

# School Pesticide Monitor

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Beyond Pesticides / National Coalition Against the Misuse of Pesticides  
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## Pesticides on Back-to-School Agenda

As children head back to school, Beyond Pesticides urges parents and school staff to ask school administrators to adopt non-chemical practices that protect children from pests and toxic pesticides. Studies consistently link many pesticides to adverse health effects that affect children's respiratory system and their ability to learn.

The back-to-school season and talk of pesticide use brings with it debate on appropriate integrated pest management (IPM) practices. Because of a lack of an agreed upon definition, IPM is often promoted with a lack of clarity and an unnecessary reliance on toxic chemicals, according to health and safety advocates.

Beyond Pesticides advocates IPM for school buildings with a clear definition containing eight essential program components: education/training, monitoring, action thresholds, prevention, least-toxic

tactics criteria, notification, recordkeeping, and evaluation.

Proper IPM is discussed in a recent Beyond Pesticides report, *Ending Toxic Dependency: The State of IPM*. At the same time, Beyond Pesticides advocates organic practices on outdoor landscapes and playing fields.

While the trend is moving toward the adoption of organic and clearly defined management practices, some in the pest control industry publish positions that suggest that parents must choose between pests and pesticides. The executive director of the New Jersey Pest Management Association (NJPMA), in a September 4, 2007 press release, asks, "Which would you prefer. . . [a] school free of the many insect and rodent pests that can spread disease or one in which fears of pesticides exceed having a safe learning environment?"

"It is ironic and unnecessary to pit the pest management industry against health and safety advocates when both can work together to achieve a safe learning environment without hazardous pesticides," said Jay Feldman, executive director of Beyond Pesticides. Data shows that schools can be managed to protect children from pests through maintenance practices and structural repairs and, in some cases, least-toxic pesticides as a last resort.

Despite the NJPMA rhetoric, the state of New Jersey is one of 12 states that require school IPM practices. The state has a model IPM policy and requires preferred "low-impact pesticides to be used after non-chemical practices are adopted and before more toxic chemicals."

The model language states: "Each school shall consider the full range of management options, including no action at all. Non-pesticide pest management methods are to be used whenever possible. The choice of using a pesticide shall be based on a review of all other available options and a determination that these options are not effective or not reasonable. When it is determined that a pesticide must be used, low-impact pesticides and methods are preferred and shall be considered for use first."

"While the definition of low-impact needs greater scrutiny because gels, paste or baits may contain volatile chemicals that contaminate indoor ambient air, the New Jersey approach seeks to eliminate where possible hazardous pesticides. However, to ensure effective implementation, this policy requires strict parental and school staff oversight," said Mr. Feldman.

For more information on the adoption of school policies that are protective of children in the new school year, see [www.beyondpesticides.org](http://www.beyondpesticides.org) or contact the organization at 202-543-5450.

### Integrated Pest Management

In the states that have codified in state law IPM practices, two types of IPM definitions emerge:

□ **Prioritized Strategic IPM.** With first tier prioritized strategic IPM, state IPM policy seeks to reduce or eliminate hazardous pesticide use and requires the use of clearly defined least-toxic pesticides only as a last resort. With second tier prioritized strategic IPM, state IPM policy seeks to reduce or minimize pesticide use and adopt non-chemical practices, while using least-toxic pesticides without specifically requiring a last resort determination. These approaches recognize the hazardous nature of pesticides, deficiencies in the process that regulates these toxic substances, the value of avoiding use when possible (precautionary principle), and the viability of prevention-oriented strategies not reliant on hazardous pesticides.

□ **Non-prioritized Tactical IPM.** With non-prioritized tactical IPM, the state IPM practices are defined as a combination of pest management methods with no priority for pesticide or hazard reduction. Additional states specify IPM as a combined method that minimizes health and/or environmental risks, as well as economic risks. However, this definition can be and is generally interpreted from the perspective of the health and economic risks of not using pesticides, as opposed to analyzing the real hazards or uncertainties (because of inadequate health and environmental effects testing of pesticides) associated with pesticide use.

-excerpted from *Beyond Pesticides'* report *Ending Toxic Dependency: The State of IPM*

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## New WHO Report Focuses on Children's Susceptibility to Chemicals

**F**or the first time, the United Nations' World Health Organization (WHO) released a report on children's heightened vulnerability to chemical exposures at different periods of their growth and development. According to WHO, over 30% of the global burden of disease in children can be attributed to environmental factors, including pesticides.

The report, *Principles for Evaluating Health Risks in Children Associated with Exposure to Chemicals*, cites several studies that tie pesticide exposure during key periods of development to neurobehavioral problems, Parkinson's disease, and immunotoxicity, including respiratory diseases.

The report notes that children have different susceptibilities during different life stages, due to their dynamic growth and developmental processes, as well as physiological, metabolic, and behavioral differences.

Exposure can occur:

- In utero through transplacental transfer of environmental agents from mother to fetus or in nursing infants via breast milk.
- Through diet - children consume more food and beverages per pound of body weight than do adults, and their dietary patterns are different and often less variable during different developmental stages.
- Through inhalation and absorption - children have a higher inhalation rate and a higher body surface area to body weight

ratio, which may lead to increased exposures.

- Through behavior - children's normal behaviors, such as crawling on the ground and putting their hands in their mouths, can result in exposures not faced by adults.
- Other physical factors - children's metabolic pathways may differ from those of adults, and children have more years of future life and thus more time to develop chronic diseases that take decades to appear and that may be triggered by early environmental exposures.
- Also, children are often unaware of environmental risks and generally have no voice in decision-making.

Some examples of health effects resulting from developmental exposures in young children include infant mortality, asthma, neurobehavioral and immune impairment; and in adolescents, precocious or delayed puberty. Evidence also suggests that an increased risk of certain diseases in adults such as cancer, chronic respiratory disease and heart disease can result in part from exposures to certain environmental chemicals during childhood.

Traditional risk assessment approaches and environmental health policies have focused mainly on adults and adult exposure scenarios, utilizing data from adult humans or adult animals. The report highlights the need to expand risk assessment paradigms to evaluate exposures relevant to children from pre-

conception to adolescence, acknowledging each developmental stage. The study, while pointing out risk assessment is flawed and encouraging new and improved research, also states "A lack of full proof for causal associations should not prevent efforts to reduce exposures or implement intervention and prevention strategies."

Real world exposure is indeed complicated and makes it difficult to conclusively draw causal associations, especially taking into account synergistic effects, leaving a clear and vital need to exercise the precautionary principle.

The easiest and safest solution regardless of risk assessment methods is to avoid chemical use and exposure by using alternative, non- and least-toxic management methods for species that can cause economic and health problems, being more tolerant of species that are solely a nuisance or aesthetically displeasing, and using organic practices and products.

Due to the large amount of time children spend in schools, Beyond Pesticides' Healthy Schools Project aims to minimize and eliminate the risks posed by pesticides through the adoption of school pest management policies and programs at the local, state, and federal level, thereby creating a healthier learning environment.

*Find out what laws your state has enacted to protect children from pesticide exposure and learn about model policies your state and community can work toward adopting at [www.beyondpesticides.org](http://www.beyondpesticides.org).*