



New England School Pest Management Survey Responses for all Questions



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A 37-question survey was distributed to 1477 New England public and private schools in February-May 2008. A Dillman survey methodology was used to design and conduct the survey. Percentages of schools were calculated using the number of schools who responded to the survey as the denominator, not the number of schools responding to a particular question. Many questions allowed multiple answers, thus the percentage responses may sum to more than 100%. The original survey may be found at the website www.pronewengland.org.

New England School Pest Management Survey Returns

State	#Surveys Sent	#Surveys Returned	%Return
CT	315	102	32
MA	591	274	46
ME	178	87	49
NH	172	75	44
RI	111	46	41
VT	110	46	42
Total	1477	630	43

The following are results from the questions in the survey. Unless otherwise noted, all percentages are of the number of schools participating in the survey.

1. Which below describes your job title(s)? *Check all that apply.* (¹N=620, 98%)

- 39% School Maintenance Supervisor/Facility Manager
- 27% Principal
- 22% Maintenance/Custodial Staff
- 14% Integrated Pest Management (IPM) Coordinator
- 5% Teacher
- 4% Director/Asst. Director
- 3% Owner
- 2% School Superintendent/School District Administrator
- 1% Food Service Director/Staff
- 10% *Other

*School nurse, business manager, administrative assistant, compliance manager, and others

¹N is used throughout the entire document and refers to the number of growers who answered the question.

2. What is the setting of your school? *Check one.* (N=618, 98%)

- 44% Rural
- 43% Suburban
- 11% Metropolitan

3. How many students are enrolled in your school? *Fill in the blank.* (N=619, 98%)

Number of children enrolled (*in all schools participating*): 448,697

4. Which of these pests require routine management, require occasional management, or are never a problem **indoors** in your school? (N=612, 97%)

Rank	Indoor Pests	Weighed Number ²
1	Ants	1350
2	Bees/Wasps/Hornets	1084
3	Mice	1042
4	Head lice	824
5	Flies	744
6	Spiders	576
7	Mold/Mildew	534
8	Fruit flies	522
9	Cockroaches	200
10	Termites	190

²The weighed number was determined by multiplying routine annual management by 4, occasional management by 2, and never a problem and don't know by 0.

10	Other stinging insects	190
12	Rats	136
13	Fleas	92
14	Flour Beetles	58
15	Flour moths	56
	*Other	94

*bats, silverfish, squirrels, snakes, crickets, mosquitoes, and ticks

5. Which of these pests require routine annual management, require occasional management, or are never a problem **outdoors** of your school? (N=599, 95%)

Rank	Outdoor Pests	Weighed Number²
1	Bees/Wasps/Hornets	1298
2	Ants	774
3	Grassy Weeds	654
4	Mosquitoes	572
5	Mice	564
6	Poison ivy	484
7	Broadleaf weeds	478
8	Ticks	398
9	Turf grubs	318
10	Birds	306
11	Moles	240
12	Plant diseases	130
13	*Other	88

*Geese, squirrel, skunks, woodchucks and black files

²The weighed number was determined by multiplying routine annual management by 4, occasional management by 2, and never a problem and don't know by 0.

Information on Specific Pests and Management Strategies

6. Has the school had **mouse or rat** problems in the past two years? *Circle Answer. If no mouse or rat problems, skip to Question 8. (N=552, 88%)*

47% **Yes**
41% **No**

7. If the school has had mouse or rat problems please indicate which practices have been instituted to manage them? *Check all that apply. (N=384, 61%)*

45% Monitoring for the pest and/or droppings
35% Glue traps
31% Exclusion (filling/repairing entry points)
28% Sanitation
28% Snap traps
11% Rodenticide baits
2% None
2% Don't know
2% Live traps
2% Call an Exterminator
2% Electric/Sonar devices

8. Has the school had **ant** problems in the past two years? *Circle Answer. If no ant problems, skip to Question 10. (N=621, 99%)*

66% **Yes**
32% **No**

9. If the school has had ant problems, please indicate which practices have been instituted to manage them? *Check all that apply. (N=434, 69%)*

45% Sanitation
31% Ant baits stations
27% Eliminate entryways (caulking/sealing holes)
20% Monitoring (sticky/glue boards)
16% Pesticide spray on indoor baseboards
15% Pesticide spray perimeter treatment for outdoors
2% None
2% Don't know
8% Other: i.e. gel bait, bleach spray, boric acid, mint oil, etc.

10. Has the school had **head lice** problems in the past two years? *Circle Answer. If no head lice problems, skip to **Question 12.** (N=611, 97%)*

49% **Yes**
47% **No**

11. If the school has had head lice problems, please indicate which practices have been instituted to manage them? *Check all that apply. (N=325, 52%)*

49% Inspect children
49% Parental notification
47% Discourage children from sharing of hats, combs, scarves, etc.
37% Parental education
35% Implement a written head lice plan
21% Instituting a “no nit” policy
2% Pesticide spray in school
1% None
1% Don’t know
6% Other: i.e. school nurse, cleaning and disinfecting, vacuuming, shampoo carpet with lice treatment, etc.

12. Has the school had **fly** problems in the past two years? *Circle Answer. (N=615, 98%)*

25% **Yes**
73% **No**

13. If the school has had fly problems, please indicate which practices have been instituted to manage them? *Check all that apply. If no fly problems, skip to **Question 14.** (N=165, 26%)*

16% Sanitation
13% Install/maintain window/door screens
10% Increase frequency of trash disposal
10% Fly swatters
8% Floor drains steam/enzyme cleaned
8% Fly paper
6% Other breeding sites identified/cleaned
3% Electric fly traps
3% None
1% Aerosol sprays
1% Don’t know
3% Other: i.e. keep doors closed, call pest control company, etc.

14. Has the school had **bee/wasp/hornet problems in the past two years? Circle Answer. (N=620, 98%)**

65% **Yes**
34% **No**

15. If the school has had bee/wasp/hornet problems, please indicate which practices have been instituted to manage them? Check all that apply. If no bee/wasp/hornet problems, skip to **Question 16. (N=414, 66%)**

58% Inspect/remove/destroy nests
27% Seal off openings in playground structures, fences, pipes etc
23% Aerosol sprays (*specify products* _____)
22% Install/maintain window/door screens
21% Outdoor trash containers with tight lids
8% Rope off nesting sites
8% Fly swatters
4% Contact beekeeper to collect bees
4% Yellow jacket traps
4% Call Pest Control Company
1% None
0% Don't know
3% Other: i.e. mint oil, hot water, remove nest, burn nest, etc.

16. Has the school had **cockroach problems in the past two years? Circle Answer. (N=611, 97%)**

6% **Yes**
91% **No**

17. If the school has had cockroach problems, please indicate which practices have been instituted to manage them? Check all that apply. If no cockroach problems, skip to **Question 18. (N=45, 7%)**

5% Frequent inspection/monitoring with sticky traps
5% Daily garbage/food waste disposal
5% Daily cleaning food preparation areas, including floors
4% Limit areas where food can be stored and consumed
3% Monitor for fecal matter, shed exoskeletons, egg cases
3% Monthly cleaning around/behind large kitchen equipment
3% Cockroach Baits
2% Repair/caulk/seal holes in/around sinks/walls/drain pipes/toilets
2% None
1% Steam clean drains and/or enzyme based drain cleaner
1% Aerosol Sprays
0% Don't know
2% Other: i.e. call exterminator, check students' backpacks, etc.

18. Has the school had **mosquito** problems in the past two years? *Circle Answer.* (N=623, 99%)

17% **Yes**
82% **No**

19. If the school has had mosquito problems, please indicate which practices have been instituted to manage them? *Check all that apply. If no mosquito problems, skip to **Question 20.*** (N=110, 17%)

14% Keep grass mowed and remove dense brush
13% Install/maintain window/door screens
10% Remove sources of standing water around school
10% Use covered dumpsters and trash cans
8% Clean gutters and downspouts
7% Reduce activities held during dusk/early evening to avoid mosquitoes
4% Use insect repellents
3% Encourage predators such as bats and birds
3% None
2% Apply sprays for adult mosquitoes
1% Use devices, such as Mosquito Magnet™
1% Apply larvicides in catch basins and other breeding sites
1% Don't know
2% Other: i.e. Mosquito control projects, town, keep doors closed, etc.

20. Has the school had **tick** problems in the past two years? *Circle Answer.* (N=616, 98%)

11% **Yes**
87% **No**

21. If the school has had tick problems, please indicate which practices have been instituted to manage them? *Check all that apply. If no tick problems, skip to **Question 22.*** (N=82, 13%)

12% Keep grass mowed and remove dense brush
9% Inspect children for ticks
7% Education
7% Remove leaf litter and brush
6% Prune low lying bushes
4% Use tick repellent on skin/clothing
4% Proper clothing (light colored and long-sleeved shirt and long pants)
2% None
1% Perimeter pesticide spraying
1% Create 3 foot wide mulch bed between wooded areas and lawns
0% Don't know

22. Please indicate which practices have been used to manage pests in athletic fields around your school? *Check all that apply.* (N=564, 90%)

- 40% None – no athletic fields
- 24% Frequent sharpening of mower blades
- 22% Frequent monitoring for pests (insects, plant disease, weeds)
- 16% Aeration at least once a year
- 15% Overseeding
- 11% Annual soil test for fertilizer needs, etc.
- 11% Don't know
- 10% Top dressing with soil/sand/compost
- 10% Synthetic chemical fertilizer application
- 9% Organic fertilizer application
- 8% Broadleaf weed herbicide application
- 7% Turf grub application
- 5% Grassy weed herbicide application
- 2% Other insecticide applications
- 2% Town/city takes care of fields
- 1% Mowing
- 3% Other: i.e. lawn care service, hand pull weeds, no treatment, etc.

23. Who is responsible for making pest management decisions at your school? *Check all that apply.* (N=603, 96%)

	<u>Indoors&Outdoors</u>	<u>Indoors only</u>	<u>Outdoors only</u>
a. School Maintenance Supervisor/Facility Manager	58%	4%	1%
b. Maintenance/Custodial Staff	30%	6%	<1%
c. Food Service Director/Staff	5%	7%	<1%
d. Teacher	4%	1%	<1%
e. Principal	33%	4%	<1%
f. School Superintendent/School District Administrator	10%	1%	<1%
g. Integrated Pest Management (IPM) Coordinator	22%	3%	<1%
h. Professional Exterminating Company	19%	5%	<1%
i. Don't know	<1%	<1%	<1%
j. No one	0	0	0
k. Other: Director, town, owner, pastor, vice principal, etc.	1%	1%	2%

24. Does your school have a written pesticide use policy? *Please circle your answer.* (N=612, 97%)

- 61% **Yes**
- 23% **No**
- 13% **Don't know**

25. Are pesticides applied in/around your school? *Please circle your answer.* (N=610, 97%)

- 42% **Yes**
- 49% **No**
- 6% **Don't know**

26. If pesticides are applied in/around your school, who is responsible for applying pesticides in/around your school. *Check all that apply. If no pesticides are applied in/around your school, skip to Question 30. (N=354, 56%)*

	<u>Indoors&Outdoors</u>	<u>Indoors only</u>	<u>Outdoors only</u>
a. School Maintenance Supervisor/Facility Manager	9%	<1%	2%
b. Maintenance/Custodial Staff	7%	1%	2%
c. Food Service Director/Staff	<1%	1%	0
d. Teacher	1%	1%	<1%
e. Principal	2%	1%	<1%
f. School Superintendent/School District Administrator	1%	0	0
g. Town/City Public Works Staff	1%	<1%	1%
h. Integrated Pest Management (IPM) Coordinator	6%	1%	1%
i. Professional Exterminating Company	29%	5%	1%
j. Professional Lawn/Landscape Company	4%	1%	6%
k. No one, pesticides are not used	1%	<1%	<1%
l. Don't know	0	<1%	<1%
m. Other: i.e. owner, director, groundskeeper, etc.	3%	<1%	1%

27. What type of notification is provided to staff, students, and/or parents when pesticides are applied in/around schools? *Check all that apply. (N=469, 74%)*

- 30% Written pre-notification for outdoor applications
- 28% Written pre-notification for indoor applications
- 27% Sign posting for outdoors areas
- 15% Sign posting for indoor areas
- 13% Verbal announcement to staff and students
- 12% No notification
- 10% Pesticides are not applied
- 7% Notification by request
- 5% Pesticides applied when school is not in session (i.e. weekends, vacations, summer break)
- 4% Notification for pesticide-sensitive individuals
- 3% Don't know

28. If notification is provided who is responsible for providing the notification? *Check all that apply. If notification is not provided, skip to Question 29. (N=209, 33%)*

- 20% Pesticide Applicator/Company
- 6% School
- 4% Town
- 4% Town Board of Health
- 6% other: CFO, IPM coordinator, director, owner, parish, facility manager, etc.

29. Are all pesticides applied by state licensed/certified pesticide applicators? *Circle one. (N=457, 73%)*

- 57% **Yes**
- 7% **No**
- 8% **Don't know**

30. Is Integrated Pest Management (IPM) practiced in your school? Circle one. (N=577, 92%)

- 60% **Yes**
- 15% **No**
- 16% **Don't know**

31. Which of the following general practices are used in your school? Check all that apply. (N=618, 98%)

- 90% Daily garbage disposal
- 85% Securely store foods with tight fitting lids
- 80% Regular inspections for pest infestation
- 79% Lids on outdoor dumpsters and trash cans
- 85% Plastic liners in indoor trash cans
- 76% Repair water leaks promptly
- 73% Screens on vents and windows
- 62% Food in designated areas only
- 54% Educating staff and students to reduced pest problems
- 47% Using sticky traps/glue boards for monitoring pests
- 0% None of the above

32. Who do you think needs/wants more information on pest management in schools? Check all that apply. (N=575, 91%)

- 38% School Maintenance Supervisors/Facility Managers
- 37% Maintenance/Custodial Staff
- 30% Principals
- 29% Teachers
- 26% Food Service Director/Staff
- 22% No one
- 15% Integrated Pest Management (IPM) Coordinators
- 13% Parents
- 13% Students
- 11% School Superintendents/School District Administrators
- 7% Professional Exterminating Companies
- 3% Other: administrator, director, safety officer, school nurse, new teachers, school committee, church trustees, etc.

33. How useful are/would these sources of information in enhancing your/others understanding of integrated pest management strategies? Please circle your answers. (N=575, 91%)

	Very Useful	Somewhat Useful	Not Useful
a. Workshops/seminars	26%	28%	19%
b. Website	38%	29%	10%
c. Newsletter	26%	38%	12%
d. Pest Fact Sheets	41%	30%	9%
e. Informational Brochures	29%	35%	10%
f. Posters	16%	27%	25%
g. Video/Podcast/Webcasts	11%	25%	28%

h. Pest Management Manual	35%	28%	13%
i. Professional Consultant	17%	26%	22%

34. If workshops/seminars on integrated pest management were held to educate school/town staff, what months of the year would be most convenient? *Please circle all that apply (N=485, 77%)*

12%	January	17%	February	21%	March	17%	April
9%	May	14%	June	22%	July	25%	August
13%	September	14%	October	8%	November	6%	December

35. What do you estimated is the cost of implementing and maintaining your pest management program per year? *Circle one. (N=514, 82%)*

42%	less than \$1001
29%	between \$1001-\$5000
8%	between \$5001-\$10,000
1%	between \$10,001-\$20,000
1%	greater than \$20,000

36. Please list which pests, if any that you would like more information on. *Fill in the blank. (N=201, 32%)*

16%	ants
11%	mice
9%	bees
5%	wasps
4%	hornet
3%	ticks

37. Overall how would you rate the success of your pest management program in your school? *Circle one. (N=614, 97%)*

51%	Very Satisfactory
42%	Satisfactory
2%	Poor
1%	Don't know

Special thanks to the 630 schools who participated in this survey.

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