

Appendix A

Data are expressed in percentages, which may not total 100% because some respondents did not answer all questions. In some cases, multiple responses were possible within a given question, resulting in a total that is more than 100%.

SECTION I: PESTS

Table 1. Frequency of problems with the following pests in school(s) (n=200).

	Never	Seldom	Occasionally	Often	Don't Know
Ants	13%	34%	43%	11%	1%
Cockroaches	42%	27%	21%	7%	1%
Spiders	9%	35%	37%	18%	3%
Wasps/Bees	10%	45%	31%	11%	1%
Termites	68%	18%	6%	2%	6%
Bats	65%	18%	10%	4%	2%
Birds	50%	31%	13%	3%	1%
Rats/Mice	19%	40%	32%	9%	1%
Indoor Mold	43%	33%	13%	3%	7%
Other—Crickets	0%	1%	2%	3%	0%
Other—Miscellaneous	2%	1%	2%	2%	2%

Table 2. Frequency of problems with the turf pests around school(s) (n=200).

	Never ¹	Seldom	Occasionally	Often	Don't Know
White Grubs	27%	23%	26%	7%	16%
Billbugs	37%	25%	10%	1%	24%
Chinch Bugs	38%	27%	9%	2%	22%
Sod Webworm	34%	27%	17%	3%	17%
Other	8%	3%	2%	0%	9%
Summer Patch	31%	25%	14%	3%	20%
Brown Patch	28%	23%	22%	4%	19%
Other	11%	2%	0%	1%	7%

	Never ¹	Seldom	Occasionally	Often	Don't Know
Dandelion	6%	8%	30%	53%	1%
Ground Ivy	28%	21%	21%	10%	12%
White Clover	18%	15%	27%	29%	5%
Crabgrass	9%	10%	31%	43%	4%
Henbit	25%	20%	9%	4%	33%
Field Bindweed	22%	22%	14%	16%	18%
Other—Miscellaneous	3%	1%	0%	2%	3%
Other—Puncture vine, Sandbur	0%	0%	2%	4%	1%

¹Comments: *Low / no maintenance of turf (16), Lawn care company does it (5)*

Table 3. Complaints received about pests in school/school district during past year (n=197).

<u>yes</u>	<u>no</u>	<u>don't know</u>
29%	64%	7%

Table 4. Estimate the cost of pest control in your school/school district during the last year.

Cost	(n=)	Total amount spent
Chemicals	118	\$151,875
Supplies/Equipment	63	\$85,630
Labor	83	\$104,194
Total per year		\$341,698

SECTION 2: PESTICIDE USE IN AND AROUND SCHOOLS

Table 5. Written policy for pesticide use in school/school district (n=190).

<u>yes</u>	<u>no</u>	<u>don't know</u>
8%	73%	19%

Table 6. Written records of pesticide applications in school/school district (n=197).

<u>yes</u>	<u>no</u>	<u>don't know</u>
44%	42%	14%

Table 7. Pesticide labels files for pesticides used in the school(s) or on school grounds (n=192).

<u>yes</u>	<u>no</u>	<u>don't know</u>
58%	33%	9%

Table 8a. Notification of students and parents prior to the application of pesticides in schools or on school grounds (n=191).

<u>yes</u>	<u>no</u>	<u>don't know</u>
15%	79%	6%

Table 8b. If yes in 8a, procedure for notification (n=22).

Newsletter or note	45%
Verbal announcement	41%
Posted signs	14%

Table 8c. If yes in 8a, timing of notification (n=14).

Day or day before application	72%
Up to 1 week before application	21%
Once a year	7%

Footnote: Four respondents said that their school used no pesticides, and 16 said that pesticides were applied when people are not present, suggesting that notification is not needed.

Table 9a. Notification of teachers and staff prior to the application of pesticides in school or on school grounds (n=189).

<u>yes</u>	<u>no</u>	<u>don't know</u>
27%	67%	6%

Table 9b. If yes in 9a, procedure for notification (n=31).

Verbal	71%
Newsletter or note	26%
Posted signs	3%

Table 9c. If yes in 9a, timing of notification (n=18).

Day or day before application	72%
Up to 1 week before application	22%
After application completed	6%

Footnote: One respondent said that their school used no pesticides, and 11 said that pesticides were applied when people are not present, suggesting that notification is not needed.

Table 10a. Pesticides applied when children, teachers, or staff are present in the school(s) or on school grounds (n=193).

<u>yes</u>	<u>no</u>	<u>don't know</u>
15%	83%	2%

Table 10b. If no in 10a, waiting period before reentry into or on the treated areas (n=106).

Based on label directions	12%
1-12 hours	8%
12-24 hours	58%
>24 hours	22%

Table 11. Personnel making *decisions* (when, where, and what product) regarding **INDOOR** pesticide applications (n=200).

Don't know	School Supt	Principal	Teacher	Custodian / Maintenance	School volunteer	Pest control company	Lawn care company	Someone ¹ else
4%	21%	14%	7.0%	54%	3%	52%	10%	10%

¹When specifying *someone else*, 100% were school board members.

Table 12a. Persons who apply pesticides **INDOORS** in school(s) (n=200).

Don't Know	School Supt	Principal	Teacher	Custodian / Maintenance	School volunteer	Pest control company	Lawn care company	Someone ¹ else
5%	6%	7%	11%	38%	10%	75%	17%	6%

¹When specifying *someone else*, 36% were school board members.

Table 12b. Applicators licensed by the State of Nebraska to apply pesticides.

	Don't know (n=6)	School Supt (n=11)	Principal (n=14)	Teacher (n=20)	Custodian/ Maintenance (n=71)	School volunteer (n=19)	Pest control company (n=147)	Lawn care company (n=32)	Someone else (n=10)
Yes	0%	0%	7%	10%	18%	5%	87%	50%	10%
No	83%	91%	86%	70%	73%	84%	1%	28%	80%
Don't know	17%	9%	7%	20%	8%	11%	12%	22%	10%

Table 13. Persons making *decisions* (when, where and what product) regarding **OUTDOOR** pesticide applications (n=200).

Don't know	School Supt	Principal	Teacher	Custodian/ Maintenance	School volunteer	Pest control company	Lawn care company	Someone ¹ else
3%	20%	13%	3%	57%	4%	25%	25%	12%

¹When specifying *someone else*, 58% named school board members.

Table 14a. Personnel that apply pesticides outdoors on school grounds (n=200).

Don't know	School Supt	Principal	Teacher	Custodian/ Maintenance	School volunteer	Pest control company	Lawn care company	Someone else
5%	6%	7%	6%	53%	12%	32%	35%	7%

Table 14b. Applicators licensed by the State of Nebraska to apply pesticides outdoors.

	Don't know (n=7)	School Supt (n=10)	Principal (n=12)	Teacher (n=12)	Custodian/ Maintenance (n=94)	School volunteer (n=21)	Pest control company (n=56)	Lawn care company (n=64)	Someone else (n=11)
Yes	0%	0%	0%	0%	29%	19%	82%	64%	45%
No	57%	90%	92%	92%	63%	71%	5%	11%	45%
Don't know	43%	10%	8%	8%	9%	10%	13%	25%	10%

Table 15a. If the persons who apply pesticides are not licensed by the state, do they receive some type of training (n=133)?

<u>yes</u>	<u>no</u>	<u>don't know</u>
33%	29%	38%

Table 15b. If yes in 15a, source of training (n=25).

Comment category	
Manufacturer / chemical co. / sales person	20%
Seminar or other unspecified training	16%
Follow label instructions	16%
Private pesticide applicator licensed	16%
Custodial / maintenance training	12%
Only use over-the-counter pesticides	8%
Pest control / lawn care company	4%
Extension office	4%
Community college	4%

Table 16a. Routine pesticide applications scheduled in school/school district (n=190).

<u>yes</u>	<u>no</u>	<u>don't know</u>
64%	32%	4%

Table 16b. If yes in 16a, frequency of routine pesticide applications (n=200).

	Weekly	Monthly	Quarterly	6 mos.	Annually	Don't know
Food Service	1%	42%	8%	2%	4%	2%
Classrooms	1%	28%	9%	6%	10%	3%
Adm. Offices	1%	27%	9%	4%	9%	3%
Utility areas/halls	1%	36%	9%	4%	5%	3%
Restrooms/locker	1%	38%	7%	6%	5%	3%
Playgrounds	0%	4%	7%	8%	14%	8%
Athletic fields	0%	5%	11%	9%	10%	7%
Turf/ornamentals	0%	5%	6%	6%	11%	8%
Greenhouses	0%	3%	1%	1%	0%	13%
Other	0%	0%	0%	0%	0%	0%

Table 17a. Classrooms in school/school district treated for head lice during the last year (n=199).

<u>yes</u>	<u>no</u>	<u>don't know</u>
12%	80%	8%

Table 17b. If yes in 17a, number of rooms treated (n=16).

1-2	3-5	6-10	> 10	All rooms treated
19%	44%	12%	12%	12%

Average number of rooms treated for head lice was 5.7 rooms.

Table 18a. Pesticides stored in classrooms in your school/school district (n=199).

<u>yes</u>	<u>no</u>	<u>don't know</u>
2%	97%	1%

Table 18b. If yes in 18a, are pesticides locked in classrooms (n=5).

<u>yes</u>	<u>no</u>	<u>no response</u>
40%	20%	40%

Table 19a. Pesticides stored in school buildings in school/school district (n=199).

<u>yes</u>	<u>no</u>	<u>don't know</u>
52%	46%	2%

Table 19b. If yes in 19a, are they behind a locked door (n=104).

<u>yes</u>	<u>no</u>	<u>no response</u>
75%	2%	23%

Table 20. School/school district received complaints about pesticide applications during the last year (n=199).

<u>yes</u>	<u>no</u>	<u>don't know</u>
1%	97%	2%

SECTION 3: PEST MANAGEMENT

Table 21. School/school district uses Integrated Pest Management (IPM) to control pests (n=197).

<u>yes</u>	<u>no</u>	<u>don't know</u>
9%	68%	23%

Table 22. School/school district have a written IPM policy/plan (n=195).

<u>yes</u>	<u>no</u>	<u>don't know</u>
1%	74%	25%

Table 23. Methods used to manage pests in and around school(s) (n=200).

Indoor	Never	Seldom	Occasionally	Often	Don't know
Spraying liquids	14%	20%	36%	18%	3%
Aerosols/foggers	42%	26%	17%	2%	3%
Dust/powder	60%	14%	6%	0%	8%
Insect baits	48%	17%	16%	3%	4%
Rodent baits	38%	19%	24%	10%	3%
Traps (insect and/or rodent)	22%	25%	31%	13%	2%
Vacuuming	20%	6%	14%	43%	5%
Sealing entry points to exclude	19%	11%	24%	28%	6%
Reducing moisture	22%	10%	19%	23%	10%
Reducing food/ water sources	19%	9%	17%	35%	6%
Outdoor					
Spraying liquids	16%	18%	39%	14%	5%
Aerosols/foggers	56%	16%	6%	0%	7%
Granular broadcast (i.e. turf)	31%	13%	28%	13%	6%
Dust/powder	65%	11%	5%	0%	7%
Insect baits	63%	10%	7%	1%	7%
Rodent baits	56%	14%	9%	4%	6%
Traps (insect and/or wildlife)	61%	11%	6%	1%	7%
Habitat modifications to prevent pests	40%	14%	12%	5%	13%
Other	Mowing was the only "other" option listed.				

Table 24. Satisfaction with current pest control system (n=195).

Happy	Neutral	Unhappy
63%	33%	4%

Table 25. Source of information regarding pest management/IPM (n=200).

Response	Percentage
Friend/ colleague	11%
Garden Center	13%
Internet	5%
Local or State Health Department	14%
Pest Control/Lawn Care Companies	53%
UNL Cooperative Extension	22%
Pesticide Applicator Training	13%
Pest Management Workshop	8%
Manufacturer	28%
Don't know	23%
Other	3%

SECTION 4: SCHOOL INFORMATION

Table 26. Position/occupation of respondent (n=185).

Supt	Principal	Teacher	Custodian/ Maintenance	Groundskeeper	Food service	School volunteer	Other ¹
31%	17%	4%	31%	2%	0%	1%	14%

¹ If *other* (n=26), 73% were school board members; remaining 27% were school officials with another title.

Table 27a. Number of students enrolled in school/school district (n=197)¹.

1-10	11-50	51-250	251-500	501-1000	1001-5000	More than 5000
8%	19%	26%	25%	15%	5%	2%

¹ Total number of students is 42,380; mean number of students is 212 per school/school district. 79% have <500 students.

Table 27b. Number of staff in school/school district (n=199)¹.

1-10	11-50	51-100	101-500	More than 500
33%	40%	18%	7%	2%

¹ Total number of staff is 14,280, and the average per school/school district is 71.4.

Table 28. Number of buildings in school/school district occupied by students (n=200)¹.

1-2	3-5	6-10	More than 10
73%	19%	5%	3%

¹ Total number of buildings is 632, and the average is 3.2 buildings per school/school district.

Table 29. Student classrooms in school/school district (n=187)¹

1-5	6-10	11-25	26-50	51-100	More than 100
27%	12%	23%	28%	6%	4%

¹ Total of 8,477 classrooms and an average of 42.4 classrooms per school/school district.

Table 30. Square footage of buildings that is occupied by students (n=120)¹.

1-10,000	10,001-100,000	More than 100,000
37%	40%	23%

¹ The total square footage of buildings was 4,425,736 ft²; average of 22,128.7 ft² per school/school district.

Table 31. Acres of turfgrass associated with school/school district (n=154)¹.

1-10	11-25	26-50	51-100	More than 100
58%	16%	5%	3%	18%

¹ A total of 981 acres turfgrass; average 4.9 acres per district.

SECTION 5: LEGISLATIVE ISSUES

Table 32a. Perceived barriers to implementing IPM in schools (n=101).

Barriers to implementing IPM	Comments
Cost	40%
Time / paper work	20%
No barriers / generally positive	9%
No additional unfunded mandates / regulations wanted	9%
Difficulty coordinating with pest control companies, lawn care companies and parents	9%
No need / justification for new law — already doing safe applications	7%
School system too small	3%
IPM too restrictive	3%

Table 32b. Perceived barriers to notifying students, teachers and parents if required by law (n=70).

Barriers to notification	Comments
Cost	19%
Time / paper work	19%
No barriers / generally positive	15%
No need / justification for new law — already doing safe applications	13%
Parent complaints — Health/allergy concerns	13%
Timing applications — Scheduling / rescheduling around weather, etc.	13%
Difficulty coordinating with pest control companies, lawn care companies and parents	8%

Table 33. Additional comments regarding implementation of IPM in schools (n=23).

Comments regarding IPM	
Use common sense — No new law needed	30%
School has no pest problems and has no need for IPM	22%
Generally positive / favor	13%
Applications already done when students not present	13%
Is there an existing problem that warrants the new law?	13%
Where will the money come from?	9%