

School Pesticide Monitor

A Bi-monthly Bulletin on Pesticides and Alternatives

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Beyond Pesticides / National Coalition Against the Misuse of Pesticides
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Iowa Communities Keep Lawns Green Without Toxic Pesticides

Waterloo/Cedar Falls Schools, Parks and Medical Center strive to reduce pesticide use.

School and park officials in Waterloo and Cedar Falls, Iowa have developed a pest management plan that significantly reduces the amount of toxic pesticides used on lawns. The plan was created with the help of Yards for Kids, a health education program that strives to significantly reduce the use of lawn pesticides in their community through prevention.

According to Yards for Kids, the City of Cedar Falls has gone from blanket spraying several parks to only applying pesticides on 10 percent of park grounds, saving the city \$18,000 and hundreds of gallons of pes-

ticides over the last three years. Many other entities have followed their lead on reducing the use of herbicides - Cedar Falls Community Schools have a plan to significantly reduce pesticide applications to school lawns; Cedar Falls Community Parks has a five-year plan, which is saving \$13,000 and 300 gallons of pesticides; eight Waterloo Parks are pesticide-free; and Covenant Medical Center has adopted ecological lawn care practices and used no lawn pesticides in 2001.

Yards for Kids is a collaborative project of the University of Northern Iowa's Center for Energy and Environmental Education with

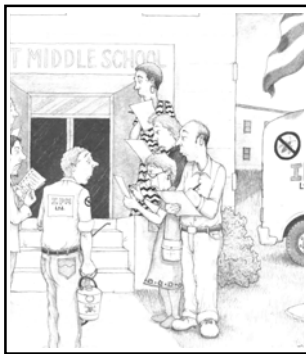
the City of Cedar Falls and City of Waterloo Mayor's Offices, Iowa Department of Natural Resources, Iowa Waste Reduction Center, Black Hawk Wildlife Rehabilitation Project, Cedar Valley Youth Soccer Association, Covenant Medical Center, public libraries, community schools, and others. Yards for Kids is headed by Dr. Kaymar Enshayan, an agricultural engineer.

Contact Sarah Walz at 319-466-0908 or sarah-walz@uiowa.edu or Dr. Enshayan at 319-273-6895 for more information. For a list of other pesticide reduction success stories, contact Beyond Pesticides.

Building Blocks for School IPM

has been updated to include lawn and landscape pests!!!

This comprehensive, step-by-step guide for the pest management professional at your school now offers information about administering structural and outdoor IPM programs!



Order ***Building Blocks for School IPM*** (\$15 ppd.) through our website at www.beyondpesticides.org or by contacting Beyond Pesticides at 202-543-5450.

NY Legislature Passes Bill to Protect Children from CCA-Treated Playground Equipment

The New York State Assembly and Senate passed a bill on June 17 prohibiting the use of chromated copper arsenate (CCA)-treated lumber for any new public or school playground. The bill, A10221 and S7167, requires existing CCA-treated structures be maintained to minimize leaching of CCA and directs the commissioner of environmental conservation to publish information about the dangers of CCA-treated lumber, and methods and materials for minimizing leaching. The bill will take effect within six months of its enactment.

CCA-treated wood is used in decks and patios, picnic tables, playground equipment, walkways and boardwalks, landscaping timbers and fencing. The New York State bill's legislative memo states that "Educating the public about avoiding the use of CCA-treated wood should serve to reduce exposure from other uses, since alternatives are available." The arsenic in CCA is a known human carcinogen and has been linked to

nervous system damage and birth defects.

Earlier this year, EPA announced a voluntary phase-out of CCA by the pressure-treated industry. After December 31, 2003, wood for residential uses may no longer be treated with CCA, but this wood can be sold off until supplies are exhausted. While the EPA phase-out is a positive first step, environmentalists argue that it does not adequately protect public health or the environment.

Both the New York State bill and the EPA agreement ignore the disposal issue and industrial uses.

For information about identifying CCA-treated wood, limiting exposure to CCA, safe disposal, and less-toxic alternatives, see the *Beyond Pesticides factsheet "Protectig Your Health from CCA-treated Wood" on the wood preservative program page at www.beyondpesticides.org.*

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Beyond Pesticides has updated the local and state school pesticide policies website!

Find your school's pest management policy by visiting the children and schools program page at

www.beyondpesticides.org! Yours isn't listed? Contact us with a copy of your policy at info@beyondpesticides.org.

LEAST-TOXIC CONTROL OF MOSQUITOES

PREVENTION

- Remove or drain all tin cans, pet dishes, buckets, holes in trees, clogged gutters and down spouts, old tires, birdbaths, shallow fishless ponds, and other water-retaining objects.
- Check for standing water in plastic or canvas tarps used to cover pools and boats. Arrange tarps to drain water and turn canoes and small boats upside down for storage.
- Fix dripping outside water faucets.
- Stock permanent water pools, such as ornamental ponds, with mosquito larvae eating fish.
- Use herbal repellants to ward off mosquitoes, such as Skin-so-soft, Herbal Armour, and cedarwood. Reapply as needed: <file:///M:/Bee%20-%20becky/Schools/Building%20Blocks/Building%20Blocks%20Graphics/coveralt.JPG>.
- Maintain window screens and doors, closing all opened doors and use screened-in porches instead of open porches.

MONITORING

Check ponds and sources of water for signs of mosquito larvae. Eggs are laid either one at a time or in rafts and float on the surface of the water. *Culex* and *Culiseta* species stick their eggs together in rafts of 200 or more, which looks like a speck of soot floating on the water, about 1/4-inch long and 1/8-inch wide. *Anopheles* and *Aedes* species do not make rafts, but lay their eggs separately. *Aedes* lay their eggs on damp soil that will be flooded by water. Most eggs hatch into larvae within 48 hours. Larvae live in the water and come to the surface to breathe. They feed on micro-organisms and organic matter in the water. They molt four times, growing larger after each molting, and changing into pupae after the fourth molt when they are about 1/2-inch long.

CONTROL

- Burn **citronella candles** and torches to control mosquitoes in the immediate vicinity when there is no wind.
- Stock ornamental ponds with **mosquito larvae-eating fish**, such as mosquito fish of the *Gambusia* genus. This fish should be stocked in enclosed water so they will remain in the area in need of control. Only indigenous species should be used.
- ***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 control or DEET, see www.beyondpesticides.org.

The Hazards of DEET

DEET is quickly absorbed through the skin and has caused effects ranging from large blisters, numbness, and mood disturbances, to brain damage in children, three of whom died in the last 40 years.

U.S. scientist Mohammed Abou-Donia, Ph.D., a pharmacology professor at Duke University, found symptoms of neurological damage in soldiers using small doses of DEET daily for two months. He also found adverse effects from DEET mixed with permethrin, an insecticide commonly used for mosquito control. The combination caused the death of a large number of brain cells within the cerebral cortex, which controls muscles and movement, the hippocampal formation, which controls memory, learning and concentration, and the cerebellum, which synchronizes body movements.

Health Canada has banned insect repellents with more than 30% active ingredient DEET, citing health risks and evidence that increasing the amount of active ingredient does little more to repel bugs, and products mixing sunscreen with DEET, citing the potential to absorb too much DEET.

In 1998, U.S. EPA issued the following precautions concerning DEET: do not allow young children to apply this product; do not apply near children's hands or face; apply only enough to cover exposed skin and/or clothing; thoroughly wash all treated skin with soap and water after returning indoors; wash treated clothes before wearing again; and do not spray aerosol forms indoors.