

Pesticide Use Survey 2000

by

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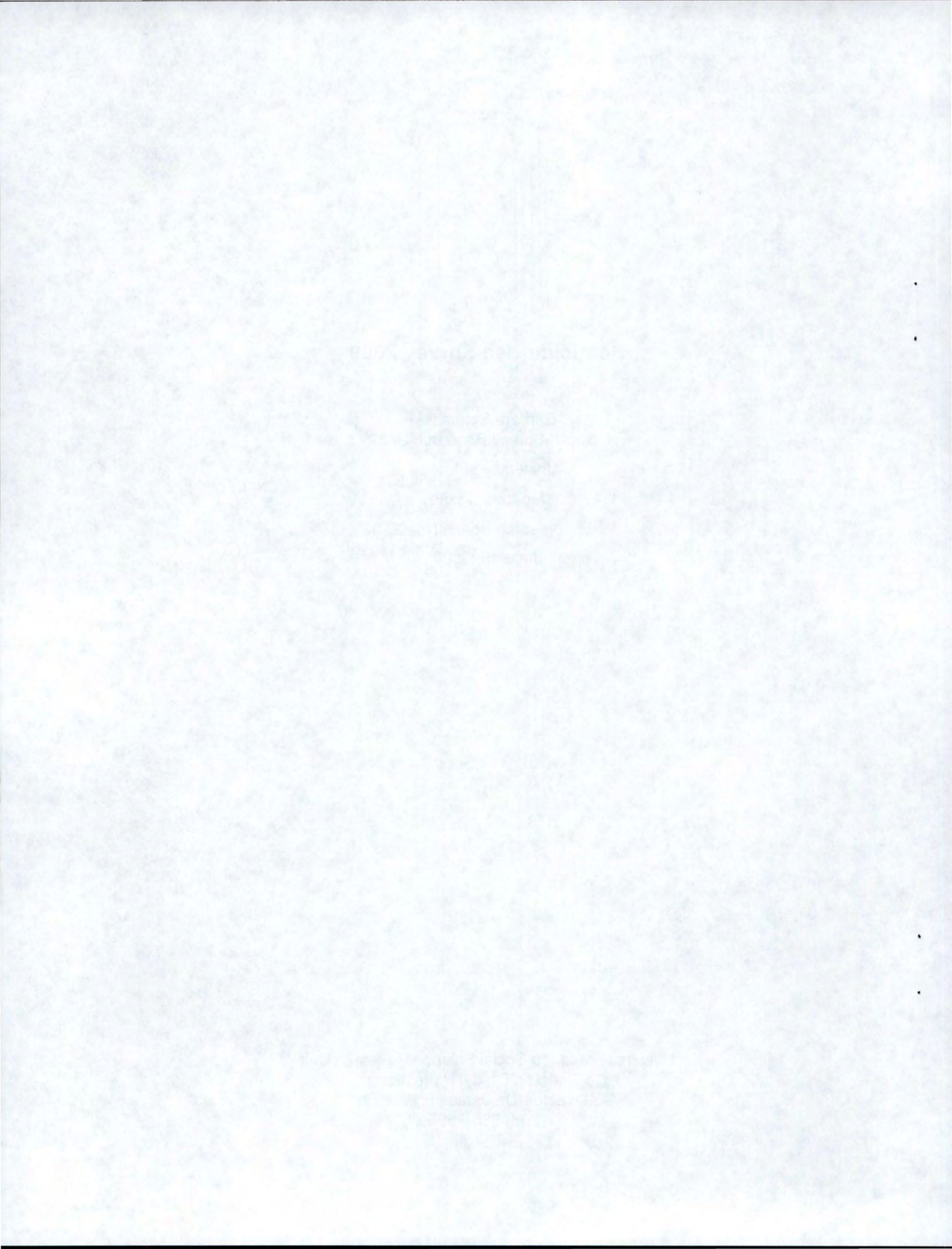
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INTRODUCTION

Background

A survey of farm operators and farm workers sponsored by the Idaho State Department of Agriculture (ISDA) in cooperation with the Environmental Protection Agency (EPA) and the University of Idaho was conducted in the spring of 2000. In view of the Government Performance Review Act, the purpose of the survey was to better understand farm owners or operators and workers' opinions, attitudes, and experiences concerning agricultural use of pesticides. This was the first survey conducted concerning agricultural use of pesticides within Idaho since the implementation of the federal Worker Protection Standard. During 1990 and 1991 Boise State University conducted an initial worker protection survey that formed the basis for the questions in this survey.

The implementation of the federal Worker Protection Standard by ISDA started primarily in 1992 through a Cooperative Agreement with the USEPA. Worker protection program activities have been increasing throughout the 1990's.

This survey identifies trends in the progress of the Worker Protection Program. The trends may be both at the state and national levels due to the transitory nature of agricultural labor.

Objectives

The survey results establish a benchmark to measure program progress. The survey replicated as nearly as possible the study conducted by BSU in 1990-1991. Data collected included:

- Respondent's farm work background
- Usage of pesticides on the farm they operate or where they work
- Knowledge about pesticide usage
- Attitudes toward dangers of pesticide usage
- Personal information about farm operators and farm workers and their families

Method

A sample of 300 farm operator/owners was randomly selected by the Social Science Research Unit of the University of Idaho from lists of licensed private applicators provided by the Idaho State Department of Agriculture. The lists were representative of the distribution of production agriculture and associated pesticide use within Idaho.

On February 1, 2000 an advance letter was sent to the 300 selected farm operators/owners advising them of the study and that they would be asked to participate in a telephone interview. One week later telephone interviewing using computer assisted telephone interviewing (CATI) technology was begun and continued until March 1st (questionnaire Appendix A). Of the 300 selected farm operators/owners, 42 were taken out of the sample because they were incorrectly

The distribution of interviews by county also closely paralleled the distribution of private applicators by county.

The distribution by county for farm operators was as follows:

<u>County</u>	<u>Total Private Applicators</u>		<u>Interviews</u>	
	Number	Percent	Number	Percent
Southwest Idaho				
Ada	151	12%	23	12%
Canyon	170	13%	27	13%
Elmore	30	2%	2	1%
Gem	36	3%	5	2%
Owyhee	45	4%	9	5%
Payette	45	4%	8	4%
Washington	24	2%	8	4%
South Central				
Cassia	84	7%	13	7%
Gooding	37	3%	2	1%
Jerome	50	4%	7	3%
Minidoka	88	7%	15	8%
Twin Falls	142	11%	19	10%
Eastern Idaho				
Bannock	40	3%	5	2%
Bingham	85	7%	14	7%
Bonneville	56	4%	10	5%
Jefferson	41	3%	8	4%
Madison	44	3%	6	3%
Power	52	4%	7	3%
North Idaho				
Boundary	62	5%	12	6%

Sample Distribution: Farm Workers.

The percentages of interviews by region closely matched the distribution of farm workers for each region based on data provided by the Idaho Department of Labor. There were slightly more interviews conducted in the Southwest region and slightly fewer in the South Central region than the regional distribution of farm workers. Farm workers in North Idaho comprise one percent of workers statewide, however, farm workers in North Idaho were not represented in this study.

The survey data for farm workers has the following distribution by region.

<u>Region</u>	<u>Farm Workers Statewide</u>		<u>Interviews</u>	
	Number	Percentage	Number	Percentage
Southwest	11,323	42%	97	46%
South Central	8,775	33%	65	31%
Eastern Idaho	6,342	24%	47	23%
North Idaho	358	1%	0	0%

The distribution of interviews by county also closely paralleled the distribution of farm workers by county, with a few exceptions. There were proportionally more interviews of farm workers conducted in Canyon County and fewer in Ada County than the distribution of workers by county as provided by the Idaho Department of Labor. The disproportionate representation in the study sample may be due to workers living in Canyon County and working in Ada County.

The distribution by county for farm workers was as follows:

<u>County</u>	<u>Total Farm Workers</u>		<u>Interviews</u>	
	Number	Percent	Number	Percent
Southwest Idaho				
Ada	2,347	9%	5	2%
Canyon	4,497	17%	56	27%
Elmore	735	3%	6	3%
Gem	621	2%	5	2%
Owyhee	1,575	6%	14	7%
Payette	847	3%	6	3%
Washington	701	3%	5	2%
South Central				
Cassia	1,421	5%	18	8%
Gooding	1,720	7%	1	1%
Jerome	1,782	7%	13	6%
Minidoka	1,498	6%	22	11%
Twin Falls	2,354	9%	11	5%

The distribution by county for farm workers was as follows:

<u>County</u>	<u>Total Farm Workers</u>		<u>Interviews</u>	
	Number	Percent	Number	Percent
Eastern Idaho				
Bannock	538	2%	0	0%
Bingham	1,664	6%	17	9%
Bonneville	1,192	5%	9	5%
Jefferson	1,515	6%	11	6%
Madison	799	3%	7	3%
Power	634	2%	3	1%
North Idaho				
Boundary	358	1%	0	0%

SUMMARY OF FINDINGS

Farm Experiences of Respondents

Farming was the main occupation of 74% of farm operators and 98% of hired workers interviewed in this survey (see Appendix B Table 1). Years of farming averaged 25 years for farm operators and 14 years for hired workers (see Appendix B Table 2). The majority (70%) of hired workers were migrant workers, 26% were permanent workers and 4% were owner/operators (see Appendix B Table 3). The type of farm work performed by farm operators covered the full range of farm operations, whereas, with the exceptions of driving farm trucks or doing irrigation work, most work performed by hired workers was concentrated in hand labor in the field (Table 1).

TABLE 1. TYPE OF FARM WORK PERFORMED.

	All Respondents (n=409)		Farm Operators (n=200)		Hired Workers (n=209)	
	N	%	N	%	N	%
Hand labor in the field	328	80%	139	70%	189	91%
Irrigation work	254	62%	175	88%	79	38%
Drive a truck or tractor	252	62%	186	94%	66	32%
Mechanical / shop work	95	46%	167	84%	22	11%
Apply pesticides	199	49%	177	89%	22	11%
Mix or load pesticides	183	45%	170	85%	13	6%

**Percentages do not total to 100% due to multiple answers.*

The crops grown on the farms operated by respondents or where respondents worked, represented a wide range of grains, vegetables and fruits. Hired workers were more likely found on farms growing the more labor intensive crops such as potatoes, sugarbeets, onions, fruits, mint and hops.

TABLE 2. CROPS GROWN ON FARMS.

	All Respondents (n=409)	Farm Operators (n=200)	Hired Workers (n=209)
	-----percentages*-----		
Small grains (wheat, barley)	60	77	44
Potatoes	51	28	74
Hay	32	58	7
Sugarbeets	39	26	52
Beans	29	30	29
Alfalfa seed/clover seed	30	29	31
Corn	34	33	35
Onions	22	9	35
Fruits (orchards)	17	7	27
Hops	5	2	8
Mint	12	8	16
Other crops	15	20	11

**Percentages do not total to 100% due to multiple answers.*

The use of pesticides was reported by 98% of farm operator/ owners and by 81% of hired workers, however 14% of hired workers did not know if pesticides were used on the farm where they worked. Overall, hired workers indicated pesticides were used less on the farms where they worked than farm operators did, but hired workers were more uncertain of the types of pesticides used on the farm (Table 3).

TABLE 3. TYPES OF PESTICIDES USED.

	All Respondents (n=409)	Farm Operators (n=200)	Hired Workers (n=209)
	-----percentages*-----		
Herbicides (to kill weeds)	63	92	35
Insecticides (to kill bugs)	61	78	46
Fungicides (to kill diseases)	42	49	35
Fumigants	31	33	30
Other pesticides	4	7	1
Don't know (unsure)	23	1	44

**Percentages do not total to 100% due to multiple answers.*

Pesticide Related Health Problems

Few (12%) of the farm operators/owners or hired workers had ever become ill due to pesticide exposure. The rates of illness was only slightly higher among farm operators (13%) than among hired workers (11%) (Table 4).

TABLE 4. ILLNESS DUE TO PESTICIDE EXPOSURE.

	All Respondents (n=400)	Farm Operators (n=198)	Hired Workers (n=202)
	-----percentages-----		
Yes	12	13	11
No	87	87	86
Unsure	1	0	3

Respondents who reported that they had become ill from pesticide exposure were asked if they had ever consulted a doctor. Only three of the farm operator/owners and seven of the hired workers had ever consulted a doctor. Four farm operators and five hired workers had missed at least one day of work due to pesticide exposure.

Pesticide Use Instruction

Almost all, (97%) of farm operators had received instruction and or training in the proper use of pesticides compared with about one-third (37%) of hired farm workers. However, of the 35 hired workers who indicated they mix, load or apply pesticides, 21 workers (60%) have received instruction or training in the use of pesticides. Most farm operators (94%) received their instruction in Idaho. Farm operators received instruction or training from chemical manufacturers or their representatives (33%), the Idaho Department of Agriculture (24%) or the University of Idaho or Cooperative Extension System (13%) (see Comments Section Appendix C).

TABLE 5. RECEIVED INSTRUCTION OR TRAINING IN PESTICIDE USE.

	All Respondents (n=406)	Farm Operators (n=200)	Hired Workers (n=206)
	-----percentages-----		
Yes	66	97	37
No	32	3	60
Unsure	2	0	3

Respondents also learned about pesticide use in a variety of ways other than special instruction or training (Table 6). Farm operators most frequently read the pesticide labels, or relied on pesticide dealers or sales representatives, county agents or the Department of Agriculture for information regarding pesticide use. Hired workers were most likely to rely on information provided to them by the farm owner or operator.

TABLE 6. OTHER SOURCE OF PESTICIDE USE INFORMATION.

	All Respondents (n=404)	Farm Operators (n=200)	Hired Workers (n=204)
	-----percentages*-----		
Farm owner/operator	30	2	57
Co-workers /other farmers	14	8	19
Read the label	30	47	13
What I've always done	2	3	1
County agent/Dept. Of Ag.	21	37	6
Dealer / Sales Representative	23	42	4
Field posting signs	12	10	13
Unknown source	9	1	17
Other source	14	27	1
Do not need to learn	2	0	4

**Percentages do not total to 100% due to multiple answers.*

Remedial Action to Exposure

Farm operators were more knowledgeable than hired workers concerning the correct remedial actions to take when exposed to pesticides. Farm operators were more likely to identify correct remedial actions when exposed to pesticides (Table 7).

TABLE 7. WHAT ACTIONS TO TAKE IF EXPOSED TO PESTICIDES.

	All Respondents (n=405)	Farm Operators (n=200)	Hired Workers (n=205)
	-----percentages*-----		
Wash with soap and water	83	98	69
Remove contaminated clothing	83	98	69
See a doctor immediately	65	74	56
Lay down and rest	23	41	6
Take an antidote	47	88	8
Continue working	5	8	2
Not sure what to do	4	2	6

**Percentages do not total to 100% due to multiple answers.*

Farm operators and hired workers were also asked what actions they actually take to work safely when working with pesticides. Almost all (95%) of farm operators reported wearing protective clothing and washing up after working with pesticides (99%) compared to only 40% of hired workers who wear protective clothing and 85% who wash up after working with pesticides.

General Beliefs About Pesticides

Three specific questions were asked to measure general beliefs about pesticides; 1) "Can pesticides be absorbed into the body through the eyes?" ; 2) "Can pesticides contaminate water sources deep in the earth?"; 3) "Do pesticides have to be swallowed to be dangerous?". Farm workers were less likely than farm operators (76% compared with 99%) to believe that pesticides can be absorbed into the body through the eyes. Farm workers were much more likely than farm operators (45% compared with 3%) to believe that pesticides must be swallowed to be dangerous.

TABLE 8. GENERAL BELIEFS ABOUT PESTICIDES.

	All Respondents (n=405)	Farm Operators (n=200)	Hired Workers (n=205)
	-----percentages*-----		
Respondents believe...			
Pesticides can be absorbed into the body through the eyes	87	99	76
Pesticides can contaminate water sources deep in the earth	96	99	94
Pesticides have to be swallowed to be dangerous	24	3	45

**Percentages do not total to 100% due to multiple answers.*

Need for More Information About Pesticides

Overall, farm operator/owners had received more training or instruction in the use of pesticides and were more knowledgeable about the safe use of pesticides, what to do if exposed to pesticides and the general dangers of pesticide use. Only 23% of farm operators or owners felt they needed more information concerning the proper use of pesticides. However, more than half (54%) of hired workers felt the need for more information about pesticides and their use.

TABLE 9. NEED FOR MORE INFORMATION ABOUT PESTICIDES.

	All Respondents (n=405)	Farm Operators (n=199)	Hired Workers (n=206)
	-----percentages-----		
Need more information	39	23	54
Do not need information	50	77	24
Unsure	11	0	22

Demographics

Farm operators were more likely to be year-round residents living in the same residence all year than were farm workers (Tables 10 and 11).

TABLE 10. MONTHS LIVED IN IDAHO IN 1999.

	All Respondents (n=404)		Farm Operators (n=200)		Hired Workers (n=204)	
	N	%	N	%	N	%
One to five months	14	4%	0	0%	14	7%
Six to ten months	37	9%	2	1%	35	17%
Eleven to twelve months	353	87%	198	99%	155	76%

TABLE 11. MORE THAN ONE RESIDENCE IN IDAHO IN 1999.

	All Respondents (n=409)		Farm Operators (n=200)		Hired Workers (n=209)	
	N	%	N	%	N	%
Yes	29	7%	7	4%	22	11%
No	375	92%	191	95%	184	88%
No answer/unsure	5	1%	2	1%	3	1%

The majority of farm operators (72%) had received an education beyond the high school level, whereas the majority of farm workers (83%) had less than a high school education (Table 12).

TABLE 12. LEVEL OF EDUCATION.

	All Respondents (n=401)		Farm Operators (n=200)		Hired Workers (n=201)	
	N	%	N	%	N	%
None to 6 th grade	132	66%	7	3%	125	62%
7 th to 9 th grade	29	7%	1	1%	28	14%
10 th grade to 11 th grade	15	4%	2	1%	13	7%
Less than high school	176	44%	10	5%	166	83%
High school graduate	72	18%	46	23%	26	13%
Vocational or trade school	7	2%	7	3%	0	0%
Some college	58	15%	56	28%	2	1%
Associate degree	14	3%	14	7%	0	0%
Bachelor degree	48	12%	48	24%	0	0%
Graduate degree	16	4%	16	8%	0	0%
Other	10	2%	3	2%	7	3%

The majority of respondents were married (Table 13). Farm workers were only slightly more likely than farm operators to be single.

TABLE 13. MARITAL STATUS

	All Respondents (n=405)	Farm Operators (n=198)	Hired Workers (n=207)
	-----percentages-----		
Single, never married	11	8	14
Married	85	89	81
Divorced	2	2	2
Separated	1	0	2
Widowed	1	1	1

The majority of farm operators (73%) lived in households with one to four members, whereas the majority of farm workers (70%) lived in households with three to six members (Table 14). Farm operators were more likely than farm workers to have no children in the household (Table 15). Of the farm operators who did have children in their household, most (75%) indicated their children work in the fields (Table 16). Most (88%) of the farm workers indicated their children do not work in the fields.

TABLE 14. HOUSEHOLD SIZE

	All Respondents (n=402)	Farm Operators (n=198)	Hired Workers (n=204)
	-----percentages-----		
One to two members	26	39	13
Three to four members	34	34	34
Five to six members	30	24	36
Seven to eight members	8	3	13
Nine or more members	2	0	4

TABLE 15. NUMBER OF CHILDREN IN THE HOUSEHOLD.

	All Respondents (n=401)	Farm Operators (n=197)	Hired Workers (n=204)
	-----percentages-----		
No children	38	46	30
One to two children	32	31	33
Three to four children	23	20	27
Five to six children	5	3	7
Seven to eight children	1	0	2
Nine or more children	1	0	1

TABLE 16. DO CHILDREN WORK IN THE FIELDS?

	All Respondents (n=303)	Farm Operators (n=106)	Hired Workers (n=197)
	-----percentages-----		
Yes	32	75	9
No	66	23	88
Not sure	2	2	3

Almost all (97%) of the farm operators were White (non-Hispanic) whereas the farm workers were predominately (85%) Hispanic (Table 17). All the farm operators were able to read English compared to 40% of the farm workers, however few of the farm operators were able to read Spanish (17%) compared with the farm workers (82%) (Table 18).

TABLE 17. RESPONDENT'S RACE OR ETHNIC ORIGIN.

	All Respondents (n=401)	Farm Operators (n=195)	Hired Workers (n=206)
	-----percentages-----		
White / Non-Hispanic	54	97	13
Hispanic	44	0	85
Black / African American	0	0	1
Asian	1	1	0
Native American	0	1	0
Other	1	1	1

TABLE 18. FLUENCY IN ENGLISH / SPANISH.

	All Respondents (n=405)		Farm Operators (n=200)		Hired Workers (n=205)	
	N	%	N	%	N	%
Read English	283	70%	200	100%	83	40%
Read Spanish	204	50%	35	17%	169	82%

**Percentages do not total to 100% due to multiple answers.*

More of the farm workers interviewed were female (31%) compared with farm operators (5%) (Table 19). Farm operators tended to be older than farm workers (Table 20). The average age for farm operators was 47 years compared with an average of 40 years for farm workers.

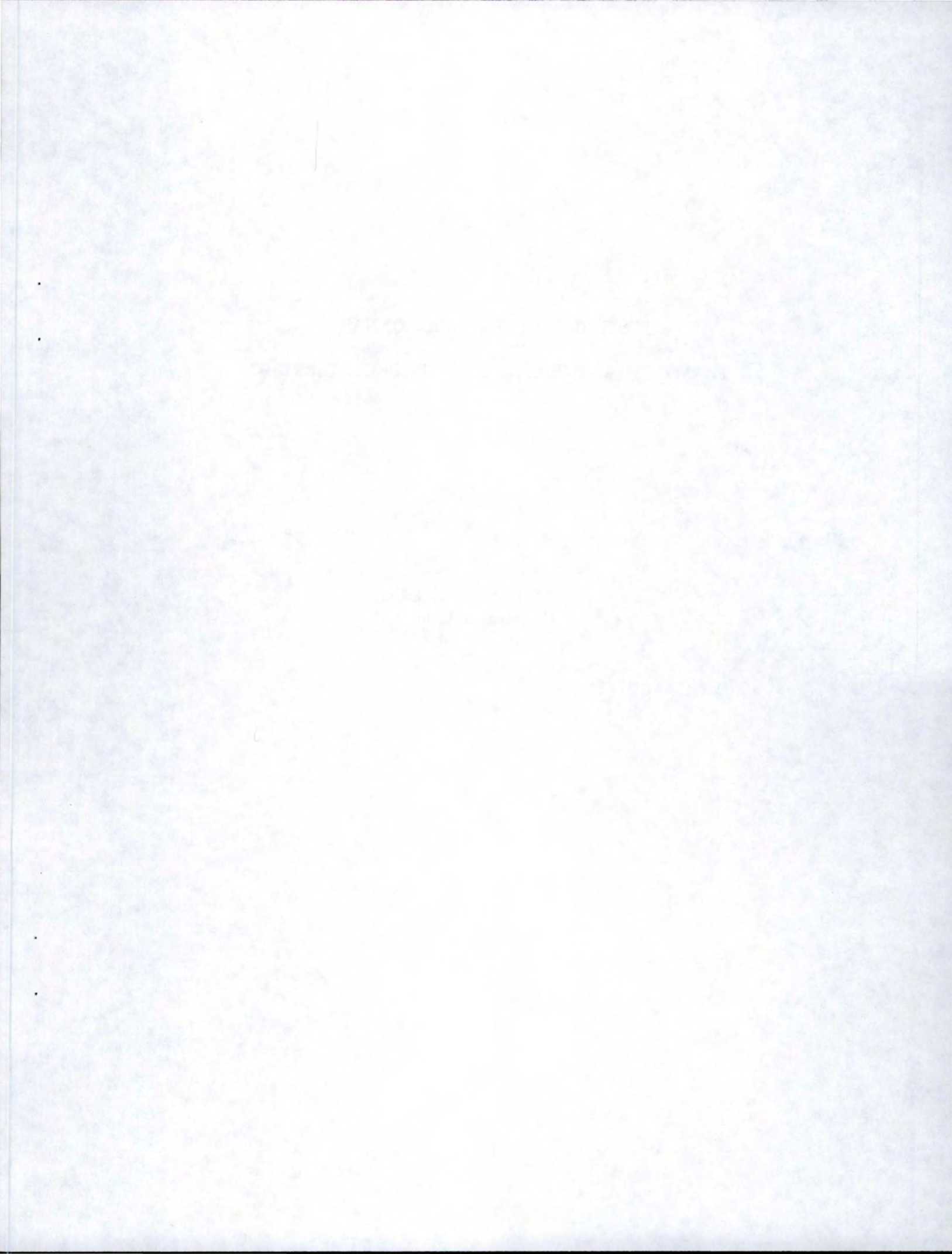
TABLE 19. RESPONDENT'S GENDER.

	All Respondents (n=404)	Farm Operators (n=200)	Hired Workers (n=204)
	-----percentages-----		
Male	81	95	67
Female	18	5	31
No answer	1	0	2

TABLE 20. RESPONDENT'S AGE.

	All Respondents (n=406)	Farm Operators (n=198)	Hired Workers (n=208)
	-----percentages-----		
20 years or less	2	0	3
21 to 25 years	6	3	9
26 to 30 years	12	6	18
31 to 35 years	12	7	16
36 to 40 years	14	13	15
41 to 45 years	12	16	8
46 to 50 years	16	22	11
51 to 55 years	10	12	7
56 to 60 years	8	11	4
61 to 65 years	3	4	3
66 years or more	5	6	6

APPENDIX A



PESTICIDE SURVEY QUESTIONNAIRE
FARM OWNERS/OPERATORS TELEPHONE INTERVIEWS

February 2000
Social Science Research Unit
University of Idaho
Moscow, Idaho

PESTICIDE SURVEY 2000

Hello, may I please speak with [SEE CALL RECORD]? My name is _____ and I'm calling from the Social Science Research Unit at the University of Idaho. We are conducting a study to better understand farm owner's or operator's and worker's opinions, attitudes and experiences concerning agricultural use of pesticides.

We sent a letter to you last week to explain about the study. Did you receive the letter? (If no) The letter contained a brief explanation about the survey and that we would be calling.

- 1 Continue
- 2 Send a letter
- 3 Not willing to do interview

Is this a convenient time for an interview?

- 1 Yes
- 2 No -- call back
- 3 Send another letter
- 4 Not willing to do interview

This interview is voluntary and if we come to any question you would prefer not to answer, just let me know and I'll skip over it. I'd like to assure you that your responses will be kept confidential.

Q1. Is farm work your main occupation?*

- 1 Yes
- 2 No
- 3 No answer

**(The occupation which provides the majority of your income.)*

Q2. How many months and /or years have you done farm work? *

**(A total of time spent doing farm work even if it was not continuous.)*

Q3. In your employment on the farm where you currently work* are you the...

- 1 Owner
- 2 the primary farm operator
- 3 permanent hired help
- 4 or, temporary hired help
- 5 other (If other, what is your employment status on the farm?)
- 6 No answer

**(or your most recent farm work)*

- Q3a. (If owner/operator) Do you employ any farm workers?
- 1 Yes
 - 2 No
 - 3 No answer

- Q4. Next I will read a list of jobs usually done on a farm. As I read each one, please tell me if you perform that job with some regularity.
Do you personally do... Mechanical or shop work?

- 1 Yes
- 2 No
- 3 no answer

Do you personally... Drive a truck or tractor?

- 1 Yes
- 2 No
- 3 no answer

Do you personally... Mix or load pesticides?

- 1 Yes
- 2 No
- 3 no answer

Do you personally... Apply pesticides?

- 1 Yes
- 2 No
- 3 no answer

Do you personally do... Irrigation work?

- 1 Yes
- 2 No
- 3 no answer

Do you personally do... Hand labor in the field?

- 1 Yes
- 2 No
- 3 no answer

Do you personally do... Any other farm jobs?

- 1 Yes
- 2 No- ->GO TO Q5
- 3 no answer- ->GO TO Q5

What other farm jobs? (Type in response)

Q5. Next we would like to know what crops are grown on your farm. Do you grow...
[READ LIST AND SELECT ALL THAT APPLY]

- 1 Sugar beets
- 2 Potatoes
- 3 Beans
- 4 Onions
- 5 Corn
- 6 Small grains (wheat, barley)
- 7 Hay
- 8 Fruit (orchards)
- 9 Mint
- 10 Hops
- 11 Alfalfa seed/clover seed

What other crops are grown?

Q6. Are pesticides used on your farm (the farm where you currently work or most recently worked)?

- 1 Yes
- 2 No- ->GO TO Q8
- 3 Not sure or don't know- ->GO TO Q8

Q7. What kinds of pesticides are used on your farm? Do you use...
(Or does anyone else on the farm use)...

[READ LIST AND SELECT ALL THAT APPLY]

- 1 Insecticides (to kill bugs)
- 2 Herbicides (to kill weeds)
- 3 Fungicides (to kill plant diseases)
- 4 Fumigants (to kill pests in soil and commodities)
- 5 Any other pesticides?
- 6 Not sure or don't know what is used

Q8. Have you EVER become ill after working with pesticides or from exposure to pesticides?*

- 1 Yes
- 2 No- ->GO TO Q12
- 3 Not sure or don't know - ->GO TO Q12

*(At any time in your life, not just your current farm work.)

Q9. Did you consult a nurse or doctor?
(If more than one incident - ->Did you EVER consult a nurse or doctor?)

- 1 Yes
- 2 No
- 3 no answer

Q10. Did you miss work due to the illness?
(Did you EVER miss work due to illness from exposure to pesticides?)

- 1 Yes
- 2 No - ->GO TO Q12
- 3 no answer - ->GO TO Q12

Q11. How many days of work did you miss?

Q12. Generally, how do you learn about pesticide use?

[SELECT ALL THAT APPLY]

- 1 The owner/operator (or representative) of the farm
- 2 Co-workers / other farmers
- 3 Read the label
- 4 Do what I've always done
- 5 County Agent /Department of Agriculture
- 6 Dealer or manufacturing representative
- 7 Central location information or field posting sign
- 8 I don't need to learn about pesticides
- 9 Not sure how I learned about pesticides
- 10 Other -> What other way?

Q13. Have you ever received any instructions or training about how to use a pesticide correctly?

- 1 Yes
- 2 No - ->GO TO Q16
- 3 Not sure or don't know - ->GO TO Q16

Q14. From whom did you receive this instruction or training?
(What agency or organization?)

Q15. In what state did you receive your MOST RECENT pesticide-related training?

Q16. Are you a...

- 1 Licensed private applicator
- 2 WPS Trainer (Worker Protection Standard Trainer)
- 3 WPS Trained handler
- 4 or a WPS Trained worker
- 5 None of the above
- 6 No answer

Q17. Next, I will read a short list of items. Please tell me whether you are familiar with each item and where it is typically located on the farm.

First, do you have a **CENTRAL LOCATION** for pesticide information and know where it is located on the farm?

- 1 Yes
- 2 No
- 3 no answer

Do you have **PERSONAL PROTECTIVE EQUIPMENT (PPE)** and know where it is located on the farm?

- 1 Yes
- 2 No
- 3 no answer

Do you have a **DECONTAMINATION KIT** (water, soap, towel, change of clothes) and know where it is located on the farm?

- 1 Yes
- 2 No
- 3 no answer

Finally, do you have a medical assistance phone number or location to get help?

- 1 Yes
- 2 No
- 3 no answer

Q18. I will read a list of statements concerning actions farmers might take if exposed to pesticides. Please tell me if you think each action is what you are supposed to do.

If you have been exposed to pesticides should you...

- 1 Remove contaminated clothing
- 2 See a doctor immediately
- 3 Continue working
- 4 Take antidote as directed by the label
- 5 Wash with soap and water
- 6 Lay down and rest
- 7 Are you not sure what you should do?

Q19. Do you wash up after working around pesticides?

- 1 Yes
- 2 No
- 3 Not sure or don't know
- 4 no answer

Q20. Do you wear protective clothing or equipment when working around pesticides?

- 1 Yes
- 2 No
- 3 Not sure or don't know
- 4 no answer

Q21. Do pesticides have to be swallowed to be dangerous?

- 1 Yes
- 2 No
- 3 Not sure or don't know
- 4 no answer

Q22. Do pesticides contaminate water sources (surface and/or ground water)?

- 1 Yes
- 2 No
- 3 Not sure or don't know
- 4 no answer

Q23. Can pesticides be absorbed into the body through the eyes?

- 1 Yes
- 2 No
- 3 Not sure or don't know
- 4 no answer

Q24. Do you need more information about pesticides and their use?

- 1 Yes
- 2 No
- 3 Not sure or don't know
- 4 no answer

Q33. What is the highest level of formal education you have completed?

- 1 Less than high school
- 2 High school diploma or GED
- 3 Vocational, technical or trade school
- 4 Some college (no degree)
- 5 Associate degree (2 year)
- 6 Bachelor's degree (4 year)
- 7 Graduate or professional degree (Masters, PhD, MD)
- 8 other (If other - - >What other educational level?)
- 9 no answer

(If less than high school - - >What was the last grade you completed in school?)

Q34. What is your marital status?

- 1 Single, never married
- 2 Married
- 3 Divorced
- 4 Separated
- 5 Widowed
- 6 no answer

Q35. Counting yourself, how many people live with you in your household?

Q36. How many children, under 18 years old, live with you?
(IF no children - -> GO TO Q38)

Q37. Do your children often go with you to the fields?

- 1 Yes, frequently
- 2 Yes, seldom
- 3 No, never
- 4 Not sure or don't know
- 5 no answer

Q38. Because this is a scientific survey, I must ask rather than assume the answer to this question. Are you male or female?

- 1 Male
- 2 Female
- 3 no answer

PESTICIDE SURVEY QUESTIONNAIRE
HIRED FARM WORKERS IN-PERSON INTERVIEWS

ENGLISH VERSION

March / April 2000

**Social Science Research Unit
University of Idaho
Moscow, Idaho**

Section 1: Your Farm Work Background

Q 1. Is farm work your main occupation?
(CIRCLE THE NUMBER BY YOUR ANSWER)

- 1 YES
- 2 NO

Q 2. How many years have you done farm work? _____ YEARS
(WRITE IN NUMBER)

Q 3. Which of the following statements best describes your employment on the farm where you now work or worked last? (CIRCLE THE NUMBER BY YOUR ANSWER)

- 1 I am the owner/operator
- 2 I am permanent hired help
- 3 I am a migrant worker
- 4 Not sure or don't know

Q 4. Which of the following farm jobs do you perform with some regularity?
(CHECK AS MANY ANSWERS AS APPLY)

- ___ Mechanical or shop work
- ___ Drive a truck or tractor
- ___ Mix or load pesticides
- ___ Apply pesticides
- ___ Irrigation work
- ___ Hand labor in the field

Q 5. What crops does the farm grow? (CHECK AS MANY AS APPLY)

- ___ Sugar beets
- ___ Potatoes
- ___ Beans
- ___ Onions
- ___ Corn
- ___ Small grains (wheat, barley)
- ___ Hay
- ___ Fruit (orchards)
- ___ Mint
- ___ Hops
- ___ Alfalfa seed/clover seed
- ___ Other

Section 2: Pesticide Usage

Q 6. Are pesticides used on the farm where you now work or last worked?
(CIRCLE THE NUMBER BY YOUR ANSWER)

- 1 Yes
- 2 No
- 3 Not sure or don't know

Q 7. What kinds of pesticides are used on the farm where you work?
(CHECK AS MANY ANSWERS AS APPLY)

- Insecticides (to kill bugs)
- Herbicides (to kill weeds)
- Fungicides (to kill plant diseases)
- Fumigants (to kill pests in soil and commodities)
- Other
- Not sure or don't know

Q 8. Have you ever become ill after working with pesticides or exposure to pesticides?
(CIRCLE THE NUMBER BY YOUR ANSWER)

- 1 Yes
- 2 No - -> skip to Q12.
- 3 Not sure or don't know - ->skip to Q12

Q 9. If yes, did you consult a nurse or doctor? (CIRCLE THE NUMBER BY YOUR ANSWER)

- 1 Yes
- 2 No

Q 10. Did you miss work due to the illness? (CIRCLE THE NUMBER BY YOUR ANSWER)

- 1 Yes
- 2 No

Q 11. If yes, how many days of work did you miss? _____ DAYS
(WRITE IN NUMBER OF DAYS)

Section 3: Information About Pesticides

Q 12. Have you ever received any special instructions or training about how to use a pesticide correctly? (CIRCLE THE NUMBER BY YOUR ANSWER)

- 1 Yes
- 2 No
- 3 Not sure or don't know

Q 13. From whom did you receive this instruction or training?

(WRITE IN THE NAME OF THE AGENCY OR ORGANIZATION)

Q 14. In what state did you receive your last pesticide-related training?

(WRITE IN THE NAME OF THE STATE)

Q 15. Are you a:

(CIRCLE THE NUMBER BY YOUR ANSWER)

- 1 Licensed private applicator
- 2 WPS Trainer
- 3 WPS Trained handler
- 4 WPS Trained worker
- 5 None of the above

Q 16. Generally, how do you learn about pesticide use?

(CHECK AS MANY ANSWERS AS APPLY)

- The owner/operator (or representative) of the farm tells me
- My co-workers tell me
- I read the label
- I just do what I've always done
- The county agent or Department of Agriculture representative tells me
- The manufacturing representative or the dealer tells me
- Central location information or field posting sign
- I don't need to learn about pesticides
- Not sure or don't know
- Other _____

Q 17. Are you familiar with the following items and where they are typically located on the farm? (CHECK ALL THAT YOU ARE FAMILIAR WITH)

- Central location for pesticide information
- Personal protective equipment PPE
- Decontamination kit water, soap, towel change of clothes
- Medical assistance phone number or location to get help

Q 18. Which of the following statements describe what you are supposed to do if exposed to pesticides? (CHECK AS MANY ANSWERS AS APPLY)

- Remove contaminated clothing
- See a doctor immediately
- Continue working
- Take antidote as directed by label
- Wash with soap and water
- Lay down and rest
- Not sure or don't know

Q 19. Do you personally think you need more information about pesticides and their use? (CIRCLE THE NUMBER BY YOUR ANSWER)

- 1 Yes
- 2 No
- 3 Not sure or don't know

Section 4: Attitudes About Pesticides

Q 20. Do you wash up after working around pesticides? (CIRCLE THE NUMBER BY YOUR ANSWER)

- 1 Yes
- 2 No
- 3 Not sure or don't know

Q 21. Do you wear protective clothing or equipment when working around pesticides? (CIRCLE THE NUMBER BY YOUR ANSWER)

- 1 Yes
- 2 No
- 3 Not sure or don't know

Q 22. Do you think pesticides have to be swallowed to be dangerous?
(CIRCLE THE NUMBER BY YOUR ANSWER)

- 1 Yes
- 2 No
- 3 Not sure or don't know

Q 23. Do you think pesticides can contaminate water sources (surface and/or groundwater)?
(CIRCLE THE NUMBER BY YOUR ANSWER)

- 1 Yes
- 2 No
- 3 Not sure or don't know

Q 24. Do you think pesticides can be absorbed into the body through the eyes?
(CIRCLE THE NUMBER BY YOUR ANSWER)

- 1 Yes
- 2 No
- 3 Not sure or don't know

Section 5: Personal Information: Finally, a few questions about you and your family.

Q 25. In what Idaho county(s) is the farm(s): 1) you operate; or, 2) where you work or expect to work? [WRITE IN COUNTY(S) NAME LIST ALL]

_____ COUNTY # 1

_____ COUNTY # 2

Q 26. During 1999 how many months did you live in Idaho? _____
(NUMBER OF MONTHS)

Q 27. Did you live in more than one Idaho residence during 1999?
(CIRCLE THE NUMBER BY YOUR ANSWER)

- 1 Yes
- 2 No
- 3 Not sure or don't know

Q 28. How old are you? (WRITE IN YOUR AGE) _____ YEARS

Q 29. What is your race or ethnic origin? (CIRCLE THE NUMBER BY YOUR ANSWER)

- 1 White
- 2 Black
- 3 Mexican/Hispanic
- 4 Native American/Indian
- 5 Asian/Oriental
- 6 Other

Q 30. Can you read English? (CIRCLE THE NUMBER BY YOUR ANSWER)

- 1 Yes
- 2 No

Q 31. Can you read Spanish? (CIRCLE THE NUMBER BY YOUR ANSWER)

- 1 Yes
- 2 No

Q 32. What was the last grade you completed in school? _____
(WRITE IN THE LAST GRADE)

Q 33. What is your marital status? (CIRCLE THE NUMBER BY YOUR ANSWER)

- 1 Single
- 2 Married
- 3 Divorced
- 4 Separated
- 5 Widowed

Q 34. Counting yourself, how many people live with you in your household?

(WRITE IN NUMBER OF PEOPLE)

Q 35. How many children, under 18 years old, do you have that live with you?

(WRITE IN NUMBER OF CHILDREN, WRITE "0" IF NONE)

Q 36. If you have children, do they often go with you to the fields?
(CIRCLE THE NUMBER BY YOUR ANSWER)

- 1 Yes
- 2 No
- 3 Not sure or don't know

Q 37. Are you male or female? (CIRCLE THE NUMBER BY YOUR ANSWER)

- 1 Male
- 2 Female

Thank you for your time participating in this survey.

Do you have any comments about this survey or using pesticides?

Do you want a copy of the survey summary? If YES, please write in name and address.

PESTICIDE SURVEY QUESTIONNAIRE
HIRED FARM WORKERS IN-PERSON INTERVIEWS

SPANISH VERSION

March / April 2000

**Social Science Research Unit
University of Idaho
Moscow, Idaho**

Sección 1: Su Experiencia En El Trabajo Agrícola

1. ¿Es el trabajo agrícola su ocupación principal?
(MARQUE EL NUMERO DE SU RESPUESTA CON UN CÍRCULO)
 - 1 Sí
 - 2 No

2. ¿Cuántos años ha trabajado en la agricultura? _____ años
(ESCRIBA EL NUMERO)

3. ¿Cuál de las siguientes categorías describe su empleo en el campo dónde usted trabaja ahora o dónde trabajó anteriormente? (MARQUE EL NUMERO DE SU RESPUESTA CON UN CÍRCULO)
 - 1 Dueño - Operador
 - 2 Empleado permanente
 - 3 Trabajador migratorio
 - 4 No estoy seguro o no sé

4. ¿Cuál del los siguientes trabajos desempeña usted con regularidad en el campo?
(MARQUE TODAS LAS RESPUESTAS PERTINENTES CON UN CÍRCULO)
 - 1 Trabajo de mecánico o en un taller
 - 2 Manejar un camión o tractor
 - 3 Mezclar o cargar pesticidas
 - 4 Aplicar pesticidas
 - 5 Trabajo de irrigación
 - 6 Trabajo manual en el campo

5. ¿Cuáles cosechas se cultivan en el campo donde usted trabaja ahora o trabajó anteriormente?
(MARQUE TODAS LAS RESPUESTAS PERTINENTES CON UN CÍRCULO)
 - 1 Remolacha Azucarera
 - 2 Papas
 - 3 Frijoles
 - 4 Cebollas
 - 5 Maíz
 - 6 Granos pequeños (trigo, cebada)
 - 7 Heno
 - 8 Fruta (huertas)
 - 9 Menta
 - A Lúpulo
 - B Semilla de alfalfa – semilla de trébol
 - C Otros

Sección 2: Uso de Pesticidas

6. ¿Se usan pesticidas en el campo dónde usted trabaja o donde trabajó anteriormente?
(MARQUE EL NUMERO DE SU RESPUESTA CON UN CÍRCULO)

- 1 Sí
- 2 No.....) Pase a la pregunta 8
- 3 No estoy seguro o no sé.....) Pase a la pregunta 8

7. ¿Qué clase de pesticidas se usan en el campo dónde usted trabaja?
(MARQUE TODAS LAS RESPUESTAS PERTINENTES CON UN CÍRCULO)

- 1 Insecticidas (para matar insectos)
- 2 Herbicidas (para matar malezas)
- 3 Fungicidas (para matar enfermedades de la planta)
- 4 Fumigantes (para matar malezas o insectos en el suelo y en las cosechas almacenadas)
- 5 Otros
- 6 No estoy seguro o no sé

8. ¿Se ha enfermado después de haber trabajado con pesticidas o después de haber estado expuesto a pesticidas? (MARQUE EL NUMERO DE SU RESPUESTA CON UN CÍRCULO)

- 1 Sí
- 2 No.....) Pase a la pregunta 12
- 3 No estoy seguro o no sé.....) Pase a la pregunta 12

9. ¿Consultó a un Doctor o a una Enfermera?
(MARQUE EL NUMERO DE SU RESPUESTA CON UN CÍRCULO)

- 1 Sí
- 2 No

10. ¿Perdió días en el trabajo debido a la enfermedad?
(MARQUE EL NUMERO DE SU RESPUESTA CON UN CÍRCULO)

- 1 Sí
- 2 No.....)Pase a la pregunta 12

11. ¿Cuántos días perdió de trabajo? _____ días
(ESCRIBA EL NUMERO)

Sección 3: Información Acerca de Pesticidas

12. ¿Ha recibido usted alguna vez instrucciones especiales o entrenamiento acerca de cómo usar un pesticida correctamente?

(MARQUE EL NUMERO DE SU RESPUESTA CON UN CÍRCULO)

- 1 Sí
- 2 No.....) Pase a la pregunta 16
- 3 No estoy seguro o no sé.....) Pase a la pregunta 16

13. ¿De quien recibió usted esta instrucción o entrenamiento?

(ESCRIBA EL NOMBRE DE LA AGENCIA U ORGANIZACION)

14. ¿En cuál estado recibió usted el último entrenamiento relacionado a pesticidas?

(ESCRIBA EL NOMBRE DEL ESTADO)

15. ¿Es usted un/una: (MARQUE TODAS LAS RESPUESTAS PERTINENTES CON UN CÍRCULO)

- 1 Persona con licencia privada para aplicar pesticidas
- 2 Entrenador de WPS
- 3 Trabajador agrícola entrenado en WPS
- 4 Persona que maneja pesticidas entrenada en WPS
- 5 Ninguno/ninguna

16. ¿Generalmente, como aprende usted acerca del uso del pesticida?

(MARQUE TODAS LAS RESPUESTAS PERTINENTES CON UN CÍRCULO)

- 1 El dueño del campo me dice
- 2 Mis compañeros de trabajo me dicen
- 3 Leo la etiqueta
- 4 Hago lo que siempre he hecho
- 5 El agente del condado o el representante del Departamento de Agricultura me dicen
- 6 El representante de la compañía o el distribuidor de químicos me dicen
- 7 Información de lugar central o letreros de advertencia en el campo
- 8 No necesito aprender acerca de los pesticidas
- 9 No está seguro o no sabe

17. ¿Reconoce usted los siguientes artículos y dónde se encuentran generalmente en el rancho?

(MARQUE LOS NÚMEROS QUE RECONOZCA CON UN CÍRCULO)

- 1 Lugar central para información de pesticidas
- 2 Equipo de protección personal (PPE)
- 3 Botiquín de descontaminación - agua limpia, jabón, toallas desechables, cambio de ropa
- 4 Número de teléfono de primeros auxilios o el lugar dónde encontrar atención médica

18. ¿Cuál de los siguientes pasos describe lo que usted debe hacer si se contamina con pesticidas?

(MARQUE TODAS LAS RESPUESTAS PERTINENTES CON UN CÍRCULO)

- 1 Quitarse la ropa contaminada
- 2 Ver a un doctor inmediatamente
- 3 Continuar trabajando
- 4 Tomar el antídoto indicado en la etiqueta
- 5 Lavarse con agua y jabón
- 6 Recostarse y descansar
- 7 No estoy seguro o no sé

19. ¿Personalmente piensa usted que necesita más información acerca de los pesticidas y sus usos?

(MARQUE EL NUMERO DE SU RESPUESTA CON UN CÍRCULO)

- 1 Sí
- 2 No
- 3 No estoy seguro o no sé

Sección 4: Actitudes Acerca de los Pesticidas

20. ¿Se lava usted después de haber estado trabajando cerca de pesticidas?

(MARQUE EL NUMERO DE SU RESPUESTA CON UN CÍRCULO)

- 1 Sí
- 2 No
- 3 No estoy seguro o no sé

21. ¿Usa usted equipo o ropa de protección cuando está trabajando cerca de pesticidas?
(MARQUE EL NUMERO DE SU RESPUESTA CON UN CÍRCULO)

- 1 Sí
- 2 No
- 3 No estoy seguro o no sé

22. ¿Piensa usted que los pesticidas tienen que ser tragados para ser peligrosos?
(MARQUE EL NUMERO DE SU RESPUESTA CON UN CÍRCULO)

- 1 Sí
- 2 No
- 3 No estoy seguro o no sé

23. ¿Piensa usted que los pesticidas pueden contaminar las fuentes de agua (las que están sobre la superficie o subterráneas)?
(MARQUE EL NUMERO DE SU RESPUESTA CON UN CÍRCULO)

- 1 Sí
- 2 No
- 3 No estoy seguro o no sé

24. ¿Piensa usted que los pesticidas pueden absorberse al cuerpo a través de los ojos?
(MARQUE EL NUMERO DE SU RESPUESTA CON UN CÍRCULO)

- 1 Sí
- 2 No
- 3 No estoy seguro o no sé

Sección 5: Información Personal

Finalmente, unas preguntas sobre usted y su familia.

- 25 ¿En cuál condado (o condados) de Idaho está el campo (o campos) dónde usted trabaja o espera trabajar?
(ESCRIBA EL NOMBRE DEL CONDADO – INCLUYA TODOS)

26. ¿Cuántos meses vivió usted en el Estado de Idaho durante el año 1999?
(ESCRIBA EL NÚMERO DE MESES/AÑOS)

27. ¿Vivió usted en más de un domicilio en el Estado de Idaho durante 1999? _____
(SI O NO)

28. ¿Cuántos años tiene usted? (ESCRIBA SU EDAD) _____ años

29. ¿Cuál es su raza?
(MARQUE EL NUMERO DE SU RESPUESTA CON UN CÍRCULO)

- 1 Blanca
- 2 Negra
- 3 Mexicana / Hispana
- 4 Indio americano
- 5 Asiático / Oriental
- 6 Otra _____

(ESCRIBA CÚAL)

- 30 ¿Puede usted leer Inglés?
(MARQUE EL NUMERO DE SU RESPUESTA CON UN CÍRCULO)

- 1 Sí
- 2 No

31. ¿Puede usted leer Español?
(MARQUE EL NUMERO DE SU RESPUESTA CON UN CÍRCULO)

- 1 Sí
- 2 No

32. ¿Cuál fue el último año de instrucción escolar que completo? _____
(ESCRIBA EL AÑO O TÍTULO)

33. ¿Cuál es su estado civil?
(MARQUE EL NUMERO DE SU RESPUESTA CON UN CÍRCULO)

- 1 Soltero (a)
- 2 Casado (a)
- 3 Divorciado (a)
- 4 Separado (a)
- 5 Viudo (a)

34. ¿Incluyéndose usted, cuantas personas viven con usted en su casa? _____ personas
(ESCRIBA EL NUMERO DE PERSONAS)

35. ¿Cuántos hijos menores de 18 años viven con usted? _____ hijos
(ESCRIBA EL NUMERO DE HIJOS. ESCRIBA "0" SI NO TIENE NINGUNO)

36. ¿Si usted tiene hijos, van seguido con usted a los campos?
(MARQUE EL NUMERO DE SU RESPUESTA CON UN CÍRCULO)

- 1 Sí
- 2 No
- 3 No estoy seguro o no sé

37. ¿Es usted hombre o mujer?
(MARQUE EL NUMERO DE SU RESPUESTA CON UN CÍRCULO)

- 1 Hombre
- 2 Mujer

GRACIAS POR SU TIEMPO EN COMPLETAR ESTE CUESTIONARIO.

¿Tiene usted comentarios adicionales relacionados con este cuestionario o con el uso de pesticidas?

(USE EL REVERSO DE ESTA HOJA SI NECESITA MAS ESPACIO PARA ESCRIBIR COMENTARIOS ADICIONALES)

¿Quiere usted una copia del resumen de este cuestionario? (ESCRIBA SU NOMBRE Y DIRECCIÓN PARA DISTRIBUCIÓN DEL RESUMEN DE ESTE CUESTIONARIO – FECHA APROXIMADA DE ENTREGA ES AGOSTO DEL 2000)

(Nombre, Dirección, Ciudad, Estado y Código Postal)

APPENDIX B

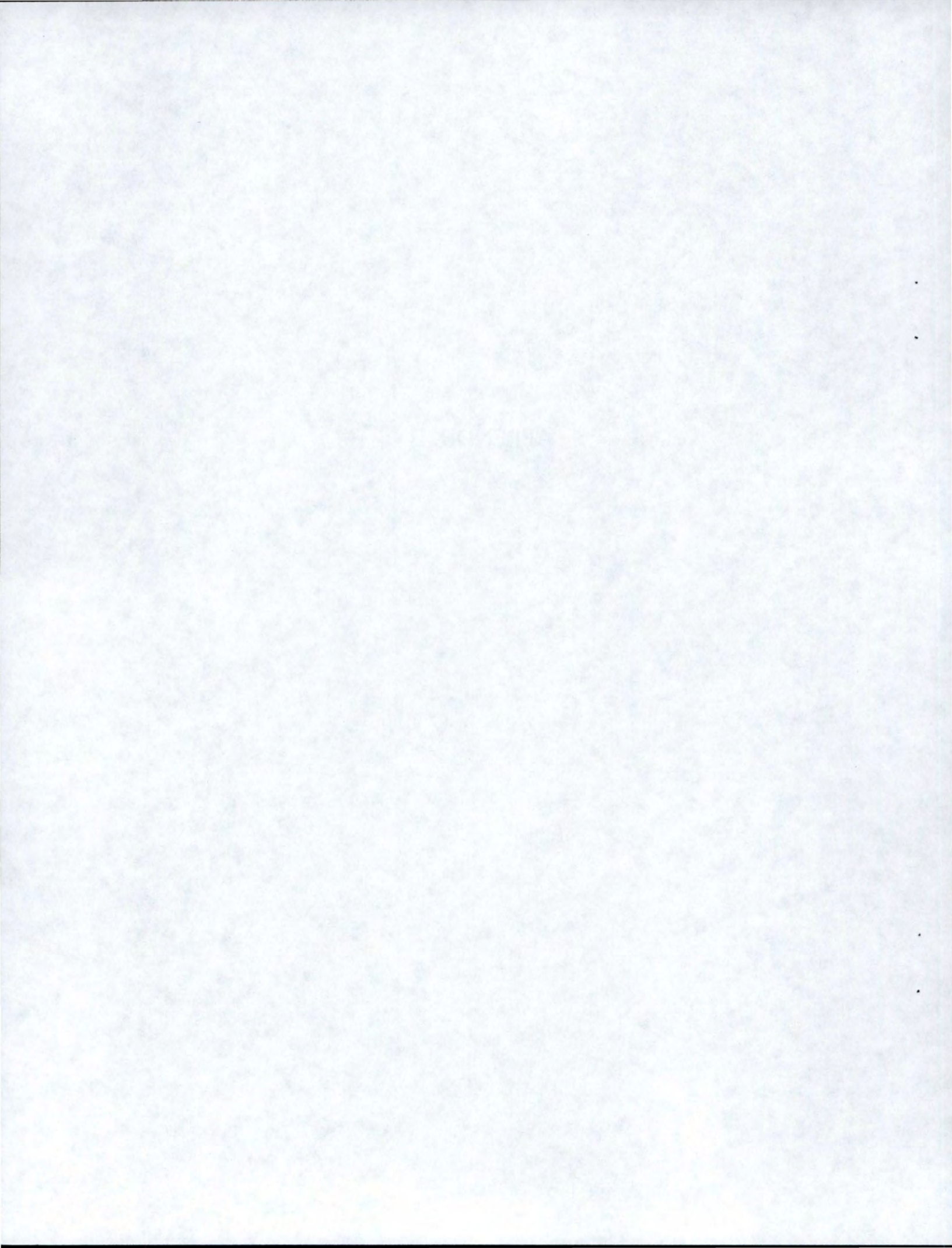


TABLE 1. FARMING AS MAIN OCCUPATION.

	All Respondents (n=409)	Farm Operators (n=200)	Hired Workers (n=209)
	-----percentages-----		
Yes	86	74	98
No	14	26	2

TABLE 2. YEARS IN FARMING OCCUPATION.

	All Respondents (n=401)	Farm Operators (n=195)	Hired Workers (n=206)
	-----percentages-----		
Less than ten years	28	12	44
Ten to fifteen years	18	13	23
Sixteen to twenty years	16	18	14
Twenty-one to twenty-five	10	14	5
Twenty-six to thirty	12	20	5
Thirty-one or more years	16	23	9

TABLE 3. OCCUPATIONAL STATUS.

	All Respondents (n=388)	Farm Operators (n=199)	Hired Workers (n=189)
	-----percentages-----		
Owner/Operator	47	87	4
Permanent Hired Worker	17	8	26
Migrant/Temporary Worker	36	5	70

TABLE 4. IS FARM WORK YOUR MAIN OCCUPATION?

	TOTAL	Type of Worker		Pesticide Use			Kinds of Pesticides Used				Pesticide Instruction	
		Farm Operator	Farm Worker	Yes	No	No Answer	Use Insecticide	Use Herbicide	Use Fungicide	Use Fumigant	Some Instruction	No Instruction
ANALYZED RESPONDENTS	409 100.0	200 48.9	209 51.1	367 89.7	11 2.7	31 7.6	251 61.4	257 62.8	172 42.1	128 31.3	270 67.3	131 32.7
YES	351 85.8	147 73.5	204 97.6	311 84.7	10 90.9	30 96.8	211 84.1	213 82.9	152 88.4	117 91.4	220 81.5	123 93.9
NO	58 14.2	53 26.5	5 2.4	56 15.3	1 9.1	1 3.2	40 15.9	44 17.1	20 11.6	11 8.6	50 18.5	8 6.1
CHI SQUARE			48.806			3.642	4.042	6.233	6.916	10.268		10.983
P			.000			.162	.133	.044	.031	.006		.000
DEGREES OF FREEDOM			1			2	2	2	2	2		1

TABLE 5. HOW MANY YEARS HAVE YOU DONE FARM WORK?

ANALYZED RESPONDENTS	TOTAL	Type of Worker		Pesticide Use			Kinds of Pesticides Used				Pesticide Instruction	
		Farm Operator	Farm Worker	Yes	No	No Answer	Use Insecticide	Use Herbicide	Use Fungicide	Use Fumigant	Some Instruction	No Instruction
	409 100.0	200 48.9	209 51.1	367 89.7	11 2.7	31 7.6	251 61.4	257 62.8	172 42.1	128 31.3	270 67.3	131 32.7
1 - 5 years	70 17.0	14 7.0	56 26.8	53 14.4	6 54.5	11 35.5	28 11.2	18 7.0	16 9.3	13 10.2	29 10.7	37 28.2
6 - 10 years	61 14.9	15 7.5	46 22.0	54 14.7	0 0	7 22.6	35 13.9	30 11.7	22 12.8	17 13.3	28 10.4	30 22.9
11 - 15 years	56 13.7	20 10.0	36 17.2	50 13.6	0 0	6 19.4	34 13.5	37 14.4	33 19.2	28 21.9	39 14.4	17 13.0
16 - 20 years	64 15.6	35 17.5	29 13.9	61 16.6	1 9.1	2 6.5	46 18.3	47 18.3	34 19.8	22 17.2	47 17.4	17 13.0
21 - 25 years	38 9.3	27 13.5	11 5.3	36 9.8	0 0	2 6.5	28 11.2	31 12.1	22 12.8	19 14.8	28 10.4	9 6.9
26 - 30 years	49 12.0	38 19.0	11 5.3	46 12.5	1 9.1	2 6.5	34 13.5	41 16.0	17 9.9	12 9.4	42 15.6	7 5.3
31 - 35 years	12 2.9	10 5.0	2 1.0	12 3.3	0 0	0 0	9 3.6	11 4.3	4 2.3	3 2.3	11 4.1	1 0.8
36 - 40 years	24 5.9	15 7.5	9 4.3	21 5.7	3 27.3	0 0	16 6.4	17 6.6	12 7.0	8 6.3	18 6.7	6 4.6
41 - 45 years	4 1.0	2 1.0	2 1.0	4 1.1	0 0	0 0	2 0.8	4 1.6	2 1.2	1 0.8	4 1.5	0 0
46 - 50 years	14 3.4	10 5.0	4 1.9	14 3.8	0 0	0 0	9 3.6	10 3.9	4 2.3	1 0.8	11 4.1	3 2.3
More than 50 years	17 4.2	14 7.0	3 1.4	16 4.4	0 0	1 3.2	10 4.0	11 4.3	6 3.5	4 3.1	13 4.8	4 3.1
CHI SQUARE			84.067			40.726	30.689	75.986	43.216	42.315		43.176
P			.000			.004	.059	.000	.002	.003		.000
DEGREES OF FREEDOM			10			20	20	20	20	20		10

TABLE 6. WHICH OF THE FOLLOWING STATEMENTS BEST DESCRIBES YOUR EMPLOYMENT ON THE FARM WHERE YOU WORK NOW OR WORKED LAST?.

	TOTAL	Type of Worker		Pesticide Use			Kinds of Pesticides Used				Pesticide Instruction	
		Farm Operator	Farm Worker	Yes	No	No Answer	Use Insecticide	Use Herbicide	Use Fungicide	Use Fumigant	Some Instruction	No Instruction
ANALYZED RESPONDENTS	405 100.0	198 48.9	207 51.1	364 89.9	11 2.7	30 7.4	248 61.2	254 62.7	169 41.7	126 31.1	268 67.3	130 32.7
I am the owner/operator	175 43.2	168 84.8	7 3.4	173 47.5	1 9.1	1 3.3	134 54.0	160 63.0	81 47.9	57 45.2	169 63.1	5 3.8
I am permanent hired help	65 16.0	15 7.6	50 24.2	56 15.4	3 27.3	6 20.0	41 16.5	31 12.2	29 17.2	19 15.1	35 13.1	30 23.1
I am a migrant worker	132 32.6	0 0	132 63.8	108 29.7	5 45.5	19 63.3	56 22.6	49 19.3	50 29.6	41 32.5	46 17.2	81 62.3
I am seasonal/temporary hired	1 0.2	1 0.5	0 0	1 0.3	0 0	0 0	1 0.4	1 0.4	1 0.6	1 0.8	1 0.4	0 0
Other /Unsure	32 7.9	14 7.1	18 8.7	26 7.1	2 18.2	4 13.3	16 6.5	13 5.1	8 4.7	8 6.3	17 6.3	14 10.8
CHI SQUARE			300.415			30.009	48.167	113.381	29.159	27.256		134.177
P			.000			.000	.000	.000	.000	.001		.000
DEGREES OF FREEDOM			4			8	8	8	8	8		4

TABLE 7. WHICH OF THE FOLLOWING FARM JOBS DO YOU PERFORM WITH SOME REGULARITY? (Multiple answers allowed.)

	Type of Worker			Pesticide Use			Kinds of Pesticides Used				Pesticide Instruction	
	TOTAL	Farm Operator	Farm Worker	Yes	No	No Answer	Use Insecticide	Use Herbicide	Use Fungicide	Use Fumigant	Some Instruction	No Instruction
ANALYZED RESPONDENTS	406 100.0	199 49.0	207 51.0	365 89.9	11 2.7	30 7.4	249 61.3	255 62.8	170 41.9	128 31.5	269 67.3	131 32.8
Hand labor in field	328 80.8	139 42.4	189 57.6	290 79.5	9 81.8	29 96.7	186 74.7	194 76.1	125 73.5	102 79.7	201 74.7	121 92.4
Irrigation work	254 62.6	175 68.9	79 38.2	247 67.7	2 18.2	5 16.7	199 79.9	211 82.7	135 79.4	99 77.3	194 72.1	56 42.7
Drive truck or tractor	252 62.1	186 93.5	66 31.2	246 67.4	1 9.1	5 16.7	195 78.3	216 84.7	137 80.6	99 77.3	207 77.0	44 33.6
Mechanical or shop work	188 46.3	167 83.9	21 10.1	185 50.7	1 9.1	2 6.7	144 57.8	167 65.5	94 55.3	64 50.0	176 65.4	12 9.2
Apply pesticides	199 49.0	177 88.9	22 10.6	198 54.2	0 0	1 3.3	155 62.2	181 71.0	105 61.8	73 57.0	184 68.4	14 10.7
Mix or load pesticides	183 45.1	170 85.4	13 6.3	182 49.9	0 0	1 3.3	145 58.2	168 65.9	96 56.5	67 52.3	175 65.1	8 6.1

TABLE 8. WHAT CROPS ARE GROWN ON THE FARM? (Multiple answers allowed.)

	TOTAL	Type of Worker		Pesticide Use			Kinds of Pesticides Used				Pesticide Instruction	
		Farm Operator	Farm Worker	Yes	No	No Answer	Use Insecticide	Use Herbicide	Use Fungicide	Use Fumigant	Some Instruction	No Instruction
ANALYZED RESPONDENTS	409 100.0	200 48.9	209 51.1	367 89.7	11 2.7	31 7.6	251 61.4	257 62.8	172 42.1	128 31.3	270 67.3	131 32.7
Small grains	246 60.1	154 77.0	92 44.0	237 64.6	3 27.3	6 19.4	186 74.1	200 77.8	132 76.7	102 79.7	189 70.0	53 40.5
Potatoes	210 51.2	55 27.5	155 74.2	187 51.0	4 36.4	19 61.3	132 52.6	114 44.4	107 62.2	86 67.2	108 40.0	95 72.5
Hay	130 31.8	116 58.0	14 6.7	127 34.6	2 18.2	1 3.2	98 39.0	118 45.9	59 34.3	44 34.4	120 44.4	10 7.6
Sugar beets	161 39.4	52 26.0	109 52.2	151 41.1	3 27.3	7 22.6	114 45.4	105 40.9	89 51.7	69 53.9	93 34.4	65 49.6
Beans	119 29.1	59 29.5	60 28.7	113 30.8	2 18.2	4 12.9	77 30.7	89 34.6	51 29.7	39 30.5	84 31.1	33 25.2
Alfalfa seed/clover seed	123 30.1	58 29.0	65 31.1	115 31.3	2 18.2	6 19.4	83 33.1	87 33.9	59 34.3	46 35.9	82 30.4	37 28.2
Corn	139 34.0	66 33.0	73 34.9	124 33.8	5 45.5	10 32.3	79 31.5	87 33.9	54 31.4	46 35.9	97 35.9	41 31.3
Onions	92 22.5	18 9.0	74 35.4	77 21.0	2 18.2	13 41.9	38 15.1	34 13.2	31 18.0	29 22.7	50 18.5	41 31.3
Fruit (orchards)	70 17.1	14 7.0	56 26.8	60 16.3	5 45.5	5 16.1	32 12.7	27 10.5	22 12.8	16 12.5	41 15.2	27 20.6
Hops	20 4.9	4 2.0	16 7.7	18 4.9	2 18.2	0 0	9 3.6	10 3.9	8 4.7	6 4.7	13 4.8	7 5.3
Mint	49 12.0	15 7.5	34 16.3	43 11.7	1 9.1	5 16.1	27 10.8	23 8.9	22 12.8	17 13.3	31 11.5	18 13.7

TABLE 9. ARE PESTICIDES USED ON THE FARM WHERE YOU NOW WORK OR LAST WORKED?

	TOTAL	Type of Worker		Kinds of Pesticides Used				Pesticide Instruction	
		Farm Operator	Farm Worker	Use Insecticide	Use Herbicide	Use Fungicide	Use Fumigant	Some Instruction	No Instruction
ANALYZED RESPONDENTS	409 100.0	200 48.9	209 51.1	251 61.4	257 62.8	172 42.1	128 31.3	270 67.3	131 32.7
YES	367 89.7	197 98.5	170 81.3	251 100.0	257 100.0	172 100.0	128 100.0	257 95.2	105 80.2
NO	11 2.7	2 1.0	9 4.3	0 0	0 0	0 0	0 0	4 1.5	7 5.3
Unsure/no answer	31 7.6	1 0.5	30 14.4	0 0	0 0	0 0	0 0	9 3.3	19 14.5
CHI SQUARE			33.388	406.930	408.799	392.574	401.490		22.766
P			.000	.000	.000	.000	.000		.000
DEGREES OF FREEDOM			2	4	4	4	4		2

TABLE 10. (If pesticides are used) WHAT KIND OF PESTICIDES ARE USED ON THE FARM?

	TOTAL	Type of Worker		Pesticide Use			Pesticide Instruction	
		Farm Operator	Farm Worker	Yes	No	No Answer	Some Instruction	No Instruction
ANALYZED RESPONDENTS	409 100.0	200 48.9	209 51.1	367 89.7	11 2.7	31 7.6	270 67.3	131 32.7
Insecticides	251 61.4	155 77.5	96 45.9	251 68.4	0 0	0 0	187 69.3	60 45.8
Herbicides	257 62.8	183 91.5	74 35.4	257 70.0	0 0	0 0	209 77.4	44 33.6
Fungicides	172 42.1	98 49.0	74 35.4	172 46.9	0 0	0 0	123 45.6	45 34.4
Fumigants	128 31.3	65 32.5	63 30.1	128 34.9	0 0	0 0	87 32.2	40 30.5

TABLE 11. HAVE YOU EVER BECOME ILL AFTER WORKING WITH OR EXPOSURE TO PESTICIDES?

	TOTAL	Type of Worker		Pesticide Use			Kinds of Pesticides Used				Pesticide Instruction	
		Farm Operator	Farm Worker	Yes	No	No Answer	Use Insecticide	Use Herbicide	Use Fungicide	Use Fumigant	Some Instruction	No Instruction
ANALYZED RESPONDENTS	400 100.0	198 49.5	202 50.5	358 89.5	11 2.8	31 7.8	245 61.3	251 62.8	166 41.5	124 31.0	265 67.6	127 32.4
YES	48 12.0	25 12.6	23 11.4	45 12.6	1 9.1	2 6.5	31 12.7	32 12.7	21 12.7	12 9.7	32 12.1	15 11.8
NO	352 88.0	173 87.4	179 88.6	313 87.4	10 90.9	29 93.5	214 87.3	219 87.3	145 87.3	112 90.3	233 87.9	112 88.2
CHI SQUARE			0.146			1.102	1.105	1.135	1.096	2.355		.006
P			.410			.576	.575	.567	.578	.308		.542
DEGREES OF FREEDOM			1			2	2	2	2	2		1

TABLE 12. (If ever ill due to pesticides) DID YOU CONSULT A NURSE OR DOCTOR?

	TOTAL	Type of Worker		Pesticide Use			Kinds of Pesticides Used				Pesticide Instruction	
		Farm Operator	Farm Worker	Yes	No	No Answer	Use Insecticide	Use Herbicide	Use Fungicide	Use Fumigant	Some Instruction	No Instruction
ANALYZED RESPONDENTS	48 100.00	25 52.1	23 47.9	45 93.8	1 2.1	2 4.2	31 64.6	32 66.7	21 43.8	12 25.0	32 68.1	15 31.9
YES	10 20.8	3 12.0	7 30.4	9 20.0	1 100.0	0 0	5 16.1	5 15.6	4 19.0	3 25.0	6 18.8	4 26.7
NO	38 79.2	22 88.0	16 69.6	36 80.0	0 0	2 100.0	26 83.9	27 84.4	17 81.0	9 75.0	26 81.3	11 73.3
CHI SQUARE			2.468			4.345	2.363	2.932	.719	.654		.382
P			.112			.114	.307	.231	.698	.721		.397
DEGREES OF FREEDOM			1			2	2	2	2	2		1

TABLE 13. (If ever ill due to pesticides) DID YOU MISS WORK DUE TO THE ILLNESS?

	TOTAL	Type of Worker		Pesticide Use			Kinds of Pesticides Used				Pesticide Instruction	
		Farm Operator	Farm Worker	Yes	No	No Answer	Use Insecticide	Use Herbicide	Use Fungicide	Use Fumigant	Some Instruction	No Instruction
ANALYZED RESPONDENTS	48	25	23	45	1	2	31	32	21	12	32	15
	100.0	52.1	47.9	93.8	2.1	4.2	64.6	66.7	43.8	25.0	68.1	31.9
YES	9	4	5	8	1	0	5	5	5	1	6	3
	18.8	16.0	21.7	17.8	100.0	0	16.1	15.6	23.8	8.3	18.8	20.0
NO	37	21	16	35	0	2	24	25	14	10	25	11
	77.1	84.0	69.6	77.8	0	100.0	77.4	78.1	66.7	83.3	78.1	73.3
Unsure/no answer	2	0	2	2	0	0	2	2	2	1	1	1
	4.2	0	8.7	4.4	0	0	6.5	6.3	9.5	8.3	3.1	6.7
CHI SQUARE			2.708			4.962	2.251	2.461	3.921	2.442		.340
P			.258			.291	.690	.652	.417	.655		.844
DEGREES OF FREEDOM			2			4	4	4	4	4		2

TABLE 14. (If ever ill due to pesticides and missed work) HOW MANY DAYS OF WORK DID YOU MISS?

	TOTAL	Type of Worker		Pesticide Use		Kinds of Pesticides Used				Pesticide Instruction	
		Farm Operator	Farm Worker	Yes	No	Use Insecticide	Use Herbicide	Use Fungicide	Use Fumigant	Some Instruction	No Instruction
ANALYZED RESPONDENTS	9	4	5	8	1	5	5	5	1	6	3
	100.0	44.4	55.6	88.9	11.1	55.6	55.6	55.6	11.1	66.7	33.3
One day	3	2	1	3	0	3	3	3	1	3	0
	33.3	50.0	20.0	37.5	0	60.0	60.0	60.0	100.0	50.0	0
Two days	1	1	0	0	1	0	0	0	0	1	0
	11.1	25.0	0	0	100.0	0	0	0	0	16.7	0
More than two days	2	0	2	2	0	0	0	1	0	1	1
	22.2	0	40.0	25.0	0	0	0	20.0	0	16.7	33.3
Unsure/no answer	3	1	2	3	0	2	2	1	0	1	2
	33.3	25.0	40.0	37.5	0	40.0	40.0	20.0	0	16.7	66.7
MEAN	6.00	3.25	8.20	6.50	2.00	4.20	4.20	5.40	1.00	3.50	11.00
STANDARD DEVIATION	5.00	3.86	5.02	5.10	-	4.38	4.38	6.39	-	3.56	3.46
STANDARD ERROR OF MEAN	1.67	1.93	2.24	1.80	-	1.96	1.96	2.86	-	1.45	2.00
T-TEST (DF = 7)		-1.618	-1.618	0.832	-	1.249	1.249	0.380	1.070	-3.000	-3.000
P (TWO-TAILED)		0.806	0.806	-	-	0.953	0.953	0.090	-	0.731	0.731
CHI SQUARE			3.600		9.000	6.300	6.300	4.275	2.250		3.750
P			.308		.029	.098	.098	.233	.522		.290
DEGREES OF FREEDOM			3		3	3	3	3	3		3

TABLE 15. HAVE YOU EVER RECEIVED ANY SPECIAL INSTRUCTIONS OR TRAINING ABOUT HOW TO USE A PESTICIDE CORRECTLY?

	TOTAL	Type of Worker		Pesticide Use			Kinds of Pesticides Used			
		Farm Operator	Farm Worker	Yes	No	No Answer	Use Insecticide	Use Herbicide	Use Fungicide	Use Fumigant
ANALYZED RESPONDENTS	401 100.0	200 49.9	201 50.1	362 90.3	11 2.7	28 7.0	247 61.6	253 63.1	168 41.9	127 31.7
YES	270 67.3	193 96.5	77 38.3	257 71.0	4 36.4	9 32.1	187 75.7	209 82.6	123 73.2	87 68.5
NO	131 32.7	7 3.5	124 61.7	105 29.0	7 63.6	19 67.9	60 24.3	44 17.4	45 26.8	40 31.5
CHI SQUARE			154.332			22.766	27.680	73.796	18.410	15.504
P			.000			.000	.000	.000	.000	.000
DEGREES OF FREEDOM			1			2	2	2	2	2

TABLE 16. (If received instructions or training) FROM WHOM DID YOU RECEIVE THIS INSTRUCTION OR TRAINING?

	TOTAL	Type of Worker		Pesticide Use			Kinds of Pesticides Used			
		Farm Operator	Farm Worker	Yes	No	No Answer	Use Insecticide	Use Herbicide	Use Fungicide	Use Fumigant
ANALYZED RESPONDENTS	270 100.0	193 71.5	77 28.5	257 95.2	4 1.5	9 3.3	187 69.3	209 77.4	123 45.6	87 32.2
Idaho Dept. of Agriculture	49 18.1	47 24.4	2 2.6	49 19.1	0 0	0 0	37 19.8	44 21.1	24 19.5	19 21.8
Dealer / Manufacturers Rep.	70 25.9	65 33.7	5 6.5	68 26.5	2 50.0	0 0	53 28.3	64 30.6	33 26.8	22 25.3
Extension Service	20 7.4	15 7.8	5 6.5	20 7.8	0 0	0 0	14 7.5	16 7.7	10 8.1	5 5.7
Farm owner / Supervisor	46 17.0	1 0.5	45 58.4	36 14.0	2 50.0	8 88.9	16 8.6	17 8.1	12 9.8	12 13.8
Head Start / Americorp	4 1.5	0 0	4 5.2	4 1.6	0 0	0 0	3 1.6	3 1.4	3 2.4	2 2.3
University of Idaho	21 7.8	21 5.2	0 0	21 8.2	0 0	0 0	19 10.2	20 9.6	13 10.6	9 10.3
Other schools / classes	15 5.6	14 7.3	1 1.3	15 5.8	0 0	0 0	14 7.5	12 5.7	9 7.3	4 4.6
Single mentions	20 7.4	18 9.3	2 2.6	20 7.8	0 0	0 0	14 7.5	17 8.1	9 7.3	6 6.9
Unsure / no answer	25 9.3	12 6.2	13 16.9	24 9.3	0 0	1 11.1	17 9.1	16 7.7	10 8.1	8 9.2
CHI SQUARE			170.602			41.394	60.902	78.104	47.469	43.382
P			.000			.000	.000	.000	.000	.000
DEGREES OF FREEDOM			8			16	16	16	16	16

TABLE 17. GENERALLY - HOW DO YOU LEARN ABOUT PESTICIDE USE? (Multiple answers allowed)

	TOTAL	Type of Worker		Pesticide Use			Kinds of Pesticides Used				Pesticide Instruction	
		Farm Operator	Farm Worker	Yes	No	No Answer	Use Insecticide	Use Herbicide	Use Fungicide	Use Fumigant	Some Instruction	No Instruction
ANALYZED RESPONDENTS	409 100.0	200 48.9	209 51.1	367 89.7	11 2.7	31 7.6	251 61.4	257 62.8	172 42.1	128 31.3	270 67.3	131 32.7
The owner of the farm	120 29.3	4 2.0	116 55.5	104 28.3	5 45.5	11 35.5	58 23.1	50 19.5	49 28.5	41 32.0	67 24.8	49 37.4
Co-workers	56 13.7	17 8.5	39 18.7	46 12.5	3 27.3	7 22.6	31 12.4	28 10.9	18 10.5	21 16.4	30 11.1	24 18.3
Read the label	120 29.3	94 47.0	26 12.4	116 31.6	0 0	4 12.9	89 35.5	99 38.5	53 30.8	38 29.7	102 37.8	18 13.7
Do what I've always done	8 2.0	6 3.0	2 1.0	8 2.2	0 0	0 0	5 2.0	7 2.7	4 2.3	1 0.8	6 2.2	2 1.5
The county agent or Dept. of Agriculture Representative	86 21.0	74 37.0	12 5.7	85 23.2	1 9.1	0 0	64 25.5	75 29.2	48 27.9	30 23.4	82 30.4	4 3.1
The manufacture's representative or dealer	92 22.5	84 42.0	8 3.8	90 24.5	1 9.1	1 3.2	74 29.5	85 33.1	50 29.1	39 30.5	88 32.6	4 3.1
Central location or field posting signs	47 11.5	20 10.0	27 12.9	43 11.7	0 0	4 12.9	34 13.5	37 14.4	22 12.8	23 18.0	29 10.7	18 13.7
Don't need to know about pesticides	9 2.2	0 0	9 4.3	7 1.9	1 9.1	1 3.2	4 1.6	3 1.2	4 2.3	1 0.8	1 0.4	8 6.1
Unknown source of information	38 9.3	3 1.5	35 16.7	28 7.6	1 9.1	9 29.0	16 6.4	12 4.7	10 5.8	9 7.0	3 1.1	35 26.7
Other source of information	57 13.9	55 27.5	2 1.0	56 15.3	1 9.1	0 0	44 17.5	51 19.8	27 15.7	17 13.3	54 20.0	3 2.3

TABLE 18. WHICH OF THE FOLLOWING STATEMENTS DESCRIBE WHAT YOU ARE SUPPOSED TO DO IF EXPOSED TO PESTICIDES? (Multiple answers allowed).

	TOTAL	Type of Worker		Pesticide Use			Kinds of Pesticides Used				Pesticide Instruction	
		Farm Operator	Farm Worker	Yes	No	No Answer	Use Insecticide	Use Herbicide	Use Fungicide	Use Fumigant	Some Instruction	No Instruction
ANALYZED RESPONDENTS	409 100.0	200 48.9	209 51.1	367 89.7	11 2.7	31 7.6	251 61.4	257 62.8	172 42.1	128 31.3	270 67.3	131 32.7
Remove contaminated clothing	337 82.4	196 98.0	141 67.5	315 85.8	5 45.5	17 54.8	225 89.6	239 93.0	154 89.5	110 85.9	248 91.9	84 64.1
See a doctor immediately	263 64.3	148 74.0	115 55.0	239 65.1	8 72.7	16 51.6	157 62.5	167 65.0	106 61.6	78 60.9	193 71.5	69 52.7
Continue working	20 4.9	15 7.5	5 2.4	18 4.9	0 0	2 6.5	15 6.0	16 6.2	10 5.8	5 3.9	13 4.8	7 5.3
Take an antidote	191 46.7	175 87.5	16 7.7	188 51.2	2 18.2	1 3.2	145 57.8	164 63.8	91 52.9	66 51.6	180 66.7	11 8.4
Wash with soap and water	338 82.6	195 97.5	143 68.4	318 86.6	6 54.5	14 45.2	225 89.6	239 93.0	155 90.1	114 89.1	244 90.4	90 68.7
Lay down and rest	94 23.0	82 41.0	12 5.7	89 24.3	4 36.4	1 3.2	66 26.3	82 31.9	41 23.8	25 19.5	86 31.9	8 6.1
Not sure what to do	17 4.2	4 2.0	13 6.2	15 4.1	1 9.1	1 3.2	8 3.2	10 3.9	7 4.1	5 3.9	3 1.1	13 9.9

TABLE 19. DO YOU PERSONALLY THINK YOU NEED MORE INFORMATION ABOUT PESTICIDES AND THEIR USE?

	TOTAL	Type of Worker		Pesticide Use			Kinds of Pesticides Used				Pesticide Instruction	
		Farm Operator	Farm Worker	Yes	No	No Answer	Use Insecticide	Use Herbicide	Use Fungicide	Use Fumigant	Some Instruction	No Instruction
ANALYZED RESPONDENTS	362 100.0	199 55.0	163 45.0	330 91.2	10 2.8	22 6.1	233 64.4	242 66.9	158 43.6	118 32.6	253 71.1	103 28.9
YES	158 43.6	45 22.6	113 69.3	136 41.2	7 70.0	15 68.2	95 40.8	83 34.3	68 43.0	56 35.4	79 31.2	74 71.8
NO	204 56.4	154 77.4	50 30.7	194 58.8	3 30.0	7 31.8	138 59.2	159 65.7	90 57.0	62 52.5	174 68.8	29 28.2
CHI SQUARE			79.491			9.003	4.433	25.941	3.779	6.694		49.282
P			.000			.011	.109	.000	.151	.035		.000
DEGREES OF FREEDOM			1			2	2	2	2	2		1

TABLE 20. DO YOU WASH UP AFTER WORKING AROUND PESTICIDES?

	TOTAL	Type of Worker		Pesticide Use			Kinds of Pesticides Used				Pesticide Instruction	
		Farm Operator	Farm Worker	Yes	No	No Answer	Use Insecticide	Use Herbicide	Use Fungicide	Use Fumigant	Some Instruction	No Instruction
ANALYZED RESPONDENTS	384	200	184	351	11	22	240	247	162	119	269	111
	100.0	52.1	47.9	91.4	2.9	5.7	62.5	64.3	42.2	31.0	70.8	29.2
YES	375	198	177	343	10	22	233	242	158	114	267	104
	97.7	99.0	96.2	97.7	90.9	100.0	97.1	98.0	97.5	95.8	99.3	93.7
NO	9	2	7	8	1	0	7	5	4	5	2	7
	2.3	1.0	3.8	2.3	9.1	0	2.9	2.0	2.5	4.2	0.7	6.3
CHI SQUARE			3.293			2.722	1.161	1.392	.616	2.851		10.516
P			.069			.256	.560	.498	.735	.240		.003
DEGREES OF FREEDOM			1			2	2	2	2	2		1

TABLE 21. DO YOU WEAR PROTECTIVE CLOTHING OR EQUIPMENT WHEN WORKING AROUND PESTICIDES?

	TOTAL	Type of Worker		Pesticide Use			Kinds of Pesticides Used				Pesticide Instruction	
		Farm Operator	Farm Worker	Yes	No	No Answer	Use Insecticide	Use Herbicide	Use Fungicide	Use Fumigant	Some Instruction	No Instruction
ANALYZED RESPONDENTS	389	197	192	354	10	25	242	248	165	123	264	121
	100.0	50.6	49.4	91.0	2.6	6.4	62.2	63.8	42.4	31.6	68.6	31.4
YES	273	189	84	259	6	8	188	209	126	86	231	40
	70.2	95.9	43.8	73.2	60.0	32.0	77.7	84.3	76.4	69.9	87.5	33.1
NO	116	8	108	95	4	17	54	39	39	37	33	81
	29.8	4.1	56.3	26.8	40.0	68.0	22.3	15.7	23.6	30.1	12.5	66.9
CHI SQUARE		126.548				19.415	24.069	66.058	17.225	17.541		117.990
P		.000				.000	.000	.000	.000	.000		.000
DEGREES OF FREEDOM		1				2	2	2	2	2		1

TABLE 22. DO YOU THINK PESTICIDES HAVE TO BE SWALLOWED TO BE DANGEROUS?

	TOTAL	Type of Worker		Pesticide Use			Kinds of Pesticides Used				Pesticide Instruction	
		Farm Operator	Farm Worker	Yes	No	No Answer	Use Insecticide	Use Herbicide	Use Fungicide	Use Fumigant	Some Instruction	No Instruction
ANALYZED RESPONDENTS	388 100.0	199 51.3	189 48.7	350 90.2	11 2.8	27 7.0	240 61.9	251 64.7	162 41.8	121 31.2	267 69.9	115 30.1
YES	97 25.0	5 2.5	92 48.7	82 23.4	3 27.3	12 44.4	51 21.3	47 18.7	44 27.2	33 27.3	32 12.0	60 52.2
NO	291 75.0	194 97.5	97 51.3	268 76.6	8 72.7	15 55.6	189 78.8	204 81.3	118 72.8	88 72.7	235 88.0	55 47.8
CHI SQUARE		110.180				5.936	10.406	17.650	11.627	8.899		71.007
P		.000				.051	.005	.000	.003	.012		.000
DEGREES OF FREEDOM		1				2	2	2	2	2		1

TABLE 23. DO YOU THINK PESTICIDES CAN CONTAMINATE WATER SOURCES DEEP IN THE EARTH?

	TOTAL	Type of Worker		Pesticide Use			Kinds of Pesticides Used				Pesticide Instruction	
		Farm Operator	Farm Worker	Yes	No	No Answer	Use Insecticide	Use Herbicide	Use Fungicide	Use Fumigant	Some Instruction	No Instruction
ANALYZED RESPONDENTS	392	198	194	355	10	27	242	251	165	124	265	121
	100.0	50.5	49.5	90.6	2.6	6.9	61.7	64.0	42.1	31.6	68.7	31.3
YES	388	195	193	351	10	27	238	247	162	121	261	121
	99.0	98.5	99.5	98.9	100.0	100.0	98.3	98.4	98.2	97.6	98.5	100.0
NO	4	3	1	4	0	0	4	4	3	3	4	0
	1.0	1.5	0.5	1.1	0	0	1.7	1.6	1.8	2.4	1.5	0
CHI SQUARE			.970			.421	2.505	2.270	1.859	3.558		1.846
P			.319			.810	.286	.321	.395	.169		.221
DEGREES OF FREEDOM			1			2	2	2	2	2		1

TABLE 24. DO YOU THINK PESTICIDES CAN BE ABSORBED INTO THE BODY THROUGH THE EYES?

	TOTAL	Type of Worker		Pesticide Use			Kinds of Pesticides Used				Pesticide Instruction	
		Farm Operator	Farm Worker	Yes	No	No Answer	Use Insecticide	Use Herbicide	Use Fungicide	Use Fumigant	Some Instruction	No Instruction
ANALYZED RESPONDENTS	357 100.0	197 55.2	160 44.8	330 92.4	8 2.2	19 5.3	229 64.1	237 66.4	153 42.9	113 31.7	258 73.5	93 26.5
YES	352 98.6	197 100.0	155 96.9	325 98.5	8 100.0	19 100.0	226 98.7	236 99.6	151 98.7	110 97.3	257 99.6	89 95.7
NO	5 1.4	0 0	5 3.1	5 1.5	0 0	0 0	3 1.3	1 0.4	2 1.3	3 2.7	1 0.4	4 4.3
CHI SQUARE			6.244			.415	.482	6.938	.384	1.990		7.456
P			.017			.813	.786	.031	.826	.370		.019
DEGREES OF FREEDOM			1			2	2	2	2	2		1

TABLE 25. IN WHAT COUNTY IS THE FARM WHERE YOU WORK?

ANALYZED RESPONDENTS	TOTAL	Type of Worker Farm		Pesticide Use			Kinds of Pesticides Used				Pesticide Instruction	
		Operator	Worker	Yes	No	No Answer	Use Insecticide	Use Herbicide	Use Fungicide	Use Fumigant	Some Instruction	No Instruction
	409 100.0	200 48.9	209 51.1	367 89.7	11 2.7	31 7.6	251 61.4	257 62.8	172 42.1	128 31.3	270 67.3	131 32.7
Ada	28 6.8	23 11.5	5 2.4	28 7.6	0 0	0 0	19 7.6	20 7.8	13 7.6	5 3.9	23 8.5	5 3.8
Bannock	5 1.2	5 2.5	0 0	4 1.1	0 0	1 3.2	3 1.2	4 1.6	0 0	2 1.6	4 1.5	1 0.8
Bingham	31 7.6	14 7.0	17 8.1	31 8.4	0 0	0 0	29 11.6	21 8.2	25 14.5	18 14.1	20 7.4	11 8.4
Bonneville	19 4.6	10 5.0	9 4.3	15 4.1	1 9.1	3 9.7	11 4.4	10 3.9	5 2.9	4 3.1	11 4.1	8 6.1
Boundary	12 2.9	12 6.0	0 0	12 3.3	0 0	0 0	8 3.2	10 3.9	6 3.5	2 1.6	12 4.4	0 0
Canyon	83 20.3	27 13.5	56 26.8	72 19.6	6 54.5	5 16.1	36 14.3	35 13.6	29 16.9	22 17.2	54 20.0	29 22.1
Cassia	31 7.6	13 6.5	18 8.6	29 7.9	0 0	2 6.5	20 8.0	24 9.3	17 9.9	15 11.7	17 6.3	13 9.9
Elmore	8 2.0	2 1.0	6 2.9	7 1.9	0 0	1 3.2	4 1.6	1 0.4	1 0.6	4 3.1	3 1.1	5 3.8
Gem	10 2.4	5 2.5	5 2.4	10 2.7	0 0	0 0	8 3.2	7 2.7	4 2.3	2 1.6	8 3.0	2 1.5
Gooding	3 0.7	2 1.0	1 0.5	3 0.8	0 0	0 0	3 1.2	3 1.2	2 1.2	0 0	3 1.1	0 0
Jefferson	19 4.6	8 4.0	11 5.3	15 4.1	0 0	4 12.9	8 3.2	12 4.7	6 3.5	5 3.9	14 5.2	5 3.8

TABLE 25. IN WHAT COUNTY IS THE FARM WHERE YOU WORK? (Continued)

	TOTAL	Type of Worker		Pesticide Use			Kinds of Pesticides Used				Pesticide Instruction	
		Farm Operator	Farm Worker	Yes	No	No Answer	Use Insecticide	Use Herbicide	Use Fungicide	Use Fumigant	Some Instruction	No Instruction
ANALYZED RESPONDENTS	409 100.0	200 48.9	209 51.1	367 89.7	11 2.7	31 7.6	251 61.4	257 62.8	172 42.1	128 31.3	270 67.3	131 32.7
Jerome	20 4.9	7 3.5	13 6.2	18 4.9	0 0	2 6.5	16 6.4	17 6.6	14 8.1	11 8.6	8 3.0	11 8.4
Madison	13 3.2	6 3.0	7 3.3	11 3.0	0 0	2 6.5	7 2.8	6 2.3	4 2.3	5 3.9	8 3.0	3 2.3
Minidoka	37 9.0	15 7.5	22 10.5	34 9.3	2 18.2	1 3.2	29 11.6	26 10.1	21 12.2	9 7.0	21 7.8	15 11.5
Owyhee	23 5.6	9 4.5	14 6.7	15 4.1	2 18.2	6 19.4	12 4.8	12 4.7	6 3.5	6 4.7	17 6.3	6 4.6
Payette	14 3.4	8 4.0	6 2.9	13 3.5	0 0	1 3.2	5 2.0	9 3.5	4 2.3	5 3.9	12 4.4	2 1.5
Power	10 2.4	7 3.5	3 1.4	9 2.5	0 0	1 3.2	7 2.8	7 2.7	4 2.3	3 2.3	8 3.0	2 1.5
Twin Falls	30 7.3	19 9.5	11 5.3	29 7.9	0 0	1 3.2	20 8.0	25 9.7	6 3.5	7 5.5	18 6.7	11 8.4
Washington	13 3.2	8 4.0	5 2.4	12 3.3	0 0	1 3.2	6 2.4	8 3.1	5 2.9	3 2.3	9 3.3	2 1.5
CHI SQUARE			51.487			48.769	70.994	75.281	75.584	61.212		29.093
P			.000			.076	.000	.000	.000	.005		.047
DEGREES OF FREEDOM			18			36	36	36	36	36		18

TABLE 26. DID YOU LIVE IN ONE HOUSE YEAR-ROUND LAST YEAR?

	TOTAL	Type of Worker		Pesticide Use			Kinds of Pesticides Used				Pesticide Instruction	
		Farm Operator	Farm Worker	Yes	No	No Answer	Use Insecticide	Use Herbicide	Use Fungicide	Use Fumigant	Some Instruction	No Instruction
ANALYZED RESPONDENTS	409	200	209	367	11	31	251	257	172	128	270	131
	100.0	48.9	51.1	89.7	2.7	7.6	61.4	62.8	42.1	31.3	67.3	32.7
YES	213	191	22	207	2	4	161	186	105	71	193	19
	52.1	95.5	10.5	56.4	18.2	12.9	64.1	72.4	61.0	55.5	71.5	14.5
NO	191	7	184	156	9	26	87	68	65	56	75	111
	46.7	3.5	88.0	42.5	81.8	83.9	34.7	26.5	37.8	43.8	27.8	84.7
Unsure/no answer	5	2	3	4	0	1	3	3	2	1	2	1
	1.2	1.0	1.4	1.1	0	3.2	1.2	1.2	1.2	0.8	0.7	0.8
CHI SQUARE		298.262				27.544	46.085	116.786	27.091	22.149		115.850
P		.000				.000	.000	.000	.000	.000		.000
DEGREES OF FREEDOM		2				4	4	4	4	4		2

TABLE 27. ARE YOU MALE OR FEMALE?

	TOTAL	Type of Worker		Pesticide Use			Kinds of Pesticides Used				Pesticide Instruction	
		Farm Operator	Farm Worker	Yes	No	No Answer	Use Insecticide	Use Herbicide	Use Fungicide	Use Fumigant	Some Instruction	No Instruction
ANALYZED RESPONDENTS	405	200	205	366	10	29	250	257	171	127	269	129
	100.0	49.4	50.6	90.4	2.5	7.2	61.7	63.5	42.2	31.4	67.6	32.4
Male	328	189	139	305	7	16	229	237	158	117	238	84
	81.0	47.2	33.4	75.3	0.3	4.5	56.8	58.3	39.2	29.1	58.5	20.9
Female	77	11	66	61	3	13	21	20	13	10	31	45
	19.0	2.8	17.2	16.7	3.0	3.8	5.3	7.8	7.6	7.9	11.5	34.9
CHI SQUARE		46.853				14.643	49.831	58.729	32.386	22.986		30.795
P		.000				.001	.000	.000	.000	.000		.000
DEGREES OF FREEDOM		1				2	2	2	2	2		1

TABLE 28. HOW OLD ARE YOU?

ANALYZED RESPONDENTS	TOTAL	Type of Worker		Pesticide Use			Kinds of Pesticides Used				Pesticide Instruction	
		Farm Operator	Farm Worker	Yes	No	No Answer	Use Insecticide	Use Herbicide	Use Fungicide	Use Fumigant	Some Instruction	No Instruction
	409 100.0	200 48.9	209 51.1	367 89.7	11 2.7	31 7.6	251 61.4	257 62.8	172 42.1	128 31.3	270 67.3	131 32.7
Under 21 years	7 1.7	0 0	7 3.3	4 1.1	0 0	3 9.7	4 1.6	2 0.8	1 0.6	2 1.6	1 0.4	6 4.6
21 - 25 years	24 5.9	5 2.5	19 9.1	21 5.7	2 18.2	1 3.2	13 5.2	10 3.9	8 4.7	8 6.3	8 3.0	14 10.7
26 - 30 years	48 11.7	11 5.5	37 17.7	39 10.6	2 18.2	7 22.6	24 9.6	23 8.9	19 11.0	15 11.7	26 9.6	21 16.0
31 - 35 years	48 11.7	15 7.5	33 15.8	44 12.0	0 0	4 12.9	29 11.6	26 10.1	29 16.9	18 14.1	30 11.1	18 13.7
36 - 40 years	57 13.9	26 13.0	31 14.8	51 13.9	2 18.2	4 12.9	39 15.5	37 14.4	30 17.4	20 15.6	35 13.0	21 16.0
41 - 45 years	48 11.7	32 16.0	16 7.7	43 11.7	1 9.1	4 12.9	31 12.4	36 14.0	21 12.2	18 14.1	35 13.0	12 9.2
46 - 50 years	68 16.6	44 22.0	24 11.5	62 16.9	2 18.2	4 12.9	46 18.3	47 14.0	24 18.0	23 18.0	55 20.4	11 8.4
51 - 55 years	39 9.5	24 12.0	15 7.2	36 9.8	1 9.1	2 6.5	23 9.2	27 10.5	14 8.1	9 7.0	26 9.6	12 9.2
56 - 60 years	31 7.6	22 11.0	9 4.3	30 8.2	1 9.1	0 0	19 7.6	23 8.9	12 7.0	7 5.5	27 10.0	4 3.1
61 - 65 years	13 3.2	7 3.5	6 2.9	12 2.9	0 0	1 3.2	8 3.2	9 3.5	6 3.5	3 2.3	8 3.0	5 3.8
Over 65 years	24 5.9	12 6.0	12 5.7	23 6.3	0 0	1 3.2	14 5.6	15 5.8	8 4.7	5 3.9	17 6.3	7 5.3
Unsure/no answer	2 0.5	0 0	2 0.5	2 0.5	0 0	0 0	1 0.4	2 0.8	0 0	0 0	2 0.7	0 0

TABLE 28. HOW OLD ARE YOU? (Statistics, continued)

TOTAL	Type of Worker		Pesticide Use			Kinds of Pesticides Used				Pesticide Instruction	
	Farm Operator	Farm Worker	Yes	No	No Answer	Use Insecticide	Use Herbicide	Use Fungicide	Use Fumigant	Some Instruction	No Instruction
MEAN	46.69	39.73	43.73	39.18	-	43.52	44.79	42.53	41.59	45.13	39.30
STANDARD DEVIATION	11.33	13.78	13.04	12.80	-	12.69	12.41	12.46	12.57	12.30	13.86
STANDARD ERROR OF MEAN	0.80	0.95	0.68	3.86	-	0.80	0.78	0.95	1.11	0.75	1.21
T - TEST (DF = 405)	5.553	5.553	1.140	1.140	-	0.270	-2.498	1.520	2.196	4.263	4.263
P (TWO TAILED)	.000	.000	.255	.255	-	.787	.013	.129	.029	.000	.000
CHI SQUARE		57.089			26.118	26.973	37.357	38.439	29.534		38.334
P		.000			.247	.212	.022	.016	.130		.000
DEGREES OF FREEDOM		11			22	22	22	22	22		11

TABLE 29. WHAT IS YOUR RACE?

	TOTAL	Type of Worker		Pesticide Use			Kinds of Pesticides Used				Pesticide Instruction	
		Farm Operator	Farm Worker	Yes	No	No Answer	Use Insecticide	Use Herbicide	Use Fungicide	Use Fumigant	Some Instruction	No Instruction
ANALYZED RESPONDENTS	404 100.0	195 48.3	209 51.7	362 89.6	11 2.7	31 7.7	246 60.9	253 62.6	169 41.8	125 30.9	265 66.9	131 33.1
Mexican / Hispanic	177 43.8	0 0	177 84.7	145 40.1	7 63.6	25 80.6	79 32.1	63 24.9	66 39.1	55 44.0	65 24.5	106 80.9
White	217 53.7	189 96.9	28 13.4	208 57.5	4 36.4	5 16.1	161 65.4	182 71.9	99 58.6	67 53.6	194 73.2	23 17.6
Asian / Oriental	2 0.5	2 1.0	0 0	2 0.6	0 0	0 0	2 0.8	2 0.8	1 0.6	1 0.8	2 0.8	0 0
Native American	1 0.2	1 0.5	0 0	1 0.3	0 0	0 0	0 0	1 0.4	0 0	0 0	1 0.4	0 0
Black	1 0.2	0 0	1 0.5	1 0.3	0 0	0 0	0 0	0 0	0 0	0 0	1 0.4	0 0
Other	4 1.01	3 1.5	1 0.5	4 1.1	0 0	0 0	3 1.2	4 1.6	2 1.2	2 1.6	2 0.8	2 1.5
Unsure/no answer	2 0.5	0 0	2 1.0	1 0.3	0 0	0 0	1 0.4	1 0.4	1 0.6	0 0	0 0	0 0
CHI SQUARE		303.331				27.469	53.893	109.518	29.952	29.109		116.588
P		.000				.007	.000	.000	.003	.004		.000
DEGREES OF FREEDOM		6				12	12	12	12	12		5

TABLE 30. CAN YOU READ ENGLISH?

	TOTAL	Type of Worker		Pesticide Use			Kinds of Pesticides Used				Pesticide Instruction	
		Farm Operator	Farm Worker	Yes	No	No Answer	Use Insecticide	Use Herbicide	Use Fungicide	Use Fumigant	Some Instruction	No Instruction
ANALYZED RESPONDENTS	406 100.0	200 49.3	206 50.7	365 89.9	11 2.7	30 7.4	249 61.3	256 63.1	170 41.9	127 31.3	270 67.5	130 32.5
YES	283 69.7	200 100.0	83 40.3	266 72.9	4 36.4	13 43.3	195 78.3	211 82.4	123 72.4	87 68.5	229 84.8	52 40.0
NO	123 30.3	0 0	123 59.7	99 27.1	7 63.6	17 56.7	54 21.7	45 17.6	47 27.6	40 31.5	41 15.2	78 60.0
CHI SQUARE			171.320			17.409	25.478	53.416	11.108	10.522		84.325
P			.000			.000	.000	.000	.004	.005		.000
DEGREES OF FREEDOM			1			2	2	2	2	2		1

TABLE 31. CAN YOU READ SPANISH?

	TOTAL	Type of Worker		Pesticide Use			Kinds of Pesticides Used				Pesticide Instruction	
		Farm Operator	Farm Worker	Yes	No	No Answer	Use Insecticide	Use Herbicide	Use Fungicide	Use Fumigant	Some Instruction	No Instruction
ANALYZED RESPONDENTS	408 100.0	200 49.0	208 51.0	367 90.0	11 2.7	30 7.4	251 61.5	257 63.0	172 42.2	128 31.4	270 67.3	131 32.7
YES	205 50.2	35 17.5	170 81.7	178 48.5	7 63.6	20 66.7	110 43.8	95 37.0	87 50.6	74 57.8	95 35.2	104 79.4
NO	203 49.8	165 82.5	38 18.3	189 51.5	4 36.4	10 33.3	141 56.2	162 63.0	85 49.4	54 42.2	175 64.8	27 20.6
CHI SQUARE			168.263			4.472	11.176	49.835	3.629	10.396		68.945
P			.000			.107	.004	.000	.163	.006		.000
DEGREES OF FREEDOM			1			2	2	2	2	2		1

TABLE 32. WHAT WAS THE LAST GRADE YOU COMPLETED IN SCHOOL?

	TOTAL	Type of Worker		Pesticide Use			Kinds of Pesticides Used				Pesticide Instruction	
		Farm Operator	Farm Worker	Yes	No	No Answer	Use Insecticide	Use Herbicide	Use Fungicide	Use Fumigant	Some Instruction	No Instruction
ANALYZED RESPONDENTS	409 100.0	200 48.9	209 51.1	367 89.7	11 2.7	31 7.6	251 61.4	257 62.8	172 42.1	128 31.3	270 67.3	131 32.7
Less than 7 years (Primary)	126 30.8	0 0	126 60.3	107 29.2	6 54.5	13 41.9	56 22.3	47 18.3	50 29.1	42 32.8	49 18.1	74 56.5
7 - 9 years (Junior High)	29 7.1	1 0.5	28 13.4	23 6.3	0 0	6 19.4	14 5.6	11 4.3	12 7.0	11 8.6	9 3.3	19 14.5
10 - 12 years (High School)	95 23.2	55 27.5	40 19.1	86 23.4	3 27.3	6 19.4	58 23.1	64 24.9	36 20.9	23 18.0	70 25.9	23 17.6
13 - 16 years (College)	132 32.3	125 62.5	7 3.3	129 35.1	2 18.2	1 3.2	109 43.4	120 46.7	65 37.8	44 34.4	123 45.6	9 6.9
More than 16 years (Graduate)	16 3.9	16 8.0	0 0	15 4.1	0 0	1 3.2	12 4.8	11 4.3	6 3.5	5 3.9	15 5.6	1 0.8
Unsure/no answer	11 2.7	3 1.5	8 3.8	7 1.9	0 0	4 12.9	2 0.8	4 1.6	3 1.7	3 2.3	4 1.5	5 3.8
MEAN		3.83	1.81	2.84	2.09	-	3.05	3.19	2.85	2.75	3.21	1.92
STANDARD DEVIATION		0.64	1.23	1.38	1.30	-	1.28	1.23	1.38	1.44	1.24	1.30
STANDARD ERROR OF MEAN		4.51E	8.50E	7.19E	0.39	-	8.11E	7.70E	0.10	0.13	7.53E	0.11
T - TEST (DF = 407)		20.686	20.686	1.791	1.791	-	-4.489	-8.018	-.212	0.784	9.629	9.629
P (TWO TAILED)		.000	.000	.074	.074	-	.000	.000	.832	.434	.000	.000
CHI SQUARE			277.200			34.948	65.370	104.036	33.028	35.601		108.018
P			.000			.000	.000	.000	.000	.000		.000
DEGREES OF FREEDOM			5			10	10	10	10	10		5

TABLE 33. WHAT IS YOUR MARITAL STATUS?

	TOTAL	Type of Worker		Pesticide Use			Kinds of Pesticides Used				Pesticide Instruction	
		Farm Operator	Farm Worker	Yes	No	No Answer	Use Insecticide	Use Herbicide	Use Fungicide	Use Fumigant	Some Instruction	No Instruction
ANALYZED RESPONDENTS	406 100.0	198 48.8	208 51.2	365 89.9	11 2.7	30 7.4	249 61.3	255 62.8	170 41.9	126 31.0	268 67.2	131 32.8
Married	344 84.7	176 88.9	168 80.8	308 84.4	10 90.9	26 86.7	214 85.9	221 86.7	151 88.8	104 82.5	236 88.1	102 77.9
Single	44 10.8	16 8.1	28 13.5	41 11.2	0 0	3 10.0	25 10.0	23 9.0	14 8.2	16 12.7	23 8.6	20 15.3
Divorced	10 2.5	5 2.5	5 2.4	9 2.5	0 0	1 3.3	6 2.4	7 2.7	1 0.6	2 1.6	6 2.2	4 3.1
Separated	5 1.2	0 0	5 2.4	4 1.1	1 9.1	0 0	2 0.8	2 0.8	2 1.2	2 1.6	2 0.7	3 2.3
Widowed	3 0.7	1 0.5	2 1.0	3 0.8	0 0	0 0	2 0.8	2 0.8	2 1.2	2 1.6	1 0.4	2 1.5
CHI SQUARE			8.551			7.974	2.977	5.619	8.022	3.639		8.193
P			.073			.436	.936	.690	.431	.888		.085
DEGREES OF FREEDOM			4			8	8	8	8	8		4

TABLE 34. COUNTING YOURSELF HOW MANY PEOPLE LIVE WITH YOU IN YOUR HOUSEHOLD?

	TOTAL	Type of Worker		Pesticide Use			Kinds of Pesticides Used				Pesticide Instruction	
		Farm Operator	Farm Worker	Yes	No	No Answer	Use Insecticide	Use Herbicide	Use Fungicide	Use Fumigant	Some Instruction	No Instruction
ANALYZED RESPONDENTS	402 100.0	198 49.3	204 50.7	367 89.7	11 2.7	31 7.6	251 61.4	257 62.8	172 42.1	128 31.3	270 67.3	131 32.7
One person	15 3.7	13 6.6	2 1.0	15 4.1	0 0	0 0	11 4.4	14 5.4	5 2.9	4 3.1	13 4.8	2 1.5
Two people	89 22.1	65 32.8	24 11.8	85 23.2	3 27.3	1 3.2	62 24.7	68 26.5	36 20.9	22 17.2	73 27.0	15 11.5
Three people	58 14.4	32 16.2	26 12.7	56 15.3	0 0	2 6.5	37 14.7	40 15.6	23 13.4	15 11.7	40 14.8	17 13.0
Four people	79 19.7	35 17.7	44 21.6	71 19.3	1 9.1	7 22.6	50 19.9	50 19.5	38 22.1	26 20.3	49 18.1	28 21.4
Five people	69 17.2	29 14.6	40 19.6	58 15.8	3 27.3	8 25.8	40 15.9	37 14.4	29 16.9	20 15.6	47 17.4	20 15.3
Six people	51 12.7	18 9.1	33 16.2	42 11.4	0 0	9 29.0	25 10.0	24 9.3	18 10.5	17 13.3	27 10.0	23 17.6
Seven people	22 5.5	5 2.5	17 8.3	18 4.9	2 18.2	2 6.5	13 5.2	12 4.7	9 5.2	13 10.2	10 3.7	12 9.2
Eight people	10 2.5	1 0.5	9 4.4	10 2.7	0 0	0 0	6 2.4	5 1.9	7 4.1	6 4.7	5 1.9	5 3.8
Nine people	2 0.5	0 0	2 0.5	1 0.3	1 9.1	0 0	0 0	0 0	1 0.6	1 0.8	0 0	2 1.5
Ten or more	7 1.7	0 0	7 3.3	7 1.9	0 0	0 0	3 1.2	4 1.6	4 2.3	2 1.6	3 1.1	4 3.1
Unsure/no answer	7 1.7	2 1.0	5 2.4	4 1.1	1 9.1	2 6.5	4 1.6	3 1.2	2 1.2	2 1.6	3 1.1	3 2.3

TABLE 34. COUNTING YOURSELF HOW MANY PEOPLE LIVE WITH YOU IN YOUR HOUSEHOLD? (Statistics, continued)

TOTAL	Type of Worker		Pesticide Use			Kinds of Pesticides Used				Pesticide Instruction	
	Farm Operator	Farm Worker	Yes	No	No Answer	Use Insecticide	Use Herbicide	Use Fungicide	Use Fumigant	Some Instruction	No Instruction
MEAN	3.41	4.97	4.12	4.80	-	3.91	3.91	4.41	4.50	3.91	4.80
STANDARD DEVIATION	1.60	3.15	2.70	2.39	-	1.85	2.92	3.36	2.01	2.85	2.00
STANDARD ERROR OF MEAN	0.11	0.22	0.14	0.76	-	0.12	0.18	0.26	0.18	0.17	0.18
T-TEST (DF = 400)	-6.228	-6.228	-.786	-.786	-	2.260	2.333	-1.826	-1.851	-3.190	-3.190
P	.000	.000	.432	.432	-	.024	.020	.069	.065	.002	.002
CHI SQUARE		57.827			53.013	30.448	40.473	29.956	41.199		30.284
P		.000			.000	.063	.004	.071	.004		.001
DEGREES OF FREEDOM		10			20	20	20	20	20		10

TABLE 35. HOW MANY CHILDREN UNDER 18 YEARS OLD DO YOU HAVE THAT LIVE WITH YOU?

	TOTAL	Type of Worker		Pesticide Use			Kinds of Pesticides Used				Pesticide Instruction	
		Farm Operator	Farm Worker	Yes	No	No Answer	Use Insecticide	Use Herbicide	Use Fungicide	Use Fumigant	Some Instruction	No Instruction
ANALYZED RESPONDENTS	409 100.0	200 48.9	209 51.1	367 89.7	11 2.7	31 7.6	251 61.4	257 62.8	172 42.1	128 31.3	270 67.3	131 32.7
None	151 36.9	91 45.5	60 28.7	138 37.6	4 36.4	9 29.0	94 37.5	103 40.1	54 31.4	41 32.0	110 40.7	40 30.5
One child	54 13.2	25 12.5	29 13.9	52 14.2	0 0	2 6.5	36 14.3	38 14.8	21 12.2	14 10.9	33 12.2	19 14.5
Two children	75 18.3	36 18.0	39 18.7	65 17.7	2 18.2	8 25.8	47 18.7	46 17.9	37 21.5	24 18.8	47 17.4	27 20.6
Three children	58 14.2	24 12.0	34 16.3	53 14.4	1 9.1	4 12.9	36 14.3	33 12.8	28 16.3	22 17.2	39 14.4	18 13.7
Four children	36 8.8	16 8.0	20 9.6	32 8.7	1 9.1	3 9.7	20 8.0	19 7.4	14 8.1	12 9.4	22 8.1	13 9.9
Five or more children	27 6.6	5 2.5	22 10.5	23 6.3	2 18.2	2 6.5	14 5.6	14 5.4	15 8.7	13 10.2	15 5.6	12 9.2
Unsure/no answer	8 2.0	3 1.5	5 2.4	4 1.1	1 9.1	3 9.7	4 1.6	4 1.6	3 1.7	2 1.6	4 1.5	2 1.5
MEAN		1.31	2.22	1.75	2.30	-	1.67	1.58	2.00	1.98	1.56	2.21
STANDARD DEVIATION		1.48	2.74	2.29	2.45	-	2.10	2.09	2.36	1.88	1.69	3.10
STANDARD ERROR OF MEAN		0.11	0.19	0.12	0.78	-	0.13	0.13	0.18	0.17	0.10	0.27
T-TEST (DF = 399)		-4.124	-4.124	-.744	-.744	-	1.041	2.027	-1.843	-1.310	-2.691	-2.691
P (TWO TAILED)		.000	.000	.458	.458	-	.299	.028	.066	.191	.007	.007
CHI SQUARE			19.964			20.676	16.340	20.027	23.806	21.606		5.354
P			.003			.055	.176	.067	.022	.042		.499
DEGREES OF FREEDOM			6			12	12	12	12	12		6

TABLE 36. (If you have children) DO YOUR CHILDREN OFTEN GO WITH YOU TO THE FIELDS?

	TOTAL	Type of Worker		Pesticide Use			Kinds of Pesticides Used				Pesticide Instruction	
		Farm Operator	Farm Worker	Yes	No	No Answer	Use Insecticide	Use Herbicide	Use Fungicide	Use Fumigant	Some Instruction	No Instruction
ANALYZED RESPONDENTS	258 100.0	109 42.2	149 57.8	230 89.1	7 2.7	21 8.1	162 62.8	156 60.5	118 45.7	92 35.7	168 65.5	88 34.4
YES	96 37.2	79 72.5	17 11.4	93 40.4	0 0	3 14.3	70 43.2	83 53.2	51 43.2	44 47.8	83 49.4	13 14.8
NO	149 57.8	25 22.9	124 83.2	126 54.8	7 100.0	16 76.2	85 52.5	67 42.9	61 51.7	45 48.9	77 45.8	70 79.5
Unsure	10 3.9	5 4.6	5 3.4	9 3.9	0 0	1 4.8	6 3.7	5 3.2	5 4.2	2 2.2	7 4.2	3 3.4
No answer	3 1.2	0 0	3 2.0	2 0.9	0 0	1 4.8	1 0.6	1 0.6	1 0.4	1 0.4	1 0.6	2 2.3
CHI SQUARE		105.146				12.870	11.107	44.991	9.641	12.852		31.372
P		.000				.045	.085	.000	.141	.045		.000
DEGREES OF FREEDOM		3				6	6	6	6	6		3

TABLE 37. LANGUAGE OF THE QUESTIONNAIRE.

	TOTAL	Type of Worker		Pesticide Use			Kinds of Pesticides Used				Pesticide Instruction	
		Farm Operator	Farm Worker	Yes	No	No Answer	Use Insecticide	Use Herbicide	Use Fungicide	Use Fumigant	Some Instruction	No Instruction
ANALYZED RESPONDENTS	409	200	209	367	11	31	251	257	172	128	270	131
	100.0	48.9	51.1	89.7	2.7	7.6	61.4	62.8	42.1	31.3	67.3	32.7
English	243	200	43	232	2	9	173	195	104	73	212	30
	59.4	100.0	20.6	63.2	18.2	29.0	68.9	75.9	60.5	57.0	78.5	22.9
Spanish	166	0	166	135	9	22	78	62	68	55	58	101
	40.6	0	79.4	36.8	81.8	71.0	31.1	24.1	39.5	43.0	21.5	77.1
CHI SQUARE			267.368			21.821	29.392	78.043	15.789	16.133		114.023
P			.000			.000	.000	.000	.000	.000		.000
DEGREES OF FREEDOM			1			2	2	2	2	2		1

TABLE 38. ARE YOU FAMILIAR WITH THE FOLLOWING ITEMS AND WHERE THEY ARE LOCATED ON THE FARM?

	TOTAL	Type of Worker		Pesticide Use			Kinds of Pesticides Used				Pesticide Instruction	
		Farm Operator	Farm Worker	Yes	No	No Answer	Use Insecticide	Use Herbicide	Use Fungicide	Use Fumigant	Some Instruction	No Instruction
ANALYZED RESPONDENTS	409 100.0	200 48.9	209 51.1	367 89.7	11 2.7	31 7.6	251 61.4	257 62.8	172 42.1	128 31.3	270 67.3	131 32.7
Central location for pesticide information	203 49.6	168 84.0	35 16.7	201 54.8	0 0	2 6.5	160 63.7	173 67.3	104 60.5	65 50.8	183 67.8	20 15.3
Personal protective equipment (PPE)	222 54.3	184 92.0	38 18.2	219 59.7	2 18.2	1 3.2	168 66.9	189 73.5	107 62.2	74 57.8	199 73.7	23 17.6
Decontamination kit (Water, soap, towel, change of clothes)	173 42.3	117 58.5	56 26.8	168 45.8	2 18.2	3 9.7	130 51.8	137 53.3	89 51.7	56 43.8	141 52.2	31 23.7
Medical assistance phone number or location	246 60.1	176 88.0	70 33.5	231 62.9	5 45.5	10 32.3	173 68.9	191 74.3	114 66.3	81 63.3	204 75.6	42 32.1

