

# School Pesticide Monitor

A Bi-monthly Bulletin on Pesticides and Alternatives

Vol. 4 No. 5 September/October 2004



Beyond Pesticides / National Coalition Against the Misuse of Pesticides  
701 E Street, SE, Suite 200 • Washington, DC 20003 • 202-543-5450  
info@beyondpesticides.org • www.beyondpesticides.org

## Integrated Pest Management More Effective Than Toxic Pesticides

A recent study found that Integrated Pest Management (IPM) is far more effective in controlling cockroach populations than conventional spray-based methods, regardless of sanitation practices.

Integrated Pest Management (IPM) is a program of prevention, monitoring, and control which offers the opportunity to eliminate or drastically reduce the use of pesticides, and to minimize the toxicity of and exposure to any products which are used. IPM does this by utilizing a variety of methods and techniques, including cultural, biological and structural strategies to control a multitude of pest problems.

This study, which was co-authored by

Orkin, compared IPM and conventional pest control methods without altering sanitation practices in the test site at a low-income housing development in Eastern Virginia.

“By the end of the study, the technicians using IPM-based procedures had almost completely eradicated the roach population in their units,” said Frank Meek, technical director for Orkin. As for the conventionally treated units, the number of cockroaches caught in the traps never dropped significantly, despite monthly service.

The conventional units received monthly liquid pesticide treatments and dust applications in the primary rooms of concern. In the IPM units, technicians used vacuums

equipped with HEPA filters in areas that obviously harbored cockroaches to remove the insects and the organic debris that served as their food source. The units were then treated using non-volatile, least-toxic methods such as cockroach baits.

“The message is clear to the thousands of businesses that have yet to implement strict IPM principles to prevent pests - the old ‘spray and pray’ approach is simply outdated,” Meek stated.

For more information on successful school IPM, check out *Safer Schools: Achieving a Healthy Learning Environment Through Integrated Pest Management*, available at [www.beyondpesticides.org](http://www.beyondpesticides.org), or 202-543-5450.

## Research Shows Pesticide Dangers to Children

A June 2004 report released by Environment California, “Growing Up Toxic: Chemical Exposures and Increases in Developmental Disease,” links compelling scientific studies that together paint a vivid picture of some of the most pressing health concerns our children face today, including pesticide exposure. The report collected a number of studies on the consequences of pesticide exposure as depicted in the following excerpts:

- Research shows that pesticides and their breakdown products are commonly found in people.
- One study found an association between miscarriages caused by birth defects and commercial pesticide applications within a nine square mile area around the home. Another study found that boys conceived during the period of most intense application of the herbicide 2,4-D were five times more likely to have a birth defect than boys with no unusual exposure.

•Children exposed to agricultural pesticides show deficiencies in intellectual development, stamina, balance, hand-eye coordination, and short-term memory.

•The EPA banned household uses of the pesticides chlorpyrifos and diazinon in 2001. It appears that this health-protective action had a nearly immediate effect. After 2001, mothers in New York City had lower levels of these compounds in their bodies and, remarkably, gave birth to heavier and longer babies than those born before the pesticide ban.

“Open the doors to the average home where children live, and you are apt to find the usual trappings of childhood: toys strewn about on the floor, cupboards secured with safety locks, baby gates at the top of the stairs,” said Yana Kucher, co-author of the report. “Yet while parents endeavor to stimulate their children’s development and protect them from hazards, the very products their children are surrounded by are likely exposing them to chemicals that could harm their de-

velopment.”

The report authors advocate several policy changes to help protect the public:

- Phasing out chemicals that persist in the environment, accumulate in organisms, or for which evidence of potential harm to human health exists;
- Requiring chemical manufacturers to disclose to the state the techniques to detect their chemicals in air, water, and our bodies;
- Requiring chemical manufacturers to supply the state and federal government with toxicity data for their products, including low-dose effects on development and reproduction;
- Encouraging the federal government to stop lobbying on behalf of US industry against the new European Union chemicals policy and to take a stronger stand for public health.

Contact Environment California for a copy at 213/251-3688 or [environmentcalifornia.org](http://environmentcalifornia.org).

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(202) 543-5450

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## Educational Posters Fight West Nile at School

Imagination can make kids laugh, but it can also save their lives. That's why the California Safe Schools Coalition (CSS) partnered with internationally celebrated artist Michael Bruza with the launch of a series of innovative children's safety posters aimed at reducing pests without the use of pesticides. The most recent poster focuses on actions children can take to protect themselves from West Nile Virus.

"I've always had an interest in creatively delivering kids' content, programming and educational materials. Partnering with CSS gives me the opportunity to directly impact and improve the well-being of thousands of kids. That means a great deal to me."

The poster's message is an important one. Broadcast spraying for adult mosquitoes in order to control West Nile virus is not only inefficient; it is a public health risk especially to children, who are more vulnerable to pesticide exposure due to physiological and behavioral characteristics.

Mosquitoes can be managed safely with the following steps:

### Prevention

- Remove or drain areas of standing water.
- Educate students and staff on recognizing potential mosquito breeding grounds.
- Fix dripping outside water faucets.

- Encourage use of herbal repellents such as Skin-so-soft or Bite Blocker, rather than DEET.

- Maintain window screens and doors, and keep doors closed.

### Control

Targeting mosquitoes in the larval state is much more effective than targeting adult mosquitoes. Several larvicide options are available:

- *Bacillus thuringiensis* var. *israelensis* is one of the most popular and most effective least-toxic biological controls. It is a bacterial strain that, when sprayed into larval pools, is ingested by feeding larvae and kills them.

- Horticultural oils (vegetable based) are effective in killing larvae in water and sinking egg rafts on the surface. Be careful, as they also can kill non-target organisms, including some mosquito predators that breathe from the surface.

For more information about least-toxic mosquito management and the toxicity of adulticides and DEET, see



[beyondpesticides.org](http://beyondpesticides.org) or call (202)543-5450.

Contact California Safe Schools for copies of pest prevention education posters. Posters are free, plus shipping, for you to use in your own school and community. For more information, visit [www.calisafe.org](http://www.calisafe.org), or contact California Safe Schools at 818-785-5515 or [schoolipm@earthlink.net](mailto:schoolipm@earthlink.net).