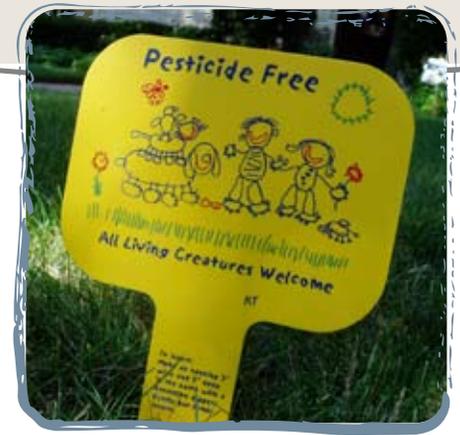


Every year, millions of tons of toxic lawn pesticides and synthetic (petroleum-based) fertilizers pollute the environment, poison wildlife, and endanger public health – all for the sake of a perfect lawn. HCP's goal is to provide the information you need to create and maintain a lawn that is beautiful, safe for your family and pets, and environmentally sustainable. The following tips and seasonal natural lawn care calendar will help get you started.



Natural Lawn Care Tips

Know What Your Soil Needs and Doesn't Need

Have your soil tested every few years. A basic test will measure soil pH (ideally between 6.0 and 7.0 for turf), phosphorus (P) and potassium (K) needs. Although soil tests do not measure for nitrogen (N) because of its volatility in the soil, the average Wisconsin lawn requires about four pounds of nitrogen/1,000 sq ft per year. Leaving on grass clippings provides up to a pound of organic nitrogen per season, so plan to add about three more pounds/1,000 sq ft per year. Without knowing your soil's nutrient needs, you risk over-fertilizing and contributing to polluted runoff or not adding the right nutrients to keep your lawn healthy. If your soil test recommends adding any nutrients, choose a natural, organic-based fertilizer that most closely delivers the ratio you need.

Why Choose Natural Fertilizers?

Unlike quick-release synthetic fertilizers, natural fertilizers release nutrients gradually and add organic matter to the soil. They are also better absorbed and less likely to become polluted runoff.

Naturally fertilized grass grows more slowly, which means less mowing and less time and energy spent maintaining your lawn.



Focus on the Grass, Not the Weeds!

Natural lawn care focuses on building and maintaining nutrient-rich, biologically active soil and using maintenance practices that minimize stress so your lawn can stay healthy, out-compete weeds, and fight off disease and infestation.

Building Healthy Soil

Adding compost and core aeration are two great ways to boost soil health and structure. Compost improves soil structure and texture, corrects drainage issues, and adds organic material and microbes which are essential for plant nutritional uptake. (See HCP's seasonal lawn care calendar on page 3 for application details). Aeration pulls plugs of soil from your lawn to reduce compaction and thatch build-up, and also improves drainage and air circulation. A good rule of thumb is to aerate every few years. However, if you have a very heavily used lawn, you may want to aerate every season. Consider renting a core aerator machine from your local hardware store or Home Depot and splitting the cost with your neighbors.

Annual over-seeding and patch seeding keep turf thick enough to crowd out weeds. Invest in top quality grass seed blends that are appropriate for your various light and usage conditions. Also, ask yourself how much turf you really need for recreation, and consider some alternatives such as expanding flower beds, adding a rain garden, or adding ground covers where grass has difficulty growing, such as under large shade trees.

See the back page for a square footage worksheet, soil testing resources and a list of natural fertilizer products and suppliers!

Natural Lawn Care Tips

Mow Properly

Proper mowing practices are essential to maintaining a naturally healthy lawn for several reasons:



1) A lawn's height is directly proportionate to the depth of its root system, so keep your lawn at least three inches high! Mowing high produces deeper roots, shades out most weeds, and greatly increases your lawn's ability to photosynthesize and produce the nutrients it needs to stay healthy.

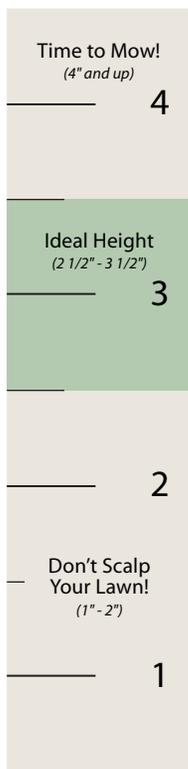
2) Keep your mower blades sharp and mow only when grass is dry to avoid plant damage. Dull mower blades tear grass, leaving it stressed and susceptible to disease and infestation. Don't forget to leave those clippings on your lawn! They provide up to one pound of free organic nitrogen throughout the growing season.

3) Follow the one-third rule. Never cut more than one-third the length of your grass at a time. If it gets away from you, take down its height in stages to avoid stressing the plant.

4) Consider a reel mower, especially if you have a small lawn. Its cutting action is less stressful to your lawn than traditional gas powered mowers, it's pollution free, and you burn a few extra calories!

Mowing Gauge

Use this gauge to make sure you cut your grass to the correct height.



To Water or Not To Water

Since water is precious, you may wish to forego watering your lawn. As a protective mechanism against heat and drought, an established lawn will go semi-dormant during the hottest part of the summer. Yes, it will become browner, but it will green up again when temperatures cool down. That said, even the healthiest grass can become stressed in extreme heat or drought, so you may follow these watering guidelines if you choose to water your lawn.

Water Wisely

The average Wisconsin lawn requires about one inch of water per week, including rainfall, to remain green during the growing season, so follow a one inch/week watering rule (water in early morning or early evening to minimize evaporation). Keep track of rainfall by keeping a rain gauge or an empty straight-edged can in your garden. If you've had a full inch of rain in one week, there is no need to water. In fact, over-watering is a common mistake and can stress your lawn, making it more susceptible to fungal diseases and infestations.

Water Deeply



If there has been little rain or no rain, apply the entire one inch of water in one application. Watering deeply encourages deeper root growth, which allows your grass to weather the dry spells better and get down to additional soil nutrients. If you're not sure how long to run your sprinkler to apply one inch of water, put out your rain gauge before you start.

Make a note of when you started your sprinkler and how far you've turned your faucet handle, and run it until you have one inch of water in your container. After keeping track a few times, you'll have a good idea of how long to run your sprinkler to apply the correct amount of water. Remember that different sprinklers apply water at different rates, so get to know each one.

Water Slowly

Watering slowly allows for better absorption and reduces the amount of water wasted as runoff. If you have heavy clay soil, maximize absorption by applying one inch of water in two cycles; apply half an inch of water, wait about half an hour, then apply the other half an inch.

Manage Weeds Naturally

The negative effects of lawn chemicals on soil health take time to reverse so try to be patient and learn to tolerate a little diversity. If you wish to knock down weed counts quickly, use a combined approach of both pre-emergent (corn gluten meal) and post-emergent (a fancy name for pulling weeds) weed control. Removing weeds before they go to seed prevents them from dropping new seeds, thereby interrupting their natural propagation cycle. Maximize your efforts by waiting until after a good rainfall or watering - the moisture helps loosen the soil - then add some compost and grass seed on the spots you've weeded.

Seasonal Natural Lawn Care Calendar

Mid-April

Once the snow is gone, it's time to rake off winter debris. If you choose to apply corn gluten meal, apply it around the first two weeks of April or prior to the end of forsythia's bloom time. Its bloom indicates that soil and ambient air temperatures are rising, and things will soon begin germinating. To maximize corn gluten's effectiveness as a pre-emergent:

- 1) Know the square footage of each area of your lawn. For example, your front yard is 800 square feet (L x W): $800 \div 1,000 \times 20 = 16$ lbs corn gluten to be applied to your front yard. Use this calculation to determine how many pounds to apply to each area. See our worksheet on the back to help you with this.
- 2) Apply it on time.
- 3) Apply at a rate of 20 lbs of corn gluten per 1,000 sq ft (two lbs nitrogen/1,000 sq ft) for sunny areas, and 10 lbs/1,000 sq ft in the shade.
- 4) Apply a quarter-inch of water immediately after application, then let it dry out for a few days. This is necessary to activate corn gluten's ability to inhibit seed germination. Avoid application right before an extended rain as too much water will reduce its effectiveness.

May

If you wish to thicken up your lawn by over-seeding, wait at least six weeks from your April corn gluten application. (Corn gluten remains present in the soil for about six weeks.) You can choose to aerate/over-seed/top-dress at this time, but keep in mind that the best time to plant grass seed is around Labor Day.

May Through September

Pull existing weeds as they appear, preferably before they go to seed. Remember that weeds are indicators of an underlying soil problem, so pulling them yourself is not only good exercise but is an opportunity to get in touch with what's happening in your lawn. They come out more easily if pulled after watering or a good rain, and you can identify them using the Read Your Weeds download on HCP's website: www.healthycommunitiesproject.org.

Follow the watering guidelines if you wish to water your lawn.

Keep pulling those weeds before they go to seed to jumpstart your weed reduction plan. Assuming your soil biology is healthy for turf growth, the number of weeds you have to pull should be minimal after a few of seasons.



Fertilization

If your soil test recommends adding nutrients, do so only during the spring (first two weeks of May) or fall (Labor Day to early October) growth phases. Be sure to only apply what's recommended and follow product instructions closely.

Labor Day - Triple Crown

When summer temperatures begin to cool, grass comes out of its semi-dormant state and enters its second growth phase of the season. Now is the time to apply and water in your second corn gluten application or complete the natural lawn care triple crown: aerate, over-seed and top-dress with compost.

STEP 1: Core Aeration

It's essential to aerate your lawn when grass is in an active growth phase (first two weeks of May and again between Labor Day and early October). Consider renting a core aerator machine with your neighbors and splitting the cost to make it more economical. Home Depot rents them for about \$45.00 per half a day. Most landscapers can provide this service for you as well. Core aeration relieves compaction, opens up your lawn's root system to oxygen and nutrients and makes room for roots to expand. The average lawn should be aerated every two to three years. However, if your lawn is heavily used and has a tendency to become compacted, consider aerating annually in the fall.

STEP 2: Over-Seed/Patch Bare Spots

The best time to over-seed is around Labor Day, right after aeration if possible. Apply the best quality grass seed mix you can afford that is right for light and usage conditions. You may need to purchase different mixes for different areas of your yard. Now is also the time to patch bare spots. Loosen existing soil, heavily apply grass seed and stir up a bit, apply about 1/8 inch of compost over the seed (just enough to cover it), and then a thin layer of hay to retain moisture and prevent erosion. Keep these areas moist but not soaked for a full 30 days for the most successful germination. Your grass seed may look like it has fully germinated after two weeks, but remember that there are several grass varieties in each blend, some of which germinate faster than others.

STEP 3: Top-Dress With Compost

Think of compost as your soil food web's ideal diet for maintaining optimal growing conditions for turf grass. Applying 1/8 inch of dry compost or a liquid compost tea spray right after aeration and over-seeding maximizes germination, helps establish healthy new grass plants, and improves soil structure, texture and drainage. All in all, a HUGE bang for your natural lawn care buck!

End-of-Season Tips

The season is almost over, but there are a few important steps you can take to keep your soil and lawn healthy. An EASY and FREE way to add compost to your lawn every fall is to mow it with the fallen leaves left on it. Mow over the entire lawn a couple of times and then rake up the larger pieces as usual. The smallest pieces work down to the soil layer and will serve as food for microorganisms over the winter, which in turn convert that food to nutrients for your grass.

Compost also has a very low N-P-K ratio as well, so it can be counted as part of your winterizing fertilization. Don't drag those leaves to the curb yet! Mowing over your leaf pile a few times creates wonderful free mulch you can place around your ornamentals, perennials and roses for added winter protection. At the very end of the season, mow your grass to two inches and rake off any clippings to avoid winter damage and snow mold.

Soil Testing

County extension services usually offer a soil testing service: In Milwaukee County, call UWEX at 414 290-2400.

University of Wisconsin Soil Lab

608 262-4364

www.uwex.edu/ces/sars/soiltestkit.htm

Your report will come back with useful information about your specific soil conditions and how to address any issues.

Organic Fertilizer/Corn Gluten Meal

Many companies are adding organic lawn fertilizers and corn gluten meal to their product lines. Check with your local garden center to see which products they offer. For more information about corn gluten meal, visit:

www.hort.iastate.edu/gluten/

Compost

Most garden centers carry bagged compost. See below for Milwaukee area bulk suppliers:

One Yard at a Time

414 247-1444

Growing Power

www.growingpower.org

414 527-1546

Purple Cow Organics

www.purplecoworganics.com

Home Composting

Keep Greater Milwaukee Beautiful

kgmb.org

414 272-5462

Growing Power

www.growingpower.org

414 527-1546

How to Calculate Square Footage

Multiply each area's (i.e. backyard, side yard, etc.) length x width to get its square footage.

How Much Corn Gluten to Apply/Area

To determine the number of lbs of corn gluten to apply per area at the 20 lbs/1,000 sq. ft. rate, use the following calculation:

Area total ÷ 1,000 x 20 = lbs corn gluten

Area 1: _____

Length: _____ Width: _____

Square Footage: _____

Lbs Corn Gluten: _____

Area 2: _____

Length: _____ Width: _____

Square Footage: _____

Lbs Corn Gluten: _____

Area 3: _____

Length: _____ Width: _____

Square Footage: _____

Lbs Corn Gluten: _____

Area 4: _____

Length: _____ Width: _____

Square Footage: _____

Lbs Corn Gluten: _____

Total Sq. Footage: _____

Total Lbs Corn Gluten: _____

Each 50-lb bag of corn gluten will cover 2,500 square feet at the 20 lbs/1,000 square feet application rate.

Now that you know the above information, you will know how much to purchase and how much to apply for maximum effectiveness.



THE BRICO FUND

funding provided by The Brico Fund, Ilc.



support provided by The Urban Ecology Center
www.urbanecologycenter.org



HEALTHY COMMUNITIES PROJECT
www.healthycommunitiesproject.org

www.healthycommunitiesproject.org