>05</b>	31	32	33	34	36	37	38	39	40
<b>06</b>	31	32	33	34	36	37	38	39	40
<b>07</b>	31	32	33	34	36	37	38	39	40
<b>08</b>	31	32	33	34	36	37	38	39	40



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 5]

<b>DOLLARS &amp; CENTS PER ACRE</b>	OR	<b>TOTAL DOLLARS</b>
0219		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. Include materials applied to this field if it was fallow in 2017. Exclude lime, gypsum, purchased manure and purchased compost.) [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.]

<b>DOLLARS &amp; CENTS PER ACRE</b>	OR	<b>TOTAL DOLLARS</b>
0221		0222

6. Was gypsum applied to this field for the 2018 soybeans crop? YES = 1

**CODE**

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

**CODE**

3225
------

[If item 7 = 1, ask---]

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

**PERCENT**

3226
------

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

**NUMBER**

3227
------

[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 |

**CODE**

3228
------

8. Was a soil or plant tissue test performed on this soybeans field in 2017 or 2018 for the 2018 crop?

- YES [Continue.]
- NO [Go to item 13.]

9. Was a soil test for phosphorus performed on this soybeans field in 2017 or 2018 for the 2018 crop? YES = 1

**CODE**

0225
------

[If item 9 = 1, ask---]

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

**POUNDS PER ACRE**

0226
------

10. Was a soil test for nitrogen performed on this soybeans field in 2017 or 2018 for the 2018 crop? .....

CODE

0227

YES = 1

POUNDS PER ACRE

0228

[If item10 = 1, ask--]

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

11. Was a plant tissue test or leaf analysis for nutrient deficiency performed on this field in 2017 or 2018 for the 2018 crop? .....

CODE

0229

YES = 1

12. How much was spent for these soil and plant tissue tests on this field in 2017 or 2018 for the 2018 crop ? [Include landlord and contractor costs.] .....

DOLLARS & CENTS PER ACRE

0230

OR

TOTAL DOLLARS

0231

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

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

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

CODE

0232

.....

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

YES = 1

3231

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

13. Was the amount of nitrogen you decided to apply to 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

h. [If nitrogen inhibitors were used, continue; else go to item 14.]

POUNDS PER ACRE

2561

OR

GALLONS PER ACRE

2562

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

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

[If no lime applied, go to item 15; 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 2017 or 2018 for the 2018 crop? . . . . . YES = 1 CODE  
0240

15. Was non-commercial manure (from own farm, from a neighbor's farm, etc.) or other organic material (including compost) applied to this field for the 2018 soybeans crop? (Exclude commercially prepared manure.)  
 YES - [Enter code 1 and continue]       NO - [Go to item 17]. . . . . CODE  
0246

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

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

1 Tons
2 Gallons
3 Bushels
4 Cubic Yards

CODE  
0248 AND UNITS PER ACRE  
0249 OR TOTAL UNITS  
0250

c. Of the total manure or compost applied to this field for the 2018 crop, what was the percent of manure or compost applied---  

		PERCENT
(i) in the fall before planting? . . . . .	+	0254
(ii) in the spring before planting? . . . . .	+	0255
(iii) after planting? . . . . .	+	0256

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

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

100%  
CODE  
0257

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

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

CODE  
0258

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

- 1 Beef cattle?
- 2 Dairy cattle?
- 3 Hogs?
- 4 Sheep?
- 5 Poultry?
- 6 Equine?
- 7 Biosolids (*municipal sludge*)?
- 8 Food waste?
- 9 Other? [*Specify: \_\_\_\_\_*]

CODE

0259

g. Was the manure or compost---

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

CODE

0260

[If item 15g = 2, ask--]

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

DOLLARS & CENTS PER ACRE

0284

OR

TOTAL DOLLARS

0285

CODE

0286

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

[If YES, ask--]

(a) What was the total cost paid to have manure or compost 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

MILES

0291

(iii) What is the distance in miles between the manure or compost storage/production location and this field? . .

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

CODE

0261

YES = 1

CODE

0264

16. Were the manure APPLICATION RATES to this field influenced by Federal, State, or local restrictions? . . . . .

YES = 1

[If item 16 is YES, ask--]

a. 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



# 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 2018 soybeans crop, including both custom applications and applications made by this operation.

1. Were any herbicides, insecticides, fungicides or other biocontrols or pesticides used on this soybean field for the 2018 crop?

	CODE	EDIT TABLE
YES = 1	0302	0300

If no biocontrols or pesticides applied, go to Section E.

<p><b>Include</b> defoliant, fungicides, herbicides, insecticides, and other pesticides.</p> <p><b>Include</b> biological and botanical pesticides.</p>	<p><b>Exclude</b> nutrients or fertilizers reported earlier and seed treatments.</p>
---	--

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

CHEMICAL PRODUCT NAME	L I N E	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>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____





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]

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 2017 fallow period. Exclude seed treatments.)

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

a. How much was spent for herbicide products applied to this field? (Include operator, landlord, and contractor costs.)

DOLLARS & CENTS PER ACRE	OR	TOTAL DOLLARS
3034 . ____ ____		3035

b. How much was spent for insecticide products applied to this field? (Include operator, landlord, and contractor costs.)

DOLLARS & CENTS PER ACRE	OR	TOTAL DOLLARS
3036 . ____ ____		3037

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

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



# NOTES

---



**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 2018 soybean 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 soybean field BEFORE weeds emerged? ..... | YES = 1 | 0803 |
| 5. Were herbicides applied to this soybean field AFTER weeds emerged? .....  | YES = 1 | 0805 |

- |  |         | CODE |
|--|---------|------|
| 6. Were records kept for this field to track the activity or numbers of weeds, insects or diseases? .....                              | YES = 1 | 0823 |
| 7. Did you use published information on infestation thresholds to determine when to take measures to manage pests in this field? ..... | YES = 1 | 0824 |

- |   |  | CODE |
|---|--|------|
| 8. In 2018, 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 9.] | 0808 |
|   | 2 By conducting general observations while performing routine tasks [Enter code 2 and go to item 11.]      |      |
|   | 3 This field was not scouted. [Enter code 3 and go to item 14.]  |      |

- |  |         |      |
|--|---------|------|
| 9. Was an established scouting process (systematic sampling, recording counts, etc.) used or were insect traps used in this field? ..... | YES = 1 | 0809 |
|--|---------|------|

- |   |         | CODE |
|---|---------|------|
| 10. 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]?—	[If column 1 = YES, ask---] Who did the majority of the scouting for [column 1]?
		1 Worse than normal 2 Normal 3 Less than normal	1 Operator, partner or family member 2 An employee 3 Farm supply or chemical dealer 4 Independent crop consultant or commercial scout
11. Was this soybean field scouted for--		CODE	CODE
	YES = 1		
a. Weeds?.....	0812	0813	0814
b. Insects or mites?.....	0815	0816	0817
c. Diseases?.....	0818	0819	0820

[If scouted by crop consultant or commercial scout, ask item 12; else go to item 13.]

12. 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
OFFICE USE		
a. [If scouting performed at no cost, explain:_____]		0333

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 ( <i>using conventional tillage</i> )? . . . . .	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 soybeans 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. <b>Were any beneficial organisms (insects, nematodes, fungi) applied or released in this field to manage pests?</b> . . . . .	YES = 1	0853
16. <b>Were floral lures, attractants, repellants, pheromone traps or other biological pest controls used on this field?</b> . . . . .	YES = 1	0858

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

a. **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 2017 to help manage insects on this field? . . . . . YES = 1 CODE  
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. Was protection of beneficial organisms a factor in your pest control decisions for this field? . . . . . YES = 1 1765

[If Item 20 is YES, continue. Else go to Item 21.]

a. Did you change timing of, reduce application rate of, or eliminate a pesticide application? . . . . . YES = 1 1766

b. Did you change to an alternative pesticide, biocontrol, or non-pesticide practice? . . . . . YES = 1 1767

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

	1 BUSHELS 2 TONS	. . . . .	CODE		AND	UNITS PER ACRE		OR	TOTAL UNITS	
--	---------------------	-----------	------	--	-----	----------------	--	----	-------------	--

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

[If YES, ask--]

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

	1 BUSHELS 2 TONS	. . . . .	CODE	0828	AND	UNITS PER ACRE	0829	OR	TOTAL UNITS	0830
--	---------------------	-----------	------	------	-----	----------------	------	----	-------------	------

23. If you used genetically engineered, glyphosate resistant seeds on this field in 2018, indicate the number of consecutive years you have planted genetically engineered, glyphosate-resistant seeds. NUMBER OF YEARS  
1970

a. What year did you first plant any glyphosate resistant seeds on this field? . . . . . YEAR  
1971

24. If you used genetically engineered, dicamba resistant seeds on this field in 2018, indicate the number of consecutive years you have planted genetically engineered, dicamba resistant seeds. . . . . NUMBER OF YEARS  
XXXX

a. What year did you first plant any dicamba resistant seeds on this field? . . . . .

YEAR
XXXX _ _ _ _

25. Did you observe "cupping" or other symptoms associated with dicamba drift/volatility on this field in 2018?

YES = 1 

XXXX
------

[if item 26 = yes, continue. Else proceed to item 27]

a. Do you believe that the damage you observed on your field in 2018 was due to drift (not volatility)?

YES = 1 

XXXX
------

26. As far as you are aware, did farmers in neighboring fields observe "cupping" or other symptoms associated with dicamba drift/volatility in 2018?

YES = 1 

XXXX
------

27. As far as you are aware, did farmers in your county observe "cupping" or other symptoms associated with dicamba drift/volatility in 2018?

YES = 1 

XXXX
------

28. As far as you are aware, did farmers in neighbouring fields plant dicamba tolerant soybeans in 2018?

YES = 1 

XXXX
------

29. As far as you are aware, did farmers in your county plant dicamba tolerant soybeans in 2018?

YES = 1 

XXXX
------

**30. Have any of the following herbicides been used since 2014?**

	2018 Yes=1	2017 Yes=1	2016 Yes=1	2015 Yes=1	2014 Yes=1
Glyphosate					
Glufosinate					
Dicamba					
2, 4-D					
Sulfonylurea (STS) (soybean)					

31. Have herbicide tolerant seeds been planted on this field any time since 2014: . . . . .

YES = 1 

CODE

[If item 26= YES, continue. If item 26 = NO, go to item 30.]

	Have you noticed a decline in the effectiveness of herbicides in controlling weeds in this particular field? Yes=1	What was the first year you noticed a decline in the effectiveness of herbicides in controlling weeds in this field?	After noticing the decline in the effectiveness of the herbicide in controlling weeds on this field, did you--		
			stop planting herbicide resistant crops with this trait? Yes=1	Change tillage practices? Yes=1	Switch to an alternative herbicide? Yes=1
Glyphosate					
Glufosinate					
Dicamba					
2, 4-D					
Sulfonylurea (STS) (soybean)					

32. Considering each year you planted a glyphosate resistant crop on this field, have you ever used the following practices in order to reduce the rate that glyphosate resistance develops in weeds on this field?

1	2	3	4
RESISTANCE MANAGEMENT PRACTICE	YES = 1	How often did you use this practice on this field?  1 Every Year 2 Every Other Year 3 Multiple Years 4 One Year  CODE	Did the cost of managing weeds on this field increase as a result of your use of the practice?  1 Yes 2 No 3 Don't Know  CODE
a. Control weeds early	0886	2871	0878
b. Control weed escapes	0887	2872	0879
c. Clean equipment between moving from one field to the next	0888	2873	0880
d. Use herbicides other than glyphosate	0889	2874	0881
e. Use cultivation	0890	2875	0882
f. Use the herbicide label recommended application rate	0891	2876	0883
g. Rotate crops	0892	2877	0884

[If item 27 column 2 contains at least one "1", ask: otherwise go to item 29.]

33. Considering the above practices (i.e. a-g) do you believe resistance management practices are or would be more effective in reducing the rate that herbicide resistance develops in weeds on this field if operators of nearby farms also use them? .....

- 1 - Yes
  - 2 - No
  - 3 - Don't Know
  - 4 - The nearest farm is too far away to affect this field

CODE

0088

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 2018 soybean 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 2017, list operations starting with fall 2016];
- ▶ 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	
<b>Include</b>	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 (grain & straw) to storage or first point of sale
<b>Exclude</b>	
<input type="checkbox"/>	Lime & Gypsum/landplaster applications
<input type="checkbox"/>	Compost & Non-Commercial Manure applications

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?	7 [Record size unit code.] 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, or hauling? [Example: backhoes, disk border maker, ditcher, rear mounted blade, trucks, wagons, forklifts, etc.] HOURS	10 Which Power Source was used? <sup>1J</sup> 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/
01	87		88	89	90	91	92	93	94	95
02	87		88	89	90	91	92	93	94	95
03	87		88	89	90	91	92	93	94	95
04	87		88	89	90	91	92	93	94	95
05	87		88	89	90	91	92	93	94	95
06	87		88	89	90	91	92	93	94	95
07	87		88	89	90	91	92	93	94	95
08	87		88	89	90	91	92	93	94	95
09	87		88	89	90	91	92	93	94	95
10	87		88	89	90	91	92	93	94	95
11	87		88	89	90	91	92	93	94	95
12	87		88	89	90	91	92	93	94	95
13	87		88	89	90	91	92	93	94	95
14	87		88	89	90	91	92	93	94	95
15	87		88	89	90	91	92	93	94	95
16	87		88	89	90	91	92	93	94	95
17	87		88	89	90	91	92	93	94	95
18	87		88	89	90	91	92	93	94	95

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

OFFICE USE  
0400

2. **Now I need some additional information about your labor.**

Please report the paid and unpaid labor that worked on this field to produce the 2018 soybean crop.  
 (**Exclude** labor that was reported for field work performed by machines.)

TYPE OF WORKERS	How many total hours did (type of worker) spend on this field---		
	1	2	3
	scouting for weeds, insects and diseases? HOURS	irrigating? HOURS	performing other work by hand? HOURS
You (the operator)	1101	1102	1103
Partner(s)	1104	1105	1106
Unpaid workers	1107	1108	1109
Paid part-time or seasonal workers ( <b>Exclude</b> custom and contract labor)	1110	1111	1112
Paid full-time workers ( <b>Exclude</b> custom and contract labor)	1113	1114	1115

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

**DOLLARS & CENTS PER HOUR**

1119
. ____

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

**DOLLARS & CENTS PER HOUR**

1118
. ____

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

**CODE**

1116
------

[If YES, ask ---

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

**DOLLARS & CENTS PER ACRE**

1117
. ____

6. **What percent of the total number of unpaid hours worked on 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.*) . . . . .

**PERCENT**

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 2018 soybean crop.**

1 <b>CUSTOM SERVICE</b>	2 Including operator, landlord, and contractor costs, how much was spent for [column 1] on this field for the 2018 soybean crop?  <b>DOLLARS &amp; CENTS PER ACRE</b>
✓ ← [Check box for each service performed; refer to item 1 if necessary.]	
<input type="checkbox"/> a. Custom land preparation and/or shaping? .....	1121 _____
<input type="checkbox"/> b. Custom cultivating? .....	1122 _____
<input type="checkbox"/> c. Custom planting and/or reseeding? .....	1123 _____
<input type="checkbox"/> d. Custom harvesting? .....	1124 _____
<input type="checkbox"/> e. Custom hauling to storage or point of first sale? _____ x _____ ÷ _____ = _____ (Dollars & cents per unit x Total units hauled from field ÷ Acres harvested in field = Dollars & cents per acre)	1126 _____
<input type="checkbox"/> f. Custom harvesting and hauling from field to storage or point of first sale? _____ x _____ ÷ _____ = _____ (Dollars & cents per unit x Total units hauled from field ÷ Acres harvested in field = Dollars & cents per acre)	1127 _____
<input type="checkbox"/> g. Custom raking, baling, and hauling the straw from this field _____ x _____ ÷ _____ = _____ (Dollars & cents per unit x Total units hauled from field ÷ Acres harvested in field = Dollars & cents per acre)	1128 _____

8. **Were the soybeans harvested and hauled from this field dried (or will be dried) before being sold or stored?** .....

CODE  
1195  
YES = 1

9. **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? .....	1129 YES = 1 <input style="width: 100px; height: 20px;" type="text"/>
b. Soil or tissue sample collection? .....	1130 YES = 1 <input style="width: 100px; height: 20px;" type="text"/>
c. Pest control recommendations/management service? .....	1131 YES = 1 <input style="width: 100px; height: 20px;" type="text"/>
d. Pest scouting? .....	1132 YES = 1 <input style="width: 100px; height: 20px;" type="text"/>
e. Irrigation management service (i.e. irrigation scheduling)? .....	1133 YES = 1 <input style="width: 100px; height: 20px;" type="text"/>
f. Yield map or remote sensing map development/interpretation? .....	1134 YES = 1 <input style="width: 100px; height: 20px;" type="text"/>
g. Other custom or technical service? [Specify: _____] .....	1135 YES = 1 <input style="width: 100px; height: 20px;" type="text"/>

10. 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

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

CODE
2460

YES = 1

[If YES, continue; else go to Item 12]

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	2	3	4	5	6
Data Collection Tool	Tool Used YES = 1	Collected with GPS YES = 1	Data was/will be used to create a map Yes = 1	Replacement Cost Total Dollars	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		

12. 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
- (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

CODE
2485
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

13. **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

14. **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

15. **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.) .....			

16. **Was guidance auto-steering (excluding Light Bar) used on this field?** .....

[If 16=1, ask--]

a. Was the guidance auto-steering equipment: .....	<table border="1"> <tr> <td>1</td> <td>New</td> </tr> <tr> <td>2</td> <td>Used</td> </tr> <tr> <td>3</td> <td>Leased</td> </tr> </table>	1	New	2	Used	3	Leased	CODE
1	New							
2	Used							
3	Leased							
b. What year was guidance auto-steering first purchased? .....		YEAR						

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? . . . . .

DOLLARS & CENTS PER ACRE	OR	TOTAL DOLLARS

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

	CODE
--	------

[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	Was this applicator	What year was the applicator First used?	Premium paid for the applicator
	1 Sensor-based 2 GPS-based 3 Both 4 Neither	1 New 2 Used 3 Leased	Year	Total dollars
a. Seeding				
b. Fertilizer/lime applications				
c. Pesticide applications				



G

# IRRIGATION

G

1. How many acres in this field were irrigated for the 2018 soybean crop?

ACRES

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

1160	_____
------	-------

2. Now, I have some questions about irrigation systems and water used on this field for the 2018 soybean crop.

↓	UNIT	SYSTEM 1
a. What type(s) of irrigation system(s) was (or were) used to irrigate this field? [Show <b>System Type Codes</b> in the Respondent Booklet. Enter <b>System Type Code</b> for up to two systems covering the most field acres.] . . . . .	SYSTEM TYPE CODE	1161
b. What was the total quantity of water applied to this field during the entire growing season? ( <b>Include ALL water used from both on-farm and off-farm sources.</b> ) . . . . . [If operator cannot provide item 2b, ask (i) & (ii), else go to 2c]	INCHES PER ACRE	1162
	OR TOTAL ACRE-FEET	1163
(i) What is the <b>total</b> number of <b>hours</b> this system was used to apply water to this field during the soybean growing season?. . . . .	TOTAL HOURS	1164
(ii) How many gallons per minute were applied?. . . . .	GALLONS PER MINUTE	1165
c. What percent of the water used to irrigate this field through this system came from surface water sources?. . . . .	PERCENT	1166
d. What was the number of times this field was irrigated during the soybean growing season using this system? ( <b>Include any pre-plant irrigation.</b> ) . . . . .	NUMBER OF IRRIGATIONS	1167
e. Was the pump type--- [If more than one pump in the system, enter type for pump closest to water source.]	CODE	1168
	1 TURBINE? 2 SUBMERSIBLE? 3 CENTRIFUGAL? 4 BOOSTER? 5 SIPHON? 99 NO PUMP? [If code 99, go to item j.]	
f. What was the average pumping rate?. . . . .	GALLONS PER MINUTE	1169
g. [If item 2a = code 1-9 (PRESSURE SYSTEM), ask---] What was the system operating pressure?. . . . .	POUNDS PER SQUARE INCH	1170
h. What was the primary motor type used to pump the water?	CODE	1171
	1 DIESEL 2 GASOLINE 3 LP GAS 4 NATURAL GAS 5 ELECTRICITY 6 SOLAR POWER	
i. What was the average motor size?. . . . .	HORSEPOWER	1172
j. [If NO PUMP was used (item 2e = 99), ask---] What was the average flow rate?. . . . .	GALLONS PER MINUTE	1173
k. How many other acres on this operation were irrigated using this field's irrigation system during the 2018 growing season? ( <b>Exclude this field.</b> ) . . . . .	ACRES	1174

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 was the total cost for the water purchased for this field during the 2018 growing season? (Include operator, landlord, and contractor costs and ditch maintenance costs for this field.)

DOLLARS & CENTS PER ACRE

1193

OR TOTAL DOLLARS

1194

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

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

TOTAL DOLLARS

1201

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

6. What was the total amount spent for poly pipe used on this field during the 2018 growing season? (Include operator, landlord, and contractor costs.)

TOTAL DOLLARS

1202

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

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

INCHES

1203

FEET

1204

a. What was the total length of gated pipe used?

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

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

CODE

1205

NUMBER

1206

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

INCHES

1207

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

FEET

1208

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.]

d. 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

ACRES

e. Excluding this field, how many other acres on this operation were irrigated using the same wells during the 2018 growing season?

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 Conclusion]

INCHES

1212

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

FEET

1213

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



# NOTES

---



# CONCLUSION

## LOCATION OF SELECTED FIELD

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

2. What county is the selected soybean field in?.....

COUNTY NAME	OFFICE USE COUNTY FIPS CODE
	0010

Field description.....

Field Location..... N

0054	L A T I T U D E
d d m m s s	

0055	L O N G I T U D E
d d d m m s s	

3. [ENUMERATOR ACTION: Mark map to indicate where the selected soybean 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 2018 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/](http://www.nass.usda.gov/results/). Would you rather have a brief summary mailed to you at a later date?..... YES = 1

CODE
9990
HH MM
0005

6. ENDING TIME [MILITARY].....

## RECORDS USE

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

- a. [fertilizer data?]..... YES = 1
- b. [pesticide data?]..... YES = 1
- c. [majority of this expense data?]..... YES = 1

CODE
0011
0012
0013

## SUPPLEMENTMENTS USED

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

FERTILIZER APPLICATIONS  
PESTICIDE APPLICATIONS  
FIELD OPERATIONS

NUMBER
0041
0042
0043

Reported by: _____	9910	9911
	M M D D 18	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