U.S. EPA Encourages Schools Adopt Better Pest Management Practices

The U.S. Environmental Protection Agency (EPA) has published a new brochure, "Protecting Children in Schools from Pests and Pesticides," which recommends schools adopt an Integrated Pest Management (IPM) program, a safer and more cost-effective approach to controlling school pest problems. "Childhood exposure to pesticides is an environmental health risk facing children today," states EPA Administrator Christine Whitman on the brochure. "We are focused on helping communities address this problem."

IPM is a program of prevention, monitoring and control by focusing on eliminating or reducing sources of food, water and harborage for pests, and limiting pest access into buildings. It offers the opportunity for schools to eliminate or drastically reduce pesticide use, and to minimize the toxicity of and possible exposure to any products used. The EPA brochure recommends schools use "cultural, mechanical, and [the] lowest-impact chemical control technologies" as part of its pest management program.

EPA's brochure includes brief examples of IPM practices and of schools that have implemented a successful IPM program. Although the brochure discusses health risks associated with common school pests, children's environmental health groups charge that the brochure does little to inform the public about the possible health risks associated with school pesticide use.

In efforts to further promote schools adopt an IPM approach to pest management, Beyond Pesticides' has published Building Blocks for School IPM: A Least-toxic Pest Management Manual which provides comprehensive information on implementing school IPM, including a practical guide to identifying, preventing and controlling common school pest problems. It is designed for individuals that are responsible for school pest management. Because schools in different parts of the country have different pest problems and different needs, Building Blocks for School IPM is intended to be used as a guide that can be molded into a specific school IPM program. Contact Beyond Pesticides to order a copy of "Building Blocks for School IPM" ($15 ppd, 285 pages).

Copies of EPA's brochure (reference number EPA-735-F-02-014) can be ordered at 800-490-9198.

Pesticides Linked to Childhood Cancer ... Again

A study published in the September 2002 issue of Environmental Health Perspectives shows significant associations between childhood leukemia and exposure to pesticides. The researchers found a "critical window of exposure" to pesticides used in the home associated with leukemia in children. The highest risk observed correlated with exposure during the mother's pregnancy and during the child's second year of life.

Other studies link pesticides and elevated rates of childhood leukemia, non-Hodgkin's lymphoma, brain cancer and soft tissue sarcoma. For example, a study sponsored by the National Cancer Institute indicates that household and garden pesticide use can increase the risk of childhood leukemia as much as seven-fold.

A study published in the December 1, 2001 issue of Cancer correlates an increased risk of non-Hodgkin lymphoma (NHL) in children with exposure to household pesticides. Exposed children showed a three to seven times greater likelihood of developing NHL, as compared to unexposed children. The most commonly used non-agriculture herbicide, 2,4-D, has also been linked to non-Hodgkin’s lymphoma in several scientific studies.

A study conducted by the Missouri Department of Health found a significant link between the use of several common household pesticides and brain cancer in children. Increased risk of cancer in children was associated with no-pest strips, termiteicides, Kwell lice shampoo, flea collars, pest shampoos and garden pesticides.

For more information on the link between pesticides and cancer, contact Beyond Pesticides.
LEAST-TOXIC CONTROL OF HEAD LICE

PREVENTION

- Establish a no-sharing policy when it comes to commonly infested items such as combs, brushes, hats, scarves, pillows, blankets or mats.
- If classroom cubbies or coat hooks are shared or clustered, place coats and hats in sealed plastic bags.
- Inform school and friends’ parents as soon as lice is discovered.

MONITORING

- Watch for symptoms of head lice: head scratching, sometimes leading to scalp damage; red bites on scalp, around ears and at nape of neck; and the presence of nits in the hair.
- Periodically check your child for nits whether or not he or she is showing symptoms, especially if you know there has been an outbreak at school or among friends. Viable nits will be yellowish to grey in color, darkening to a tan or coffee color as they mature, and are shaped like a tear drop.

NON-TOXIC CONTROL

- Liberally apply coconut oil to the child’s head and scalp. (Any oil should work. It functions as a lubricant to make combing easier and smoothes the lice.) Once the hair and scalp are thoroughly coated, comb through hair with a wide-toothed comb to remove tangles and straighten the hair. Separate hair into one-inch sections and search thoroughly, both visually and by nit combing.
- Nit combs can be purchased at drugstores or by contacting the National Pediculosis Association, 781-449-NITS, www.headlice.org. Immerse any nits or lice in hot soapy water as they are pulled from the hair. Pin cleaned sections of hair aside, curling it close to the head. Periodically clean hair and debris out of the comb with a tissue, placing the tissue in hot, soapy water when it is soiled. Once finished, wash the child’s hair with hot water and blow it dry (remembering that his or her head is much more heat sensitive than yours.) Recheck the entire head for stray lice and nits. Clean out your nit comb, removing any stray hair and nits, and soak it in 150°F water for 15 minutes before putting it away.
- Repeat on every student or staff member showing symptoms of head lice for 12 consecutive days.
- Vacuum of common space for any fallen nit-carrying hairs or runaway lice. Wash all towels and other questionable items in hot water (140°F/60°C) and dry on high to take care of any potential re-infesters. Place non-washables in the hot drier for 20 minutes. You can also store the items in a plastic bag for 14-30 days, or freeze them in temperatures of -4°F (-20°C) for 5 hours, or -5°F (-15°C) for 10 hours.

LEAST-TOXIC CONTROL

- It will always be necessary to nit comb, no matter what course of treatment you decide upon, but if you feel a need to do more than oil and comb, there are enzyme treatments for head lice. Molting insects produce enzymes to lift open their exoskeletons when they molt. These products work by prematurely breaking apart the outer covering of lice and loosening nits from the hair. Due to the insects’ need for these enzymes, they do not appear to become resistant to them. They are advertised as non-toxic to humans, but as with any pest control product, you should be sure to obtain full disclosure of all product ingredients before use.

PROBLEMS WITH CHEMICAL CONTROL

- Lindane, the active ingredient in Kwell®, a commonly prescribed lice shampoo, is readily absorbed through the skin on the scalp. It is a possible human carcinogen, and has been linked with blood disorders, and neurological and immunological effects. It has been banned for use in lice and scabies treatment in California.
- Nix®, contains permethrin, also a possible human carcinogen and a neurotoxin, which has been reported to cause temporary nervous disorders in the hands or face.
- There is widespread resistance of head lice to Lindane and permethrin, rendering these products useless in some cases.

For more information about the least-toxic control of lice or other pest problems, or information on the toxicity of pesticides, contact Beyond Pesticides or see www.beyondpesticides.org