
Pest Control Practices in Connecticut Public Schools

H *Health experts and the public are increasingly concerned about children's exposure to pesticides. Environment & Human Health, Inc. has conducted a survey of pest control practices in Connecticut public schools in order to judge the magnitude of the problem, and to look at the potential for instituting safer pest control methods that would ensure the protection of our children's health. The following is an overview of our findings.*

■ Summary of Findings

- **Most School Districts Spray Indoors and Outdoors:** Among those responding to our survey (n= 77) 87% sprayed pesticides indoors, and 53% applied herbicides to fields and grounds.
- **Toxic Chemicals Are Applied in Schools:** Pesticides reportedly applied indoors are toxic substances, and include compounds that may adversely affect the human nervous system via cholinesterase inhibition. These included organophosphate and carbamate insecticides.
- **No Prior Notification or Consent:** Pesticides are normally applied without the prior knowledge or consent of students, parents or guardians, or schoolteachers and employees. Only the applicator is aware of the chemical being applied, its concentration, the precise location and time of application.
- **Areas Treated with Pesticides:** Areas treated with pesticides in Connecticut schools included: cafeterias, kitchens, children's lunch storage areas, locker rooms, showers, restrooms, teachers' lounges, common areas such as hallways, and storage rooms.

- **Routine Pesticide Applications in Schools:** Among all responding districts, 32% applied pesticides routinely regardless of need. 55% sprayed “as needed,” and 13% did not spray last year. Among those districts reporting routine spraying (n= 16), most sprayed monthly, however one urban district sprayed twice monthly, and another urban district sprayed three times per month. The data suggest that the larger urban school districts may receive more routine pesticide applications than smaller rural and suburban districts.
- **Absence of Records:** Pesticide application records are not kept in schools and are difficult for the public to obtain. Information necessary to judge children’s exposure and health risk includes: name of chemical, amount applied, location of application, method of application, presence of others during application, delay between application and human occupancy. The absence of records makes it difficult to correlate student and employee health outcomes with pesticide spraying.
- **Qualifications of Applicators:** Among those responding to our survey, 65% used professional applicators, 12% used only school personnel, and 23% used both professionals and school staff. Although professional applicators may understand the toxicity of pesticides better than untrained school personnel, they are allowed by law to use more potent “restricted use” chemicals. Also, our preliminary data suggest that when a school retained a professional pest control company, they tend to spray more often or “routinely” than districts that apply pesticides “as needed.”
- **Presence of Children During Application:** Connecticut school districts are permitted by current law to apply pesticides indoors and outdoors while school is in session.
- **Federal Licensing of Pesticides is No Guarantee of Safety:** Federal registration of a pesticide in no way guarantees that it has been fully tested to determine toxic effects on the developing immune, nervous, and endocrine systems of fetuses, infants and children. Nearly 700 active ingredients and 2,500 inert ingredients are licensed for use within the United States.

■ Summary of Survey Data

Surveys were sent to each of 147 school districts in Connecticut, and 77 (52%) school districts responded. Of these:

- 87% sprayed pesticides indoors.
- 32% sprayed pesticides routinely, whether or not there was a pest problem.
- 13% had not sprayed in the last year.

Of the 77 school districts that responded:

- 65% used only professional pest control operators.
- 12% used only school personnel for pest control.
- 23% used both professionals and school personnel.

School districts using only professional pest control operators were more likely to spray on a routine basis. Of those using only a professional for indoor pest control:

- 92% sprayed pesticides indoors.
- 43% sprayed pesticides routinely, whether or not there was a pest problem.
- 8% had not sprayed in the last year.

Of those school districts that sprayed routinely:

- 88% used only professional pest control operators.
- 12% used both professionals and school personnel.
- None used school personnel alone.

A follow-up of 16 school districts which sprayed routinely indoors revealed that:

- 13 contracted for monthly spraying with a professional pest control operator, one sprayed quarterly, one sprayed twice a month, and one sprayed three times per month.
- Areas most commonly sprayed were the kitchen, cafeteria, bathrooms and children's locker rooms.
- Pesticides used indoors on a routine basis included the insecticides bendiocarb, chlorpyrifos, cyfluthrin, cypermethrin, hydramethylnon, lambda cyhalothrin, pyrethrin, piperonyl butoxide, tralomethrin, and the rodenticide bromadiolone.

Statistics from the Connecticut Department of Education were used to determine the student populations of the schools responding to the survey:

- 252,458 children attended schools in the responding school districts.
- 116,218, or 46%, of these children attended schools in school districts that reported routine spraying.

Seven school districts reported that the township was responsible for maintenance of the athletic fields. Of the 70 school districts that maintain their athletic fields:

- 53%, serving 135,347 children, used herbicides in the last year.
- 47% reported that no herbicides were used on their fields in the last year.

These findings indicate a relatively widespread use of multiple pesticides and indicate the need for better management of pesticide use in Connecticut schools.