

through pesticide applications. Research shows that pesticide exposure can adversely affect a child's neurological, respiratory, immune, and endocrine systems, even at low levels. Additionally, children face unique hazards from pesticide exposure. They take in more pesticides relative to their body weight than adults and their developing organ systems often make them more sensitive to toxic exposure.

Fortunately, pesticides are not necessary to create a healthy, pest-free learning environment. There are safe and effective ways of controlling pests, both in classrooms as well as outdoors on playgrounds and playing fields, using non-toxic and least-toxic methods. Beyond Pesticides has put together this back-to-school guide to help safeguard your kids from pesticide dangers at school. Use this list to start the new school year right and ensure that you are sending your kids back to a healthier and safer environment.

### At Home

# Be Wary of Bed Bugs.

ed attempts to create a pest-free environment

The overuse of pesticides along with an increase in international travel has contributed to a recent surge in bed bug populations. Pesticides used against bed bugs are linked to cancer, hormone disruption, asthma, neurotoxicity, and more. They are also ineffective due to insect resistance. Fortunately, bed bugs do not transmit disease and can be controlled without toxic pesticides.

Spotting a lone bed bug at home or on the school grounds does not mean that you should panic. However, you should proceed with caution. Be sure to vigilantly check backpacks, clothing and school supplies for bed bugs.

If you do discover an infestation, there are safe steps you or a pest control specialist can take to neutralize the problem without resorting to toxic and ineffective chemicals. Several steps you can take to prevent bed bugs include sealing crevices, eliminating clutter, vacuuming, laundering fabrics, encasing mattresses and box springs, and steam or heat treatment if bed bugs are found.

More information on how to identify, prevent, and manage bed bug infestations can be found on Beyond Pesticides' Bed Bug web-

page at www.beyondpesticides.org/bedbugs.

### Look Out for Lice.

Back-to-school season often coincides with lice outbreaks. Anyone can get head lice, no matter how often you wash or comb your hair. Lice are a common concern for elementary school-aged children, but toxic lice shampoos are not necessary. Products containing lindane and permethrin have been linked to cancer, neurological damage, and more. Fortunately, non-chemical treatments such as directed hot air, enzymes, and specialized lice combs can be far more effective at controlling this problem.

Head lice management involves the basic steps of education, prevention, monitoring, and control. Following these steps should prevent a serious infestation from occurring in your home or school. Simple precautions such as telling children not to share combs, hats, and blankets are a good start in preventing the spread of lice. If you do find lice, there are simple and safe ways to get rid of them. One effective procedure involves combing through oiled hair with a special nit comb (available at most pharmacies) and drowning any lice you find in soapy water.

Learn more in our factsheet, *Getting Nit Picky About Head Lice* (bit.ly/nitpicky).

#### At School

# Improve Your School's IPM Program.

A strong integrated pest management (IPM) program is one of the best ways to eliminate pesticides in school buildings.

IPM is a program of prevention, monitoring, and control that offers the opportunity to eliminate or drastically reduce pesticides in schools, and to minimize the toxicity of and exposure to any products that are used. Improving a school's pest management program requires perseverance, as administrators may be uninformed.

A good IPM program will have a strictly defined process for managing pest problems and will include the six IPM essentials: monitoring pest levels, keeping records, developing action levels, adopting preventive measures, establishing criteria for chemical use, and evaluation of the program.

To learn more about how to improve your school's pest management policy, both indoors and outdoors, see our School Organizing guide: bit.ly/schoolorganizing.

You can also help support the development of a national school IPM policy by educating your Congressional Representative on the *School Environment Protection Act*. See bit.ly/SEPAaction.

### Eat (and Grow) Organic Food.

In addition to serious health questions linked to actual residues of toxic pesticides on the food we eat, our food buying decisions support or reject hazardous agricultural practices, protection of farmworkers, and stewardship of the earth. Buying certified organic food is the only way to be sure that what you and your family eat comes from a system that rejects hazardous synthetic chemicals. There has been documented evidence showing that children fed a pure organic diet have significantly lower levels of pesticides in

their system than children fed a diet of conventionally produced food. If you are unable to eat all organic, purchase organic varieties of the foods you and your kids eat most commonly.

It's easiest to go organic when you grow organic. School gardens and other farm-to-school programs teach children where food comes from and establish healthy relationships with food and the natural world. An organic garden starts with healthy soil using natural sources of fertility such as compost, and schools have a great built-in source of potential compost feedstock in kitchen scraps, cafeteria leftovers, and turf clippings.

You can increase the amount of organic food your child eats while decreasing his or her exposure to toxic pesticides and lessening your impact on the environment by asking your school to adopt an organic lunch program or helping to start an organic school garden. For more information, see *School Lunches Go Organic* (bit.ly/organiclunches) and *The Organic School Garden* (bit.ly/schoolgardenorganic).

# In the Field

School playing fields and playgrounds can be some of the most pesticide-laden areas of a school. Many officials and ground-skeepers think that the only way to ensure good turf growth is with chemical pesticides and synthetic fertilizers. However, many schools around the country are realizing that organic management can create full and healthy turf while keeping toxic chemicals away from children.

Chemicals commonly used on athletic fields can cause numerous health risks to children. The use of these chemicals on playing fields is particularly troubling because children come into direct contact with the grass, and have repeated, prolonged exposures.

In addition to keeping dangerous chemicals off of playing fields,

an organic system of "feeding the soil to feed the plant" creates healthier turf. Using compost and other natural sources of fertility make plants less likely to contract diseases and helps them fight off pests.

Although opponents often claim that organic management is more expensive, a 2010 study found that organic turf management systems cost as much as 25% less than conventional systems.

Learn more about organic management of school fields in our *Pesticides and Playing Fields* fact sheet (bit.ly/safefields). Find out more about safe, organic land care at our *Lawns and Landscapes* page at www.beyondpesticides.org/lawn.