School Pesticide Monitor

Vol. 6 No. 3 May/June 2006

Beyond Pesticides / National Coalition Against the Misuse of Pesticides
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Pesticides and Playing Fields: Are We Unintentially Harming Our Children?

Parents and teachers spend a lot of time ensuring the safety of children. Yet the common, everyday practices used to maintain our children's playing fields are unintentionally and unnecessarily exposing them to carcinogens, asthmagens, and developmental toxins. As the summer season begins, it is important to know that the typical soccer field is deluged with a mixture of poisons designed to kill fungus, weeds, and insects. A conventional maintenance plan includes the use of a fungicide on a regular basis to prevent fungal pathogens; a pre-emergent herbicide (such as 2, 4-D) to kill crabgrass and dandelion seed; a selective herbicide (such as Trimec or Mecoprop) to kill clover and other broadleaf weeds; and an insecticide (such as Imidacloprid or Trichlorfon) to kill grubs and other insects. These are all synthetic pesticides, and their use on playing fields is particularly troubling because children come into direct contact with the grass, and have repeated, and prolonged exposures. While much is known about the effects of individual pesticides and products, very little is known about the health effects of mixtures of pesticides used on playing fields.

Many people think that the pesticides "wear off," and that children are not being exposed. However, the Centers for Disease Control (CDC) found multiple pesticide residue in children's bodies, including the herbicide 2,4-D, which was found in significantly higher levels in children ages 6-11 than all other age categories. Herbicides such as 2,4-D and Mecoprop are found in 15 percent of children tested, ages 3 to 7, whose parents had recently applied the lawn chemicals. Breakdown products of organophosphate pesticides are present in 98.7 percent of children tested. Additionally, scientific studies show that herbicides, such as 2,4-D, are tracked indoors from lawns where residues may remain for up to a year in carpets, dust, air and surfaces.

WHAT CAN YOU DO?

You do not have to be an expert on athletic turf management or the health effect of every pesticide used on soccer fields. What you do need to know is that children are being unnecessarily exposed to chemicals that can impair their health, and that safer, proven methods exist to manage turf. Your school can have dense, vigorous, and well-groomed *organic* playing fields that are the pride of your community.

Over the past five years the Town of Marblehead, CT (shown in photo) transformed 15 acres of playing fields to organic care, and is now the model for communities across the country. At a cost of $2400/acre, the town can be assured that their kids are safe at play. While there are initial costs to transition a chemical-dependent turf to organic care, in the long-run costs are lowered because the root-causes of the pest problems are addressed and there is no longer a need to pay for intensive chemical treatments.

Thirty-three states have laws and over 400 school districts have policies or programs requiring integrated pest management, pesticide bans, or right-to-know provisions in schools. These laws or policies are not necessarily well-known or satisfactorily implemented. You can take the following steps to ensure that your town's playing fields are safe and healthy:

- Determine whether your state, school or community has a law or policy governing pesticide usage in and around schools or on public lands. Find out how well it is being implemented.
- If you do not have a school IPM or organic lawn care policy in your community, contact Beyond Pesticides to learn ways to implement one.
- You can petition the school system to convert the playing fields to organic care and require that the maintenance director or contracted professional be trained in organic land care.
- Your organization can join the *School Pesticide Reform Coalition* to connect with other activists on this issue. Contact Beyond Pesticides to join.

For more information or assistance on school policies or organic turf management, contact Beyond Pesticides at 202-543-5450 or visit www.beyondpesticides.org.

The town of Marblehead, CT transformed 15 acres into organic playing fields

School Pesticide Monitor is published by Beyond Pesticides and is a free service to those interested in school pesticide issues. Editors: Aviva Glaser and Michele Roberts
If you are interested in receiving the *School Pesticide Monitor* via email, contact us at aglaser@beyondpesticides.org.

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Mosquito Madness: How to Repel Mosquitoes Safely

With summer upon us, the bugs out in full force, and some very itchy arms and legs, thoughts turn to mosquitoes- and more specifically, how to avoid them. The first step in avoiding mosquitoes (and any pest) is prevention. Be sure to remove standing water around the home and the schoolyard, such as leaky hoses, empty buckets, and old tires, as they can serve as breeding grounds for mosquito larvae.

The best way to avoid mosquitoes, especially in the evening when they are most active, is to wear long pants and long sleeves. Burning citronella candles outside also helps repel mosquitoes. Since these two options are not always possible, mosquito sprays can sometimes be a good alternative. Many common mosquito sprays can contain toxic ingredients, however, so it is important to consider all of the option and read labels carefully before buying or spraying the repellents.

Some Least-Toxic Mosquito Spray Ingredients Include:

■ **Citronella.** The same ingredient in the candles that repel mosquitoes also is in some mosquito sprays, including Natrapel (www.tendercorp.com).

■ **Oil of Lemon Eucalyptus.** CDC recommends lemon eucalyptus oil repellents as a good alternative to DEET, explaining that this "plant-based mosquito repellent...provided protection time similar to low concentration DEET products in two recent studies." The scented oil masks both carbon dioxide and lactic acid exhalations that alert mosquitoes to our presence, confusing the bugs and essentially hiding humans from their detection. Products include: Repel Lemon Eucalyptus Insect Repellent (www.repel.com).

■ **Essential oils.** Pesticides made with essential oils are derived from plants that are known to have insecticidal properties. Some essential oils used to repel mosquitoes include Cedarwood, Soybean Oil (www.biteblocker.com), and Geraniol (MosquitoGuard-www.wildroots.com, Bite Stop-www.bitestop.com, or BugBand).

■ Some repellents include many of these ingredients, including: Quantum Buzz Away Mosquito Repellent (www.quantumhealth.com), All Terrain (http://www.allterrainco.com/), Avon Skin-So-Soft, and Herbal Armour.

With all these repellents, be sure to reapply often (following the directions on the label) to repel the mosquitoes most effectively.

Be Sure To Avoid:

■ **Pesticide-impregnated clothing**, such as Buzz Off clothing, is impregnated with the synthetic pyrethroid permethrin. Permethrin is a possible carcinogen and a suspected endocrine disruptor. Endocrine disruptors interfere with normal hormone function and can contribute to breast and testicular cancer, birth defects, learning disorders, and other problems. Animal studies also indicate that small amounts of permethrin may cause immunotoxicity, or corruption of the immune system.

■ **Products containing DEET**, which is quickly absorbed through the skin and has caused effects such as severe skin reactions including large blisters and burning sensations. Laboratory studies have found that DEET can cause neurological damage, including brain damage in children.

For more information on mosquitoes or West Nile Virus and safe management alternatives, visit www.beyondpesticides.org/mosquito/