AGRICULTURAL RESOURCE MANAGEMENT SURVEY

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Phase II

NATIONAL AGRICULTURAL STATISTICS SERVICE

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COTTON PRODUCTION PRACTICES AND COSTS REPORT FOR 2015

VERSION	ID	TRACT	SUBTRACT	C-TYPE
11	__ __ __ __ __ __ __ __ __ __	01	__ __	106

CONTACT RECORD		
DATE	TIME	NOTES

INTRODUCTION:
[*Introduce yourself, and ask for the operator. Rephrase in your own words.*]
We are collecting information on the practices and costs used to produce cotton and need your help to make the information as accurate as possible. The information you provide will be used for statistical purposes only. In accordance with the Confidential Information Protection provisions of Title V, Subtitle A, Public Law 107-347 and other applicable Federal laws, your responses will be kept confidential and will not be disclosed in identifiable for to anyone other than employees or agents. By law, every employee and agent has taken an oath and is subject to a jail term, a fine, or both if he or she willfully discloses ANY identifiable information about you or your operation. Response is voluntary.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OBM control number. The valid OMB control number for this information collection is 0535-0218. The time required to complete this information collection is estimated to average 65 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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

BEGINNING TIME [*MILITARY*] — H H M M: 0004 __ __ __ __

SCREENING BOX: 0006

☐ [*Name, address and partners verified and updated if necessary*]

POID __ __ __ __ __ __ __ __ __ __	POID __ __ __ __ __ __ __ __ __ __
PARTNER NAME	PARTNER NAME
ADDRESS	ADDRESS
CITY STATE ZIP PHONE NUMBER	CITY STATE ZIP PHONE NUMBER
POID __ __ __ __ __ __ __ __ __ __	**POID** __ __ __ __ __ __ __ __ __ __
PARTNER NAME	PARTNER NAME
ADDRESS	ADDRESS
CITY STATE ZIP PHONE NUMBER	CITY STATE ZIP PHONE NUMBER

A COTTON FIELD SELECTION A

TOTAL PLANTED ACRES

1. **How many acres of cotton did this operation plant for the 2015 crop year?** [*If no acres planted, review Screening Survey Information Form, make notes, then go to item 4 on back page*]. . . . . 0050 .____

[*If skip row cotton was planted, exclude the acreage in the skips.*]

I will follow a simple procedure to make a random selection from the cotton fields planted for the 2015 crop.

TOTAL NUMBER OF FIELDS PLANTED

2. **What is the TOTAL number of cotton fields that were planted on this operation?** [*If only one field enter "1" and go to item 5.*]. 0020

3. **Please list these fields according to identifying name/number or describe each field, then I will tell you which field has been selected**.

[*If there are more than 18 fields make sure item **2** is **TOTAL** fields planted, and list only the 18 fields closest to the operator's permanent residence. If respondent is unable to identify or describe the fields, use the Field Selection Grid Supplement.]*

FIELD NAME, NUMBER OR DESCRIPTION	FIELD NAME, NUMBER OR DESCRIPTION
1	10
2	11
3	12
4	13
5	14
6	15
7	16
8	17
9	18

APPLY "RANDOM NUMBER" LABEL HERE

4. [**ENUMERATOR ACTION:** *Circle the pair of numbers on the above label associated with the last numbered field in item* 3. *Select the field according to the number you circled on the label, and record the selected number. If only one field, enter 1.*] . . . . . .

SELECTED FIELD NUMBER

0021

5. **The field selected is _____** (*field name/number/description*)**.**

During this interview, the cotton questions will be about this selected cotton field.

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

6. **For the randomly selected field above, please provide the Farm Service Agency (FSA):**

a. Farm Number	
b. Tract Number.	
c. Field Number.	

OFFICE USE
OY Field Substituted

0022

B FIELD CHARACTERISTICS---SELECTED FIELD B

1. **How many acres of cotton did this operation plant in this field for the 2015 crop?** . . . . . ACRES 1301 . ___
   [*If skip row cotton was planted, exclude the acreage in the skips.*]

   a. Are the acres in this field **CERTIFIED ORGANIC**? . . . . . **YES = 1** CODE 1300

   [*If **YES**, skip 1b and ask item 2.*]

   b. Was this field transitioning into organic cotton production in 2015? . . . . . **YES = 1** 1399

2. **Were the acres in this field --** CODE 1302

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

3. [*If field is CASH RENTED (item 2 = 2, 3 or 5), ask item 3, else go to item 4.*]

   What was the cash rent paid per acre for this 2015 cotton field? . . . . . DOLLARS & CENTS PER ACRE 1303 . ___ ___

4. [*If field is SHARE RENTED (item 2 = 4 or 5), ask--*]
   What was the landlord's share of the crop from this field? . . . . . PERCENT 1304

5. [*If field is RENTED* (*item 2 = 2, 3, 4,or 5*), ask--]

   What was the total cost for all inputs provided by any landlord for the 2015 crop on the selected field? (***Include*** *the costs for all inputs, such as seed, fertilizer, chemicals, technical services, custom operations, drying and irrigation.* ***Exclude*** *real estate tax expenses and lime costs paid by the landowner.*) . . . . . DOLLARS & CENTS PER ACRE 1305 . ___ ___ **OR** TOTAL DOLLARS 1306

6. **What was the total cost for all inputs provided by any contractor for the 2015 crop on the selected field?** (***Include*** *the costs for all inputs, such as seed, fertilizer, chemicals, technical services, custom operations, drying and irrigation.*) . . . . . DOLLARS & CENTS PER ACRE 1309 . ___ ___ **OR** TOTAL DOLLARS 1310

7. **What year did you** (*the operator listed on the label*) **start operating this field?** . . . . . YEAR 1312 ____ ____ ____ ____

8. **On what date was this field planted?** . . . . . MM DD YY 1308 __ __ __ __ __ __

   a. What was your yield goal for cotton lint at planting for this field? . . . . . POUNDS PER ACRE
   (***Exclude*** *pounds of seed cotton.*)

9. **What type of cotton was planted on this field?** . . . . . CODE

1	Upland
2	Pima – extra long stable or ELS

10 **What was the source and cost of---**
(***Include*** *operator, landlord, and contractor costs.* ***Include*** *cost of seed treatment and technology fee.*
Exclude *any Bt seed payment received for participating in the Pink Bollworm program.*)

	DOLLARS & CENTS PER UNIT	UNIT CODE 1=POUNDS 22=ACRE 23=APPROX 50 LB. BAG 40 =250,000 SEED BAG	PERCENT of SEED PLANTED
a. Genetically engineered purchased seed?	1344 .___ ___	1345	1346
b. Non-genetically engineered purchased seed?	1347 .___ ___	1348	1349
c. Homegrown seed?			1340
			100%

[*If homegrown, ask---*]

	CENTS PER POUND
(i) What was the cost for cleaning and treating this seed?	1350 .___

UNIT CODES for Seeding Rate
1 = POUNDS/ACRE
23 = 50 LB BAGS/ACRE
25 = SEEDS/ACRE
38 = SEEDS/FOOT
40 = 250,000 SEED BAGS/ACRE

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

	CODE
a. What method of seeding did you use on this field? (1 Drilled? 2 Planted in Conventional Rows? 3 Broadcast on this field?)	1316

[If drilled or planted (item 11= 1 or 2), ask---]

	INCHES
b. What was the average cotton row width?	1323

	CODE
12 **Did this field have skip-row cotton?** YES = 1	1321

[*If no skip-row, go to item 13.*]

	ROWS OF COTTON	BY	ROWS OF SKIP
a. What was the common skip pattern?	1316		1317

	INCHES
b. What was the average width of the skip?	1319

	ACRES
13. **How many acres in this field had to be replanted to cotton?** (*Acres replanted = Number of acres x Number of times replanted.*)	1315 .___

	CODE
14. **Was a hybrid cotton seed planted in this field?** YES = 1	1326

1	2 2015 YES = 1	3 2014 YES = 1 N/A = 4 No Cotton in Field
15. **Did you plant genetically engineered seeds for the 2015 or 2016 crop years?**. . . .		

16. *[If item 15=1, for either year continue. Else, go to 17]* **Did the cotton planted on this field have any of the following genetically engineered traits in 2015 or 2014? *[Leave the second column blank if field was not planted with cotton in 2014.*]---**

1	2 2015 YES = 1	3 2014 YES = 1 ☐ N/A No Cotton in Field
a. Lepidopteran Resistance (Single Mode of Action).		
b. Lepidopteran Resistance (Pyramided Modes of Action).		
c. Glyphosate Tolerance.		
d. 2, 4-D Tolerance.		
e. Dicamba Tolerance.		
f. Glufosinate Tolerance.		
g. Other HT Trait.		

1	2 2015 YES = 1	3 2014 YES = 1 N/A No cotton in field = 4
17. Was a non-genetically engineered seed planted in		

[Item 17=1 for either year, then continue. Else, go to Item 19]

	2 2015 YES = 1	3 2014 YES = 1 N/A No cotton in field
18. Was this non-genetically engineered seed herbicide tolerant in		

19. **For the 2015 cotton crop,** did you purchase pre-treated seed or have the seed treated after purchase with**---**

		CODE
a. a fungicide (e.g., Trilex, Allegiance, or other seed treatments)?	YES = 1	
b. a nematicide (e.g., Acceleron, Avicta, or Aeris seed treatment)?	YES = 1	
c. an insecticide (e.g., Poncho, Gaucho, Cruiser, Amparo seed treatment)?	YES = 1	

[If item 19c = 1 continue, otherwise go to Item X]

20. D**id you use an "air delivery and\or vacuum planter (pneumatic)" for the seed purchased with an insecticide seed treatment?** . . . . . **YES = 1** [ ]

a. [*If item 20 is YES, ask*---]

CODE

Did you use a talc or and/or graphite seed flow lubricant?. . . . . **YES = 1** [ ]

SEED TREATMENT PRODUCTS CODE LIST for item 21 – SEED TREATMENT			
100 Acceleron	104 Apron	108 Avicta Complete	112 Gaucho Grande
101 Acceleron I	105 Cruiser	109 Aeris	113 Genero
102 Acceleron FI	106 Cruiser Dynasty	110 Aeris + Trilex Advanced	999 Other
103 Acceleron N	107 Avicta	111 Gaucho	3 Seed was not treated

CODE

21. [If item 19 = 1 continue, otherwise go to Item X] enter the appropriate product code from above *(enter 3 if a seed treatment was not applied)*.. . . . . [ ]

22. Did you use an insect resistant seed variety? . . . . . **YES = 1** [ ]

a. [If item 22 = 1 continue, otherwise go to Item X]
Did you choose the resistant seed variety used on this field primarily to**---**

1 Increase yields through improved pest (weed or insect) control?
2 Decrease pesticide input costs?
3 Save management time or labor or improve ease of management?
4 For some other reason(s)? [Specify _____]

. . . . . **CODE** 1343

PERCENT

23. **What percent of the field was used as refuge in order to comply with Bt cotton insect resistant management guidelines?**. . . . . 1361 [ ]

CODE

24. **Has harvest of this field been completed?**. . . . . **YES = 1** 1328 [ ]

25. Please report the following **information about the acres harvested** (*or to be harvested*) **and the yields from this field.**

How many acres in the cotton field were (*or will be*)---	**ACRES**	1 **How many pounds of lint per acre** (*or do you expect to*) **get for cotton--** **UNITS PER ACRE**	2 **UNIT CODE** 1 POUNDS **CODE**
a. harvested for lint?.	1346 .___	1347 .___	1348
b. abandoned?.	1351 .___		

CROP CODE LIST for item 21 – PREVIOUSLY PLANTED CROPS			
190 Barley	3 Dry Beans	21 Rice	193 Tobacco, burley
85 Canola	17 Dry Peas	22 Rye	196 Tobacco, flue cured
310 Clover	311 Grasses other than clover	98 Safflower	42 Vegetables
6 Corn for grain	1 Hay, alfalfa	25 Sorghum for grain	163 Wheat, durum
5 Corn for silage	11 Hay, all other	24 Sorghum for silage	164 Wheat, other spring
282 Cotton, Pima	94 Mustard Seed	26 Soybeans	165 Wheat, winter
281 Cotton, Upland	15 Oats	28 Sugarbeets	
302 CRP	16 Peanuts	30 Sunflowers	318 **No crop planted** during this period
	20 Potatoes	31 Sweet Potatoes	

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

1 **What crops were PLANTED on this field in---** SEASON AND YEAR	CROP NAME	CROP CODE	2 **Was this a cover crop?** YES = 1	3 **How did you manage this crop?** 1 Plowed-in 2 Chisled-in 3 Chemical-killed 4 Rolled 5 Grazed 6 Harvested 7 Disked	4 **Was this field irrigated?** YES = 1	5 **Was this field no-tilled or strip-tilled?** 1/ YES = 1
a. **FALL of 2014?**		1343	1470	1471	1344	1345
b. **SPRING/SUMMER of 2014?**		1369	1472	1473	1370	1371
c. **FALL of 2013?**		1372	1474	1475	1373	1374
d. **SPRING/SUMMER of 2013?**		1375	1476	1477	1376	1377
e. **FALL of 2012?**		1378	1478	1479	1379	1380
f. **SPRING/SUMMER of 2012?**		1381	1480	1481	1382	1383
g. **FALL of 2011?**		1366	1482	1483	1367	1368
h. **SPRING/SUMMER of 2011?**		1340	1484	1485	1341	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.*

DOLLARS & CENTS PER ACRE

i. [*If a cover crop was planted in Spring/Summer/Fall 2014, ask—*]
What was the seed cost per acre for the cover crop? . . . . . 1468 .___ ___

27. **Which of the following conservation practices or plans are used on this field?**

1 **CONSERVATION PRACTICES or PLANS**	2 **Was this practice or plan used in 2015?** YES = 1	3 **For 2011-2015, how many years was this practice or plan used?** NUMBER	4 **Have you ever received at any time--** **Technical or planning assistance?** 1 USDA 2 Private technical service provider funded by USDA 3 Soil Conservation District or State Agency 4 Other source 5 Self-funded (hired provider) 6 No technical assistance needed CODE	4 **Financial assistance?** 1 Environmental Quality Incentives Program (EQIP)? 2 Conservation Reserve Program (CRP)? Conservation Stewardship Programs (CSP)? 4 Oher Federal, State, Local program CODE	5 **Does this practice or plan help satisfy?** 1 A federal regulatory requirement? 2 A state or local regulatory requirement 3 USDA conservation compliance provisions CODE
a. Conservation tillage *[include No-till/Direct seeding, mulch till, and ridge till]*					
b. Cover crops *[include grasses, legumes, forbs, or other herbaceous plants for seasonal cover and conservation]*.					
c. Structural practices to conserve soil? *[include grass waterways, terraces, grade stabilization, contour buffer strips, etc.]*					
d. Nitrogen application practices? *[Include splitting nitrogen applications 50 % after crop emergence, applying nutrients 30 days prior to planting, precision application of nutrients, or using controlled release fertilizer]*					
e. Conservation plan specifying practices to reduce soil erosion?.					
f. Nutrient management plan specifying practices for __Fertilizer application __Manure application.					
g. Pest management plan to implement Integrated Pest Management (IPM) to control weeds, insects, or disease?. . .					
h. Irrigation water management plan specifying irrigation practices?.					

28. **Is this field included in an existing conservation program contract through any of the following programs for which you or the landlord have received** (*or expect to receive*) **cost sharing payments, stewardship payments, or incentive payments?**. . . . . .

PROGRAM	1 1/	2 How many practices or practice enhancements are included in the contact?	3 Does the contract include livestock-related practices?	4 During the past 4 years, was this field included in an application that was rejected or has not yet been funded?
	YES = 1	**Number**	**YES = 1**	**YES = 1**
a. Environmental Quality Incentives Program (EQIP)				
b. Conservation Security or Conservation Stewardship Programs (CSP)				
c. Conservation Reserve Program (CRP)				
d. Other Federal, State, Local or non-government source				
1/ [*Include conservation program contracts that provide assistance for grass waterways, filter strips, riparian buffers, or similar practices on or adjoining this field.*]				

29. [*In item 28, if you answered yes =1 in column 1 or column 4 for any program continue, else go to item 31.*]
In applying for the Conservation Program you listed in item *28*, did you: . . . . . .

	YES = 1	How much time was spent on your behalf? *[Include the number of hours spent with you plus the number of hours spent on your behalf.]* HOURS	**What was the cost of the consultation?** DOLLARS & CENTS
a. Hire a consultant to help prepare the application?.			. __ __
b. Receive assistance free of charge? *[Include assistance received from USDA, and extension agent, an environmental organization, or a farm organization.]*.			

30. **In applying for and participating in the conservation program you listed in item *28*, please indicate the approximate time you spent on the following activities:**

	HOURS
a. Learning about the program in general, on your own or at meetings?.	1352
b. Planning or designing specific practices for your farm (on your own or in meetings with USDA staff, contractors, or others)?.	1353
c. Collecting information (e.g. field characteristics, maps, soil test results) that was needed to fill out program application forms?.	1354
d. Filling out the program application forms?.	1355
e. If your offer was accepted, understanding and signing the contract? [*Enter zero if offer was not accepted.*].	1356
f. If your offer was accepted, documenting compliance after the practices were installed or adopted? [*Enter zero if offer was not accepted.*].	1357

31. Did you apply for conservation funding (through any Federal, State, or local program) for this field in the last four years? **YES = 1** ☐

32. [*If Item 31=1, go to Item 33*---] **If you did not apply for conservation program funding for this field in the past four years, what were your reasons?**

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	CODE
a. I was not aware of USDA or other conservation programs.	☐1	☐2	☐3	☐4	☐5	1358
b. I am not aware of environmental problems (on this field)..	☐1	☐2	☐3	☐4	☐5	1359
c. Payments are not high enough.	☐1	☐2	☐3	☐4	☐5	1360
d. Government standards make practices more expensive than they need to be to get the job done.	☐1	☐2	☐3	☐4	☐5	1361
e. My offer would not have been accepted because my farm is not eligible or my fields would not have ranked high enough.	☐1	☐2	☐3	☐4	☐5	1362
f. The application process is too complicated and time consuming.	☐1	☐2	☐3	☐4	☐5	1363
g. Documenting compliance would be too complicated and time consuming.	☐1	☐2	☐3	☐4	☐5	1364

33. **Has the Natural Resource Conservation Service** (NRCS) **classified any part of this field as "Highly Erodible"?** (Cropland identified as highly erodible is subject to highly erodible land conservation (HELC) requirements. Producers who receive farm program payments are required to have (and apply) a written soil conservation plan.) (A "written plan" is a plan prepared in accordance with Federal, State, or district standards.) . . . . . **YES = 1** ☐ **CODE** 1404

34. **Have you been notified by NRCS that this field contains a wetland?** . . . . . **YES = 1** ☐ 1405

35. What is the slope of this field. . . . . **CODE** ☐

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

36. What is the primary soil type of this field . . . . . **CODE** ☐

1	Loam
2	Clay
3	Sandy
4	Mixed

37. **Did the land use practices for this field include subsurface drainage?** . . . . . **YES = 1** ☐ **CODE**

[if YES, ask –.]

a. **What year was the subsurface drainage installed?** . . . . . **YEAR** ☐

	CUBIC FEET PER SECOND	OR	INCHES OF WATER REMOVED PER DAY
b. **What is the capacity of your system?**	.___ ___		
c. **Does this system include a mechanism for controlled drainage (e.g. stop logs, risers, or float mechanisms)?** . . . . . YES = 1			

38. **Which of the following resource concerns you do have on this field?**

RESOURCE CONCERNS	CODE YES = 1	Have you received technical assistance from any of the following sources to evaluate this resource concern? (Report up to 3 sources that you received assistance from.) 1 USDA-NRCS 2 Cooperative Extension Service 3 Other USDA staff, including Forest Service 4 Other (e.g. Soil and Water Conservation District, state agency)		
		Source 1	Source 2	Source 3
a. Water-driven erosion.				
b. Wind-driven erosion.				
c. Soil compaction.				
d. Poor drainage.				
e. Low organic matter.				
f. Water quality.				
g. Other concerns				
h. No significant concerns.				

39. **Was the cotton in this field covered by Federal Crop Insurance in 2015**?

CODE 1385

☐ **YES** – [*Enter code 1 and continue.*] ☐ **NO** – [Enter code 3 and *Go to item Section C.*]. .

a. Which coverage did you obtain?. . . . . .

1 *Federal CAT* (basic catastrophic insurance)
2 Stacked Income Protection Plan (STAX) only
3 Yield protection
4 Yield plus STAX
5 Yield plus SCO (supplemental coverage option)
6 Revenue protection
7 Revenue plus STAX
8 Revenue plus SCO
9 Other Federal Crop insurance

. . . .

CODE 1386

[*If item 39a = 3, ask*--]

PERCENT

b. What was your yield level of your basic buy-up coverage for this field?. 1387

c. What was your price level of your buy-up coverage for this field?. 1388

[*If item 39a = 6, 7, or 8, ask*--]

PERCENT

d. What was the level of basic revenue coverage you obtained for this field?. 1389

C NUTRIENT or FERTILIZER APPLICATIONS---SELECTED FIELD C

	CODE	EDIT TABLE
1. **Were commercial nutrients or fertilizers applied to this field for the 2015 cotton crop?** (***Include*** *those from operators, landlords, and contractors.)*. . . . . **YES = 1**	0202	0200

[*If COMMERCIAL nutrient or fertilizer applied, continue; else go to item 6.*]

	NUMBER
2. **How many commercial nutrient or fertilizer applications were made to this field for the 2015 crop?** (***Include*** *applications made by airplanes and custom applicators.*).	0203

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

CHECKLIST

√	INCLUDE
☐	Custom applied nutrients and fertilizers
☐	Nutrients or fertilizers applied in the fall of 2014 and those applied earlier if this field was fallow in 2014.
☐	Commercially prepared manure or compost

√	EXCLUDE
☐	Micronutrients
☐	Unprocessed manure
☐	Nutrients or fertilizers applied to previous crops in this field
☐	Lime and Gypsum/landplaster

Office Use Lines in Table	TABLE 001	0299

APPLICATION CODES for COLUMN 6

1 Broadcast, ground without incorporation
2 Broadcast, ground with incorporation
3 Broadcast, by aircraft
4 In seed furrow
5 In irrigation water
6 Chisel/Injected or knifed in
7 Banded in or over row
8 Foliar or directed spray

LINE	2 MATERIALS USED [*Enter percentage analysis or actual pounds of plant nutrients applied per acre.*] [*Show Common Nutrients or Fertilizers in Respondent Booklet.*]				3 What quantity was applied per acre? [*Leave this column blank if actual nutrients were reported.*]	4 [Enter material code.] 1 Pounds 12 Gallons 19 Pounds of actual nutrients	5 When was this applied? 1 In the fall before seeding 2 In the spring before seeding 3 At seeding 4 After seeding	6 How was this applied? [*Refer to code list above.*]	7 How many acres were treated in this application? ACRES
	N Nitrogen	**P_2O_5** Phosphate	**K_2O** Potash	**S** Sulfur					
01	31	32	33	34	36	37	38	39	40 .___
02	31	32	33	34	36	37	38	39	40 .___
03	31	32	33	34	36	37	38	39	40 .___
04	31	32	33	34	36	37	38	39	40 .___
05	31	32	33	34	36	37	38	39	40 .___
06	31	32	33	34	36	37	38	39	40 .___
07	31	32	33	34	36	37	38	39	40 .___
08	31	32	33	34	36	37	38	39	40 .___

TABLE 000	LINE 00

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

☐ **YES** - [*Continue*] ☐ **NO** - [*Go to item 5*]

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

☐ **YES** - [*Continue*] ☐ **NO** - [*Go to item 5*]

OFFICE USE

0215

b. Excluding the cost of the nutrient or fertilizer materials, how much was spent for custom application of nutrients or fertilizers on this field? (***Include*** *operator, landlord, and contractor costs.* ***Include*** *costs for sulfur and micronutrients.* ***Exclude*** *custom application of lime, gypsum, purchased manure and purchased compost.*) *[If material and application costs can't be separated,* ***exclude*** *them here and record the total in item 6.*]. . . . . .

DOLLARS & CENTS PER ACRE	OR	TOTAL DOLLARS
0219 .___ ___		0220

5. **What was the TOTAL COST of all nutrient or fertilizer products applied to this field?** (***Include*** *operator, landlord, and contractor costs, as well as the costs for sulfur and micronutrients.* [*If custom applied and the cost of material can be separated from application costs,* ***include*** *the cost of materials ONLY; otherwise,* ***include*** *both the material and application costs.*] ***Include*** *materials applied to this field if it was fallow in 2014.* ***Exclude*** *lime, gypsum, purchased manure and purchased compost.*). . . . . .

DOLLARS & CENTS PER ACRE	OR	TOTAL DOLLARS
0221 .___ ___		0222

CODE

0218

6. **Was gypsum applied to this field for the 2015 cotton crop?** . . . . . **YES = 1**

7. **Was a soil or plant tissue test performed on this cotton field in 2014 or 2015 for the 2015 crop?**

☐ **YES** [*Continue.*] ☐ **NO** [*Go to item 12.*]

CODE

8. **Was a soil test for phosphorus performed on this cotton field in 2014 or 2015 for the 2015 crop?**. . . . . **YES = 1**

0225

[*If Item 8 = 1, ask*---]

POUNDS PER ACRE

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

0226

CODE

9. **Was a soil test for nitrogen performed on this cotton field in 2014 or 2015 for the 2015 crop?**. . . . . **YES = 1**

0227

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

POUNDS PER ACRE

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

0228

CODE

10. Was a soil test for Soil Organic Matter performed on this cotton field at some point in the last 10 years? **YES = 1**

[Item 10 = 1, *ask*---]

PERCENT

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

NUMBER

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

[If answer to 10b is more than 1 ask]

CODE

c. Based on these tests, is your Soil Organic Matter content:

1 Increasing
2 Decreasing
3 Staying roughly the same

CODE

11. **Was a plant tissue test or leaf analysis for nutrient deficiency performed on this field in 2014 or 2015 for the 2015 crop?** **YES = 1** 0229

	DOLLARS & CENTS PER ACRE	OR	TOTAL DOLLARS
12. **How much was spent for these soil and plant tissue tests on this field?** (***Include*** *operator, landlord, and contractor costs.*)	0230 .___ ___		0231

a. If tests were done at no cost, explain---

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

CODE 0232

b. Did you receive a payment from the Conservation Stewardship Program for performing a stalk or leaf tissue test for Nitrogen application? **YES = 1**

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

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

CODE

a. Results of a soil or plant tissue test? . . . . . **YES = 1** 0233
b. Crop consultant recommendation? . . . . . **YES = 1** 0234
c. Fertilizer dealer recommendation? . . . . . **YES = 1** 0235
d. Extension Service recommendation? . . . . . **YES = 1** 0236
e. Cost of nitrogen and/or expected commodity price? . . . . . **YES = 1** 0237
f. Contractor recommendation? . . . . . **YES = 1** 0238
g. Routine practice (*operator's own determination based on past experience, yield goal, etc.*)? . . . . . **YES = 1** 0239

CODE

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

[*If no lime applied, go to item 15; else continue.*]

YEARS

a. On average, how many years are there between applications of **lime** to this field? 0243

TONS PER ACRE

b. How many tons of **lime** were applied per acre the last time it was applied to this field? . . . . . 0244 .___

CODE

c. Was lime applied to this field in 2014 or 2015 for the 2015 crop? . . . . . **YES = 1** 0240

d. [*If field is rented* (Section B, item 2 = 2, 3, 4, or 5), *ask*---]

PERCENT

Considering the last time it was applied, what percent of the total cost of lime and its application was paid by the landlord(s)? 0245

15 **Was non-commercial manure** (*from own farm, from a neighbor's farm, etc.*) **or other organic material** (*excluding compost*) **applied to this field for the 2015 cotton crop?** (***Exclude*** *commercially prepared manure*.)

CODE 0246

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

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

b. What was the amount of manure applied to this field?. . . . . 1 Tons 2 Gallons 3 Bushels . . . CODE 0248 AND UNITS PER ACRE 0249 .___ ___ OR TOTAL UNITS 0250 .___

c. What is the distance between the manure storage/production location and this field?. . . . . MILES 0251 .___

d. What was the capacity of the manure spreader (*or other vehicle*) used to haul manure to this field?. . . . 1 Tons 2 Gallons 3 Bushels . . . . CODE 0252 AND TOTAL UNITS 0253 .___ ___

e. Of the total manure applied to this field for the 2015 crop, what was the percent of manure applied---

PERCENT

(i) in the fall before planting?. . . . . + 0254

(ii) in the spring before planting?. . . . . + 0255

(iii) after planting?. . . . . + 0256

100%

f. Was the manure---

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

. . . . . CODE 0257

g. Was the manure---

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

. . . . . CODE 0258

h. Was the major source of the manure from---

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

. . . . . CODE 0259

i. Was the manure---

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

. . . . . CODE 0260

(i) [*If item 15i = 2, ask*---]

What was the total cost of the purchased manure applied to this field? (***Include*** *operator, landlord, and contractor costs.* ***Include*** *any payment made for transportation costs.*) . . . . . DOLLARS & CENTS PER ACRE 0284 .___ ___ OR TOTAL DOLLARS 0285

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

(a) [*If YES, ask*---]

What was the total cost paid to have manure custom applied to this field? [*Do not report custom application cost if it was included with the purchased manure cost.*]. . . . . DOLLARS & CENTS PER ACRE 0287 .___ ___ OR TOTAL DOLLARS 0288

j. Was any manure that was applied to this field tested for nutrient content prior to application?. . . . . YES = 1 CODE 0261

k. Was the application rate of commercial nitrogen fertilizer on this field reduced due to manure application?. . . . . YES = 1 0262

(i) [*If YES, ask*---]

By what percent did you reduce the commercial nitrogen fertilizer application rate on this field?. . . . . PERCENT 0263

l. Did you adjust the cotton harvest date for this field due to the application of manure?. . . . . YES = 1 CODE 0280

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

a. [*If item 15 is YES, ask*---]

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

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

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

17 **Was compost applied to this field for the 2015 cotton crop?**

☐ **YES** - [*Enter code 1 and continue*] ☐ **NO** - [*Go to item* 18]. . . . . CODE 0267

a. How many acres in this field was the compost applied?. . . . . ACRES 0268 .___

b. What was the amount of compost applied to this field?. . . . . 1 Tons 2 Cubic Yards . . . CODE 0269 AND UNITS PER ACRE 0270 .___ ___ OR TOTAL UNITS 0271 .___

[Enter up to 3 source codes]

c. Were the major sources of the compost from---

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

FIRST 0281
SECOND 0282
THIRD 0283

d. Was the compost---

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

CODE 0272

(i) [*If item 17d = 2, ask*---]

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

DOLLARS & CENTS PER ACRE 0273 .___ ___ OR TOTAL DOLLARS 0274

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

CODE 0275

(a) [*If YES, ask*---]

What was the total cost paid to have compost custom applied to this field? (***Include** operator, landlord, and contractor costs.*) [*Do not report custom application cost if it was included with the compost cost.*]. . . . . .

DOLLARS & CENTS PER ACRE 0276 .___ ___ OR TOTAL DOLLARS 0277

(iii) [*If item 17d = 1, ask*---]

What is the distance between the compost storage/production location and this field?. . . . . .

MILES 0291 .___

19 **Compared to the last time you planted cotton, did you make any of the following changes to your cropping practices with the intent of reducing commercial fertilizer use?**

CODE

a. Change the type of commercial fertilizer products applied on this field [e.g. less anhydrous ammonia and more urea]. . . . . YES=1 1226

b. Manage fertilizer use more closely, with such practices as soil testing, split applications, variable rate applications, or soil incorporation on this field?. . . . . YES=1 1228

c. Change your crop rotation [e.g. plant cotton on this field rather than usual crop rotation]?. YES=1 1227

d. Reduce the application of commercial nitrogen fertilizer?. . . . . YES=1 1224

(i) [*If YES, ask*--]

By what percent did you reduce the amount of commercial nitrogen fertilizer applied for 2015?. . . . . .

PERCENT 1225

D BIOCONTROL or PESTICIDE APPLICATIONS---SELECTED FIELD D

Now I have some questions about all the biocontrols or pesticides used on this field for the 2015 cotton crop, including both custom applications and applications made by this operation.

	CODE	EDIT TABLE
1. **Were any herbicides, insecticides, fungicides or other biocontrols or pesticides used on this cotton field for the 2015 crop?** . . . . . YES = 1	0302	0300

[*Probe for applications made in the fall of 2014 (and those made earlier if this field was fallow*).]

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

Include defoliants, fungicides, herbicides, insecticides, and other pesticides.

Include biological and botanical pesticides.

Exclude nutrients or fertilizers reported earlier and seed treatments.

OFFICE USE LINES IN TABLE	TABLE 001	0399

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

2. [*For biocontrols or pesticides not listed in Respondent Booklet, specify---*]

LINE	Pesticide Type (*Herbicide, Insecticide Fungicide, etc.*)	EPA No. or Trade name and Formulation	Form Purchased (*Liquid or Dry*)	Where Purchased [*Ask ONLY if EPA No. cannot be reported.*]

APPLICATIONS CODES for column 9

1 Broadcast, ground without incorporation	6 Chisel/Injected or knifed in
2 Broadcast, ground with incorporation	7 Banded in or over row
3 Broadcast, by aircraft	8 Foliar or directed spray
4 In seed furrow	9 Spot treatments
5 In irrigation water	

[**ENUMERATOR NOTE**:
Use these columns only if
TOTAL COST
(*item 4 on next page*)
cannot be provided.]

LINE	9 **How was this product applied?** [*Enter code from above.*]	10 **How many acres in this field were treated with this product?** **ACRES**	11 **How many times was it applied?** **NUMBER**	12 **Were these applications made by---** 1 Operator, partner or family member? 2 Custom applicator? 3 Employee/Other?	**OPTIONAL ITEM 4** **What was the cost per unit of the product?** **DOLLARS & CENTS PER UNIT**	**UNIT CODE** 1 Pounds 15 Liquid Ounces 12 Gallons 28 Dry Ounces 13 Quarts 30 Grams 14 Pints
01	76	77 .___	79	80	81 .___ ___	82
02	76	77 .___	79	80	81 .___ ___	82
03	76	77 .___	79	80	81 .___ ___	82
04	76	77 .___	79	80	81 .___ ___	82
05	76	77 .___	79	80	81 .___ ___	82
06	76	77 .___	79	80	81 .___ ___	82
07	76	77 .___	79	80	81 .___ ___	82
08	76	77 .___	79	80	81 .___ ___	82
09	76	77 .___	79	80	81 .___ ___	82
10	76	77 .___	79	80	81 .___ ___	82
11	76	77 .___	79	80	81 .___ ___	82
12	76	77 .___	79	80	81 .___ ___	82
13	76	77 .___	79	80	81 .___ ___	82
14	76	77 .___	79	80	81 .___ ___	82

3. **Were any chemicals, biocontrols, or pesticides applied by custom applicators?**

☐ **YES** – [*Continue*] ☐ **NO** – [*Go to item 4*]

OFFICE USE

a. Are you able to report the cost of chemical, biocontrol, and pesticide products and custom application separately? 0324

☐ **YES** – [*Continue*] ☐ **NO** – [*Go to item 4*]

	DOLLARS & CENTS PER ACRE	OR	TOTAL DOLLARS
b. Excluding the cost of the chemical, biocontrol, and pesticide products, how much was spent for custom application of such materials on this field? (***Include*** *operator, landlord, and contractor costs.*)	0331 .___ ___		0332

4. **What was the TOTAL COST of all chemical, biocontrol, or pesticide products applied to this field?** (***Include*** *operator, landlord, and contractor costs, defoliants, herbicides, insecticides, fungicides, surfactants, wetting agents, growth regulators, and materials applied before planting and during 2015 fallow period.* ***Exclude*** *seed treatments.*)

	DOLLARS & CENTS PER ACRE	OR	TOTAL DOLLARS
	0334 .___ ___		0335
a. How much was spent for **herbicide** products applied to this field? (***Include*** *operator, landlord, and contractor costs.*)	.___ ___		
b. How much was spent for **insecticide** products applied to this field? (***Include*** *operator, landlord, and contractor costs.*)	.___ ___		

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

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

6. **Was the cotton that was grown in this field in 2015 covered by the boll weevil eradication program** (BWEP)**?** . . . . . **YES = 1** 0325

[*If YES, ask*---]

a. What phase has the eradication program reached in this field--- 1 Active eradication phase? 2 Post-eradication phase? . . . 0336

	DOLLARS & CENTS PER ACRE	OR	DOLLARS & CENTS PER BALE
b. For 2015, what was your assessment on this field to participate in the BWEP? (***Include*** *operator, landlord and contractor charges for 2015.*)	0337 .___ ___		0338 .___ ___

CODE

c. How did the level of secondary cotton pests in 2015 compare with the level prior to participating in the BWEP? (*e.g. beet armyworm; budworms; plant bugs; or aphids*)---- 1 Increased? 2 Decreased? 3 No Change? . . . 0339

ASK FOR CALIFORNIA and TEXAS ONLY

CODE

7. **Was the cotton in this field covered by an area-wide pink bollworm eradication or suppression program** (PBWP)**?** . . . . . **YES = 1** 0341

[*If YES, ask*---]

	DOLLARS & CENTS PER ACRE	OR	DOLLARS & CENTS PER BALE
a. For the current crop year, what was the costs on this field to participate in the PBEP? (***Include*** *operator, landlord, and contractor costs per acre and/or per bale charges for this year's cotton. If you receive a credit on your PBWP assessment for planting Bt cotton to control pink bollworm, report only the amount of the assessment you, your landlord, or your contractor paid.)*	0342 .___ ___		0343 .___ ___

E PEST MANAGEMENT PRACTICES---SELECTED FIELD E

Now I have some questions about your pest management decisions and practices used on this field for the 2015 cotton crop. By pests, we mean WEEDS, INSECTS, and DISEASES.

ENUMERATOR ACTION: *Were PESTICIDE applications reported in Section D?*]

☐ **YES** – [*Continue*] ☐ **NO** – [*Go to item 6*]

		CODE
1. **Was weather data used to assist in determining either the need or when to make pesticide applications?** . . . . . **YES = 1**		0800
2. **Were any biological pesticides such as Bt** (*Bacillus thuringiensis*)**, insect growth regulators, neem or other natural/biological based products sprayed or applied to manage pests in this field?** . . . . . **YES = 1**		0801
3. **Were pesticides with different mechanisms of action rotated or tank mixed for the primary purpose of keeping pests from becoming resistant to pesticides?** . . . . . **YES = 1**		0802

[**ENUMERATOR ACTION***: Were HERBICIDE* (pesticide product codes 40000-49999) *applications reported in Section D, item 1, column 2?*]

☐ **YES** – [*Continue*] ☐ **NO** – [*Go to item 6*

		CODE
4. **Were herbicides applied to this cotton field BEFORE weeds emerged?** . . . . . **YES = 1**		0803
5. **Were herbicides applied to this cotton field AFTER weeds emerged?** . . . . . **YES = 1**		0805
6. **In 2015, how was this field primarily scouted for insects, weeds, diseases, and/or beneficial organisms?**	1 By deliberately going to the field specifically for scouting activities [*Enter code 1 and go to item 7.*] 2 By conducting general observations while performing routine tasks [*Enter code 2 and go to item 9.*] 3 This field was not scouted. [*Enter code 3 and go to item 14.*]	0808
7. **Was an established scouting process** (*systematic sampling, recording counts, etc.*) **used or were insect traps used in this field?** [**Exclude** *traps checked as part of either BWEP or PBWP.*] . . . . . **YES = 1**		0809
a. Did you measure the damage by of budworm or bollworm infestations on this field? . . . . . **YES = 1**		
[*If item 7a = 1, ask--*](i) If traps were used, what was the average insect count per acre? . . . . . **☐ N/A**		COUNT
(ii) If boll damage scores were recorded (0 to 4), what was the average boll damage score per acre? . . .	1 Damage in 1 locule 2 Damage in 2 locules 3 Damage in 3 locules 4 Damage in all locules 5 Not applicable	CODE

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

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

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

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

[*If scouted by crop consultant or commercial scout, ask item 10; else go to item 11.*]

10. **How much was charged for the scouting services for this field?** [***Include*** *operator, landlord and contractor cost.*]. . . . . **DOLLARS & CENTS PER ACRE** 0821 .___ ___ **OR** **TOTAL DOLLARS** 0822

OFFICE USE

a. *If scouting performed at no cost, explain*:_____ 0333

CODE

11. **Were written or electronic records kept for this field to track the activity or numbers of weeds, insects or diseases?**. . . . . **YES = 1** 0823

12. **Were scouting data compared to published information on infestation thresholds to determine when to take measures to manage pests in this field?**. . . . . **YES = 1** 0824

13. **Did you use field mapping of previous weed problems to assist you in making weed management decisions?**. . . . . **YES = 1** 0825

14. **Did you do any of the following other type(s) of pest management practices for the specific purpose of managing or reducing the spread of pests in this field?**
[*Enter code "1" for all that apply*.]

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

15. **Were any beneficial organisms** (insects, nematodes, fungi) **applied or released in this field to manage pests?** . . . YES = 1 — 0853

16. **Were floral lures, attractants, repellants, pheromone traps or other biological pest controls used on this field?** . . . YES = 1 — 0858

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

What were the TOTAL materials and application costs for all biological pest controls for this field?
Include *operator, landlord, and contractor costs.* ***Include*** *cost for beneficial organisms (insects, nematodes, and fungi).*
Exclude *biological pesticides previously reported.*. . . .

DOLLARS & CENTS PER ACRE	OR	TOTAL DOLLARS
0859 .___ ___		0860

CODE

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

18. **Was this field left in fallow in 2014 to help manage insects on this field?** . . . YES = 1 — 0864

19. **Were water management practices such as irrigation scheduling, controlled drainage, or treatment of retention water used on this field to manage pests or toxin-producing fungi and bacteria?** . . . . . **YES = 1** | 0861 |

20. **Did you cultivate this field for weed control?** . . . . . **YES = 1** |

a. [*If yes, ask*---]

How many times? . . . . . | **NUMBER** |

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

If yes, ask--]

a. How much yield loss do you think was caused by all pests on this field in spite of the management practices you used to reduce those losses? . . . . . | 1 BUSHELS
2 TONS | **CODE** | **UNITS PER ACRE** | **AND** | **TOTAL UNITS** | **OR** |

22. **If you used Bt seeds on this field in 2015, indicate the number of consecutive years you have planted Bt seeds.** [***Note:*** *A producer who used Bt cotton in 2016 and 2015, but conventional cotton in 2014, has used Bt cotton for "2" consecutive years.*] . . . . . | **NUMBER OF YEARS** |

(i) [*If 22a is greater than 1, ask*--] If you have ever switched from a Bt seed with a single mode of action to a Bt seed with multiple (pyramided) modes of action, indicate the year that this change was made. . . . . | ☐ **N/A** | **YEAR** ___ ___ ___ ___ |

23. **Have you ever planted any glyphosate-resistant (GR) crop (e.g. Roundup Ready corn or soybeans) on this field?** . . . . . **YES = 1** |

[*If item 23 = YES, continue. If item 23 = NO, go to item 26.*]

a. What year did you first plant any GR crop on this field? . . . . . | **YEAR** ___ ___ ___ ___ |

24. **Have you noticed a decline in the effectiveness of glyphosate** (e.g. Roundup) **in controlling weeds in this field?** . . . . . **YES = 1** | **CODE** |

[*If item 23 = YES, continue. If item 23 = NO, go to item 26.*]

a. What was the first year you noticed a decline in effectiveness of glyphosate in controlling weeds on this field? . . . . . | **YEAR** |

25. **After noticing the decline in the effectiveness of glyphosate in controlling weeds on this field, did you--** | **CODE** |

a. stop planting GR crops? . . . . . **YES = 1** |

b. change tillage practices? . . . . . **YES = 1** |

26. **After noticing the decline in the effectiveness of glyphosate in controlling weeds on this field, how did you change your use of--**

	Increase use YES = 1	Decrease use YES = 1	Discontinue use YES = 1	Did not change use YES = 1	Did not use the chemical at all YES = 1
a. glyphosate..					
b. fluometuron..					
c. acetochlor/S-metolachlor..					
d. paraquat..					
e. 2, 4-D..					
f. diuron..					
g. herbicides other than those asked above.					

[*If item 23 = YES, ask; otherwise go to Section F*]

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

1 RESISTANCE MANAGEMENT PRACTICE	2 YES = 1	3 How often did you use this practice on this field? 1 Every Year 2 Every Other Year 3 Multiple Years 4 One Year CODE	4 Did the cost of managing weeds on this field increase as a result of your use of the practice? 1 Yes 2 No 3 Don't Know CODE
a. Control weeds early	0886	0871	0878
b. Control weed escapes	0887	0872	0879
c. Clean equipment between moving from one field to the next	0888	0873	0880
d. Use herbicides other than glyphosate	0889	0874	0881
e. Use tillage	0890	0875	0882
f. Use the herbicide label recommended application rate	0891	0876	0883
g. Rotate crops	0892	0877	0884

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

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

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

. . . . . **CODE**

Completion Code for Pest Management Data	
1 Incomplete/Refusal	0500

1. **Including custom operations, I need to list field work performed by machines on this field for the 2015 cotton crop. Please…**

   ► begin with the first field operation after harvest of previous crop, including operations for a cover crop established since the previous crop harvested [*if fallow during* 2014*, list operations starting with fall 2013*];

   ► 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
- ☐ Module Building
- ☐ Hauling from field to gin

Exclude

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

LINE No.	2 SEQUENCE No.	3 What operation or equipment was used?	4 [*Record machine code from Respondent Booklet.*] CODE	5 Who was the machine operator- [*Enter code from above.*] CODE	[IF CUSTOM (*column 5 = code 6*), *skip columns 6-11*] 6 What was the size or swath of the [*machine*] used?	7 [*Record size unit code.*] 1 Feet 2 Row 3 Moldboard (*bottoms*) **Hauling** 4 Pounds 5 Bushels 6 Tons 7 Bales CODE	8 OR 9 How many acres were covered? [*Exclude land forming and hauling operations*] ACRES	How many TOTAL HOURS were spent on land forming, module building, or hauling? [*Example: backhoes, disk border maker, ditcher, rear mounted blade, trucks, wagons, forklifts, etc.*] HOURS	10 Which Power Source was used? 1/ **Tractors:** 1= (<40 HP) 2= (40-99 HP) 3= (100-149 HP) 4= (150-199 HP) 5= (>=200 HP) **Other:** 66=Animal Drawn 77=Pick up 99=Self Propelled **1/** CODE	11 What was the fuel type of the tractor? [*Record fuel type only if Power code equals 1-5*] 1=diesel 2=gasoline 3=LP gas 4=other CODE
01	87		88	89	90	91	92 .___	93	94	95
02	87		88	89	90	91	92 .___	93	94	95
03	87		88	89	90	91	92 .___	93	94	95
04	87		88	89	90	91	92 .___	93	94	95
05	87		88	89	90	91	92 .___	93	94	95
06	87		88	89	90	91	92 .___	93	94	95
07	87		88	89	90	91	92 .___	93	94	95
08	87		88	89	90	91	92 .___	93	94	95
09	87		88	89	90	91	92 .___	93	94	95
10	87		88	89	90	91	92 .___	93	94	95
11	87		88	89	90	91	92 .___	93	94	95
12	87		88	89	90	91	92 .___	93	94	95
13	87		88	89	90	91	92 .___	93	94	95
14	87		88	89	90	91	92 .___	93	94	95
15	87		88	89	90	91	92 .___	93	94	95
16	87		88	89	90	91	92 .___	93	94	95
17	87		88	89	90	91	92 .___	93	94	95
18	87		88	89	90	91	92 .___	93	94	95

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

OFFICE USE

0400

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

Please report the paid and unpaid labor that worked on this field to produce the 2015 cotton crop. (***Exclude*** *labor that was reported for field work performed by machines.*)

	1 **How many hours did** (*type of worker*) **spend on this field---**		
TYPE OF WORKERS	a. scouting for weeds, insects and diseases? **HOURS**	b. irrigating? **HOURS**	c. 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

3. **What was the average hourly wage rate paid to part-time or seasonal hired workers?** (***Exclude*** *custom and contract workers, payroll taxes and benefits.*). . . . . **DOLLARS & CENTS PER HOUR** 1119 .___ ___

4. **What was the average hourly wage rate paid to full-time hired workers?** (***Exclude*** *custom and contract workers, payroll taxes and benefits.*). . . . . **DOLLARS & CENTS PER HOUR** 1118 .___ ___

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

a. [*If YES, ask* ---]

What was the average cost per acre for this contract labor? (***Include*** *operator, landlord, and contractor costs.*). . . . . **DOLLARS & CENTS PER ACRE** 1117 .___ ___

6. **What percent of the total number of unpaid hours worked on this field was performed by workers under 16 years of age?** (*Estimates of labor costs for unpaid workers are based on off-farm wage rates, which are different for workers under 16 relative to those 16 and older.*) . . . . . **PERCENT** 1120

7. **Now I need some information on how much was spent (or will be spent) for custom services used on this field for the 2015 cotton crop.**

✓	1 **CUSTOM SERVICE** **Which of the following services were performed for the 2015 cotton crop on this field?** ← [*Check box for each service performed; refer to item 1 if necessary.*]	2 **Including operator, landlord, and contractor costs, how much was spent for** [*column 1*] **on this field for the 2015 cotton crop?** **DOLLARS & CENTS PER ACRE**
☐	a. Custom land preparation and/or shaping . . . . . . __ __.__ __ x _____ =_____÷ _____ = __ __.__ __ (Cost per hour X Total hours = Total dollars ÷ Total acres in the field = Dollars & cents per acre)	1122 .___ ___
☐	b. custom cultivating?.	.___ ___
☐	c. Custom planting and/or reseeding	1123 .___ ___
☐	d. Custom harvesting	1124 .___ ___
☐	e. Custom module building? __ __.__ __ x _____ ÷ _____ = __ __.__ __ Dollars & cents per unit x Total units hauled from field ÷ Acres harvested in field = Dollars & cents per acre . .	1126 .___ ___
☐	f. Custom hauling from field to gin? __ __.__ __ x _____ ÷ _____ = __ __.__ __ (Dollars & cents per unit x Total units hauled from field ÷ Acres harvested in field = Dollars & cents per acre) . .	1127 .___ ___
☐	*[If custom harvesting, module building, and hauling from field to gin cannot be separated, ask--]* g. Custom harvesting, module building, and hauling from field to gin. __ __.__ __ x _____ ÷ _____ = __ __.__ __ Dollars & cents per unit x Total units hauled from field ÷ Acres harvested in field = Dollars & cents per acre	1128 .___ ___

[Note: Do not report cotton ginning costs. If harvesting, module building, and/or hauling costs cannot be separated from ginning costs, report the nonresponse code (-1) for those costs that cannot be separated.]

8 **Did you hire any technical or consultant services to make recommendations** (*such as for nutrient, pest control, irrigation, or precision farming*) **for this field?**

☐ **YES** – [*Continue*] ☐ **NO** – [*Go to item 11*]

Which of the following services did you obtain?

		CODE
a.	Nutrient recommendations/management service?. . . . . **YES = 1**	1129
b.	Soil or tissue sample collection?. . . . . **YES = 1**	1130
c.	Pest control recommendations/management service?. . . . . **YES = 1**	1131
d.	Pest scouting? (***Exclude*** *any activity for the BWEP or PBWP*) . . . . . **YES = 1**	1132
e.	Irrigation management service (*i.e. irrigation scheduling*)?. . . . . **YES = 1**	1133
f.	Yield map or remote sensing map development/interpretation?. . . . . **YES = 1**	1134
g.	Other custom or technical service? [*Specify:* _____] . . . . **YES = 1**	1135

9 **If YES to any of these services, what was the cost for all of these services?** (***Include*** *operator, landlord, and contractor costs.* ***Exclude*** *cost of soil/tissue tests or scouting cost reported earlier. Do not report costs for any of these services if they were previously reported as part of the costs of materials and/or application.*). . . . . .

DOLLARS & CENTS PER ACRE	OR	TOTAL DOLLARS
1136 .___ ___		1137

10 **Were there** (*or will there be*) **any data collection tools (*yield monitors, GPS mapping, etc)* used during field operations on this cotton field?**. . . . . YES = 1

CODE

[*If YES, continue; else go to item _____*]

Please report the data collection technologies you used on this field to produce this crop. Also indicate if the data is collected with Global Positioning System (GPS) coordinates and if the data will be used to create a map.

Data Collection Tool	1 Tool Used YES = 1	2 Collected with GPS YES = 1	3 Data was/will be mapped to create a map YES = 1
a. Yield monitor.			
b. Soil tests on core samples (performed on-farm or sent out to a laboratory)			
c. Soil sensor tests			
d. Hard-wired crop condition sensors.			
e. Wireless crop condition sensors.			
f. Drones, aircraft or satellites.			
g. Custom service applications (data from completed work on your field)			
h. Public data downloaded from the online sources.			

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

CODE

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

1. Paper hard copy. . . . . YES = 1
2. Personal computer. . . . . YES = 1
3. c. Mobile device. . . . . YES = 1

b. Did you access the data collected from this field through an agricultural technology provider website?. . . . . YES = 1

[If item 11b = 1 continue, otherwise go to Item 12]

c.	Did you opt-out of your agricultural technology provider website sharing data collected from this field with any third party?	YES = 1
d.	Did you share any of the data collected from this field with a third party through an agricultural technology provider website?	YES = 1

12. **Did you obtain crop management recommendations *(data interpretation)* based on that data you collected from** [*Enter code "1" for all that apply*.]

			CODE
a.	Input dealers?	YES = 1	
b.	Integrated input providers?	YES = 1	
c.	Custom Service providers?	YES = 1	
d.	USDA/University extension services?	YES = 1	

14. **Did you use the yield monitor information to---** [*Enter code "1" for all that apply*.]

			CODE
a.	monitor crop moisture content to determine need for crop drying?	YES = 1	1140
b.	add/improve tile drainage?	YES = 1	1141
c.	negotiate new crop leases?	YES = 1	1144
d.	other uses [*specify:*] _____	YES = 1	1147

15. **Was any of the following GPS-enabled (Global Positioning System) equipment used to produce crops on this field?** [*Enter code "1" for all that apply*.]

			CODE
a.	Guidance auto-steering (excluding Light Bar)?	YES = 1	
b.	Light Bar?	YES = 1	
c.	Variable rate application for seeding?	YES = 1	
d.	Variable rate application for fertilizer/lime?	YES = 1	
e.	Variable rate application for pesticide applications?	YES = 1	
f.	"Smart" technologies like Google Glass or other head-up cab control displays?	YES = 1	
g.	Other GPS-enabled equipment.	YES = 1	

G IRRIGATION G

1. **How many acres in this field were irrigated for the 2015 cotton crop?**
[*If none, go to* ***Conclusion***]. . . . . ACRES 1160 .___

2. **Now, I have some questions about irrigation systems and water used on this field for the 2015 cotton crop.**

	UNIT	SYSTEM 1	SYSTEM 2
a. What type(s) of irrigation system(s) was (*or were*) used to irrigate this field? [*Show* ***System Type Codes*** *in the Respondent Booklet. Enter* ***System Type Code*** *for up to two systems covering the most field acres*.].	SYSTEM TYPE CODE	1161	1175
b. What was the total quantity of water applied to this field during the entire growing season? (***Include*** *ALL water used from both on-farm and off-farm sources*.).	INCHES PER ACRE OR TOTAL ACRE-FEET	1162 1163	1176 1177
[*If operator cannot provide item 2b, ask (i) & (ii), else go to 2c*]			
(i) What is the **total** number of **hours** this system was used to apply water to this field during the cotton growing season?.	TOTAL HOURS	1164	1178
(ii) How many gallons per minute were applied?.	GALLONS PER MINUTE	1165	1179
c. What percent of the water used to irrigate this field through this system came from surface water sources?.	PERCENT	1166	1180
d. What was the number of times this field was irrigated during the cotton growing season using this system? (***Include*** *any pre-plant irrigation*.).	NUMBER OF IRRIGATIONS	1167	1181
e. Was the pump type--- [*If more than one pump in the system, enter type for pump closest to water source*.] 1 **TURBINE?** 2 **SUBMERSIBLE?** 3 **CENTRIFUGAL?** 4 **BOOSTER?** 5 **SIPHON?** 99 **NO PUMP?** [*If code 99, go to item j*.]	CODE	1168	1182
f. What was the average pumping rate?.	GALLONS PER MINUTE	1169	1183
g. [*If item 2a = code 1-9* (PRESSURE SYSTEM)*, ask*---] What was the system operating pressure?.	POUNDS PER SQUARE INCH	1170	1184
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	1185
i. What was the average motor size?.	HORSEPOWER	1172	1186
j. [*If NO PUMP was used* (item 2e = 99)*, ask*---] What was the average flow rate?.	GALLONS PER MINUTE	1173	1187
k. How many other acres on this operation were irrigated using this field's irrigation system during the 2015 growing season? (***Exclude*** *this field*.).	ACRES	1174 .___	1188 .___

3. **What was the cost of the fuel or electricity used to irrigate this field?**
(***Include*** *operator, landlord, and contractor costs*.). . . . . DOLLARS & CENTS PER ACRE 1189 .___ ___ OR TOTAL DOLLARS 1190

CODE

4. **Was any water purchased to irrigate this field?** (***Include*** *operator, landlord, and contractor's share and purchases from all sources.*)
☐ **YES** – [*Enter code 1 and continue.*] ☐ **NO** – [*Go to item 5.*]. 1191

DOLLARS & CENTS PER ACRE OR TOTAL DOLLARS

a. What was the total cost for the water purchased for this field during the 2015 growing season? (***Include*** *operator, landlord, and contractor costs and ditch maintenance costs for this field.*). . . . . 1193 .___ ___ OR 1194

TOTAL DOLLARS

5. [*If SIPHON TUBES were used* (item 2a = 10 or 11), *ask*---]
What would be the total cost to replace all the siphon tubes used on this field?. 1201

TOTAL DOLLARS

6. [*If POLY PIPE system was used* (item 2a = 14) *ask*---]
What was the total amount spent for poly pipe used on this field during the 2015 growing season? (***Include*** *operator, landlord, and contractor costs.*). 1202

INCHES

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

a. What was the average diameter of gated pipe used to irrigate this field?. 1203

FEET

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

CODE

8. **Were wells used to supply irrigation water for this field?**
☐ **YES** – [*Enter code 1 and continue*] ☐ **NO** – [*Go to item 9*]. 1205

NUMBER

a. How many wells were used to irrigate this field?. 1206

INCHES

b. What was the average diameter of the outer well casing?. 1207

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.*]. 1208

CODE

d. Were other fields irrigated using water pumped from wells that supplied water to the selected field?
☐ **YES** – [*Enter code 1 and continue*] ☐ **NO** – [*Go to item 9*]. 1210

ACRES

e. Excluding this field, how many other acres on this operation were irrigated using the same wells during the 2015 growing season?. . . . . 1211 .___

9. **Was any additional mainline or lateral pipe used to carry water from the source to the system in this field?** (***Include*** *underground pipe.* ***Exclude*** *any system pipe within the selected field.*)
☐ **YES** – [*Continue*] ☐ **NO** – [*Go to item 10*]

INCHES

a. What was the average diameter (*in inches*) of the most common type of this additional pipe used?. 1212

FEET

b. How many feet of this additional pipe were used to bring water to this field?. 1213

H CONCLUSION H

LOCATION OF SELECTED FIELD

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

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

FOR STATES WITH GPS UNITS ONLY

		LATITUDE		LONGITUDE
Field location	**N**	0054 __ __ . __ __ . __ __ (d d m m s s)	**W**	0055 __ __ __ . __ __ . __ __ (d d d m m s s)

3. [**ENUMERATOR ACTION:** *Mark map to indicate where the selected cotton field is located. Be sure the "X" marked on map is in the county identified above.*]

4. **We will need additional information to complete this study. We will contact you in February or March 2016 to collect it. I'll call you then to set up a time that is good for you.**

	CODE
5. **To receive the complete results of this survey on the release date, go to www.nass.usda.gov/results/. Would you rather have a brief summary mailed to you at a later date?** . . . . . **YES = 1**	9990
	HH MM
6. **ENDING TIME** [*MILITARY*]	0005 __ __ __ __

RECORDS USE

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

	CODE
a. [***fertilizer*** *data*?] . . . . . **YES = 1**	0011
b. [***pesticide*** *data?*] . . . . . **YES = 1**	0012
c. [*majority of this* ***expense*** *data*?] . . . . . **YES = 1**	0013

SUPPLEMENTS USED

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

	NUMBER
FERTILIZER APPLICATIONS	0041
PESTICIDE APPLICATIONS	0042
FIELD OPERATIONS	0043

Reported by:_____	9910 __ __ __ __ **15** (M M D D)	9911 Telephone: (_____)_____

R. Unit	SSO 1	Optional Use		Eval.	Change
9921	9907	9906	9916	9900	9985

Response		Respondent		Mode		Enum.
1-Comp 2-R 3-Inac 4-Office Hold	9901	1-Op/Mgr 2-Sp 3-Acct/Bkpr 4-Partner 9-Other	9902	2-Tel 3-Face-to-Face	9903	9998