



There are Pesticide Alternatives for a Healthy Future

By Rachel Stern, Science Interchange Reporter

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Gardeners are posting ladybugs in organic gardens around the Bay Area, both on signs and as a method of insect control. Adorning round metal signs that read "Pesticide Free Zone," the tiny insect is one tool in the battle against insect pests, without using potentially dangerous chemical pesticides.

"We need to think before we do things like spray Raid," said Ginger Souders-Mason, of the Marin Beyond Pesticides Coalition, referring to the registered product name for a variety of insecticides. Some of them, she points out, read "hazardous to humans and domestic animals" on their containers, which she says should make consumers stop and think.

The ladybug campaign is an effort "to stimulate thinking with a positive symbol," said Souders-Mason, who proudly sports the ladybug sign in her garden. Souders-Mason chairs the Marin Beyond Pesticides Coalition, which is composed of 47 organizations that work together to look at the way that pesticides are used (and abused, she says) in Marin County. She also founded the Pesticide Education Group, which distributes the "Pesticide Free Zone" signs and stickers and produces brochures on alternatives to pesticides.

The National Coalition Against the Misuse of Pesticides suggests some steps to take before reaching for a pesticide. They recommend that people first monitor a pest population to see if it is large enough to treat with sprayed pesticides. Modifying a pest's environment is one way to start to control it. Any openings that pests are using to get into a house, for example, can be screened and repaired.

Eliminating food sources may also help an insect problem. Many outdoor pests are attracted to spilled greasy or sugary liquids, improperly stored garbage, or untended pet foods. Another draw for some insects might be explosions of more naturally occurring food sources, such as aphids or scale infestations on garden plants.

Many gardeners already may be familiar with other examples of nontoxic pest control methods. Diatomaceous earth and wood ashes make good barriers for snails to keep them from valued plants, and there's always the good old-fashioned slug trap, baited with beer. Ladybugs, of course, eat aphids.

Mosquito fish, which are tiny minnows, control mosquitos near and in ponds by eating mosquito larvae, and *Bacillus thuringiensis*, a bacteria that kills mosquitos and some biting flies, can be used in ponds as well. (The bacteria is also known as Bt, and is used in organic farming and in some genetically modified plants.)

People should avoid putting some pesticides on their lawn and garden because of their potential toxicity to humans and other mammals, according to the Beyond Pesticides Coalition and others. The Beyond Pesticides Coalition suggests avoiding all insecticides containing toxic chemicals such as chlordane, lindane and malathion.

For more chemicals to avoid—including MCPA, MCPP and trifluralin in herbicides and chlorothalonil in fungicides—the group publishes a pamphlet with more information. The organization works under the premise that exposure to many of these pesticides could increase the risk of cancer, kidney damage, genetic affects, asthma, learning disorders and behavior disorders.

Another concern is unintended effects of pesticides in the environment, particularly from lawn chemicals, says Joanna Charlton, of the Marin County Stormwater Pollution Prevention Program, or MCSTOPPP. “People will water their lawn for three hours and cause these chemicals to run into other bodies of water,” she said, like the Bay.

MCSTOPPP participates in a Bay Area-wide program called "Our Water, Our World," which is run with about 25 participating stores in Marin County. The program, which is in its fourth year, tags a store's products that have been deemed less toxic or are organic. An organic substitute for Raid, for example, is Orange Guard, an insecticide made from orange peels and water. MCSTOPPP also provides the stores, which include Longs, Ace Hardware and Goodman's Hardware, with fact sheets about less toxic ways of dealing with pests.

In 2001, MCSTOPPP helped remove the popular pesticide chlorpyrifos (also known by its trade name Dursban) and its close relative diazon from hardware stores and garden centers in Marin County and elsewhere around the Bay Area. The products were collected and incinerated by hazardous waste disposal contractors.

Not only individuals are responsible for pesticide applications. Souders-Mason and others helped put the Integrated Pest Management Ordinance into action, which requires Marin County agencies to post signs in open areas where pesticides are sprayed.

Before spraying any sort of chemical, the county follows the same steps an individual might, first looking at how many insects are around and if extermination is necessary. Next, an attempt is made to clean up any insect-attracting materials. Finally, the county determines if the situation can be handled with a non-chemical process—perhaps, for example, with ladybugs.

RESOURCES

The Northwest Coalition for Alternatives to Pesticides provides useful online fact sheets on nonchemical or nontoxic ways to eradicate pests: www.pesticide.org/factsheets.html

For other people working on reducing pesticide use go to www.pesticidefreezone.org/ and surf over to their connections page. Or contact the Marin Beyond Pesticides Coalition, P.O. Box 824, Kentfield, CA 94914-0824; telephone: (888) 590-3993 or (415) 459-1391.