

AGRICULTURAL RESOURCE MANAGEMENT SURVEY

OMB No. 0535-0218
 Approval Expires: 6/30/2026
 Project Code: 906
 SurveyID: 1342 Phase 2



USDA/NASS
 National Operations Division
 9700 Page Avenue, Suite 400
 St. Louis, MO 63132-1547
 Phone: 1-888-424-7828
 FAX: 1-855-415-3687
 Email: nass@usda.gov

OAT PRODUCTION PRACTICES AND COSTS REPORT FOR 2023

VERSION 12	ID _____	TRACT 01	SUBTRACT _____	C-TYPE 110
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CONTACT RECORD

DATE	TIME	NOTES

The information you provide will be used for statistical purposes only. Your response 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 and Statistical Efficiency Act of 2018, Title III of Pub. L. No. 115-435, codified in 44 U.S.C. Ch. 35 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.

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H H M M

BEGINNING TIME
 [MILITARY]

SCREENING BOX

Check if verified POID _____

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

check if
cell phone

Phone: (____) _____

Check if verified POID _____

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

check if
cell phone

Phone: (____) _____

Check if verified POID _____

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

check if
cell phone

Phone: (____) _____

Check if verified POID _____

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

check if
cell phone

Phone: (____) _____

Total Planted Acres

0050

1. How many total acres of oats did this operation plant for the 2023 crop year?.....

[If no acres were planted, review Screening Survey Information Form, make notes, then go to back page.]

Code

Yes = 1
No = 3

4000

- a. Did you produce any acres of certified organic oats?.....
- b. Of the total (item 1) acres, how many were planted using/as —

Total Acres

Number of Fields

4001	4002
4003	4004

- i. Conventional oats?.....
- ii. Certified organic oats?.....

[I will follow a simple procedure to make a random selection from the oat fields planted for the 2023 crop.]

Total Number Of Fields Planted

0020

2. What is the total number of oat fields that were planted on this operation? [If only one field, enter "1" and go to item 4.].....

3. [Now, I need to identify an oat field to be used for this survey.] The oat field pre-selected for this interview is the:

- 1 Northern most field
- 2 Southern most field
- 3 Eastern most field
- 4 Western most field
- 5 Northeastern most field
- 6 Southeastern most field
- 7 Northwestern most field
- 8 Southwestern most field

Field description:

4. The field selected is _____ (field name/number/description). During this interview, the oat questions will be about this selected oat field.

[Be sure the operator can identify the selected field.]

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

[Having this information helps USDA make better use of other data you have provided to USDA and will improve the types of statistical analysis that can be done with the responses from this survey. If the physical field in this survey spans multiple FSA administrative fields, please include the farm, tract, and field number for the largest administrative field. These numbers are field identifiers that USDA uses to administer farm programs like crop insurance, commodity programs, and conservation programs.]

Number

1070

1071

1072

- a. Farm Number (up to 8 digits).....
- b. Tract Number (up to 7 digits).....
- c. Field Number (up to 4 digits, exclude subfield letters).....

OFFICE USE
OY Field Substituted

0022

1. How many acres of oats did this operation plant in the selected field for the 2023 crop?.....

Acres
1301

a. Are the acres in the selected field certified organic or transitioning into certified organic oat production?.....

Code
4068
Yes, Certified Organic=1
Yes, Transitioning=2
No=3

[If item 1a = 1 or 2, ask—]

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

Dollars & Cents per Acre
1399

2. Were the acres in the selected 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

[If field is cash rented (item 2 = 2, 3, or 5), ask item 3, otherwise go to item 4.]

3. What was the cash rent paid per acre for this 2023 oat field?.....

Dollars & Cents per Acre
1303

[If field is share rented (item 2 = 4 or 5), ask—]

4. What was the landlord's share of the crop from the selected field?.....

Percent
1304

[If field is rented (item 2 = 2, 3, 4, 5, or 6) ask—]

5. 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 year did you (the operator listed on the label) start operating the selected field?.....

Year
1312

7. On what date was the selected field planted?.....

M M D D Y Y
1308

a. When planted, was this oat field planted with the intention of—? INCLUDE oats planted for commercial seed contract under other uses.....

1 Dual purpose: grain and grazing
 2 Harvesting for grain only
 3 Grazing only
 4 Dual purpose: grazing and cover crop
 5 Cover crop only
 6 Other uses - Specify: _____

Code
3117

[If 7a = 1 or 2, ask—]

b. What is the primary purpose of the oats that are planted in this field?.....

1 Feed
 2 Milling
 3 Seed
 4 Brewing

Code
3111

c. What was your yield goal at planting for the selected field?.....

Bushels per Acre
1311

8. What was the source of the oat seed?.....

1 Purchased	Code
2 Homegrown or traded	1317
3 Both	

[If item 8 = 2 or 3, ask—]

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

Dollars & Cents per Pound	3321
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b. How much of the oat seed planted in this field was grown (or received in trade) by this operation?....

Percent	1318
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[If any seed purchased (item 8 = 1 or 3), ask—]

9. What was the total cost per unit of purchased seed for the selected field? INCLUDE operator, landlord, and contractor costs, cost of seed treatment, and technology fee....

Dollars & Cents per Unit	1319	Code	1320
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10. For the 2023 oat crop, was the oat seed—.....

1 Treated with a pesticide prior to purchase?	Code 3062
2 Treated with a pesticide after purchase?	
3 Not treated with a pesticide?	

[If item 10 = 1 or 2, continue, otherwise go to item 11.]

a. What was the name of the seed treatment? [Write seed treatment name in the box provided.].....

Seed Treatment Name	1289
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b. What was the seed treatment code? [Enter the appropriate seed treatment code from the Respondent Booklet. Enter "999" if a seed treatment was applied but is not listed. Enter "-1" if the seed treatment is not known.].....

Code	2325
------	------

Use respondent booklet to find codes

11. For the 2023 oat crop, did you plant a commercial seed product on the selected field?.....

Yes=1	Code 2340
No=3	

[If item 11 = 1, ask—]

a. What was the name of the seed product? [Write seed product name in the box provided.].....

Commercial Seed Product Name	2342
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b. What was the seed product code? [Enter the appropriate product code from the Respondent Booklet. Enter "999" if a seed product was purchased but is not listed. Enter "-1" if the product is not known.].....

Code	2343
------	------

Unit Code
1=Pounds/Acre
2=Cwt/Acre
3=Tons/Acre
4=Bushels/Acre
23=50 lb. Bags/Acre

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

Units	1313	Code	2314
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Acres

13. How many acres in the selected field had to be replanted to oats?

Acres	1315
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(Acres replanted = Number of Acres x Number of times replanted.)

14. Has harvest of the selected field been completed?.....

Code	1328
------	------

Yes=1
No=3

[Now I need information about the acres harvested or to be harvested and the yields from the selected field.]

15. How many acres in this oat field were or will be—

Acres	Units per Acre	Unit Code 1=Pounds 2=Cwt 3=Tons 4=Bushels Code
1346	1347	1348
1349	1350	TONS
1431	1432	1433
1351		
1439		

- a. harvested for grain?.....
- b. harvested for hay, silage, or green chop?.....
- c. harvested for commercial seed contract?.....
- d. abandoned?.....
- e. used for some other purpose?.....

16. Was straw harvested from the selected field?

1520 Yes – Continue 3 No – Go to item 18

17. How many acres of this oat field were harvested for straw?.....

Acres

1521

a. How many total tons of oat straw were harvested from these oat acres (item 17)?.....

Total Tons

1522

$\frac{\text{Total Tons}}{\text{Acres}} = \text{Tons per Acre}$ OR $\frac{\text{Total Tons}}{\text{Bales}} \times \text{Lbs per Bale} \div 2000 = \text{Lbs per Ton}$

b. Of the total oat straw harvested from this field (item 17a), what was the landlord's share of the oat straw?.....

Percent OR Tons

1523

 OR

1524

c. What was the total cost of baler twine/wire used to bale the oat straw from this field? INCLUDE landlord's share.....

Total Dollars

1525

[If any oat straw was sold, ask—]

d. What was the price received per ton for all oat straw (item 17a) sold from this field?.....

Dollars & Cents
Per Ton

1526

18. What type of livestock grazed the selected oat field during the 2023 crop year?.....

1 Cattle
 2 Sheep
 3 Other, Specify: _____
 4 Not grazed

Code

3147

[If item 18 = 4, go to item 19. Otherwise, ask—]

a. About how many head of livestock (item 18) grazed this oat field?.....

Head

1362

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

Days

1363

c. Was this oat field "grazed-out" instead of harvested for grain?.....

Code

3060

Yes=1
No=3

Crop Code List for item 19 – Previously Planted Crops			
190 Barley	311 Grasses including clover	22 Rye (cereal)	34 Annual ryegrass
6 Corn for grain	1 Hay, alfalfa	240 Sorghum, all	318 No crop planted
5 Corn for silage	11 Hay, all other	26 Soybeans	291 Other field crop
283 Cotton, all	15 Oats	263 Wheat, spring	292 Other crop
302 CRP	21 Rice	165 Wheat, winter	312 Cover crop mix

19. Please report what crops were previously planted on the majority of the selected field, including cover crops.

1 What crops were planted on the selected field in— [For perennial crops, (1, 11, 292, 302, and 311) report the crop code in all seasons when the crop was growing.]			2 Was this a cover crop?	3 If a cover crop was planted, how did you terminate this cover crop?	4 Was the selected field no-till or strip-tilled? ^{1/}
Season and Year	Crop Name	Crop Code	Yes=1 No=3	Code	Yes=1 No=3
a. Spring/Summer of 2023?.....	OATS				1344
b. Fall of 2022?.....		1343	1470	1471	1345
c. Spring/Summer of 2022?.....		1369	1472	1473	1371
d. Fall of 2021?.....		1372	1474	1475	1374
e. Spring/Summer of 2021?.....		1375	1476	1477	1377
f. Fall of 2020?.....		1378	1478	1479	1380
g. Spring/Summer of 2020?.....		1381	1480	1481	1383
h. Fall of 2019?.....		1366	1482	1483	1368
i. Spring/Summer of 2019?.....		1340	1484	1485	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.

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

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

Dollars & Cents
per Acre

1468	. ____
1495	. ____

20. Is this field managed under an NRCS-approved conservation plan for highly erodible land (HEL)? (All fields that have been designated as HEL by USDA, and that are being actively farmed, are required to have soil conservation plans under the conservation compliance program.).....

Code

Yes=1 No=3	0702
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21. Does the selected field contain a wetland? Wetlands are subject to Wetland Conservation (WC) or "swampbuster" requirements. Producers who receive farm program payments must refrain from draining wetlands to make them ready for crop production.....

Yes=1 No=3	1405
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22. What is the slope of the selected field?.....

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

Code
2400

23. What is the primary soil type of the selected field?.....

1	Loam
2	Clay
3	Sandy
4	Mixed
5	Silty

Code
2401

24. In the selected field, are any of the following currently or historically a concern?

Unit Codes	
1	Currently a concern
2	A concern in the past but not anymore
3	Not a concern

	Code
a. Water-driven erosion.....	2407
b. Wind-driven erosion.....	2408
c. Soil compaction.....	2409
d. Poor drainage.....	2410
e. Low organic matter.....	2411
f. Water quality.....	2412
g. Other concerns.....	2413
h. Water availability.....	2415

[If items 24a – 24h are all "Not a concern", ask—]

i. If the answer to all of the above was "Not a Concern", is it the case that there are no significant concerns on this field?.....

	Code
Yes=1	2414
No=3	

25. Did the land use practices for the selected field include subsurface drainage?.....

	Code
Yes=1	2402
No=3	

[If item 25 = 1, continue. Otherwise go to item 26.]

a. In what year was the current subsurface (tile) drainage installed?.....

Year
2403
_ _ _ _

b. What is the average depth of your drainage system?.....

Inches
2604

c. What is the diameter of your tiles?.....

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)?.....

	Code
Yes=1	2406
No=3	

		Unit Code
		1 Current
		2 Past
		3 Never
26. Has the selected field ever been in any conservation contracts for which you or your landlord received (or expected to receive) cost-sharing payments, stewardship payments, or incentive payments?		
a. Environmental Quality Incentive Program (EQIP).....		2611
b. Conservation Security or Conservation Stewardship Programs (CSP).....		2612
c. Conservation Reserve Program (CRP).....		2613
d. Other Federal, State, Local or non-government source.....		2614
		Code
27. During the last four years, did you apply for conservation funding, either through any Federal, State, or local program, for the selected oat field?.....	Yes=1 No=3	4017

28. [Now I need information on soil, crop, and land management practices or activities used on the selected field and any financial assistance you may have received in conjunction with those practices.]

a. Please check any practices or activities that you used on the selected field this year or any time in the past.

On-field Soil and Crop Management		
1 <input type="checkbox"/> No-till/strip-till	10 <input type="checkbox"/> Terraces	30 <input type="checkbox"/> Implement an integrated pest management plan – written plan
2 <input type="checkbox"/> Conservation tillage except no-till/strip-till	12 <input type="checkbox"/> Grass waterway	31 <input type="checkbox"/> Drift reducing spray nozzles
3 <input type="checkbox"/> Cover crop – single species	20 <input type="checkbox"/> Implement a nutrient management plan – written plan.	32 <input type="checkbox"/> Targeted sprayer – electrical control
4 <input type="checkbox"/> Cover crop mix	21 <input type="checkbox"/> Precision nutrient application	Adjacent to Field
5 <input type="checkbox"/> Contour farming	22 <input type="checkbox"/> Subsurface phosphorous application	33 <input type="checkbox"/> Filter strip
6 <input type="checkbox"/> Conservation crop rotation	23 <input type="checkbox"/> No fertilizer application more than 30 days before planting	34 <input type="checkbox"/> Field border
7 <input type="checkbox"/> Laser leveling	24 <input type="checkbox"/> Controlled release or enhanced efficiency fertilizer	35 <input type="checkbox"/> Riparian buffer – grass or forest
	26 <input type="checkbox"/> Split nitrogen application with at least 50% applied after planting	50 <input type="checkbox"/> Irrigation water management plan
		99 <input type="checkbox"/> None of the above

b. For each practice or activity checked in 28a, please complete one line of this table.

[Enumerator Note: If "99: None of the above" was selected, report code "99" in the first row (item 1610).]

1	2	3	4	5
Practice or Activity on the Selected Field	Practice Code (see item 28a)	Was this practice or plan used on this selected field in 2023? 1 Used in 2023 2 Not used in 2023 but used in earlier years	What financial assistance (cost share) has been received for this practice on this field? 1 Received a payment in 2023 from EQIP, CSP, or similar program 2 Did not receive a payment in 2023 but have in earlier years 3 Have never received a payment for this practice	Does this practice or activity help satisfy— 1 A federal, state, or local regulatory requirement 2 Highly erodible land conservation compliance 3 Does not relate to any regulation or compliance requirement
	Code	Code	Code	Code
	1610	1614	1612	1613
	1615	1619	1617	1618
	1620	1624	1622	1623
	1625	1629	1627	1628
	1630	1634	1632	1633
	1635	1639	1637	1638
	1640	1644	1642	1643
	1645	1649	1647	1648
	1650	1654	1652	1653
	1655	1659	1657	1658
	1660	1664	1662	1663

29. In 2023, were the oats in the selected field covered by a single or named peril crop insurance policy (e.g. hail, replant, wind, freeze, etc.)?..... Yes=1
 No=3

Code
 1393

[If item 29 = 1, continue. Otherwise, go to item 30.]

a. In 2023, were the oats in the selected field covered by more than one single or named peril crop insurance policy (e.g. hail, replant, wind, freeze)?..... Yes=1
 No=3

Code
 2721

b. What was the dollar amount of coverage per acre for the single peril policy covering the selected field?.....

Dollars & Cents per Acre
 1395

c. What was the premium cost per acre for the single peril policy covering the selected field in 2023? EXCLUDE any sign-up fee.....

2722

d. What was the percent deductible for the single peril policy covering the selected field? (Record no deductible as 0%).....

Percent
 2723

e. Did you (or will you) collect an indemnity payment for the selected field from the single peril policy during 2023?..... Yes=1
 No=3

Code
 2724

30. In 2023, were the oats in the selected field covered by a multi-peril federal program that provided protection against yield or revenue losses? These types of policies include crop insurance and crop disaster assistance programs..... Yes=1
 No=3

Code
 1385

[If item 30 = 1, continue. Otherwise go to Section C.]

a. What type of multi-peril coverage did you obtain?.....

- 1 Noninsured Crop Disaster Assistance Program (NAP CAT)
- 2 Federal CAT (basic catastrophic insurance)
- 3 Noninsured Crop Disaster Assistance Program buy-up
- 4 Actual Production History (APH) buy-up
- 5 Revenue Protection (RP)
- 6 Other Federal crop insurance

Code
 4069

[If item 30a = 3 or 4, ask—]

i. What percent of yield coverage did you select for the selected field?.....

Percent
 1387

ii. What percent of price coverage did you select for the selected field?.....

1388

[If item 30a = 5, ask—]

iii. What percent of revenue coverage did you select for the selected field?.....

Percent
 1389

b. What type of unit coverage did you purchase for the multi-peril policy on the selected field?.....

- 1 Basic
- 2 Optional
- 3 Enterprise

Code
 2524

c. In what year did you, the operator listed on the label, first purchase multi-peril crop insurance on the selected field?.....

Year
 2525

d. What is the 2023 Approved APH (actual production history) yield for the selected field?.....

Bushels per Acre
 2526

e. What was the premium paid for multi-peril crop insurance for the selected field in 2023? EXCLUDE any administrative fee.....

Dollars & Cents per Acre
 2527

f. Did you or will you collect an indemnity payment for the selected field from multi-peril crop insurance during 2023?..... Yes=1
 No=3

Code
 2528

1. Were commercial nutrients or fertilizers applied to the selected field for the 2023 oat crop? INCLUDE those from operators, landlords, and contractors.....	Yes=1 No=3	Code 0202	Office Use Edit Table 0200
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[If item 1 = 1 continue. Otherwise go to item 6]

2. How many commercial nutrient or fertilizer applications were made to the selected field for the 2023 crop? INCLUDE applications made by airplanes and custom applicators.....	Number 0203
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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 2022 and those applied earlier if the selected field was fallow in 2022.	<input type="checkbox"/> Unprocessed manure
<input type="checkbox"/> Commercially prepared manure or compost	<input type="checkbox"/> Nutrients or fertilizers applied to previous crops in the selected field
	<input type="checkbox"/> Lime and gypsum/landplaster

Office Use Lines in Table	Table 001	0299
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Nitrogen Codes for Column 2 Source/Form of N Used	
1 Anhydrous ammonia	6 Ammonia sulfate
2 Nitrogen solution (UAN)	7 Potassium nitrate,
3 Urea	magnesium nitrate, and
4 Ammonium nitrate	calcium nitrate
5 Sodium nitrate	8 Other nitrogen fertilizer
	material [specify: _____]

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 [Enter percentage analysis or actual pounds of plant nutrients applied per acre.] [Show Common Nutrients or Fertilizers in Respondent Booklet] [Refer to nitrogen list above for type of nitrogen used.]					3 What quantity was applied per acre? [Leave this column blank if actual nutrients were reported]	4 [Enter material code] 1 Pounds 12 Gallons 13 Quarts 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 in the selected field were treated in this application? Acres
	N Nitrogen	P ₂ O ₅ Phosphate	K ₂ O Potash	S Sulfur	Source/Form of N Used [Refer to code list above]					
	31	32	33	34	35	36	37	38	39	40
01										.____
02										.____
03										.____
04										.____
05										.____
06										.____
07										.____
08										.____
09										.____
10										.____

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

Yes=1 Code
 No=3

[If item 4=1 continue. Otherwise go to item 5.]

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

Yes=1 Code
 No=3

[If item 4a = 1 continue. Otherwise go to item 5.]

b. Excluding the cost of the nutrient or fertilizer materials, how much was spent for custom application of nutrients or fertilizers on the selected field?

INCLUDE

- operator, landlord, and contractor costs
- costs for sulfur and micronutrients

EXCLUDE custom application of lime, gypsum, purchased manure, and purchased compost.....

Dollars & Cents per Acre	OR	Total Dollars
0219		0220

[If material and application costs can't be separated, exclude them here and record the total in item 5.]

5. What was the total cost of all nutrient or fertilizer products applied to the selected field?

INCLUDE

- operator, landlord, and contractor costs as well as the costs for sulfur and micronutrients
- materials applied to the selected field if it was fallow in 2022

EXCLUDE lime, gypsum, purchased manure, and purchased compost.....

Dollars & Cents per Acre	OR	Total Dollars
0221		0222

[If custom applied and the cost of materials can be separated from application costs, include the cost of materials only, otherwise, include both the material and application costs.]

6. Was gypsum applied to the selected field for the 2023 oat crop?.....

Yes=1 Code
 No=3

7. Was a soil test for soil organic matter performed on the selected oat field at some point in the last 10 years?.....

Yes=1 Code
 No=3

[If item 7 = 1, ask—]

a. What was the percentage of soil organic matter on the selected field for the most recent test?.....

Percent

b. How many times have you tested the selected field for soil organic matter in the last 10 years?.....

Number

[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?	3228
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Code

8. Was a soil or plant tissue test performed on the selected oat field in 2022 or 2023 for the 2023 crop?.....

Yes=1 Code
 No=3

[If item 8 = 1, continue. Otherwise go to item 13.]

9. Was a soil test for phosphorus performed on the selected oat field in 2022 or 2023 for the 2023 crop?.....

Yes=1 Code
 No=3

[If item 9 = 1 ask—]

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

Pounds per Acre

10. Was a soil test for nitrogen performed on the selected oat field in 2022 or 2023 for the 2023 crop?..... Yes=1 No=3 Code 0227

[If item 10 = 1, ask—]

a. How many pounds of nitrogen per acre were recommended by the nitrogen test?..... Pounds per Acre 0228

11. Was a plant tissue test or leaf analysis for nutrient deficiency performed on the selected field in 2022 or 2023 for the 2023 crop?..... Yes=1 No=3 Code 0229

12. How much was spent for these soil and plant tissue tests on the selected field? INCLUDE operator, 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?..... Code 0232

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

b. Did you receive a payment from a conservation program (CSP, EQIP, or other) for performing a soil or plant tissue test?..... Yes=1 No=3 Code 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 15.]

13. Was the amount of nitrogen you decided to apply to the selected field based on— Code

Yes=1	0233
No=3	
Yes=1	0234
No=3	
Yes=1	0235
No=3	
Yes=1	0236
No=3	
Yes=1	0237
No=3	
Yes=1	0238
No=3	
Yes=1	0239
No=3	

a. Results of a soil or plant tissue test?.....

b. Crop consultant recommendation?.....

c. Fertilizer dealer recommendation?.....

d. Extension Service recommendation?.....

e. Cost of nitrogen and/or expected commodity price?.....

f. Contractor recommendation?.....

g. Routine practice – operator's own determination based on past experience, yield goal, etc.?..

14. Which of the following products did you use to slow the breakdown of nitrogen on this field?..... Code 0241

1	Nitrification inhibitors (such as N-Serve)
2	Urease inhibitors (such as Agrotain)
3	Chemical-coated fertilizers (such as sulfur-coated urea and polymer-coated urea)
4	Other inhibitors
5	None

[If nitrogen inhibitors were used, continue. Otherwise go to item 15.]

a. How much nitrogen inhibitor did you mix with the nitrogen applied to the selected field?..... Pounds per Acre 2561 OR Gallons per Acre 2562

b. What was the cost of nitrogen inhibitors used on this field? INCLUDE operator, landlord, and contractor costs..... Dollars & Cents per Pound 0297 OR Dollars & Cents per Gallon 0298

15. Is lime ever applied to the selected field?.....

[If item 15 = 1 continue. Otherwise go to item 16.]

a. On average, how many years are there between applications of lime to the selected field?.....

b. How many tons of lime were applied per acre the last time it was applied to the selected field?.....

c. Was lime applied to the selected field in 2022 or 2023 for the 2023 crop?.....

16. Was non-commercial (unprocessed) manure from own farm, from a neighbor's farm, etc., or other organic material, including compost, applied to the selected field for the 2023 oat crop? EXCLUDE commercially prepared manure.....

[If item 16 = 1 continue. Otherwise go to Section D.]

a. To how many acres in the selected field was manure or compost applied?.....

b. What was the amount of manure or compost applied per acre to the selected field?.....

c. Of the total manure or compost applied to the selected field for the 2023 oat crop, what was the percent of manure or compost applied—

i. in the fall before planting?.....

ii. in the spring before planting?.....

iii. after planting?.....

d. Was the manure or compost—.....

e. Was the manure or compost—.....

f. Was the major source of manure or compost—.....

Code 0242

Years 0243

Tons per Acre 0244

Code 0240

Code 0246

Acres 0247

Unit Codes
1 Tons
2 Gallons
3 Bushels
4 Cubic yards

0249 0248

Percent 0254
0255
0256
= 100%

Code 0257

Code 0258

Code 0259

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

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

1 Beef cattle?
2 Dairy cattle?
3 Hogs?
4 Sheep?
5 Poultry?
6 Equine?
7 Biosolids – municipal sludge?
8 Food waste?
9 Other?
Specify: _____

g. Was the manure or compost—.....	1 Produced on this operation?	Code	0260
	2 Purchased?		
	3 Obtained at no cost off this operation?		
	4 Obtained with compensation (operator received payment for accepting the manure)?		

[If item 16g = 2, continue. Otherwise go to item 16h.]

i. What was the total cost of the purchased manure or compost applied to the selected field?.....	Dollars & Cents per Acre	OR	Total Dollars
	0284		0285

INCLUDE

- operator, landlord, and contractor costs
- any payment made for transportation costs

ii. Did you hire someone to custom apply the manure or compost?.....	Code	0286

[If item 16gii = 1, ask—]

(a) What was the total cost paid to have manure or compost custom applied to the selected field? INCLUDE operator, landlord, and contractor cost.....	Dollars & Cents per Acre	OR	Total Dollars
	0287		0288

[Do not report custom application cost if it was included with the purchased manure or compost cost.]

h. What is the distance in miles between the manure or compost storage/production location and the selected field?.....	Miles	0291
	Code	

i. Of the manure or compost applied to the selected field, was any tested for nutrient content prior to application?.....	Code	0261

j. Was the application rate of commercial nitrogen fertilizer on the selected field reduced due to manure or compost application?.....	Code	0262

[If 16j = 1, ask—]

i. By what percent did you reduce the commercial nitrogen fertilizer application rate on the selected field?.....	Percent	0263
	Code	

ii. Did you adjust the oat harvest date for the selected field due to the application of manure or compost?.....	Code	0280

17. Were the manure or compost application rates to the selected field influenced by Federal, State, or local restrictions?.....	Code	0264

[If item 17 = 1, ask—]

a. What basis was used to determine these manure application rate restrictions—	Code	0265

i. Nitrogen requirement of the crop?.....	Code	0266

ii. Phosphorus requirement of the crop?.....	Code	0266

D BIOCONTROL or PESTICIDE APPLICATIONS — SELECTED FIELD

D

Now I have some questions about all the biocontrols or pesticides used on the selected field for the 2023 oat 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 oat field for the 2023 crop?.....

Yes=1 No=3	Code	Office Use Edit Table
	0302	0390

[Probe for applications made in the fall of 2022 and those made earlier if the selected field was fallow.]

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

INCLUDE defoliants, fungicides, herbicides, insecticides, and other pesticides.	EXCLUDE adjuvants, nutrients or fertilizers reported earlier and seed treatments.	Office Use Line in Table	Table 001	0399
INCLUDE biological and botanical pesticides.				

Use respondent booklet to find codes

Chemical Product Name	LINE	2	3	4	5	6	OR	7	8
		What products were applied to the selected field? [Show product codes from Respondent Booklet.]	Was this product bought in liquid or dry form? [Enter L or D]	If this was part of a tank mix, enter line number of first product in mix.	When was this applied? 1 Before planting 3 At planting 4 After planting 5 Defoliation prior to harvest	How much was applied per acre per application?		What was the total amount applied per application in the selected field?	[Enter unit code] 1 Pounds 12 Gallons 13 Quarts 14 Pints 15 Liquid Ounces 28 Dry Ounces 30 Grams
	01	61	62	63	64	65		73	74
	02	61	62	63	64	65		73	74
	03	61	62	63	64	65		73	74
	04	61	62	63	64	65		73	74
	05	61	62	63	64	65		73	74
	06	61	62	63	64	65		73	74
	07	61	62	63	64	65		73	74
	08	61	62	63	64	65		73	74
	09	61	62	63	64	65		73	74
	10	61	62	63	64	65		73	74
	11	61	62	63	64	65		73	74
	12	61	62	63	64	65		73	74
	13	61	62	63	64	65		73	74
	14	61	62	63	64	65		73	74

2. For biocontrols or pesticides not listed in the 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 Chiseled/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 | |

L I N E	9	10	11	12	13	14
	How was this product applied? [Enter code from above.]	How many acres in the selected field were treated with this product? Acres	How many times was it applied? Number	Were these applications made by— 1 Operator, partner, or family member? 2 Custom applicator? 3 Employee/Other?	What was the cost per unit of the product? Dollars & Cents per Unit	[Enter unit code] 1 Pounds 12 Gallons 13 Quarts 14 Pints 15 Liquid Ounces 28 Dry Ounces 30 Grams
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

Now I have some questions about your pest management decisions and practices used on the selected field for the 2023 oat 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

- 1. Were weather data used to assist in determining either the need or when to make pesticide applications?.....
- 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 the selected field?.....
- 3. Were pesticides with different mechanisms of action rotated or tank mixed for the primary purpose of keeping pests from becoming resistant to pesticides?.....

		Code
Yes=1		0800
No=3		
Yes=1		0801
No=3		
Yes=1		0802
No=3		

[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 the selected oat field before weeds emerged?.....
- 5. Were herbicides applied to the selected oat field after weeds emerged?.....
- 6. Were records kept for the selected field to track the activity or numbers of weeds, insects, or diseases?.....
- 7. Did you use published information on infestation thresholds to determine when to take measures to manage pests in the selected field?.....

		Code
Yes=1		0803
No=3		
Yes=1		0805
No=3		
Yes=1		0823
No=3		
Yes=1		1824
No=3		

- 8. In 2023, how was the selected 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.]
 2 By conducting general observations while performing routine tasks [Enter code 2 and go to item 10.]
 3 The selected field was not scouted. [Enter code 3 and go to item 14.]

		Code
Yes=1		0808
No=3		

- 9. Was an established scouting process such as systematic sampling, recording counts, etc. used or were insect traps used in the selected field?.....

		Code
Yes=1		0809
No=3		

- 10. Was scouting for pests done in the selected field due to—

- a. a pest advisory warning?.....
- b. a pest development model?.....

		Code
Yes=1		0810
No=3		
Yes=1		0811
No=3		

[If scouted by crop consultant or commercial scout, ask item 11. Otherwise go to item 12.]

- 11. How much was charged for the scouting services for the selected field? INCLUDE operator, landlord, and contractor costs.....

Dollars & Cents per Acre	OR	Total Dollars
0821		0822

- a. If scouting performed at no cost, explain: _____

Office Use
0333

- 12. Were scouting data compared to published information on infestation thresholds to determine when to take measures to manage pests in the selected field?.....

		Code
Yes=1		0824
No=3		

1	2	3 [If column 2 = 1, ask—] Do you believe that the infestation/population level was higher than the economic threshold for treatment? 1 Much higher (over 1.5 times the threshold) 2 Higher (between 1 and 1.5 times threshold) 3 Lower (between .5 and 1 times the threshold) 4 Much lower (between 0 and .5 times the threshold) 99 Don't Know Code
13. Do you believe that the selected field was infested with any of the following oat pests or diseases?	Yes=1 No=3	
a. Crown rust.....	4060	4061
b. Stem rust.....	4062	4063
c. Barley dwarf virus.....	4064	4065

14. Did you use field mapping of previous weed problems to assist you in making weed management decisions?.....	Code
Yes=1 No=3	0825

15. Did you do any of the following other types of pest management for the specific purpose of managing or reducing the spread of pests in the selected field?	Code
a. Use the services of a diagnostic laboratory for pest identification or soil plant tissue pest analysis for the selected field?.....	Yes=1 0841 No=3
b. Plow down crop residue using conventional tillage?.....	Yes=1 0842 No=3
c. Remove/burn down crop residue?.....	Yes=1 0843 No=3
d. Rotate crops in the selected field during the past three years?.....	Yes=1 0844 No=3
e. Maintain ground covers, mulches, or other physical barriers?.....	Yes=1 0845 No=3
f. Choose crop variety because of specific resistance to a certain pest?.....	Yes=1 0846 No=3
g. Use no-till or minimum till?.....	Yes=1 0847 No=3
h. Plan planting locations to avoid cross infestation of pests?.....	Yes=1 0848 No=3
i. Adjust planting or harvesting dates?.....	Yes=1 0849 No=3
j. Chop, spray, mow, plow, or burn field edges, lanes, ditches, roadways, or fence lines?.....	Yes=1 0850 No=3
k. Clean equipment and field implements after completing field work to reduce the spread of pests?.....	Yes=1 0851 No=3
l. Adjust row spacing, plant density, or row directions?.....	Yes=1 0852 No=3
m. Have the seed treated for insect or disease control after you purchased the seed for the selected field?.....	Yes=1 0854 No=3
n. Maintain a beneficial insect or vertebrate habitat?.....	Yes=1 0855 No=3
o. Use a flamer to kill weeds?.....	Yes=1 0857 No=3
p. Maintain buffer strips or border rows to isolate oats from non-organic crops or land, or did you take a buffer harvest?.....	Yes=1 0856 No=3
q. Plant earlier or later to avoid weeds?.....	Yes=1 0865 No=3

16. Were any beneficial organisms, such as insects, nematodes, or fungi applied or released in the selected field to manage pests?.....	Yes=1	Code 0853
	No=3	

17. Were floral lures, attractants, repellants, pheromone traps, or other biological pest controls used on the selected field?.....	Yes=1	Code 0858
	No=3	

[If item 16 or item 17 = 1, ask—]

a. What were the total materials and application costs for all biological pest controls for the selected field?

INCLUDE

- operator, landlord, and contractor costs
- cost for beneficial organisms, insects, nematodes, and fungi

EXCLUDE biological pesticides previously reported.....

Dollars & Cents per Acre	OR	Total Dollars
0859		0860

18. Was a trap crop, excluding fallow, grown to help manage insects in the selected field?.....	Yes=1	Code 0863
	No=3	

19. Was the selected field left fallow in 2022 to help manage insects on the selected field?.....	Yes=1	Code 0864
	No=3	

20. Were water management practices such as irrigation scheduling, controlled drainage, or treatment of retention water used on the selected field to manage pests or toxin-producing fungi and bacteria?.....	Yes=1	Code 0861
	No=3	

21. Was protection of beneficial organisms a factor in your pest control decisions for the selected field?.....	Yes=1	Code 1765
	No=3	

[If item 21=1, continue. Otherwise go to item 22.]

a. Did you change timing of, reduce application rate of, or eliminate a pesticide application?.....	Yes=1	Code 1766
	No=3	

b. Did you change to an alternative pesticide, biocontrol, or non-pesticide practice?.....	Yes=1	Code 1767
	No=3	

- Unit Codes
 1 Pounds
 2 CWT
 3 Tons
 4 Bushels

22. 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 the selected field?	Units per Acre	2735	OR	Total Units
				2736

23. Did pests, such as weeds, insects, pathogens, or animals, cause any yield loss on the selected field in spite of your pest control efforts?.....	Yes=1	Code 0827
	No=3	

[If item 23 = 1, ask—]

a. How much yield loss per acre do you think was caused by all pests on the selected field in spite of the management practices you used to reduce those losses?.....	Units per Acre	0829	OR	Total Units
		0828		0830

Completion Code for Pest Management Data	
1 Incomplete/Refusal	0500

F FIELD OPERATIONS — SELECTED FIELD

1. Including custom operations, I need to list field work performed by machines on the selected field for the 2023 oat crop. Please...

- begin with the first field operation after harvest of the previous crop, including operations for a cover crop established since the previous crop was 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 to storage or first point of sale

EXCLUDE

- Lime & Gypsum/land plaster applications
- Compost & Non-commercial manure applications

1 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 Column 5 = code 6, skip columns 6 thru 11]					
					6 What was the size or swath of the [machine] used? Code	7 [Record size unit code.] 1 Feet 2 Row 3 Moldboard bottoms Hauling 4 Pounds 5 Bushels 6 Tons Code	8 How many acres were covered? EXCLUDE land forming and hauling operations. Acres	OR	9 How many total hours were spent on land forming and hauling? [Example: backhoes, disk border maker, ditcher, rear mounted blade, trucks, wagons, forklift etc.] Hours	10 What power source was used? Tractors 1 <40 HP 2 40-99 HP 3 100-149 HP 4 150-199 HP 5 >=200 HP OR 66 Animal Drawn 77 Pick up ^{1/} 99 Self-Propelled 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

[Enumerator Action: Were machine or equipment codes reported in item 1?]

4029 ¹ Yes – Continue

³ No – Go to item 3

2. Were any of the machines or equipment reported in Columns 2 or 3 of item 1 purchased new during 2023?.....

Yes = 1
No = 3

Code	4030
------	------

[If item 2 = 1, continue. Otherwise go to item 3.]

1 Machine purchased new in 2023	2 [Record machine code from respondent booklet.] Code	3 Dealer's list price of the machine. (This should be the "sticker price", not including discounts or trade-in values for used machinery.) Dollars
4031	4032	4033
4034	4035	4036
4037	4038	4039
4040	4041	4042
4043	4044	4045

3. Now I need some additional information about your labor.
Please report the paid and unpaid labor that worked on the selected field to produce the 2023 oat crop.
EXCLUDE labor that was reported for field work performed by machines.

Type of Workers	How many hours did (type of worker) spend on the selected field—		
	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

4. What was the average hourly wage rate paid to part-time or seasonal hired workers on the selected field? Part-time workers are defined as those who worked for wages or salaries for less than 30 hours a week on average. EXCLUDE custom and contract workers, payroll taxes and benefits.....

Dollars & Cents Per Hour	OR	Total Dollars per Week	AND	Number of Hours Worked Each Week
1119		2119		3119

5. What was the average hourly wage rate paid to full-time hired workers on the selected field? EXCLUDE custom and contract workers, payroll taxes and benefits.....

Dollars & Cents Per Hour	OR	Total Dollars per Week	AND	Number of Hours Worked Each Week
1118		2118		3118

6. Was any contract labor used on the selected field?.....

Yes=1
No=3

Code
1116

[If item 6 = 1, continue. Otherwise go to item 7.]

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

Dollars & Cents Per Acre
1117

7. What percent of the total number of unpaid hours worked on the selected 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

8. Now I need some information on how much was spent or will be spent for custom services used on the selected field for the 2023 oat crop.

1 Custom Service	2 Including operator, landlord, and contractor costs, how much was spent for [column 1] on the selected field for the 2023 oat crop? Dollars & Cents per Acre
Which of the following services were performed for the 2023 oat crop on the selected field? [Check box for each service performed; refer to item 1 if necessary.]	
<input type="checkbox"/> a. Custom land preparation, shaping and/or leveling?.....	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? <small>(Dollars & cents per unit x Total units hauled from field ÷ Acres harvested in field = Dollars & cents per acre)</small>	1126
<input type="checkbox"/> f. Custom harvesting and hauling from field to storage or point of first sale? <small>(Dollars & cents per unit x Total units hauled from field ÷ Acres harvested in field = Dollars & cents per acre)</small>	1127
<input type="checkbox"/> g. Custom raking, baling, and hauling the straw from the selected field? <small>(Dollars & cents per unit x Total units hauled from field ÷ Acres harvested in field = Dollars & cents per acre)</small>	1128

9. Were the oats harvested and hauled from the selected field dried (or will be dried) before they were sold or stored?.....
10. Did you hire or receive any technical or consultant services to make recommendations such as for nutrient, pest control, irrigation, or precision farming for the selected field?.....

		Code
Yes=1	No=3	2748
Yes=1	No=3	1196

[If item 10 = 1, continue. Otherwise, go to item 14.]

11. Which of the following technical or consultant services did you obtain to make recommendations for the selected field?

- a. Nutrient recommendations/management service?.....
- b. Soil or tissue sample collection?.....
- c. Pest control recommendations/management service?.....
- d. Pest scouting?.....
- e. Irrigation management service (i.e. irrigation scheduling)?.....
- f. Yield map or remote sensing map development/interpretation?.....
- g. Other custom or technical service? [Specify: _____].....

		Code
Yes=1	No=3	1129
Yes=1	No=3	1130
Yes=1	No=3	1131
Yes=1	No=3	1132
Yes=1	No=3	1133
Yes=1	No=3	1134
Yes=1	No=3	1135

[If any item in 11a–g = 1, continue. Otherwise go to item 14.]

12. Were any of the technical or consultant services listed in item 11a–g provided to you at no cost or were partially reimbursed by the Natural Resources Conservation Service (NRCS)?.....
13. If Yes to any of the services in items 11a–g, what was the cost for all of these services? INCLUDE operator, landlord, and contractor costs. EXCLUDE cost of soil or tissue tests or scouting costs previously reported. Do not report costs for any of these services reported above if they were previously reported as part of the cost of materials and/or application.....

		Code
Yes=1	No=3	4046

Dollars & Cents per Acre	OR	Total Dollars
1136		1137

14. Please report how any data from the selected field in 2023 will be stored and accessed.

- a. Did you access the data collected from the selected field on a—
- i. Paper hard copy?.....
- ii. Personal computer?.....
- iii. Mobile device?.....
- b. Did you access the data collected from the selected field through an agricultural technology provider website?.....

		Code
Yes=1	No=3	2485
Yes=1	No=3	2486
Yes=1	No=3	2487
Yes=1	No=3	2488

[If item 14b = 1, continue. Otherwise, go to item 15.]

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

		Code
Yes=1	No=3	2489
Yes=1	No=3	2490

15. Please report the data collection technologies you used on the selected field to produce this crop.

1 Data Collection Tool	2 Was this tool used on the selected field? Yes=1 No=3	3	4	5	6
		If the tool was used—			
		Did this tool collect GPS coordinates? Yes=1 No=3	Are data from this tool used to create a map? Yes=1 No=3	What is the replacement cost of this tool? Total Dollars	What is the annual fee for using this tool? 1/ Total dollars
a. Yield monitor.....	2461	2462	2463	2570	2571
b. Soil tests on core sample performed on-farm or sent out to a laboratory.....	2464	2465	2466	2572	2573
c. Soil sensor tests.....	2467	2468	2469	2574	2575
d. Hard-wired crop condition sensors.....	2470	2471	2472	2576	2577
e. Wireless crop condition sensors.....	2473	2474	2475	2578	2579
f. Aircraft or satellites.....	2445	2446	2447	2448	2449
g. Drones or Unmanned Aerial Vehicles (UAV)..	2455	2456	2457	2458	2459
h. Custom service applications – data from completed work on your field.....	2479	2480	2481	2582	2583
i. Public data downloaded from online sources.	2482	2483	2484		

1/ INCLUDE custom service fees, data subscriptions, and online tool subscriptions.

[If item 15a column 2 = 1, continue to item 16. Otherwise go to item 17.]

16. Did you use the yield monitor information to—

	Code
a. add/improve tile drainage?.....	Yes=1 1141 No=3
b. negotiate new crop leases?.....	Yes=1 1144 No=3
c. help determine chemical input use?.....	Yes=1 1143 No=3

[If any item 15 column 2 = 1, continue. Otherwise go to item 19.]

17. Using data collected from the previous tools table in item 15, did you obtain crop management recommendations, such as data interpretation, in 2023 for the selected field from any of the following—

	Code
a. input dealers without other fee-for-services?.....	Yes=1 2491 No=3
b. input dealers with other fee-for-services?.....	Yes=1 2492 No=3
c. custom service providers?.....	Yes=1 2493 No=3
d. USDA/university extension services?.....	Yes=1 2494 No=3

[If any item 17a–d = 1, ask—]

e. What was the cost for all of these services? INCLUDE operator, landlord and contractor costs. EXCLUDE 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 3150	OR	Total Dollars 3151
---	----------------------------------	----	-----------------------

[If item 15g column 2 = 1, continue. Otherwise go to item 19.]

18. In the selected field, did you use the UAV for any of the following purposes?

	Code
a. Weed analysis?.....	Yes=1 3161 No=3
b. Yield analysis?.....	Yes=1 3165 No=3
c. Moisture analysis?.....	Yes=1 3166 No=3

19. Was any of the following GPS-enabled (Global Positioning System) equipment used to produce oats on the selected field in 2023?

	Code
a. Mounted in-cab heads-up displays?.....	Yes=1 2155 No=3
b. Smart phones or computer tablets?.....	Yes=1 2156 No=3
c. Automatic section control, such as auto sprayer boom controls or automatic section shut offs?.....	Yes=1 2165 No=3

20. If any GPS-enabled equipment was used, what was the cost to purchase and install all GPS-enabled equipment, not including guidance auto-steering equipment? INCLUDE cost for GPS receiver and annual GPS subscription fee, and operator, landlord, and contractor costs. EXCLUDE costs for any of this equipment if they were previously reported as part of the costs of materials and/or application.....

Dollars & Cents per Acre	OR	Total Dollars
2166		2167

21. Were any automated guidance systems (i.e. auto-steer), excluding Light Bar, used on the selected field?.....

Code
2148

[If item 21 = 1 continue, otherwise go to item 21f.]

	Code
a. Was the automated guidance system.....	1 New, owned? 2 Used, owned? 3 Leased?
	2158

	Year
b. What year was the automated guidance system first purchased?.....	2159

	Dollars & Cents per Acre	OR	Total Dollars
c. What is the replacement cost for the automated guidance system?.....	2160		2161
d. What is the annual fee for the automated guidance system?.....	2162		2163

- e. For what reasons did you choose to use an automated guidance system? (Select all that apply.)
- 4047 Increase yields
 - 4048 Reduce input costs
 - 4049 Reduce operator fatigue
 - 4050 Improve soil conditions (i.e. soil compaction)
 - 4051 Technology came "standard" on my equipment
 - 4052 Reduce environmental impacts (i.e. emissions)
 - 4053 Other

[If item 21 = 3, ask—]

- f. For what reasons did you choose not to use an automated guidance system? (Select all that apply.)
- 4054 Costs are too high relative to benefits
 - 4055 Benefits are uncertain
 - 4056 Too complicated to use
 - 4057 Not sufficiently accurate
 - 4058 Not suitable for my operation
 - 4059 Other

Yes=1
No=3

2164

22. Was a variable rate applicator used on the selected field?.....

[If item 22 = 1 continue, otherwise go to Section G]

Please report the variable rate applicator types you used on the selected 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	6
Was a variable rate applicator used on the selected field for—	Tool Used Yes=1 No=3	Was this applicator?— 1 Sensor-based 2 GPS-based 3 Both 4 Neither Code	Was this applicator?— 1 New, owned 2 Used, owned 3 Leased Code	What year was the applicator first used? Year	Premium paid for the applicator Total Dollars
a. seeding.....	1158	2170	2171	2172 _ _ _ _ _	2173
b. fertilizer/lime applications.....	1152	2174	2175	2176 _ _ _ _ _	2177
c. pesticide applications.....	1159	2178	2179	2180 _ _ _ _ _	2181
d. irrigation applications.....	1197	2182	2183	2184 _ _ _ _ _	2185

Acres

1. How many acres in the selected field were irrigated for the 2023 oat crop?.....

1160	.	__
------	---	----

[If none, go to Conclusion]

2. Now I have some questions about the irrigation systems and water used on the selected field for the 2023 oat crop.

	Unit	System
a. What type(s) of irrigation system(s) was (or were) used to irrigate the selected field? [Show System Type Codes in the Respondent Booklet. Enter System Type Code for the system covering the most field acres.].....	System Type Code	1161
b. What was the total quantity of water applied to the selected field during the entire growing season? INCLUDE all water used from both on-farm and off-farm sources...	Inches per Acre OR	1162
	Total Acre Feet	1163

[If operator cannot provide item 2b, ask (i) and (ii). Otherwise go to 2c]

i. What is the total number of hours this system was used to apply water to the selected field during the oat 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 the selected field through this system came from surface water sources?.....	Percent	1166
d. What was the number of times the selected field was irrigated during the oat growing season using this system? INCLUDE any pre-plant irrigation.....	Number of Irrigations	1167

e. What 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
--------------------	------

[If item 2a = code 1-9 (Pressure System), ask—]

g. 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
------------	------

[If No Pump was used, item 2e = 99, ask—]

j. What was the average flow rate?.....

Gallons per Minute	1173
--------------------	------

k. How many other acres on this operation were irrigated using the selected field's irrigation system during the 2023 growing season? EXCLUDE the selected field.....

Acres	1174	.	__
-------	------	---	----

3. What was the cost of the fuel or electricity used to irrigate the selected field? INCLUDE operator, landlord, and contractor costs.....

Dollars & Cents per Acre	OR	Total Dollars
1189		1190

4. Was any water purchased to irrigate the selected field? INCLUDE landlord's share and purchases from all sources.....

Code	1191
Yes=1 No=3	

[If item 4 = 1 continue. Otherwise go to item 5.]

a. What was the total cost for the water purchased for the selected field during the 2023 growing season? INCLUDE operator, landlord, and contractor costs and ditch maintenance costs for the selected field.....

Dollars & Cents per Acre	OR	Total Dollars
1193		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 the selected 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 the selected 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 the selected field?.....

Inches	1203
--------	------

Feet

1204

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

Code

[If Pipe systems were used, item 2a 10, 11, 14, 15 or 16, ask—]

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

Code	1205
Yes=1 No=3	

[If item 8 = 1 continue. Otherwise go to item 9.]

a. How many wells were used to irrigate the selected field?.....

Number	1206
--------	------

Inches

1207

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

Feet

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.....

Code	1208
------	------

Code

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

Code	1210
Yes=1 No=3	

Acres

[If item 8d = 1 continue. Otherwise go to item 9.]

e. Excluding the selected field, how many other acres on this operation were irrigated using the same wells during the 2023 growing season?.....

Code	1211
------	------

Code

9. Was any additional mainline or lateral pipe used to carry water from the source to the system in the same wells during the 2023 growing season?.....

Code	2211
Yes=1 No=3	

Inches

[If item 9 = 1 continue. Otherwise go to Conclusion.]

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

1212

Feet

1213

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

Skip to next page

OR

Space for Notes and Comments

CONCLUSION

Location of Selected Field

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

County Name _____ Office Use State County FIPS Code _____

1. What county is the selected oat field in?.....

	0010
--	------

LATITUDE

LONGITUDE

a. Field location.....

9854	.	_____	_____
------	---	-------	-------

decimal

9855	-	_____	_____
------	---	-------	-------

decimal

[Enumerator Action: Use the iPad app to find the coordinates for the center of the selected field. Confirm with the operator using the aerial imagery that this is the correct field.]

We will need additional information to complete this study. We will contact you in February or March 2024 to collect it. I'll call you then to set up a time that is good for you.

Office Use Only				
Ending Time (Military)		OR	Total Time	
Hours	Minutes		Hours	Minutes
0005		0008		

2. Ending time.....

3. Records Use – [Did respondent use farm/ranch records to report—]

Code	Code	Code
Yes=1 No=3	Yes=1 No=3	Yes=1 No=3
[fertilizer data].....	[pesticide data].....	[majority of this expense data?].....
0011	0012	0013

4. Supplements Used – [Record the total number of each type of supplement used to complete this interview.]

Number	Number	Number
0041	0042	0043
Fertilizer Supplement.....	Pesticide Supplement.....	Field Operations.....

Contact Information

Operator Email:

Operator Phone:

9929	9917 Check to receive results by email <input type="checkbox"/>	9918 () _____ <input type="checkbox"/>	check if cell phone <input type="checkbox"/>
------	---	---	---

Operation Email: (if different from above)

Operation Phone: (if different from above)

9937	9920 Check to receive results by email <input type="checkbox"/>	9936 () _____ <input type="checkbox"/>	check if cell phone <input type="checkbox"/>
------	---	---	---

Respondent Name:

Respondent Phone (if different from above)

9912	9911 () _____ <input type="checkbox"/>	check if cell phone <input type="checkbox"/>	9910 MM DD YY Date: ____
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This completes the survey. The results will be available on the release date at nass.usda.gov/results
Thank you for your help.

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-Spouse 3-Acct/Bkpr 4-Partner 9-Other	9902	2-PATI (tel) 3-PAPI (Face-to-Face)	9903	9998	9989		
							Eval.	Change	
							9900	9985	

Fill out this part with your enumerator info