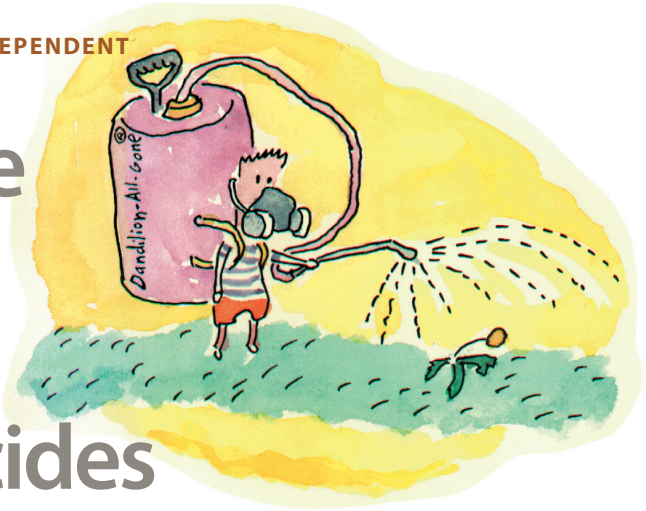
BECOMING LESS CHEMICALLY DEPENDENT

Reduce the need for pesticides and herbicides



Pesticides (which includes insecticides, herbicides, and fungicides) are designed to kill weeds, insects, rodents, and mold. These chemicals can be poisonous and can pose a danger to animals and people, especially children. Keeping pests out of your home and yard in the first place eliminates the need for pesticides—and toxic chemicals.

[*] *In order to survive, pests (both the animal and plant varieties) need food, water, and a place to live.*

In your yard

Keeping your lawn strong and healthy is the best way to care for your lawn without using a lot of pesticides. A strong and healthy lawn will minimize weeds from taking root or insects from causing serious, permanent injury to the lawn. There are several easy steps you can take to maintain a healthy lawn and reduce the need for herbicides.

- **Leave your grass clippings on the lawn.** Grass clippings can provide the equivalent of about one application of fertilizer per year.
- **Use a sharp mower blade** when cutting your lawn to make it less susceptible to disease.
- **Water infrequently, but thoroughly during dry periods** of more than a week or two. Water only about once a week and thoroughly (about 1 inch of water). Avoid watering during strong sun and heat to minimize losses to evaporation. The best time to water is early in the day, before 10 a.m.

- **Test your soil.** Find out what kind of fertilizer, if any, your soil needs. Obtaining a reliable soil test every few years can help you monitor the nutrient needs of your lawn. The University of Minnesota Soil Testing Lab (http://soiltest.cfans.umn.edu) charges $17. Some garden centers also offer testing.

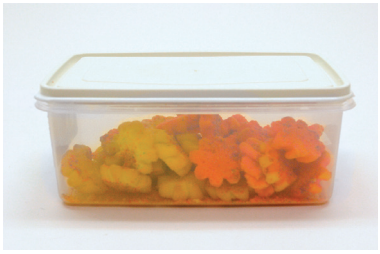
Mow your grass to a height of 2 1/2 to 3 inches.

This is the single most important thing you can do to improve the health of your lawn. By keeping your grass a little longer, the roots grow deeper and can reach more water during dry periods. Longer grass also helps shade the soil surface, making it harder for weeds to get established.

In your home

If you're looking for a way to decrease your use of toxic chemicals in your home, take a look at how you handle unwanted pests. The best method to control pests, such as bugs and rodents, inside your home is to keep them out by cleaning up crumbs and spills quickly. Instead of reaching for a can of toxic spray, grab a broom!

Clean up food spills completely.



Store food in tightly sealed containers.

Caulk cracks and weatherstrip windows and doors to eliminate easy paths of entry. Check your foundation for cracks or spaces.

Plumbing leaks and damp basements can be an essential source of water for insects. Get rid of the moisture, and you could solve your bug problem.

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In your yard (continued)

- **Use fertilizers with zero phosphorus** unless a specific need is determined by a soil test. Phosphorus (the middle number on a fertilizer bag) should be zero. Careless use of phosphorus fertilizers creates runoff which can pollute nearby lakes, streams, and rivers. Phosphorus causes unhealthy levels of weed and algae growth.

- **Control weeds.** September is the best time of year to treat dandelions, plantain, creeping Charlie, and other perennial broadleaf weeds. Remember the best weed control is a healthy, dense lawn. If the weed invasion seems to be getting worse, find out why the grass is not competitive enough to crowd weeds out. Controlling weeds may be as simple as adjusting your other lawn care practices. Where there are only a limited number of weeds present, consider removing them by hand rather than using an herbicide.

- **Seed.** The best time to reseed bare spots is either early spring or around the middle of August. If deicing salt from sidewalks or roads has caused dead areas, consider reseeding with a more salt-tolerant variety. Always plant grass varieties that are adapted to our area and are appropriate for the way you use your lawn.

- **Aerate your lawn** if soil is compacted or there is significant thatch build-up. You can do this by using a lawn aerator available from most rental stores. Use the type that removes small cores of soil from the ground and places them on the lawn surface. Leave the cores to decompose naturally, contributing to a decrease in thatch, while the holes poked into the ground help improve soil aeration for healthier root systems.

These lawn care tips will help you keep your lawn healthy and less susceptible to disease and weed invasion, meaning you will have less need for herbicides and maybe even less fertilizer.

Fertilize in the fall. Mid- to late-October is a very good time to fertilize your lawn. At this time of year, fertilizer nutrients, including nitrogen, are taken up and stored in the plant where they help provide for healthy spring growth. Most fertilizers require water after application; follow the instructions on the label to ensure best results.

Muscle-powered weed killers

If you have a smaller lawn, weeds can often be managed with mechanical tools. Weeds such as dandelions can be removed easily by digging them up with a fishtail weeder (right) when the soil is damp. For those who would rather stay off their knees, there are upright pullers such as the Weed Hound™ (left).

For more information about pest and weed control

The **Northwest Center for Alternatives to Pesticides** has many free resources on non-toxic pest management, including fact sheets on specific chemicals and alternatives for many kinds of pests at www.pesticide.org

The Gardener's Guide to Common Sense Pest Control, by William Olkowski, Taunton Press, 2013.

U.S. Environmental Protection Agency **Pesticide Environmental Stewardship Program** for reduction of pesticide use is found at www.pesticidestewardship.org

The **Washington Toxics Coalition** has alternative pest control fact sheets on its web site at www.watoxics.org.

Recent studies on the human health and environmental effects of pesticides

The **Center for Disease Control's** report provides an ongoing assessment of the exposure of the U.S. population to chemicals (including pesticides): www.cdc.gov/exposurereport/

Pesticide Action Network North America (PANNA) resource page contains reports, studies (use search words "scientific studies"), and a pesticide database at: www.panna.org

The Environmental Protection Agency's **Office of Children's Health Protection** has information about environmental health threats to children at: www2.epa.gov/children

Visit **www.reduce.org** for lots of ideas about reducing waste and toxic chemicals in your day-to-day life.

reduce.org

Minnesota Pollution Control Agency

Minnesota Pollution Control Agency works with Minnesotans to protect, conserve, and improve our environment and enhance our quality of life. Visit our website: www.pca.state.mn.us.

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