

Lawn Chemicals a Risk

By DON GORDON
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In the quest for a lawn that mirrors the turf at Augusta and at other great golf courses, we Americans shell out between \$45 billion and \$50 billion a year for chemicals and maintenance of our home lawns.

Like it or not, the stereotyped impression of the perfect lawn for most Americans is the golf course. Weed and pest free, dark green and cut to a uniform height is the dream lawn.

To produce the "perfect lawn" many Americans seem to forget about nature and the environment.

For example, earthworms are probably the best animal friend of turf, but if they happen to get a little "up-pity," we don't seem to hesitate to zap them with a chemical that will put them back in their place. One of these chemicals called diazinon can solve the earthworm "problem," but along the way it also has the potential to kill birds. **The Environmental Protection Agency (EPA) has banned diazinon for use on golf courses, but the chemical manufacturers were apparently able to convince the government that it is OK for homeowner use. I wonder if they convinced the EPA that homeowners know more about turf than golf course superintendents.**

Recently, there has been a lot of press concerning the safety of farm pesticides and insecticides. Just last week, *The Free Press* profiled an Iowa study published in the *American Journal of Industrial Medicine* that called attention to potential health problems associated with some farm chemicals. What does not get much attention is that many of the same farm chemicals that may pose human and environmental risks are also used on home lawns. In many cases concentration of these chemicals on a square foot basis is higher on home lawns than on agricultural land.

There is also the training and safety factor. Most farmers I know have passed a pesticide training course that emphasizes safety. In contrast, homeowners can purchase some of the same farm chemicals for use on home lawns with zero training.

The top 18 lawn pesticides are marketed in about 4,000 products. About 53 percent of these products are used for turf, and the remainder are used for agriculture. Thirteen of these pesticides have been found in ground water and four have been identified as potential carcinogens. The most common pesticide used by homeowners to control lawn weeds is 2,4-D. This chemical is a major ingredient in 441 lawn products.

The *Journal of the National Cancer Institute* reported in 1991 that frequent lawn treatment with 2,4-D may be linked to increased incidence of canine malignant lymphoma. Because dogs and humans are both mammals, there is the concern that both may react to a carcinogen similarly.

For those who use lawn pesticides, herbicides and fungicides, there are some safety tips that should be followed.

- Keep children and pets off lawns for a minimum of 48 hours after application.

- Do not apply chemicals when it is windy. Some of the herbicides designed for broad-leaved plants may kill grapes (particularly susceptible) or garden crops such as tomatoes, peppers or beans.

- Wear a mask, gloves and cover all exposed body parts.

- Do not smoke when using these chemicals.

- Keep these chemicals away from water courses, wells and cisterns.

- Keep pregnant women away from areas where these chemicals are being used.

- Above all, read and follow all manufacturer's label directions.

A major goal of golf course superintendents is to convince their clientele that a few weeds, insects, fungi and yes, even earthworms can and should be tolerated.

Hopefully, there is also a message here for homeowners.

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Questions about horticulture or the environment can be sent to Don Gordon, Professor of Botany, Box 34, Mankato State University, Mankato, MN 56001.

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Editor's Note: Touché, Don; you have hit the nail square on the head with this column. Thanks for comments.

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