



BEYOND PESTICIDES
Protecting Health and the Environment with Science, Policy and Action

Safe Summer Lawn Care

Making our lawn a safe place to enjoy summer fun without pesticides!

by **Debbie Dunbar Ortman**

Throughout the country this summer people will do anything to achieve a "weed" free lawn. Spraying more and more toxic pesticides and over-fertilizing the soil are two of the most common practices used because of our obsession with wanting the "perfect lawn".

Americans are "loving" their lawns to death. Unfortunately, it's not just our lawns that suffer as a result of our lawn care. A growing body of literature documents the significant threats pesticides and other lawn practices pose to human health and the environment. A National Cancer Institute Study indicated that children are six times more likely to get childhood leukemia when pesticides are used in the home and garden. We are jeopardizing our health and that of our neighbors and our environment as well.

According to the United States Environmental Pollution Agency - 95% percent of lawn care chemicals in use today are possible or probable carcinogens. The risk to human health is too great. Pesticides are not applied in "small amounts". Pesticides include herbicides, insecticides, fungicides and rodenticides. U.S. homeowners used 32 million pounds of pesticides on their lawns in 1994, according to the EPA, that increased to 49 million pounds of weed killer (herbicides) by 1997 and 67 million pounds by 2002. In the Great Lakes basin 13 of 18 most commonly used lawn pesticides have been found in ground water or surface water.

What is an alternative? Start by using the practices that were developed by "The Green Thumb Project", an innovative, educational, pollution prevention program that demonstrates common sense lawn/turf management practices. It started in 1992 as a collaborative project spearheaded by the Western Lake Superior Sanitary District and Wisconsin Environmental Decade organization. It was implemented by environmental groups from around the Great Lakes, including Canada. Since that time hundreds of homeowners, businesses, golf courses, universities, churches, and city parks have participated by designating lawn areas as demonstration sites to show that by using the Green Thumb practices you can have a weed free lawn without using pesticides and synthetic based fertilizers.

Your lawn can, in fact, be hardier and healthier, and take less time and less money to maintain, if you follow these Green Thumb practices:

Mowing: allow grass to grow to 4 inches in height and cut to 3 inches (minimum height). This will help insure healthier grass because there is a direct correlation between the height of grass and the depth of the plants' roots. Longer roots allow more nutrients and water to be available for the grass. This helps to retain moisture and stimulates deep root growth to insure a healthy lawn during summer's hot, dry conditions. Note: use a sharp mower blade to cut the grass blade cleanly; this reduces stress and injury to the grass and helps prevent the browning that results from a ragged cut. You will actually mow less often and decrease air pollution caused by gasoline-powered lawn mowers.



Healthy lawns like this one are allowed to grow to four inches!

Watering: water only in the morning between 6:00am and 10:00am; if you water during the heat of the day more than 30% will evaporate. Do not over-water, your lawn needs only 1 inch of water per week, and water what you have to water - not the sidewalk, driveway or street. Watering your lawn can account for 50 percent of water consumed by homeowners. Most people tend to over-water or water at the wrong time. Frequent watering results in shallow root growth.

Grass cycling: by leaving the grass clippings on the lawn it will help your lawn retain water (grass clippings are 80% water) and it will return nitrogen (up to 50% of what your lawn needs) to the soil. If you have clumps of grass this means that the grass is either too high or too wet; break clumps apart by hand or with a rake. Do not mow early in the morning or right after a rain - wait until it dries out.

Fertilizing: conduct a soil test first to see if your lawn needs fertilizing. The purpose of fertilizing is to compensate for nutrient deficiencies in the soil. The best time to fertilize is in the late summer/early fall after weeds have gone dormant. Since grass roots are still growing in the fall, this is the best time to fertilize. When you fertilize in the spring you are fertilizing the weeds as well as the grass. Most people tend to over-fertilize which increases the run-off of nitrogen and other nutrients into streams and lakes, causing pollution problems. Choose slow release fertilizers, preferably organic fertilizers like Sustain that are in pellet form and readily available. Composted dirt that has been screened also makes a good fertilizer.

Re-seeding: reseeded should be done in late summer/early fall with a top-dressing of half an inch of black dirt or screened compost. If you have bare spots or areas where the grass is sparse, they should be reseeded and actually over-seeding with a mixture of grasses suited for your region. A mixture of Kentucky blue grass, ryegrass and red fescues works well in areas that receive sufficient rain fall. You could also use alternative groundcovers by checking with local extension services. Check labels on grass seed mixes because some list up to 10 percent unknown (these are usually unwanted weed seeds). Use 4 lbs. of seed, per 1,000 square feet. Using a spreader, evenly distribute the seeds by spreading ½ of the seed over the area in one direction, and spread ½ “ in the opposite direction. Then lightly rake ¼” of soil over the seed . Pack by lightly rolling or walking over, then water and keep moist until the grass is well established. It is essential to keep evenly moist until the seed germinates (3-5 days for most seed). If the seeds dry out they will not germinate. This does not mean watering the areas 24 hours a day; keep them moist, not soaked. Use mulch such as straw to help retain moisture and then rake it away after the grass has grown a few inches.



Encourage your family, friends, and neighbors to try these practices instead of calling in the lawn care companies with their trucks that spray pesticides and synthetic based fertilizers – commonly referred to as “weed and feed” applications. Many lawn companies are now offering organic-based (non-synthetic) programs. We must stop using pesticides to try and maintain a lawn that looks like artificial turf.

What are some of the other benefits to maintaining dense, healthy grass without using pesticides? According to The Lawn Institute, “dense, healthy grass is the best natural surface we have for trapping precipitation and reducing soil erosion. A healthy 10,000 square foot lawn (about the size of an average suburban lot) can absorb more than 6,000 gallons of rainwater without noticeable runoff. Grass helps clean our air... primary collector of dust and dirt.... just one acre of grass can absorb hundreds of pounds of fossil fuel-created sulfur dioxide in a single year”. The Lawn Institute also states that a well maintained lawn keeps your home cooler on hot days by reducing surface temperatures, helps produce more oxygen through photosynthesis, and helps produce topsoil by grass cycling.

A healthy lawn gives us a place to relax, have fun and play games, cool off, and enjoy a beautiful day. A healthy lawn without pesticides is a lawn that is safe for children, pets, birds, insects, animals – and you.

Sources/Resources:

[Beyond Pesticides](#)

[Environmental Protection Agency](#)

[Western Lake Superior Sanitary District](#)

[The Lawn Institute](#)
[Wisconsin Environmental Decade](#)

Debbie Dunbar Ortman, previous co-coordinator and lawn care technician of the Green Thumb Project (Great Lakes pesticide-free lawn care) in Duluth, MN, has been an organic consumer and gardener for more than 25 years, as well as a community activist, freelance writer, and consultant.

Note: author does not advocate maintaining large lawns and encourages homeowners and others to reduce the size of their lawns by expanding natural areas, replace grass with ground covers like clover or planting native wildflowers.