Appendix IV—Pest Management Questions from the 1996 ARMS Survey - Corn

Section D - Field Characteristics

9. Was one of these pest resistant varieties of seed used in this field--
[*Show respondent Seed Variety Code List in Respondent Booklet. Choose one and enter code.*]

		CODE
1	**an herbicide resistant hybrid or variety** (*such as Pioneer 3162R, Beck's 6868IRT*)**?**	
2	**a Bt variety for insect resistance,** (*such as Nature Guard or Maximizer with Knockout*)**?**	
3	**a gray leaf spot resistant variety?**	
5	**none of these?**	

Section F - Pesticide Applications

1. Were any herbicides, insecticides, fungicides or other chemicals used on this field for the 1996 corn crop?

☐ **YES** - [*Continue.*] ☐ **NO** - [*Go to Section G.*] . . . . . .

2. What products were applied to this field?

3. Was this product bought in liquid or dry form?

4. Was this part of a tank mix?

5. When was this applied?

6. How much was applied per acre per application?

OR

7. What was the total amount applied per application in this field?

8. *[Enter unit code.]*

9. How was this product applied?

[*Choose one and enter code.*]

- ☐ 1 **Broadcast, ground without incorporation**
- ☐ 2 **Broadcast, ground with incorporation**
- ☐ 3 **Broadcast, by air**
- ☐ 4 **In Seed Furrow**
- ☐ 5 **In irrigation water**
- ☐ 6 **Chisel/Injection or knifed in**
- ☐ 7 **Banded in or Over Row**
- ☐ 8 **Foliar or Directed spray**
- ☐ 9 **Spot treatments**

CODE ☐

10. How many acres in this field were treated with this product?

11. Were these applications made by--
    1. *Operator, Partner, Family member?*
    2. *Custom applicator?*
    3. *Employee/Other?*

12. What was the PRIMARY target pest for this application?

Section G - Pest Management Practices

1. Now I have some questions about your pest management decisions and practices used on this field for the 1996 corn crop. **By pests, we mean WEEDS, INSECTS and DISEASES.**

2. Let's begin with questions about scouting this field for pests.

1	2 **Was the corn field scouted for--** [*column 1*] YES=1	3 [*For rows with* **YES =1**, *ask--*] **Was most of the scouting for** [*column 1*] **done by--** 1 Operator, Partner or Family member? 2 an Employee? 3 Farm supply or Chemical dealer? 4 Crop consultant or Commercial scout? CODE
a. weeds		
b. insects		
c. diseases		

5. [*Ask only if field was SCOUTED* (*column 2 of item 2 is code 1*); *else go to item 6.*]
Were written or electronic records kept for this field to track the **activity or numbers** of--

a.	broadleaf weeds?	YES = 1	
b.	grass weeds?	YES = 1	
d.	black cutworms?	YES = 1	
e.	corn rootworms?	YES = 1	
f.	European corn borers?	YES = 1	
g.	spider mites?	YES = 1	

6. [*Ask only if HERBICIDES* (*pesticide codes 4000 - 4999*) *were entered in Section* **F**, *item 1 column 2; else go to item 11.*]
Did you apply herbicides to this field BEFORE weeds emerged?

☐ **YES** - [*Enter code 1 and continue.*] ☐ **NO** - [*Go to item 8.*]

CODE

7. Did you decide to use **pre-emergence** herbicides based on--

a. a routine treatment for weed problems experienced in previous years? . . . . . YES = 1 ☐

b. field mapping of previous weed problems? . . . . . YES = 1 ☐

c. a computerized decision model? . . . . . YES = 1 ☐

d. recommendations from an independent crop consultant? . . . . . YES = 1 ☐

8. Did you apply herbicides to this field AFTER weeds emerged?

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

9. Did you decide to use **post-emergence** herbicides based on--

a. a routine treatment? . . . . . YES = 1 ☐

b. type and/or density of weed(s) present? . . . . . YES = 1 ☐

c. a computerized decision model? . . . . . YES = 1 ☐

d. recommendations from an independent crop consultant? . . . . YES = 1 ☐

10. Were any weeds on this field resistant to--

a. Atrazine, Aatrex, Bladex, Extrazine, Princep, Simazine or other **TRIAZINE** family herbicides? . . . . . YES = 1 ☐

b. Account, Beacon, Classic, Pinnacle, Pursuit, Septer or other **ALS** family herbicides? . . . . . YES = 1 ☐

11. Do you routinely use a soil insecticide at planting time to control corn rootworm on this field?

☐ **YES** - [*Enter code 1 and go to item 14.*] ☐ **NO** - [*Continue.*] . . . . ☐

a. Did you scout this field for adult corn rootworm beetles during the 1995 growing season to determine the need for a soil insecticide at planting?

☐ **YES** - [*Enter code 1 and go to item 14.*] ☐ **NO** - [*Continue.*] . . . . . ☐

b. Did you scout for adult corn rootworm beetles during the 1996 growing season to determine the need for a soil insecticide?

☐ **YES** - [*Enter code 1 and continue.*] ☐ **NO** - [*Continue.*] ☐

14.

	1 Did you--	2 → YES=1	3 [*If YES = 1 in column 2, ask--*] **Was your main reason for doing this to control--** **1 WEEDS** **2 INSECTS** **3 BOTH** CODE
a.	control pests on this field by adjusting row spacing or plant density?		
b.	reduce (or control) pests by adjusting planting dates on this field?		
c.	control pest resistance by alternating pesticides on this field from year to year? (*Use pesticides from different families.*)		
d.	keep pests from spreading into this field by using practices such as tilling, mowing, burning, and/or chopping of field edges, lanes or roadways?		
e.	control pests on this field by using water management practices, such as controlled drainage or irrigation scheduling? [***Exclude** chemigation.*]		
f.	reduce the spread of pests to or from this field by cleaning the harvesting and tillage implements?		

16. Did you--

			CODE
a.	have a biological soil analysis done on this field to detect the presence of soil pests, such as insects, diseases or nematodes?	YES = 1	
b.	consider beneficial insects in selecting and using pesticides on this field?	YES = 1	
c.	remove weeds in infested areas in this field to prevent insect egg laying?	YES = 1	
d.	use seed treatments for seedling blight control?	YES = 1	
e.	submit diseased plants from this field to a lab for diagnosis? .	YES = 1	

17. Did you--

a.	purchase and release beneficial insects in this field?	YES = 1	
b.	use pheromone lures in this field to monitor for black cutworm? [***Include** traps and bait sticks.*]	YES = 1	
c.	set and monitor pre-plant grain traps for wireworms?	YES = 1	

19. What was your primary outside source of information on pest management recommendations for the 1996 corn crop?
[*Ask the respondent to look at Pest Management Information Sources Code List in Respondent Booklet. Choose one and enter code.*]

PEST MANAGEMENT INFORMATION SOURCES CODE LIST

☐	1	**Extension Advisor, Publications or Demonstrations** (County, Cooperative or University)
☐	2	**Farm Supply or Chemical Dealer**
☐	3	**Commercial Scouting Service**
☐	4	**Crop Consultant or Pest Control Advisor**
☐	5	**Other Growers or Producers**
☐	6	**Producer Associations, Newsletters or Trade Magazines**
☐	7	**Television or Radio Programs, Newspapers**
☐	8	**Electronic Information Services** (*World Wide Web, DTN, etc.*)
☐	9	**Other**
☐	10	**None**

CODE ..... [ ]

Section G - Pest Management Practices - for soybeans, cotton, fall potatoes, winter wheat, spring wheat, and durum wheat.

12. Did you decide **to apply OR not apply** insecticides to the soybean field based on--

a. scouting data compared to University or Extension guilelines for infestation thresholds? . . . . . **YES = 1** [ ]

b. standard practices or history of insect problems? . . . . . **YES = 1** [ ]

c. local information (*from other farmers, radio, TV, newsletters, etc.*) that the pest was or was not present? . . . . . **YES = 1** [ ]

d. your (the operator's) own determination of the infestation level? . . . . . **YES = 1** [ ]