

Healthy Legacy

Healthy people,
a clean environment
and a thriving economy



Natural Lawn and Garden Care Basics

Healthy lawns resist pests, disease and weeds. Contrary to popular belief, pesticides do not create a healthy lawn. Use of chemical fertilizers and pesticides (which include herbicides, insecticides and fungicides) reduce soil fertility and beneficial microorganisms. A “chemically dependent” lawn is more prone to disease and less resilient in adverse conditions like drought. More importantly, lawn chemicals can build up in soil, leach into groundwater and run off into streams and lakes. Some pesticides are quite stable in the environment and can accumulate in the fatty tissues of animals and build up in the food chain. Lawn chemicals are also derived from fossil fuels and contribute to climate change.

Keep your lawn healthy and chemical-free:

1. Mow high. Tall grass shades out weeds and encourages deep root growth. Set your mower to 2-3 inches.

2. Water deeply, infrequently. Water in early to mid-afternoon, about $\frac{3}{4}$ to 1 inch every week (including rainfall). Winter grasses, such as those used in Minnesota, go dormant in hot weather. In July and August, water only the minimum to keep your lawn alive, about $\frac{1}{4}$ to $\frac{1}{2}$ inch every 3 weeks. Overwatering can cause fungal disease.

3. Sow grass seed in the fall for best results to allow the grass to become well-established. Reseed over existing turf at any time, mixing in grass seed with top dressing for best results.

4. Leave grass clippings on the lawn to add nitrogen to the soil. Rake leaves or mulch them with a mower, as clumps of un-mulched leaves can cause disease.

5. Aerate your lawn every few years to correct soil compaction. You can rent an aerator machine, also keeping in mind that earthworms are natural aerators! Make your yard worm-friendly by eliminating pesticides!

Weeds in your garden: A weed-free, pest-free lawn is neither feasible nor desirable. You can prevent, eliminate and control weeds without the use of toxic chemicals.

- **Plan ahead.** Prepare garden beds by ridding the beds of weeds first, by hand-pulling or covering the soil with black plastic until the weeds are dead.
- **Compost.** Revitalize soil with a few inches of compost. Add compost with all new plantings.
- **Mulch.** Apply 3-4 inches of organic mulch to established beds to keep the weeds out and retain moisture. Replenish as needed.
- **Hand pull weeds.** Get down on your hands and knees or use a Weed Hound®. You'll become familiar with your garden and notice pests and disease as they appear.
- **Hoe. Hoe. Hoe.** Use a sharp hoe to get at the surface of weeds while leaving the roots of desirable plants undisturbed.
- **Problems with dandelions?** Use a gardening tool to pull out the dandelion and then spray the root with white vinegar.

Healthy Legacy promotes the production
and use of everyday products without toxic chemicals.

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More tips for a healthy lawn:



Grass needs about 6 hours of sun a day. If your yard gets less, consider shade-loving ground cover instead or reduce your turf area by planting perennial gardens.

Maintain proper fertility and pH levels in your lawn. Have your soil tested to determine nutrient needs. County Extension offices do soil testing for a small fee.

Use organic, phosphate-free fertilizers in the fall to replenish nutrients. Organic fertilizers release nutrients slowly and do not harm beneficial organisms. Phosphate run-off pollutes lakes, streams and rivers, as it promotes growth of algae. Some fertilizers also have toxic chemicals and heavy metals, even ones labeled "organic." Find recommended products at omri.org.

One safe and effective product is corn gluten, a natural pre-emergent herbicide. Apply in spring and fall. It won't kill existing weeds, but will become more effective in preventing weeds with each application.

Occasionally you may need to dethatch. (You can rent a dethatcher.) Thatch is a dense layer of grass stems and roots, which should not exceed ½ inch.

Pesticides and Health

- Up-to Fifty-seven pesticides are known to disrupt the function of hormones, which are critical in sending proper signals to cells during development. (www.ourstolenfuture.org/Basics/chemist.htm; MPCA Report, 2008.)
- Pesticide exposure is linked with increased risk for cancers of the lung, prostate, breast, brain, ovaries and pancreas, as well as multiple myeloma, leukemia, soft tissue sarcoma and non-Hodgkin's lymphoma. (Alavanja, 2004; K.L. Bassil, 2007)
- Childhood cancer is associated with parental home or occupational use of use of pesticides, including during pregnancy. (C Infante-Rivard, 2007)
- Many studies link adverse effects of pesticides on brain development, including hyperactivity, behavioral disorders, reduced motor coordination and learning problems. (Stein, 2002; Rosas, 2008)
- Exposure to certain pesticides is associated with increased risk of Parkinson's disease. (Alavanja, 2004; Kamel, 2007)

Contact us for more information and join us on the path to a better future!

(612) 870-3458 • info@healthylegacy.org • healthylegacy.org

This fact sheet was originally authored by Megan Bartell, Women's Cancer Resource Center & Kathleen Schuler, Institute for Agriculture & Trade Policy (IATP) in 2002. Kathleen Schuler, IATP, updated it in May 2009.



Sources/Resources

- Beyond Pesticides, www.beyondpesticides.org.
- Bio-Integral Resource Center (BIRC), birc.org.
- Environmental Association for Great Lakes Education (EAGLE), eagle-ecosource.org.
- Gardens Alive! Natural yard, garden and pest-control products, gardensalive.com.
- Organic Materials Review Institute (OMRI), omri.org.
- Pesticide Action Network of North America (PANNA), panna.org.
- University of Minnesota Extension, extension.umn.edu.