Each year, American homeowners use approximately 70 million pounds of pesticides to maintain their lawns, mostly for aesthetic purposes. Yet as the use of these chemicals continues to grow, researchers continue to uncover the links between pesticide exposures and serious human health problems, including several types of cancer, neurological and reproductive disorders and birth defects.

Regulations concerning the marketing and use of these potentially harmful products do little to protect consumers. Every pesticide on the market carries an EPA registration number, but this only means that the active ingredients are listed and instructions for its use are given, including warnings of acute health effects. Warnings about potential long-term or chronic health effects from the active ingredients are not required.

Some Common Lawn Pest Problems and Solutions

<table>
<thead>
<tr>
<th>Problem</th>
<th>Chemical Solutions</th>
<th>Safe, Alternative Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>White grubs, sod webworms, chinch bugs, etc.</td>
<td>insecticide application (ex: Merit, Dylox, Talstar, Acephate)</td>
<td>apply beneficial nematodes, watering lawn before and after application</td>
</tr>
<tr>
<td>Japanese beetle grubs</td>
<td>insecticide application (ex: Merit, Orthene, Dylox)</td>
<td>apply Milky Spore powder—can provide years of protection</td>
</tr>
<tr>
<td>Weeds</td>
<td>herbicide application (ex: Trimec, Trimec Super, Balan, Tuperpan, 2,4-D products)</td>
<td>using a spreader, apply a corn gluten product each spring to control crab grass and dandelions</td>
</tr>
<tr>
<td>Fungal turf diseases</td>
<td>fungicide application (Ex: Daconil, Bayleton, Banner, Compass)</td>
<td>pull weeds by hand for large patches in lawn and fill bare spots with compost and grass seed</td>
</tr>
</tbody>
</table>

Safe, Alternative Solutions

Spread compost or “compost tea” on affected areas

Pesticides and Children

Children are especially vulnerable to environmental toxins, including pesticides. Their normal activities include playing on floors and on grass where pesticides accumulate, and they routinely put unwashed hands or other objects in their mouths. In addition, their nervous, respiratory, reproductive and immune systems are not yet fully developed, and as they take in more toxins pound for pound than do adults, these crucial developmental processes may be adversely affected.

Dr. Philip Landrigan, pediatrician and Director of the Center for Children’s Health and the Environment, Mount Sinai School of Medicine says “Every day of every week we are continuing in this country to expose children to chemicals whose toxicity is simply not known. As a pediatrician, I urge parents to think carefully about the choices they make, especially about pesticides.”

2,4-D

2,4-D is a toxic pesticide found in many consumer “weed and feed” products. Many people don’t realize that 2,4-D was one of two chemicals which made up the widely used defoliant Agent Orange. In addition to the growing evidence of 2,4-D’s potential harm to humans, the National Cancer Institute released a study showing that dogs whose owners treated their lawns with 2,4-D four or more times per year were twice as likely to contract canine lymphoma (cancer).*

For homeowners who want to control crab grass and other weeds, corn gluten is an effective and safe substitute for 2,4-D. Corn gluten is a by-product of corn syrup production and is safe for use around children and animals and has no known adverse health effects.

* “Case-Controlled Study of Canine Malignant Lymphoma: Positive Association with Dog Owner’s Use of 2,4-Dichlorophenoxyacetic Acid Herbicides.” *Journal of the National Cancer Institute*, Vol 83 No. 17 September, 1991.
“Each year, we dump tens of millions of pounds of fertilizers and pesticides on our own backyards, thus poisoning birds and wildlife while creating one of the largest sources of pollution runoff in our lakes and streams.”

John Flicker, President
National Audubon Society

Pesticides and Wildlife

The use of lawn pesticides by homeowners accounts for the majority of wildlife poisonings reported to the EPA each year. Birds are particularly vulnerable, as they feed on the ground and often mistake pesticide granules for food. It is estimated that approximately 7 million wild birds are killed each year due to the aesthetic use of pesticides by homeowners.

Pesticides are also routinely used to control weeds and vegetation along roadsides and borders which are used by wildlife as habitats for nesting and raising their young. When a bird or small mammal is sickened by pesticides, they neglect their young, abandon their nests and become more susceptible to disease and predators.

Wildlife specialists are becoming increasingly alarmed by the presence of pesticides in lakes, rivers and streams which are essential food and water sources for so many species. A recent study by the U.S. Geological Survey (USGS) found at least two pesticides in every stream sample and one or more pesticides in every fish sample. Even minute amounts of the chemicals that make up these pesticides have been shown to have a profound effect on the reproductive viability of aquatic life. The most common pesticides found were those typically used for lawn treatments.

SUGGESTED READING

Redesigning the American Lawn - A Search for Environmental Harmony by Borman, Blamori & Geballe. Yale University Press.
Edaphos: Dynamics of a Natural Soil System and Handbook of Successful Ecological Lawn Care by Paul Sachs. Edaphic Press.
Building a Healthy Lawn: A Safe and Natural Approach by Stuart Franklin. Storey Communications.