



Study of Pest Control Practices in Iowa's Public Schools

March 2001



Pest Management & the Environment Program

Iowa State University
109 Insectary Building
Ames, Iowa 50011
Phone: (515) 294-1101
Fax: (515) 294-8027



This questionnaire asks about your knowledge and opinions of pesticides and their use to manage pests on school district property. The information you provide will be used to understand pest control practices in Iowa's public schools, and to design educational materials to maintain safe working and learning conditions for students and personnel. Your answers will be kept in strict confidence. The results from this study will not be associated in any way with your name or district.

Please return your completed questionnaire in the enclosed stamped envelope. Please contact me if I can be of assistance to you. Thank you very much for your help.

Mark Shour
Pest Management & the Environment
Iowa State University
Phone: (515) 294-1101

Definitions of terms used in this survey

Pest: Any living organism that may be harmful to persons, property or the environment. Examples include certain insects, spiders, rodents, weeds, and plant diseases.

Pesticide: any substance or mixture of substances intended for preventing, destroying, repelling or reducing pest numbers

➤ **Herbicide:** kills weeds

➤ **Insecticide:** kills insects and spiders

➤ **Rodenticide:** kills rodents such as rats and mice

Weed: a plant growing where it is not wanted

Disinfectant: a chemical that kills disease producing microorganisms; chemicals used to clean or surface sterilize objects

Getting Started

1. There are many safety concerns associated with K-12 students in Iowa today. What are the 3 issues that you consider most important?

(SEE FILL-IN RESPONSE SHEETS)

- a. _____
b. _____
c. _____

General Pesticide Knowledge

Please circle ONE response for each question unless otherwise directed.

2. The label on a pesticide product is
-1- a general guideline (69.2) -4- extra information (1.6)
-2- a detailed advertisement (2.7) -9- don't know (3.5)
-3- a legal, binding document (23.0)
3. If a pesticide is NOT used according to label directions, who has the primary legal responsibility (liability)?
-1- The manufacturer (0.6) -4- The person applying the pesticide (89.7)
-2- The sales person (0.0) -9- Don't know (3.6)
-3- The client (eg. staff & students) (6.1)
4. The most important activity to accomplish BEFORE using a pesticide is
-1- read & understand the label (99.3) -4- take the container outside to open
-2- shake the container -9- don't know (0.7)
-3- put on leather gloves

5. Federal law states that all pesticides must be classified. Which of the following classifications do you think satisfies the law?
-1- safe vs. toxic (24.1) -4- broad spectrum vs. specific target pest (4.2)
-2- general use vs. restricted use (54.0) -9- don't know (17.6)
-3- man-made vs. mineral derivation (0.2)

6. Do you agree or disagree with the following statement? "Reading the pesticide label is the best way for a person to know how to be protected from possible toxic effects of the product."

- 1- Strongly agree (38.7) -4- Disagree (9.4)
-2- Agree (43.1) -9- Strongly disagree (0.9)
-3- Neutral (7.5) Missing (0.4)

7. "Signal words" on pesticide labels indicate how poisonous a pesticide is. The signal word that indicates the GREATEST potential hazard to humans is "Danger", often accompanied by a skull and crossbones symbol. How effective do you think this method is in alerting you to the product's toxicity?

- 1- Very effective (61.7) -3- Not very effective (2.7)
-2- Somewhat effective (34.0) -9- Don't know (1.7)

Pesticide use in your school and district

8. Does your school district have a written policy for pesticide use, stating when and how to apply pesticides?
-1- Yes (14.1) -2- No (64.9) -9- Don't know (21.0)
9. Does your school district maintain written records of insecticide, rodenticide and herbicide applications?
-1- Yes (42.2) -2- No (42.6) -9- Don't know (15.2)
10. Are pesticide applicator(s) operating on school properties certified by the Iowa Department of Agriculture and Land Stewardship?
-1- Yes (67.7) -2- No (9.6) -9- Don't know (22.7)

11. Where are pesticides stored in your district? Please circle all that apply.

- 1- District storage facility Y(28.4) N(69.3) DK (2.3)
- 2- Locked storage facility at each school Y(39.4) N(58.3) DK (2.3)
- 3- Unlocked storage facility at each school Y(9.9) N(87.9) DK (2.3)
- 7- Other [Please specify] Y(0.8) N(96.9) DK (2.3)
- 9- Don't know Y(5.0) N(92.8) DK (2.2)

12a. Who makes the decision involved with an INDOOR pesticide application (when, where, which product) in your district? Please circle all that apply.

	Indoor Use		
	Yes	No	Don't Know
Superintendent	26.8	67.9	5.3
Facility director	32.0	63.7	4.3
Custodian or maintenance	53.3	43.3	3.4
Teacher	1.2	95.3	3.5
Pest control company	72.7	23.7	3.6
Someone else*	3.0	91.5	5.5
*Please specify (SEE FILL-IN RESPONSE SHEETS)			

12b. Who makes the decision involved with an OUTDOOR pesticide application (when, where, which product) in your district? Please circle all that apply.

	Outdoor Use		
	Yes	No	Don't Know
Superintendent	29.7	65.7	4.6
Facility director	32.9	63.7	3.5
Custodian or maintenance	58.2	39.0	2.8
Teacher	1.2	95.1	3.7
Pest control company	51.4	45.3	3.3
Someone else*	7.8	87.4	4.8
*Please specify (SEE FILL-IN RESPONSE SHEETS)			

13a. Who applies pesticides INDOORS in your school district on a REGULAR, SCHEDULED BASIS? Please circle all that apply.

	Indoor Use		
	Yes	No	Don't Know
District facilities director	5.2	93.4	1.4
Custodial staff	10.1	88.1	1.8
Maintenance	7.0	91.0	2.0
Teacher	0.2	98.6	1.2
Pest control company	90.2	8.8	1.0
Parent	0.0	98.6	1.4
Someone else*	0.0	99.1	0.9
*Please specify (SEE FILL-IN RESPONSE SHEETS)			

13b. Who applies pesticides OUTDOORS in your school district on a REGULAR, SCHEDULED BASIS? Please circle all that apply.

	Outdoor Use		
	Yes	No	Don't Know
District facilities director	9.8	87.6	2.6
Custodial staff	15.7	81.9	2.4
Maintenance	28.3	68.9	2.8
Teacher	0.6	96.8	2.6
Pest control company	55.8	41.0	3.2
Parent	0.0	97.3	2.7
Someone else*	4.1	93.5	2.4
*Please specify (SEE FILL-IN RESPONSE SHEETS)			

14a. Who applies pesticides INDOORS in your school district for EMERGENCIES or COMPLAINTS? Please circle all that apply.

	Indoor Use		
	Yes	No	Don't Know
District facilities director	7.9	89.2	2.9
Custodial staff	35.5	61.5	3.0
Maintenance	19.9	77.2	2.9
Teacher	1.0	96.9	2.1
Pest control company	79.2	18.5	2.3
Parent	0.0	97.9	2.1
Someone else*	0.0	97.5	2.5
*Please specify (SEE FILL-IN RESPONSE SHEETS)			

14b. Who applies pesticides OUTDOORS in your school district for EMERGENCIES or COMPLAINTS? Please circle all that apply.

	Outdoor Use		
	Yes	No	Don't Know
District facilities director	12.5	84.9	2.6
Custodial staff	27.4	70.0	2.6
Maintenance	34.3	62.7	3.0
Teacher	0.8	96.8	2.4
Pest control company	58.7	38.5	2.8
Parent	0.4	97.2	2.4
Someone else*	3.8	93.5	2.7
*Please specify (SEE FILL-IN RESPONSE SHEETS)			

15. For which of the following OUTDOOR areas of your school district were RODENTICIDE baits used during the past year? Please circle ONE response for EACH area.

	Yes	No	Don't Know
Entire building perimeter	6.0	80.0	14.0
Near doorways	9.8	76.3	13.9
Near trash dumpsters	9.6	75.9	14.5
In landscape shrubs	2.5	83.2	14.3
Somewhere else*	15.8	67.3	16.9
*Please specify (SEE FILL-IN RESPONSE SHEETS)			

16. Which of the following OUTDOOR areas of your school district received HERBICIDE application(s) during the past year? Please circle ONE response for EACH area.

Area	Yes	No	Don't Know
Grassy areas next to buildings	66.1	28.0	5.9
Athletic fields	82.3	11.8	5.9
Playgrounds	43.3	49.7	7.0
Parking lots	48.4	44.6	7.0
Somewhere else*	12.2	78.7	9.1
*Please specify (SEE FILL-IN RESPONSE SHEETS)			

17. Which of the following OUTDOOR areas of your school district received INSECTICIDE application(s) during the past year? Please circle ONE response for EACH area.

Area	Yes	No	Don't Know
Grassy area next to buildings	16.1	74.0	9.9
Athletic fields	31.4	58.3	10.3
Playgrounds	7.6	81.9	10.5
Landscape shrubs and trees	7.7	81.6	10.7
Exterior foundation of buildings	22.2	67.1	10.7
Somewhere else*	1.9	84.8	13.3
*Please specify (SEE FILL-IN RESPONSE SHEETS)			

18. Which of the following INDOOR areas of your school district received INSECTICIDE application(s) during the past year? Please circle ONE response for EACH area.

Area	Yes	No	Don't Know
Kitchens	86.5	6.1	7.4
Food storage areas	82.8	9.6	7.6
Cafeterias	70.0	20.7	9.2
Bathrooms	56.6	33.3	10.1
Locker rooms	60.6	29.7	9.7
Classrooms	36.4	51.8	11.8
Basements	45.5	44.5	10.0
Boiler rooms	57.8	32.5	9.7
Offices	36.8	52.2	11.0
Staff lounges	39.2	48.5	12.3
Somewhere else*	12.5	73.0	14.5
*Please specify (SEE FILL-IN RESPONSE SHEETS)			

19. For which of the following INDOOR areas were RODENTICIDE baits used during the past year? Please circle ONE response for EACH area.

Area	Yes	No	Don't Know
Kitchen	42.8	46.5	10.7
Food storage areas	50.6	38.7	10.7
Non-food storage areas	27.8	60.6	11.6
Locker rooms	5.1	82.1	12.8
Boiler rooms	25.8	63.2	11.0
Staff lounges	11.2	77.5	11.3
Somewhere else*	11.7	75.0	13.3
*Please specify (SEE FILL-IN RESPONSE SHEETS)			

20. Does your school district regularly use DISINFECTANT products in the following school areas? Please circle ONE response for EACH area.

Area	Yes	No	Don't Know
Bathrooms	97.3	0.3	2.5
Cafeteria	92.7	3.8	3.6
Classrooms	67.9	26.7	5.4
Kitchen	94.0	2.7	3.3
Water fountains	86.2	8.8	5.0
Hallways	55.4	38.6	6.0
Offices	57.5	35.5	7.0
Staff Lounges	66.6	28.2	5.2
Locker rooms	91.4	5.2	3.4
Swimming pool	11.1	82.0	6.9
Somewhere else*	5.2	83.5	11.3
*Please specify: (SEE FILL-IN RESPONSE SHEETS)			

Understanding Pesticide Safety

21. On the average, how long do you keep children and adults out of treated areas after an insecticide application INSIDE your schools?
- 1- Less than an hour (5.4)
 - 2- 1–4 hours (13.2)
 - 3- 5–8 hours (8.3)
 - 4- 9–12 hours (10.8)
 - 5- 12–24 hours (28.7)
 - 6- Not restricted following treatment (14.6)
 - 7- Other [Please specify] (7.6)
 - 9- Don't know (11.5)
22. On the average, how long do you keep children and adults out of treated areas after an insecticide or herbicide application OUTSIDE on your school district's grounds?
- 1- Less than an hour (1.6)
 - 2- 1–4 hours (7.5)
 - 3- 5–8 hours (5.6)
 - 4- 9–12 hours (6.0)
 - 5- 12–24 hours (52.6)
 - 6- Not restricted following treatment (5.2)
 - 7- Other [Please specify] (12.1)
 - 9- Don't know (9.4)
23. What type of "notification of pesticide use" is provided by the school district for INDOOR insecticide or rodenticide applications? Please circle all that apply.
- 1- None Y(57.2) N(40.2) DK (2.6)
 - 2- Written notices given to teachers, staff, and students Y(6.7) N(90.8) DK (2.6)
 - 3- Signs are posted at school entrances Y(5.4) N(92.0) DK (2.6)
 - 4- Signs are posted on the room(s) treated Y(4.1) N(93.3) DK (2.6)
 - 5- Pre-treatment notification in school newsletter Y(1.4) N(96.0) DK (2.6)
 - 6- Post-treatment notification in school newsletter Y(0.2) N(97.3) DK (2.5)
 - 7- Other [Please specify] Y(10.6) N(86.8) DK (2.6)
 - 9- Don't know Y(15.7) N(81.7) DK (2.6)

24. What type of "notification of pesticide use" is provided by the school district for OUTDOOR herbicide or insecticide applications? Please circle all that apply.
- 1- None Y(32.1) N(66.7) DK (1.2)
 - 2- Written notices to teachers, staff and students Y(6.8) N(92.0) DK (1.2)
 - 3- Signs are posted at school entrances Y(8.5) N(90.3) DK (1.2)
 - 4- Special "Pesticide Application" lawn signs posted Y(43.2) N(55.6) DK (1.2)
 - 5- Pre-treatment notification in school newsletter Y(0.8) N(98.0) DK (1.2)
 - 6- Post-treatment notification in school newsletter Y(0.0) N(98.8) DK (1.2)
 - 7- Other [Please specify] Y(10.9) N(87.9) DK (1.2)
 - 9- Don't know Y(7.9) N(90.9) DK (1.2)

Source of pesticide information

25. Integrated pest management (IPM) is a systematic approach to keeping pests below harmful levels. It uses a variety of methods for monitoring and managing pests, and often minimizes the use of chemicals. Are you familiar with IPM?
- 1- Yes (18.2)
 - 2- No [Go to question 27.] (80.4) MISSING (1.4)
26. If YES, how did you learn of IPM? Please circle all that apply.
- 1- Pest control professional Y(6.6) N(11.6) DK (1.4) Not Familiar (80.4)
 - 2- University Y(4.4) N(13.9) DK (1.4) Not Familiar (80.4)
 - 3- Extension service Y(8.7) N(9.5) DK (1.4) Not Familiar (80.4)
 - 4- Independent reading Y(7.6) N(10.6) DK (1.4) Not Familiar (80.4)
 - 5- Professional colleague/ society Y(2.1) N(16.2) DK (1.4) Not Familiar (80.4)
 - 6- Media sources Y(2.7) N(15.6) DK (1.4) Not Familiar (80.4)
 - 7- Other [Please specify] Y(1.7) N(16.6) DK (1.4) Not Familiar (80.4)
 - 9- Don't know Y(0.0) N(18.3) DK (1.4) Not Familiar (80.4)
27. How can information about IPM be made available to you to best meet your district's needs and your work schedule? Please circle all that apply.
- 1- School pest management newsletters Y(39.9) N(53.7) DK (6.4)
 - 2- Informational meeting or workshop Y(32.8) N(60.8) DK (6.4)
 - 3- Educational materials mailed to you for review Y(57.4) N(36.1) DK (6.4)
 - 4- Web sites Y(26.2) N(67.4) DK (6.4)
 - 5- Participation in pilot program for one school year Y(11.8) N(81.7) DK (6.4)
 - 6- I'm not interested in learning about IPM this time Y(10.6) N(83.0) DK (6.4)

About you and your school

28. What is your position in the school district?

- 0- Bldg maintenance/ Custodian (3.8)
- 1- Superintendent (13.7)
- 2- Principal (1.5)
- 3- Building maintenance supervisor (35.0)
- 4- Food service director (1.3)
- 5- Custodial staff (20.1)
- 6- Groundskeeper (4.5)
- 7- Other [Please specify] (6.6)
- 8- Bldg maintenance/ Custodian/ Groundskeeper (13.0)
- 9- Did not answer (0.4)

29. In which Area Education Agency is your district included? Please specify one number (1-15) or name. (SEE INSIDE BACK COVER)

30. How many students are enrolled in your school district?

- 1- Less than 200 (5.9)
- 2- 200–499 (25.2)
- 3- 500–999 (34.9) (SEE INSIDE BACK COVER)
- 4- 1000–1999 (19.8)
- 5- Over 2000 (12.4)
- 9- Don't know (1.8)

31. What land uses are adjacent to your district's property? Please circle all that apply.

- 1- Agricultural Y (74.5) N (25.5)
- 2- Forest Y (4.3) N (95.7)
- 3- Residential Y (89.5) N (10.5)
- 4- Industrial Y (7.3) N (92.7)
- 5- Commercial Y (22.1) N (77.9)
- 6- Recreational (golf course, park, etc.) Y (1.4) N (98.6)
- 7- Other [Please specify] (SEE FILL-IN RESPONSE SHEETS)

29. In which Area Education Agency is your district included?

<u>AEA #</u>	<u>% Responding</u>
1	6.7
2	6.4
3	5.1
4	3.7
5	8.3
6	4.0
7	6.2
9	5.9
10	8.8
11	15.0
12	6.4
13	8.3
14	5.4
15	6.4
16	3.5

29 (*) Collapsing of AEAs by general area of state

<u>AEA#</u>	<u>General Area</u>	<u>% Responding</u>
3,4,5,12	NW	23.5
1,2,6,7	NE	23.3
11,13,14	SW	28.6
9,10,15,16	SE	24.6

30. How many students enrolled in your district?

<u>Enrollment</u>	<u>% Responding</u>
< 500	31.1
500-999	34.9
1000-1999	19.8
> 2000	12.4