

What's Wrong with Using Pesticides?

About 140 million pounds of pesticide active ingredients are used in and around homes every year in the United States. A quick visit to a typical hardware store shows our dependence on these chemicals.

A pesticide is any substance intended to prevent, destroy, repel, or mitigate pests. For example, insecticides kill insects, herbicides kill weeds, molluscicides kill slugs, antimicrobials kill germs, and fungicides kill plant diseases. Weed and feed, a mixture of herbicide and fertilizer, is also a pesticide.

Pesticides consist of the active ingredient(s), the chemicals that actually kill, and so-called “inert” or “other” ingredients, which can include solvents, propellants, detergents, baits, or other ingredients intended to make the product work better. In home pesticides, the active ingredients usually make up a very small part of the product, often 1% or less. Inert ingredients are really misnamed, because they aren't necessarily chemically or biologically inert and can contribute substantially to the hazards of the product. Some are more toxic than the active ingredients.

Aren't Pesticides Safe?

Pesticides include some of the most hazardous products in the home, including products that can

cause permanent eye damage, skin burns, reproductive effects, and even cancer.

The Environmental Protection Agency (EPA)

regulates pesticides in the United States. They require that manufacturers submit test data to support registration of their products. The full product (including both active and inert ingredients) is only tested for short-term toxic effects resulting from a single exposure. Long-

term testing for cancer, birth defects, and effects on the nervous system are only required on the active ingredients. Effects on the hormone system are not yet tested at all. Even pesticides that are likely to cause cancer can still be registered for use in the home.

Although the EPA claims that the benefits of legally registered pesticides outweigh the risks, they cannot guarantee that pesticides are “safe” and actually prohibit manufacturers from making that claim on product labels. Recently, the two most popular consumer insecticides were banned for household use because they were too dangerous.

Special Hazards to Children

In 2000, poison centers in the United States responded to 86,880 poisoning incidents related to



Pesticides used on your lawn get tracked into the house on the feet of children and pets.

pesticides, not including disinfectants. Of those incidents, about half involved children under the age of six. There were 279 cases resulting in major health outcomes, and there were 17 deaths.

Children are at high risk from pesticides. They are far more susceptible than adults to toxic effects from exposure because of their size, metabolism, and developing body systems. If pesticides are used on the lawn, children who play there will pick those chemicals up on their hands, feet, and clothing. Residues on the hands are transferred to the mouth and absorbed by the skin. Chemicals on the feet or clothing are tracked into the home, where they lodge in carpeting and persist for long periods of time. A recent study in Seattle found that 96% of all children tested had residues from insecticides in their bodies.

Dangers to Pets

Many pesticides are toxic to dogs, cats, and other pets. Slug bait poses special risks because it is attractive to dogs, which may eat enough to be killed or seriously injured. Dogs seeing slug bait spread on the ground may think that they are being fed.

Cancer Risks

Some household pesticides contain ingredients that are listed as possible or probable carcinogens by government agencies. Some health studies have found elevated risk of cancers in members of families where pesticides are used regularly. Although these studies do not conclusively prove that the cancers were caused by these pesticides, the studies are worrisome. Children are at the greatest risk because they have many years for cancer to develop from an early exposure.

Toxicity to Birds and Beneficial Insects

Most insecticides cannot tell a pest from a useful insect. Most are toxic to birds and to bees, lady beetles, and other insects that pollinate flowers, help control pests, or serve as food for large animals. Pesticides that kill beneficials can actually increase pest problems soon after spraying,

and repeated spraying can cause insects to become harder to kill.

Water Pollution

Pollution of our waterways by pesticides is widespread and damaging. Testing by scientists in our region has found more than 35 different pesticides in streams, 16 of them in amounts above safety standards for fish. When pesticides are used on home landscapes, they run off of slopes and hard surfaces such as sidewalks, driveways, and streets, flowing with rainfall and irrigation water to the nearest storm drain or body of water. The pesticides found most often in streams are the ones that are most used, including household insecticides and weed killers. Pesticides have harmful effects on fish and their food at minuscule levels, far below those that would be lethal.

What Can You Do?

The good news is that pesticides are usually not necessary to have an attractive home landscape. Build healthy soil with compost, and choose plants that are less prone to damage. Should problems occur, use non-chemical methods as your first choice. If you have a lawn care service, discontinue any calendar spray program and request a maintenance program without regular pesticide use. When pests are found in excessive numbers, ask for a report and proposal before any pesticides are considered. Call our hotline (1-800-844-SAFE) for more information, visit our website (www.watoxics.org), or read our other publications for specific advice. You can make your landscape a Pesticide Free Zone. Avoid using pesticides yourself and talk to your friends and neighbors who use them. Read our companion fact sheet "How to Talk to Your Neighbors About Pesticides."



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