AGRICULTURAL RESOURCE MANAGEMENT SURVEY

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Phase II

NATIONAL AGRICULTURAL STATISTICS SERVICE

National Agricultural Statistics Service
U.S Department of Agriculture
NOC Division
9700 Page Avenue, Suite 400
St. Louis, MO 63132-1547
Phone: 1-800-727-9540
Fax: 314-595-9990
E-mail: nass@nass.usda.gov

SOYBEAN PRODUCTION PRACTICES AND COSTS REPORT FOR 2023

VERSION	ID	TRACT	SUBTRACT	C-TYPE
7	__ __ __ __ __ __ __ __ __ __	01	__ __	120

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.

BEGINNING TIME [*MILITARY*]	H H M M	SCREENING BOX
	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

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.

SOYBEAN FIELD SELECTION

TOTAL PLANTED ACRES

1. **How many acres of soybeans did this operation plant for the 2023 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 2023 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	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 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):

	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 soybeans did this operation plant in this field for the 2023 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 2023? . . . . . **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 2023 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 2023 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 2023 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

9. **Was the source of the soybean seed --**. . . . . 1 Purchased? 2 Homegrown or traded? 3 Both? . . . . . **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 .__ __

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*.)

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

DOLLARS & CENTS PER UNIT	**UNIT CODE**
1319 .___ ___	1320

11. **What was the seeding rate per acre the first time this field was planted?**. . . . . 1313 .___ **UNITS** 1314

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

a. Was the soybean seed----. . . . . 1 Drilled? 2 Planted in Conventional Rows? 3 Broadcast on this field? . . . . . **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?** 1315 .___
(*Acres replanted = Number of acres times the number of times replanted*.). . . . . **ACRES**

14. **For the 2023 soybean crop, did you purchase pre-treated seed or have the seed treated after purchase with a fungicide or insecticide?** . . . . . **YES = 1** 3062 **CODE**

[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*).. . . . . 2325 **CODE**

[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 2023 or 2022?**

	2023 YES = 1	2022 YES = 1
a. **Herbicide-resistant seed variety with sulfonylurea tolerance…**. . .	2501	2502
b. Nematode-resistant seed variety with cyst nematode resistance	2509	2510
c. Disease-resistant seed variety with root-rot tolerance	2511	2512
d. Insect-resistant seed variety with aphid resistance	2513	2514

16. **Did the SOYBEAN planted on this field have any of the following GMO/GE seed traits in 2023 or 2022? --**

	2023 YES = 1	2022 YES = 1
a. **Genetically-modified herbicide-resistant seed variety with glyphosate tolerance**. . .	2501	2502
b. Genetically-modified herbicide-resistant seed variety with glufosinate tolerance	2509	2510
c. Genetically-modified herbicide-resistant seed variety with dicamba tolerance	2511	2512
d. Genetically-modified herbicide-resistant seed variety with HPPD tolerance	2513	2514

17. **For the 2023 soybean crop, did you plant a commercial seed product?** . . . . . **YES = 1**

CODE
3062

[If item 27 is yes, ask--]

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

CODE
2325

[If item 27a is 999, ask--]

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

Seed Treatment Product Name
XXXX

18. **Were the soybeans from this field sold** (or will they be sold) **through a market specifically for non-genetically modified soybeans?** . . . . . CODE

Yes=1 [ ]

a. [If item 23 = YES, ask--]

What was the price premium (or the expected premium if not yet sold) received for these non-genetically modified soybeans? . . . . . DOLLARS & CENTS PER BUSHEL [.]

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.**

		ACRES	1 What yield per acre did you (*or do you expect to*) get for soybeans--- TONS	2 UNIT CODE
a.	harvested for grain or seed?	1346	1347	1348
b.	harvested for commercial seed contract?	1431	1432	1433
c.	abandoned?	1351		

How many acres in this soybean field were (*or will be*)---

UNIT CODE: 1 Pounds; 2 CWT; 3 Tons; 4 Bushels

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--- SEASON AND YEAR	CROP NAME	CROP CODE	2 What type of crop was grown on this field? CODE (1 GE Herbicide Tolerant (HT); 2 GE Insect Resistant (Bt); 3 Stacked (HT and Bt); 4 Not GE)	3 Was this a cover crop? YES = 1	4 How did you manage this cover crop? CODE (1 Plowed-in; 2 Chiseled-in; 3 Chemical-killed; 4 Rolled; 5 Grazed; 6 Harvested; 7 Disked)	5 Was this field irrigated? YES = 1	6 Was this field no-tilled or strip-tilled? 1/ YES = 1

a. **SPRING/SUMMER of 2023?**	**Soybeans**	**26**	*XXX*			XXX	XXX
a. **FALL of 2022?**		1343	XXX	1470	1471	2344	1345
b. **SPRING/SUMMER of 20222**		1369	XXX	1472	1473	2370	1371
c. **FALL of 2021?**		1372	XXX	1474	1475	2373	1374
d. **SPRING/SUMMER of 2021?**		1375	XXX	1476	1477	2376	1377
e. **FALL of 2020?**		1378	XXX	1478	1479	2379	1380
f. **SPRING/SUMMER of 2020?**		1381	XXX	1480	1481	2382	1383
g. **FALL of 2019?**		1366	XXX	1482	1483	2367	1368
h. **SPRING/SUMMER of 2019?**		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.*

i. [*If a cover crop was planted in Spring/Summer/Fall 2022, ask—*

What was the seed cost per acre for the cover crop?. . . . . .

DOLLARS & CENTS PER ACRE

1468 .___ ___

i. What was the per-acre total of all cost-share or financial assistance payments received for the cover crop (if any)?

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.). . . . . YES = 1 | CODE 1404

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.). . . . . YES = 1 | 1405

24. **What is the slope of this field?** . . . . .
Nearly level (0 - 2%)
Even, moderate grade (3 – 9%)
Variable, moderate grade
Even, steep grade (over 10%)
Variable, steep grade
. . . . . CODE 2400

25. **What is the primary soil type of this field?** . . . . . .
Loam
Clay
Sandy
Mixed
. . . . . CODE 2401

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

RESOURCE CONCERNS	CODE YES = 1	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.) 1 USDA – NRCS 2 Cooperative Extension Service 3 Other USDA staff, including Forest Service 4 Other (e.g. Soil and Water Conservation District, state agency) Source 1	Source 2
a. Water-driven erosion.	2407	2417	2427
b. Wind-driven erosion.	2408	2418	2428
c. Soil compaction.	2409	2419	2429
d. Poor drainage.	2410	2420	2430
e. Low organic matter.	2411	2421	2431
f. Water quality.	2412	2422	2432
g. Other concerns.	2413	2423	2433
h. No significant concerns.	2414		

27. **Did the land use practices for this field include subsurface drainage?** [If YES, ask--] YES = 1 | CODE 2402

a. In what year was the subsurface drainage installed? . . . . . YEAR 2403 ___ ___ ___ ___

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

c. What is the diameter of your tiles? . . (inches) 2605

d. On average, how many hours does it take your field to return to normal soil moisture levels following a heavy storm? . . . . . HOURS 2606

e. Does this system include a mechanism for controlled drainage (e.g. stop logs, risers, or float mechanisms)? 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=currently 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
2
3
4
5

Have you ever received at any time--

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

Was this practice or plan used in 2023?
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

		CODE
32. **Was the soybean in this field covered by private crop insurance in 2023? (hail, wind, freeze, etc.)**	**YES = 1**	2520
[*If YES, ask*--]		**DOLLARS & CENTS PER ACRE**
a. What was the dollar amount of coverage per acre for the private insurance policy covering this field?.		2521 . ___ ___
		PERCENT
b. What was the percent deductible for the private insurance policy covering this field? (*Record no deductible as 0%.*).		2522
		DOLLARS & CENTS PER ACRE
c. What premium cost per acre did you pay for the private insurance policy covering this field?.		2523 . ___ ___
d. Did you (*or will you*) collect an indemnity payment for this field from private crop insurance during 2023?.	**YES = 1**	1394

33. **Was the soybean in this field covered by Federal Crop Insurance in 2023**?

	CODE
☐ **YES** – [*Enter code 1 and continue.*] ☐ **NO** – [*Go to Section C.*].	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*--]	**PERCENT**
What yield level did you select for your buy-up coverage for this field?.	1387
What price level did you select for your buy-up coverage for this field?	1388
[*If item 40a = 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 2023 Approved APH (*actual production history*) yield for this field?.	BUSHELS PER ACRE
e. What was the premium paid for Federal crop insurance for this field in 2023? (***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 2023?.	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 2023 soybeans crop?** (*Include those from operators, landlords, and contractors*.) . . . . . YES = 1	0202	0200

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

	NUMBER
2. **How many commercial nutrient or fertilizer applications were made to this field for the 2023 crop?** (***Include*** *applications made by airplanes and custom applicators*.)	0203

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

CHECKLIST

✓ INCLUDE	✓ EXCLUDE
☐ Custom applied nutrients or fertilizers	☐ Micronutrients
☐ Nutrients or fertilizers applied in the fall of 2022 and those applied earlier if this field was fallow in 2022	☐ Unprocessed manure
	☐ Nutrients or fertilizers applied to previous crops in this field
☐ Commercially prepared manure or compost	☐ 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 pounds of 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?
	N Nitrogen	**P_2O_5** Phosphate	**K_2O** Potash	**S** Sulfur					**ACRES**
01	31	32	33	34	36	37	38	39	40 .___
02	31	32	33	34	36	37	38	39	40 .___
03	31	32	33	34	36	37	38	39	40 .___
04	31	32	33	34	36	37	38	39	40 .___
05	31	32	33	34	36	37	38	39	40 .___
06	31	32	33	34	36	37	38	39	40 .___
07	31	32	33	34	36	37	38	39	40 .___
08	31	32	33	34	36	37	38	39	40 .___

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.]*

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.* ***Include*** *materials applied to this field if it was fallow in 2022.* ***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.*] . . . . . .

DOLLARS & CENTS PER ACRE
0221 .___ ___

OR

TOTAL DOLLARS
0222

CODE
0218

6. **Was gypsum applied to this field for the 2023 soybeans crop?** . . . . . **YES = 1**

CODE
3225

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---*]

PERCENT

a. What was the percentage of Soil Organic Matter on the field for the most recent test?. . . . . 3226 . ___ ___

NUMBER

b. How many times have you tested this field for Soil Organic Matter in the last ten years?. 3227

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

CODE

c. Based on these tests, is your Soil Organic Matter content:. . 1 Increasing 2 Decreasing 3 Staying roughly the same 3228

8. **Was a soil or plant tissue test performed on this soybeans field in 2022 or 2023 for the 2023 crop?**

☐ **YES** [*Continue.*] ☐ **NO** [*Go to item 13.*]

CODE
0225

9. **Was a soil test for phosphorus performed on this soybeans field in 2022 or 2023 for the 2023 crop?** . . . . . **YES = 1**

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

POUNDS PER ACRE

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

CODE

10. **Was a soil test for nitrogen performed on this soybeans field in 2022 or 2023 for the 2023 crop?** . . . . . YES = 1 | 0227

[*If item10 = 1, ask*---]

POUNDS PER ACRE

a. How many pounds of nitrogen (*per acre*) were recommended (*by the nitrogen test*)?. .. . . . . | 0228

CODE

11. **Was a plant tissue test or leaf analysis for nutrient deficiency performed on this field in 2022 or 2023 for the 2023 crop?** . . . . . YES = 1 | 0229

DOLLARS & CENTS PER ACRE | OR | TOTAL DOLLARS

12. **How much was spent for these soil and plant tissue tests on this field in 2022 or 2023 for the 2023 crop ?** *[**Include** landlord and contractor costs.]*. . . . . | 0230 .___ ___ | | 0231

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

CODE

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.

..... | 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.*]

CODE

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

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

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

POUNDS PER ACRE | OR | GALLONS PER ACRE

How much nitrogen inhibitor did you mix with the nitrogen applied to this field? . . . . . | 2561 .___ | | 2562 .___

CODE

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

[*If no lime applied, go to item 15; 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 2022 or 2023 for the 2023 crop?. . . . . **YES = 1** 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 2023 soybeans crop?** (***Exclude*** *commercially prepared manure*.)

CODE

☐ **YES** - [*Enter code 1 and continue*] ☐ **NO** - [*Go to item 17*]. 0246

ACRES

a. How many acres in this field was manure or compost applied to?. . . . . 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 2023 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

100%

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

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

CODE 0257

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

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

CODE 0258

f. Was the major source of 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*---]

	DOLLARS & CENTS PER ACRE	OR	TOTAL DOLLARS
(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.*)	0284 .___ ___		0285

(ii) Did you hire someone to custom apply the manure or compost? . . . . . **YES = 1** CODE 0286

[*If YES, ask*---]

	DOLLARS & CENTS PER ACRE	OR	TOTAL DOLLARS
(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.*].	0287 .___ ___		0288

	MILES	
(iii) What is the distance in miles between the manure or compost storage/production location and this field?. .	0291	.___

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

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

[*If item 16 is YES, ask*---]

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

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

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

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 2023 soybeans crop, including both custom applications and applications made by this operation.

	CODE	EDIT TABLE
1. **Were any herbicides, insecticides, fungicides or other biocontrols or pesticides used on this soybean field for the 2023 crop?** YES = 1	0302	0300

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 LINES IN TABLE **TABLE 001** 0399

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?	7 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 2022 fallow period.* ***Exclude*** *seed treatments.*).	0334 .___ ___		0335
a. How much was spent for **herbicide** products applied to this field? (***Include*** *operator, landlord, and contractor costs.*).	3034 .___ ___		3035
b. How much was spent for **insecticide** products applied to this field? (***Include*** *operator, landlord, and contractor costs.*).	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 2023 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** (*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*]

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

8. **In 2023, how was this field primarily scouted for insects, weeds, diseases, and/or beneficial organisms?** 0808

1 By deliberately going to the field specifically for scouting activities [*Enter code 1 and go to item 9.*]
2 By conducting general observations while performing routine tasks [*Enter code 2 and go to item 11.*]
3 This field was not scouted. [*Enter code 3 and go to item 14.*]

CODE

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

10. **Was scouting for pests done in this field due to---**

CODE

a. a pest advisory warning?. . . . . **YES = 1** 0810

b. a pest development model?. . . . . **YES = 1** 0811

1		2	3
11. **Was this soybean field scouted for--**	**YES = 1**	[*If* ***YES****, ask*---] **What was the infestation level for** [*column 1*]**?**— 1 Worse than normal 2 Normal 3 Less than normal **CODE**	[*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 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** 0821 .___ ___		**OR**	**TOTAL DOLLARS** 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 (*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 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. **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

[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

CODE

17. **Was a trap crop** (*excluding fallow*) **grown to help manage insects in this field?** . . . . . **YES = 1** | 0863 |

CODE

18. **Was this field left in fallow in 2022 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. **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?**

BUSHELS
TONS . . . .

CODE		UNITS PER ACRE		TOTAL UNITS
	AND		**OR**	

CODE

22. **Did pests** (weeds, insects, pathogens, animals) **cause any yield loss on this field in spite of your pest control efforts?** . . . . . **YES = 1** | 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		UNITS PER ACRE		TOTAL UNITS
0828	**AND**	0829	**OR**	0830

23. **If you used genetically engineered, glyphosate resistant seeds on this field in 2023, 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 ___ ___ ___ ___

NUMBER OF YEARS

24. If you used genetically engineered, dicamba resistant seeds on this field in 2023, indicate the number of consecutive years you have planted genetically engineered, dicamba resistant seeds…..

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 2023? **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 2023 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 2023? **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 2023? **YES = 1**

XXXX

29. As far as you are aware, did farmers in neighbouring fields plant dicamba tolerant soybeans in 2023? **YES = 1**

XXXX

31. As far as you are aware, did farmers in your county plant dicamba tolerant soybeans in 2023? **YES = 1**

XXXX

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

	2023 Yes=1	2022 Yes=1	2021 Yes=1	2020 Yes=1	2019 Yes=1
Glyphosate					
Glufosinate					
Dicamba					
2, 4-D					
Sulfonylurea (STS) (soybean)					

		CODE
31. **Have herbicide tolerant seeds been planted on this field any time since 2014:**	**YES = 1**	
[*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 **RESISTANCE MANAGEMENT PRACTICE**	2 **YES = 1**	3 **How often did you use this practice on this field?** 1 Every Year 2 Every Other Year 3 Multiple Years 4 One Year **CODE**	4 **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

F FIELD OPERATIONS--SELECTED FIELD F

1. **Including custom operations, I need to list field work performed by machines on this field for the 2023 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* 2022*, list operations starting with fall 2021*];
- ► 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 (grain & straw) to storage or first point of sale

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

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, or 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 2023 soybean crop. (***Exclude*** *labor that was reported for field work performed by machines.*)

	How many total hours did (*type of worker*) **spend on this field---**		
TYPE OF WORKERS	**1** scouting for weeds, insects and diseases? **HOURS**	**2** irrigating? **HOURS**	**3** 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 on this field?** (***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 on this field?** (***Exclude*** *custom and contract workers, payroll taxes and benefits.*) . . . . . 1118 .___ ___

CODE

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

[If YES, ask ---

DOLLARS & CENTS PER ACRE

a. 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 2023 soybean crop.**

✓	1 **CUSTOM SERVICE** Which of the following services were performed for the 2023 soybean 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 2023 soybean crop? **DOLLARS & CENTS PER ACRE**
☐	a. Custom land preparation and/or shaping?	1121 .___ ___
☐	b. Custom cultivating?	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 .___ ___
☐	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?** . . . . . **YES = 1** | CODE 1195

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?	**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

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
YES = 1	2460

[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 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		

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

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

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?** **YES = 1** — **CODE**

[If 16=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?. . . . . .

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 **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

1. **How many acres in this field were irrigated for the 2023 soybean crop?**
[*If none, go to* ***Conclusion***]. . . . . ACRES 1160 .___

2. **Now, I have some questions about irrigation systems and water used on this field for the 2023 soybean crop.**

↓		UNIT	SYSTEM 1
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
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
[*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 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? (***Include*** *any pre-plant irrigation*.).		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.*]	1 **TURBINE?** 2 **SUBMERSIBLE?** 3 **CENTRIFUGAL?** 4 **BOOSTER?** 5 **SIPHON?** 99 **NO PUMP?** [*If code 99, go to item j.*]	CODE	1168
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?	1 **DIESEL** 2 **GASOLINE** 3 **LP GAS** 4 **NATURAL GAS** 5 **ELECTRICITY** 6 **SOLAR POWER**	CODE	1171
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 2023 growing season? (***Exclude*** *this field*.).		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 1189 .___ ___ OR TOTAL DOLLARS 1190

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

CODE 1191

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

a. What was the total cost for the water purchased for this field during the 2023 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 2023 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

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

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

CODE 1205

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

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

CODE 1210

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

e. Excluding this field, how many other acres on this operation were irrigated using the same wells during the 2023 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 Conclusion*]

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

CONCLUSION

LOCATION OF SELECTED FIELD

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

	COUNTY NAME	OFFICE USE COUNTY FIPS CODE
2. **What county is the selected soybean field in?**		0010

Field description . . . . . .

		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 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 2023 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**	9990
	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 questionnaire supplement used to complete this interview.*]. . . . .

	NUMBER
FERTILIZER APPLICATIONS	0041
PESTICIDE APPLICATIONS	0042
FIELD OPERATIONS	0043

Reported by:_____	9910 __ __ __ __ **23** (M M D D)	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