



# What are the Alternatives?

## Alternative approaches make sense

Many school districts nationwide are finding effective pest control is possible without using toxic pesticides. Alternative approaches—like “least-toxic Integrated Pest Management” (IPM) described in California’s Healthy Schools Act—employ common sense preventive approaches, prioritize children’s health, and often save school districts money in the long run.

## The least-toxic approach

An effective, least-toxic pest control policy begins with a good IPM definition. The Healthy Schools Act of 2000 establishes as state policy that “effective least-toxic pest management practices should be the preferred method of managing pests at schoolsites.”

The Act defines IPM as a pest management strategy focusing on long-term prevention or suppression of pest problems through combinations of techniques that minimize risk to people, property, and the environment. IPM methods emphasize monitoring for pest presence and establishing treatment threshold levels; nonchemical strategies to make the habitat less attractive to pests; improved sanitation; and mechanical and physical controls. Effective pesticides that pose the least possible hazard are used only after careful monitoring indicates they are needed according to pre-established guidelines and treatment thresholds.

Least-toxic IPM decision-making seeks to manage pests through prevention. It proceeds based on the fact that pests almost always can be managed without toxic chemicals. Rarely does IPM use pesticides, and then only those with the lowest risk. IPM involves a progression of steps:

- Prevention is the first line of defense. Improved sanitation (removal of pest attractions such as food crumbs) and mechanical exclusion (caulking, screens) provide significant pest control. Modification of pest habitats (vegetation-free buffer zones alongside buildings) deters pests and minimizes infestation. Planting appropriate landscapes and using mulch can prevent weed infestation. IPM requires extensive knowledge about pests, such as infestation thresholds, life cycles, environmental considerations, and natural enemies.
- Pest monitoring is critical to identify existing pest problems and areas of potential concern, as well as to deter-

mine how decisions and practices may impact future pest populations. Monitoring must be ongoing to prevent a small pest problem—easily controlled with least-toxic means—from becoming an infestation.

- Threshold tolerance levels of pest populations are established to guide decisions about when pests pose a problem sufficient to warrant some level of treatment.
- If treatment is necessary, non-chemical means are given priority. Traps and enclosed baits, beneficial organisms, freezing and flame or heat treatments, among others, are all examples of non-chemical or least-toxic pest treatment strategies. Any chemicals used must pose the least possible risk of toxicity to humans and the environment.

A good IPM program prohibits use of known and probable carcinogens, reproductive or developmental toxins, endocrine disruptors, cholinesterase-inhibiting nerve toxins, and the most acutely toxic pesticides. (See sample policy in this Pesticide Action Kit.)

In sum, least-toxic IPM establishes a hierarchy of appropriate pest management strategies, with monitoring and prevention at the top and toxic pesticides at the bottom. Least-toxic IPM never gives all available pest control methods equal consideration. It always favors non-toxic alternatives. Beware of alleged IPM policies that allow use of chemical pesticides without prior exhaustion of all other means of control or that ever permit use of pesticides that cause cancer, harm the reproductive, endocrine or nervous systems, or are acutely toxic.

## Many schools practice least-toxic pest control

Growing numbers of California school districts are implementing effective least-toxic IPM programs that eliminate or minimize toxic pesticide use. School districts with policies in place include Arcata, Kentfield, Los Angeles Unified, Oakland Unified, Placer Hills Union, San Francisco Unified, and Ventura Unified. Nationally, more than 100 districts have adopted IPM policies and 32 states have laws governing pesticide use in schools.

## Non-toxic alternatives for pest problems

Alternatives to pesticides include common sense non-toxic approaches. Recommendations by the Los Angeles Safe

Schools Coalition—the community coalition that worked to pass Los Angeles Unified’s model policy—include:

**Weeds:** Control weeds in turf and playing fields by planting native grass species that flourish in the local environment and by using mulch. Remove weeds in paved areas by weed-eaters, weed “flamers,” and hot water treatments.

**Cockroaches:** Eliminate roach-attracting habitat, including paper and cardboard stacks and exposed food and water. Store food and organic waste in roach-proof containers. Clean and caulk cracks and crevices. Repair water leaks and keep kitchen and bathrooms dry.

**Rats and mice:** Combine exclusionary measures and traps to manage rodents. Seal holes and potential entryways and weather-strip doors. Remove food sources by cleaning food scraps and keeping food in sealed containers.

**Ants:** To manage ants, block their entryways, eliminate food sources, and remove ant trails with soapy water. Caulk cracks and crevices and seal exterior doors and windows with weather stripping and door sweeps.

**Termites:** Prevent termites by creating an 8-inch buffer zone between soil or vegetation and all wooden parts of the building, fixing leaks, and eliminating hiding places such as shrubs. Non-chemical treatments include using natural predators and natural termite diseases. Many pest control companies offer heat, cold, electrical, and borate treatment alternatives to toxic fumigation.

### Least-toxic approaches save schools money

According to the U.S. EPA, “preliminary indications from IPM programs in school systems suggest that long term costs of IPM may be less than a conventional pest control program.”<sup>1</sup> By focusing on prevention and monitoring whether pests present a problem, school IPM programs may require no treatments at all. An IPM program usually requires an initial economic investment. Short-term costs may include IPM training, new equipment purchases, hiring an IPM coordinator, or preliminary school building repairs. However, in contrast with chemical-intensive methods, over the long-term IPM garners savings by eliminating or reducing ongoing chemical purchases and applications—

and through the incalculable benefit of a healthier environment for our children.

Public schools in Montgomery County, Maryland, provide a tangible example of how IPM can save money. Their IPM program, encompassing 200 sites, reduced pesticide use from 5,000 applications in 1985 to none four years later. The school district saved \$1,800 per school and \$30,000 at the county school food-service warehouse.<sup>2</sup>

In Monroe County, Indiana, a school IPM program decreased pest management costs by \$6,000 in two years. Pesticide use has reportedly plummeted 90%, and all aerosol and liquid pesticides have been discontinued.<sup>3</sup>

Vista de las Cruces School in Santa Barbara, California, formerly contracted out pest management with a pest control company for \$1,740 per year for routine pesticide applications. After the school switched to an IPM program, costs fell to a total of \$270 over two years.<sup>4</sup>

A survey of Pennsylvania school districts that have adopted IPM reveals that alternatives are effective, less than or equal in cost to pesticide use, and may reduce school absenteeism.<sup>5</sup>

### Conclusion

Least-toxic pest control is the effective, responsible means for school districts to manage pest problems. Many resources are available to help schools adopt pest control practices that put children’s health first

1. U.S. EPA, *Pest Control in the School Environment: Adopting Integrated Pest Management*, 735-F-93-012 (Washington, DC: Office of Pesticide Programs, 1993).
2. J.D. Schubert et al., *Voices for Pesticide Reform: The Case for Safe Practices and Sound Policy* (Washington, DC: Beyond Pesticides/National Coalition against the Misuse of Pesticides, 1996).
3. Safer Pest Control Project, *Cost of IPM in Schools: A Fact Sheet from the Safer Pest Control Project* (Chicago, IL: 1998).
4. Pesticide Watch Education Fund and Pesticide Action Network, *Advancing Alternatives: Successful Least-toxic Pest Management Programs in California’s Urban Settings* (2000).
5. Clean Water Action, *Evaluation of Integrated Pest Management (IPM) Use in Pennsylvania School Districts* (October 1997).

For more information on school pest control that protects children’s health, contact the Healthy Schools Campaign at 888-CPR-4880 or <http://www.calhealthyschools.org>.