

# AGRICULTURAL RESOURCE MANAGEMENT STUDY AL SUNFLOWER PRODUCTION PRACTICES REPORT for 1999

Form Approved O.M.B. Number 0535-0218 Approval Expires 10/31/00 Project Code 906 Phase II

U.S. Department of Agriculture Rm 5805, South Building 1400 Independence Avenue, S.W. Washington, D.C. 20250-2000

12-720-7017				
CONTACT RECORD				
DATE	NOTES			

R CODES	
3 - COMPLETE 5 - OUT OF SCOPE	0910
8 - REFUSAL 9 - INAC./INCOMPL.	
OPTIONAL	0002
OPTIONAL	0003

INTRODUCTION

[Introduce yourself, and ask for the operator. Rephrase in your own words.]

We are collecting information on practices to produce sunflowers and need your help to make the information as accurate as possible. Authority for collection of information on the Sunflower Production Practices Report is Title 7, Section 2204 of the U.S. Code. This information will be used for economic analysis and to compile and publish estimates for your region and the United States. Response to this survey is confidential and voluntary.

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

4		
1	カスカ	

	H $H$ $M$ $M$
BEGINNING TIME	0004
[MILITARY]	
	SCREENING BOX
	0006

[ENUMERATOR NOTE: If Screening box is code 1, complete the Screening Supplement. If Screening box is not coded, begin with Section

OFFICE USE

Completion Code 3 = ZERO TARGET

		OFFICE USE	
de T	8000		

Name,	Name, address and partners verified and updated if necessary.							
		PC	DID	_		P	OID	
PARTNER NA	ME			PARTNER	NAME			
ADDRESS				ADDRESS				
CITY	STATE	ZIP	PHONE NUMBER	CITY	STATE	ZIP	PHONE NUMBER	
		D/				D	OID	
		P	DID	_		P		
		PC		_		P		
PARTNER NA	ME	PC	JIU	PARTNER	NAME	P	<u> Ли</u>	
PARTNER NA	ME	PC	JIU	PARTNER ADDRESS		P	JIU	

### SUNFLOWER FIELD SELECTION

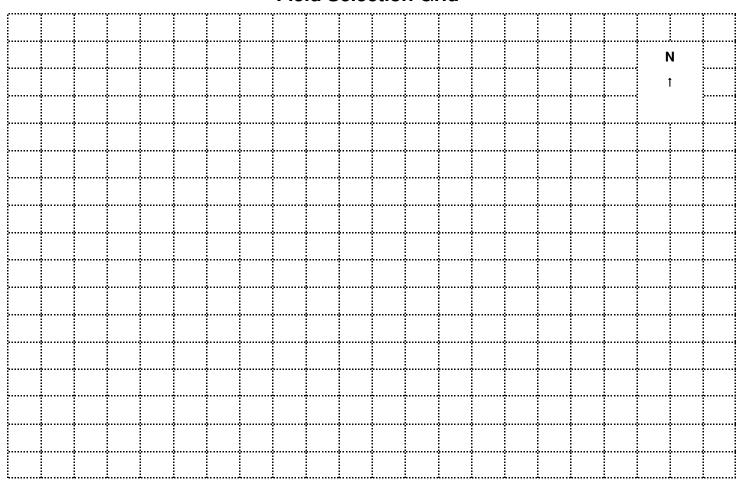
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Λ
$\boldsymbol{H}$

1.	How many acres of sunflowers did this operation plan	nt	TOTAL PLANTED ACRES
	for the 1999 crop year?  [racs planted, review Phase I Information Form. Make notes, then go to item 3 on back page.]		0019
	Make notes, then go to item 3 on back page.]		•
			TOTAL NUMBER OF
_			FIELDS PLANTED
2.	What is the TOTAL number of sunflower fields that were planted on this operation?		0020
	that were planted on this operation:		
			[If only 1 field, go to item 4.]
3.	I will follow a simple procedure to make a random selection sunflower fields planted for the 1999 crop.	on from the (item 2)	
	'		
	Please list these fields according to identifying name/	number or describe	
	Please list these fields according to identifying name/each field. Then I will tell you which field has been see [If there are more than 18 fields make sure item 2 is TOTAL fi	electea. ields planted,	
	and list only the 18 fields closest to the operator's perma  If respondent is unable to identify or describe the fields, use the	anent residence.	
-1-1		•	DIDTION
LIEL	D NAME, NUMBER OR DESCRIPTION	FIELD NAME, NUMBER OR DESC	
1		10	
2		<u>11</u>	
3		12	
4		<u>13</u>	
5		14	
6		<u>15</u>	
7		<u>16</u>	
8		<u>17</u>	
9		18	
	APPLY "RANDOM NUMBER" LABEL HERE		
4.	[ENUMERATOR ACTION:		SELECTED FIELD NUMBER
	Circle the pair of numbers on the above label associated with the la field according to the number you circled on the label, and record th	st numbered field in item 3. Select the se selected number. If only 1 field, enter	0021
	1.]		
_	The field colored in (field		
5.	The field selected is ( <i>field name/number/description</i> ). During this interview, the sunflower questions will be	about this selected sunflower field	
	[Be sure the operator can identify the selected field.]	The second secon	OFFICE USE
			OY Field Substituted
			0022

### SUNFLOWER FIELD SELECTION

Δ

#### **Field Selection Grid**



u
_
_

					ACRES
1.	How many acres of sunflowers of in this field for the 1999 crop?	did this operation plant			1535
	in this held for the 1999 crop?				I
2.	How many acres in this field wer	'e			ACRES
	a. owned by this operation?				1536
	b. rented for CASH?				1537
					1538
	c. SHARE rented?				1539
	d. used RENT-FREE?				•
					YEAR
3.	What year did you start operating	a this field?			1540
	······································	<b>9</b> • · · • · · · · · · · · · · · · · · ·			CODE
	a. Do you EXPECT to be operating (through the 2004 crop year)?	g this field for the next 5 ye	ears	YES = 1	1541
	(anough and lost orop your).				
					<b>MM DD YY</b> 1542
4.	On what date was this field plant	ted?			
			CODES for t	npe of	
			Sunflowers p	lanted	CODE
_	Miles I have a facility of the second	and a description of a late	1= OIL VARIETY 2= NON-OIL VA	, RIETY	1543
5.	What type of sunflowers were pla	anted on this field?			
					UNIT CODES for Seeding Rate
					1=POUNDS 2=CWT. 4=BUSHELS
				UNITS PER ACRE	25=KERNELS/SEEDS
6.	What was the seeding rate per agriculture first time this field was seeded?	cre the		1544	1545
	- \\\	<ul><li>1 Drilled?</li><li>2 Planted in convent</li></ul>	ional rows?		CODE
	a. Was the seed	3 Broadcast on this f			1546
	b. [If DRILLED or PLANTED, ask	1			INCHES
	What was the row width in inche	-			1547
	vviiat was the fow width in mich				•
7.	Was the source of the	1 Purchased?			CODE
٠.	sunflower seed	<ul><li>2 Homegrown or traded?</li><li>3 Both?</li></ul>			1548

### FIELD CHARACTERISTICS---SELECTED FIELD

	_

		CODE
		1552
10.	Has harvest of this field been completed? YES = 1	

Now I need information about the acres harvested (or to be harvested) and the yields from this field.

How	many acres in the sunflower field e (will be)	What yield per acre did you get (do you expect to get) for	3 UNIT CODES 1=POUNDS 2=CWT 3=TONS 4=BUSHELS		
		ACRES	;	UNITS PER ACRE	
a.	harvested for sunflower seed?	1553	•	1554	1555
d.	abandoned?	1561	•		
e.	used for some other purpose?	1562	•		

CROP CODE LIST for item 12 PREVIOUSLY PLANTED CROP was						
1 Alfalfa hay	281 Cotton, Upland	16 Peanuts	26 Soybeans			
190 Barley	282 Cotton, Pima	17 Dry Peas	28 Sugarbeets			
3 Dry Beans	302 CRP	20 Potatoes	30 Sunflowers			
85 Canola	311 Grasses other than clover	21 Rice	142 Vegetables			
310 Clover	11 Hay, all other	22 Rye	163 Wheat, durum			
6 Corn for grain	94 Mustard	98 Safflower	164 Wheat, other spring			
5 Corn for silage	15 Oats	25 Sorghum for grain	165 Wheat, winter			
•		24 Sorghum for silage	318 No crop planted during this period			

12. Next I need to know what crops were previously PLANTED on this field, including cover crops.

What crop was PLANTED on this field in						
	CROP NAME	CROP CODE	Was this crop irrigated?  YES = 1			
		1564	1565			
a. <b>FALL</b> of 1998?						
		1566	1567			
b. <b>SPRING/SUMMER</b> of 1998?						
		1568	1569			
c. <b>FALL</b> of 1997?						
		1570	1571			
d. <b>SPRING/SUMMER</b> of 1997?						
		1572	1573			
e. <b>FALL</b> of 1996?						
f. SPRING/SUMMER of 1996?		1574	1575			

	CODE
Was crop residue (from the previous crop planted) removed from this	1576
field by baling or removing straw or stalks, burning, etc.? YES = 1	

14.	1  Did your land-use practices for this field include		In what year were the (column 1) established in this field?	[If (column 1) were established before operator began operating this field, enter <b>code 1</b> and skip column 3.]	3 Excluding government cost sharing payments, how much of the cost of building the (column 1) was paid directly by you?
		CODE	YEAR		PERCENT
	a. terraces? YES = 1	1577	1578	1579	1580
		1581	1582	1583	1584
	b. temporary or permanent levees? YES = 1				
	c. grassed waterways? YES = 1	1585	1586	1587	1588
	d. filter strips or riparian buffers on or adjoining the field? YES = 1	1589	1590	1591	1592
	, ,	1593			
	e. contour farming? YES = 1				
	f. strip cropping? YES = 1	1594			
		4505	_		
	g. underground outlets such as tile drainage? YES = 1	1595			
	h. other drainage channels or diversions? YES = 1	1596			

15.	Has the Natural Resource Conservation Service or NRCS classified any part of this field as "Highly Erodible"? YES	CODE 1597
16.	Have you been notified by NRCS that this field contains a wetland? YES	1598 = <b>1</b>
17.	Have you received assistance from NRCS in 1999 for planning or installation of conservation practices or systems? YES	1599 5 = <b>1</b>
18.	Have you received financial cost-sharing assistance from the Farm Service Agency (formerly ASCS) in 1999 for installation of conservation practices or systems?	

# C FERTILIZER and NUTRIENT APPLICATIONS---SELECTED FIELD C

				CODE	LUII IADEL		
1.	Were commercial FERTILIZERS appropriate the 1999 sunflower crop?	olied to this field YES=1	1601	020	)1		
2.	[If COMMERCIAL fertilizer applied,			,,	<u>.</u>		
					NUMBER		
3.	How many trips were made across this field to apply commercial fertilizer for the 1999 crop (include applications made by airplanes and commercial applicators)?						
4.	Now I need to record information for	r each application.					
	CHECK	LIST					
İ	INCLUDE	EXCLUDE	ĺ				
П	Custom applied fertilizers	☐ Micronutrients					
旧	Fertilizer applied in the fall of	Unprocessed manure	1	T-TYPE	TABLE		
	1998 and those applied	Fertilizer applied to previous		2	001		
	earlier if this field was fallow	crops in this field		_			
	in 1998 Commercially prepared manure		LINE 99	OFFICE USE LINES IN TABLE	0213		

		2 →	→ →	3	4	5	6	7
ŀ	MATERIALS USED  [Enter percentage analysis or actual pounds of plant nutrients applied per acre.] [Show Common Fertilizers in Respondent Booklet.]			What quantity was applied per acre?  [Leave this column blank if actual	<ul><li>1 Pounds</li><li>12 Gallons</li><li>19 Pounds of</li></ul>	When was this applied?  1 Before seeding (fall)  2 Before seeding (spring)	How was this applied?  1 Broadcast, ground without incorporation 2 Broadcast, ground with incorporation 3 Broadcast, by air 4 In seed furrow 5 In irrigation water 6 Chisel, injected or knifed in	How many acres were treated in this application?
N E	<b>N</b> Nitrogen	<b>P₂O₅</b> Phosphate	<b>K₂O</b> Potash	nutrients were reported.]	actual nutrients	3 At seeding 4 After seeding	7 Banded/Sidedressed in or over row 8 Foliar or directed spray 9 Spot treatments	ACRES
01	0205	0206	0207	0208	0209	0210	0211	0212
02	0205	0206	0207	0208	0209	0210	0211	0212
03	0205	0206	0207	0208	0209	0210	0211	0212
04	0205	0206	0207	0208	0209	0210	0211	0212
05	0205	0206	0207	0208	0209	0210	0211	0212
06	0205	0206	0207	0208	0209	0210	0211	0212
07	0205	0206	0207	0208	0209	0210	0211	0212
08	0205	0206	0207	0208	0209	0210	0211	0212

T-TYPE	TABLE	LINE
0	000	00

### C FERTILIZER and NUTRIENT APPLICATIONS---SELECTED FIELD C

		T-TYPE 0	TABLE 000	LINE 00
	L	<u> </u>		CODE
5.	Was a nitrogen soil test performed on this field?	VEC	1603	
Э.	a. [If nitrogen test done, ask]	YES		S PER ACRE
			1604	S PER AURE
	How many pounds of nitrogen (per acre) were recommended (by the nitrogen test)?			
6.	[Enumerator Action: Refer to the Fertilizer Table, column 2.  If nitrogen (N) was applied, complete items 7 and 8.  If NO nitrogen applied, skip to item 9.]			
7.	Was the amount of nitrogen you decided to apply to this field based on			
				CODE
	a. Routine practice (operator's own determination based on past experience, yield goal, etc.)?	YES	1605 <b>S = 1</b>	
			1606	
	b. Results of a soil or plant tissue test?	YES	<b>5 = 1</b> 1607	
	c. Crop consultant recommendation?	YES		
	d. Fertilizer dealer recommendation?	YES	1608 <b>S = 1</b>	
			1609	
	e. Extension Service recommendation?	YES	<b>6 = 1</b> 1610	
	f. Cost of nitrogen and/or expected commodity price?	YES	S = 1	
8.	Did you use any product to slow the breakdown of nitrogen on this field? (For example a nitrification inhibitor such as N-Serve or a urease inhibitor such as Agrotain)	YES	1611 <b>S = 1</b>	
9.	Was a <b>soil test</b> performed on this field in 1998 or 1999 for the 1999 sunflower crop?	YES	1612 <b>S = 1</b>	
10.	Was a <b>plant tissue test</b> performed on this field in 1998 or 1999 for the 1999 sunflower crop?	YES	1613 <b>6 = 1</b>	
11.	Is lime ever applied to this field?	YES	1614 <b>6 = 1</b>	
	a. [If lime applied, ask]		Υ	EARS
			1615	
	On average, how many years are there between applications of <b>lime</b> to this field?			
	b. [If lime applied, ask]			PER ACRE
	How many tons of <b>lime</b> were applied per acre the last time it was applied to this field?		1616	•
			(	CODE
12.	Was sulfur applied to this field for the 1999 crop?	YES	1617 <b>S = 1</b>	
	a. [If sulfur applied, ask]			S PER ACRE
	How many pounds of sulfur were applied per acre?		1618	•

### C FERTILIZER and NUTRIENT APPLICATIONS---SELECTED FIELD C

				CODE
13.	Was gypsum applied to th	is field for the 1999 crop?	YES = 1	1619
				1620
14.	• •	ed to this field for the 1999 crop?	YES = 1	
	a. [If micronutrients applied]	, ask]		1621
	Did the micronutrients in	clude <b>zinc</b> ?	YES = 1	
15.	Was manure applied to th	is field for the 1999 sunflower crop?		CODE
				1622
		e 1 and continue.]		
		tion D.]		40050
				ACRES
	a. How many acres was ma	anure applied to?		•
			TOTAL TONS OR	TOTAL GALLONS
	b. What was the total amou	ınt of manure applied	1624	1625
	to this held?		<u> </u>	
		1 Dry Broadcast <i>without</i> incorporation?		<b>CODE</b>
	c. Was the manure	<ul><li>Dry Broadcast <i>with</i> incorporation?</li><li>Liquid Broadcast <i>without</i> incorporation?</li></ul>	,	1020
		4 Liquid Broadcast with incorporation?		
		5 Injected/knifed in?		
		1 Beef cattle?		CODE
		2 Dairy cattle?		1627
	d. Was the major source of	3 Hogs? 4 Sheep?		1027
	the manure from-	5 Poultry?		
		6 Equine?		
		<ul><li>Biosolids (<i>municipal sludge,food waste,</i></li><li>Other (<i>Specify</i>)?</li></ul>	, etc.)'?	
		8 Other (Specify)?		
		L		
		1 Produced on this operation?		CODE
	e. Was the manure	2 Purchased?		1628
		3 Obtained at no cost off this operation?		

D			PESTIC	IDE AP	PLICATIO	DNSSELI	ECTED F	IELD	D
1.	Includin let's list	ig b all	oth custom app the chemicals u	lications and sed on this f	applications ma ield for the 1999	ide by this operations sunflower crop.		CODE I	EDIT TABLE
	Were any herbicides, insecticides, fungicides or other chemicals used on the sunflower field for the 1999 crop?. YES = 1  [Probe for applications made in the fall of 1998 (and those made earlier if this field was fallow).]  [If none, go to Section E.]								1
	CHECK LIST INCLUDE  Defoliants Fungicides Herbicides  CHECK LIST FEXCLUDE  Seed treatments  T-TYPE  3  LINE OFFICE USE 99 LINES IN TABLE					3 ICE USE 031	<b>TABLE 001</b> 9		
N	OTES	LINE	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.]	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 5 Defoliation prior to harvest	6 How much was applied per acre per application ?	What was the total amount applied per application in this field?	8 [Enter unit code.] 1 Pounds 12 Gallons 13 Quarts 14 Pints 15 Ounces 30 Grams
		01	0305		0306	0307	0308	0309	0310
		02	0305		0306	0307	0308	0309	0310
		03	0305		0306	0307	0308	0309	0310
		04	0305		0306	0307	0308	0309	0310
		05	0305		0306	0307	0308	0309	0310
		06	0305		0306	0307	0308	0309	0310
		07	0305		0306	0307	0308	0309	0310
		08	0305		0306	0307	0308	0309	0310
		09	0305		0306	0307	0308	0309	0310
		10	0305		0306	0307	0308	0309	0310
		. •	0305		0306	0307	0308	0309	0310

	14					•	•	0010
2. [For pe	2. [For pesticides not listed in Respondent Booklet, specify]							
LINE	(Herb	Pesticide Type icide, Insecticide Fur etc.)	ngicide,	EPA No. or Trade and Formulati		Form Purchased (Liquid or Dry)	[Ask on	Purchased ly if EPA No. be reported.]
							_	

#### **APPLICATION CODES for column 9**

- 1 Broadcast, ground without incorporation 2 Broadcast, ground with incorporation 3 Broadcast, by air (*Aerial application*) 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 9 Spot treatment

	9	10	11	12	13	14
L I N E	How was this product applied? [Enter code from above.]	How many acres in this field were treated with this product?	What was the number of times applied?	What was the PRIMARY target pest for this application? [Show Target Pest codes from Respondent Booklet.]	This year, was the problem of this pest  1 worse than normal? 3 normal? 5 less than normal? 7 unknown? 9 not applicable?	Were these applications made by  1 Operator, Partner, Family member? 2 Custom applicator? 3 Employee / Other?
01	0311	0312 •	0313	0314	0315	0316
02	0311	0312	0313	0314	0315	0316
03	0311	0312	0313	0314	0315	0316
04	0311	0312	0313	0314	0315	0316
05	0311	0312	0313	0314	0315	0316
06	0311	0312 • <u> </u>	0313	0314	0315	0316
07	0311	0312	0313	0314	0315	0316
08	0311	0312	0313	0314	0315	0316
09	0311	0312	0313	0314	0315	0316
10	0311	0312	0313	0314	0315	0316
11	0311	0312	0313	0314	0315	0316
12	0311	0312	0313	0314	0315	0316
13	0311	0312	0313	0314	0315	0316
14	0311	0312 • <u> </u>	0313	0314	0315	0316

T-TYPE	TABLE	LINE
0	000	00

T-TYPE	TABLE	LINE
0	000	00

- 1. Now I have some questions about your pest management decisions and practices used on this field for the 1999 sunflower crop. By pests, we mean WEEDS, INSECTS and DISEASES.
- 2. Let's begin with questions about scouting this field for pests.

	1		[If YES, ask] Who did the majority of the scouting for [column 1]
was 1	this sunflower field scouted for	YES=1	<ul> <li>1 Operator, Partner or Family member?</li> <li>2 an Employee?</li> <li>3 Farm supply or Chemical dealer?</li> <li>4 Independent Crop consultant or Commercial scout?</li> </ul> CODE
a.	weeds?	1631	1632
b.	insects?	1633	1634
C.	diseases?	1635	1636

3.	[If field SCOUTED, ask]	CODE
	Were written or electronic records kept for this field to track the activity or numbers of weeds, insects or diseases?	1637 = <b>1</b>

<u>E\_\_</u>

4.	[Enumerator Action: Were HERBICIDES used (pesticide product codes 4000-4999), Section D, item 1 column 2?]		
	☐ YES - [Continue.] ☐ NO - [Go to item 9.]		
5.	Did you apply herbicides to this sunflower field		<b>CODE</b> 1638
·.	Did you apply herbicides to this sunflower field BEFORE weeds emerged?	YES = 1	
	a. [Enumerator Action: Were PRE-EMERGENT HERBICIDES used?]		
	☐ YES - [Continue.] ☐ NO - [Go to item 7.]		
6.	Did you decide to apply herbicides BEFORE weeds emerged on this sunflower field based on	ſ	
	a. a routine treatment for weed problems experienced in previous years?	YES = 1	1639
	b. field mapping of previous weed problems?	YES = 1	1640
	c. recommendations from a <i>chemical dealer</i> ?	YES = 1	1642
	d. recommendations from an <i>independent crop consultant</i> ?	YES = 1	
7.	Did you apply herbicides to this sunflower field AFTER weeds emerged?	VEC. 4	1643
	a. [Enumerator Action: Were POST-EMERGENT HERBICIDES used?]	125 = 1	
	YES - [Continue.] NO - [Go to item 9.]		
8.	Did you decide to apply herbicides AFTER weeds emerged on the sunflower field based on	ſ	1011
	a. a routine treatment?	YES = 1	1644
	b. type and/or density of weed(s) present?	YES = 1	1043
	c. recommendations from a <i>chemical dealer</i> ?	YES = 1	1646
	d. recommendations from an <i>independent crop consultant</i> ?	YES = 1	1647
9.	[Enumerator Action: Were INSECTICIDES used (pesticide product codes 1000-1 Section D, item 1 column 2?]	1999), in	
	☐ YES - [Continue.] ☐ NO - [Go to item 11.]		
10.	Did you decide to apply insecticides to this sunflower field based on	ſ	1010
	a. a preventative schedule?	YES = 1	1648
	b. scouting data compared to University or Extension guidelines for infestation thresholds?		1649
	c. standard practices or history of insect problems?	YES = 1	1650
	d. local information ( <i>from other farmers, radio, TV, newsletters, etc.</i> ) that the pest was or was not present?	YES = 1	1651
	e. your (the operator's) own determination of the infestation level?	YES = 1	1652

ОТН	ER PEST MANAGEMENT PRACTICES	CODE
11.	Was protection of beneficial organisms a factor in your pest control decisions for this field? YES = 1	1653
12.	Did you use any beneficial organisms to control pests in this field? YES = 1	1654
13.	Did you use water management practices, such as controlled drainage or irrigation scheduling to control pests in this field? [Exclude chemigation.] YES = 1	1655
14.	Did you use tilling, chopping, mowing, burning of field edges, lanes, ditches, roadways or fence lines to control pests in this field? YES = 1	1656
15.	Did you clean equipment and implements after completing field work to reduce the spread of pests from this field? YES = 1	1657
16.	Did you cultivate this field for weed control during the growing season? YES = 1	1658
17.	Did you consider pest resistance when selecting which variety to plant in this field? YES = 1	1659
18.	Did you treat the seed used in this field for disease control? YES = 1	1660
19.	Did you adjust planting or harvesting dates to control pests? YES = 1	1661
20.	Did you use soil analysis to detect the presence of soilborne pests or pathogens in this field? YES = 1	1662
21.	Did you alternate pesticides (use pesticides with different mechanisms of action) to keep pests from becoming resistant to pesticides in this field? YES = 1	1663
22.	Did you adjust row spacing or plant density to control pests in this field? YES = 1	1664
23.		1665
	r	
26.	Did you do any other type(s) of pest management to control pests in this field? YES = 1	1669
	a. [If <b>YES</b> , ask]	
	What did you do? [List other activities.]	1670
		1671
		1672

#### PEST MANAGEMENT INFORMATION

27. [Show Pest Management Information Sources code List.]

What was your primary outside source of information on pest management recommendations for the 1999 sunflower crop?

#### PEST MANAGEMENT INFORMATION SOURCES

			CODE
ANA	GEMENT TRAINING		
9	None - Operator used no <b>outside</b> information source.		
8	Other - (Specify)		
6 7	Producer Associations, Newsletters or Trade Magazines Electronic Information Services (DTN, Internet, World Wide Web, etc.)		
5	Other Growers or Producers		
4	Crop Consultant or Pest Control Advisor		
3	Commercial Scouting Service		and enter code.]
2	Farm Supply or Chemical Dealer		[Choose one source
1	Extension Advisor, Publications or Demonstrations (County, Cooperative or University)		
	CODE LIST [Choose one.]	<u></u>	

#### PEST M

		CODE
28.	Have you (the operator) attended any training session on pest identification and management since October 1, 1998? YES = 1	0028
	Tabliandulon and management embe establish, 1999 1	
		CODE
29.	Have you (the operator) completed courses leading to certification for applying "Restricted Use" pesticides?	0029
	for applying "Restricted Use" pesticides? YES = 1	
		OFFICE USE
		0030

### FIELD OPERATIONS --- SELECTED FIELD

1.	<ul> <li>by machines on this field for the</li> <li>Begin with the first field operation (If fallow during 1998, list op</li> <li>List the operations in order throu</li> </ul>	Decluding custom operations, I need to list field work performed by machines on this field for the 1999 sunflower crop. Please  Begin with the first field operation after harvest of previous crop, (If fallow during 1998, list operations starting with fall 1997.)  List the operations in order through seeding, and Maintain the order of tandem hook-ups.		CHECK LIST  de all field work using machines for Land Forming Tillage Preparing for Irrigation before seeding Planting	       
		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 Operator?	Exclu	•	     

2 S E	3 What operation or	<b>4</b> [Record machine code from Respondent	5 Who was the machine			8 In what month was this
2 S E Q U E N C E NO.	equipment was used on this field?	Booklet.]	operator [Enter code from above.]	How many acres were covered?	How many acres were covered per hour?	operation done?
		CODE		ACRES	ACRES PER HOUR	MM YY
0321		0322	0323	0324	0325	0326
0328		0329	0330	0331	0332	0333
0335		0336	0337	0338	0339	0340
0342		0343	0344	0345	0346	0347
0349		0350	0351	0352	0353	0354
0356		0357	0358	0359	0360	0361
0363		0364	0365	0366	0367	0368
0370		0371	0372	0373	0374	0375
0377		0378	0379	0380	0381	0382
0384		0385	0386	0387	0388	0389
0391		0392	0393	0394	0395	0396
0398		0399	0400	0401	0402	0403
0405		0406	0407	0408	0409	0410
0412		0413	0414	0415	0416	0417
0419		0420	0421	0422	0423	0424

For backnoes, disk border maker, ditch clos	er, aitcner, ievee	e-piow aisk, quarter	araın macnine
and rear mounted blade, enter total HOURS	S. not acres. The	en leave column 7 b	lank.
•	•		

	OFFICE USE
0032	

## FIELD OPERATIONS --- SELECTED FIELD

F

		CODE
4.	Was there (will there be) a yield monitor on the equipment used to harvest this sunflower field?	1677
	a. [If YES, ask]	
	Was (will there be) a yield map produced from this harvest using information from the yield monitor? YES = 1	1678
5.	Regardless of when done, has this field been soil grid-sampled and grid-mapped? YES = 1	1679
6.	Was this field remotely sensed (by airplane or satellite) and an image produced either before or during the 1999 growing season? YES = 1	1680
7.	Was variable rate technology (VRT) used for	[100]
	a. fertilization or liming? YES = 1	1681
	b. seeding?	1682
		1683
	c. pesticide applications? YES = 1	

# IRRIGATION --- SELECTED FIELD

		-
- 4	r	_
	L	7
•	٠	-

				ACRES
1.	How many acres in this fie for the 1999 sunflower cro	ld were irrigated p?		1684
	[If field irrigated, continue.	If NOT irrigated, go to Section H.]		
2.	Now, I have some question this field for the 1999 sunf	ns about the irrigation of lower crop.		
	,, ,	stem was used to irrigate this field?		SYSTEM TYPE CODE
	[Show <b>System Type Cod</b> enter Sytem Type Code f	des. If more than 1 system used, or system covering the most field acres.]		
	b. What was the total numb to this field during the ent ( <i>Include</i> ALL water used	per of inches of water per acre applied tire growing season?  from both on-farm and off-farm sources.)		INCHES PER ACRE
	[If operator cannot prov (1) What is the total num to this field during the	ber of hours that water was applied ne growing season?	TOTAL HOURS	
			GALLONS PER MINUTE	
	(2) How many gallons	per minute were applied?	1000	
	c. What percent of ALL wat this field came from surfa	er used to irrigate ace water sources?		PERCENT 1689
	d. What was the number of was irrigated during the g	times this field growing season?		<b>NUMBER</b> 1690
3.	Was any water purchased (Include landlord's share	to irrigate this field? and purchases from all sources.)	YES = 1	<b>CODE</b> 1691
	a. [If water purchased, ask-	-]		PERCENT
	What percent of the water	er used on this field was purchased?		
4.	Were wells used to supply	rirrigation water for this field?	YES = 1	<b>CODE</b> 1693
5.	Is the runoff from this field primarily	RUNOFF CODES  1 re-used to irrigate on the farm? 2 retained at the end of the field with no re- 3 collected in evaporation ponds on the farm 4 drains from the farm?		<b>CODE</b> 1694
		5 there is no runoff?		

H	OPERATOR and	d OPERATION CHARACTERIST	ICS H
1.	In 1999, was this operation's LEGAL STATUS	1 Individual (Sole/family Proprietorship)? 2 A legal Partnership? 3 A Family-held Corporation? 4 A Non-family Corporation? 5 Other, Including estates, trusts and cooperatives? (Describe)	ENTER CODE  0035
2.	In 1999, what was your (the operator major occupation?	1 Farm or ranch work 2 Hired manager 3 Something else 4 Retired	<b>CODE</b> 0036
3.	What is the <i>highest</i> level of formal education you (the operator) have completed?	1 Less than high school 2 High school diploma or equivalency (GED) 3 Some college 4 Completed 4 year degree (BA or BS) 5 Graduate school	<b>CODE</b> 0037
4.	Considering  all crops sold, all livestock, poul and products (mi all sales of crops	Itry (including commercial broilers), ilk, eggs, etc.) sold, livestock or poultry, produced under contract, hiscellaneous agricultural products, ayments received, of government payments and crops sold in 1999;	
	☐ 1 Less than \$1,000 ☐ 2 \$ 1,000 \$ ☐ 3 \$ 2,500 \$ ☐ 4 \$ 5,000 \$ ☐ 5 \$ 10,000 \$ ☐ 6 \$ 20,000 \$ ☐ 7 \$ 25,000 \$ ☐ 8 \$ 40,000 \$ ☐ 9 \$ 50,000 \$ ☐ 10 \$ 100,000 \$ ☐ 2	2,499 4,999 9,999 19,999 24,999 39,999 49,999 99,999 149,999 199,999	<b>CODE</b> 0038
5.	Of the farm income reported, which largest portion of the gross income	n of these categories represents the from the operation?	FARM TYPE CODE
	FARM	M TYPE CODES	
1 2 3 4 5 6	GRAINS and OILSEEDS TOBACCO COTTON VEGETABLES and MELONS FRUIT, TREE NUTS and BERRIES NURSERY, GREENHOUSE and FLORICULTURE OTHER CROPS	8 BEEF CATTLE 9 DAIRY 10 HOGS 11 SHEEP, GOATS, WOOL and MOHAIR 12 EQUINE 13 POULTRY and EGGS 14 AQUACULTURE 15 OTHER ANIMALS	OFFICE USE

## CONCLUSION

1.	I need to locate the selected for sunflowers on this map.	ield of	COUNTY NA	AME	OFFICE USE COUNTY FIPS CODE
	What county is the selected sunflower field in?				0010
2.	[ENUMERATOR ACTION: Mark map to indicate where Be sure the "X" marked on n	the selected su nap is in county	inflower field is located. identified above.]		CODE
3.	Would you like to receive a co (Results will also be available on the	opy of the results internet at http://	ults of this survey in the mai	l? YES :	0099
REC	CORDS USE				
4.	[Did respondent use farm/ranch	h records to rep	oort]		
	a. [fertilizer data?]			YES = 1	0011
	b. [pesticide data?]			YES = 1	0012
SUF	PPLEMENTS USED				NUMBER
5.	[Record the total number of each	ch type of supp	lement	FERTILIZER APPLICATIONS	
	used to complete this interview.	.]		PESTICIDE APPLICATIONS	
				FIELD OPERATIONS	0043
RES	SPONDENT	2 SPOUSI	TOR/MANAGER/PARTNER E NTANT/BOOKKEEPER		<b>CODE</b>
	Respondent's name [if code 3 or 4]				
	Phone				
					MILITARY TIME H H M M
END	DING TIME [MILITARY]				0005 MM DD YY 0007
DAT	re:				99
					0098
ENU	JMERATOR NAME				EVALUATION 0100