Landscaping practices

Lawn Care

What's the Problem?

Fertilizer and pesticides pollute our water when we allow these substances to enter our rivers and lakes through storm drains or roadside ditches.

Mowing Practices

A healthy lawn has a thick, dense turf with deep roots. It naturally resists many weeds, pests, and diseases. Grass grows in a different manner from other types of plants—it grows from the crown of the plant, above ground level—so it can be cut without harming the plant.

Some recommended lawn mowing practices include:

- Set the mower blade at a high setting, leaving grass blades 3 inches tall. Tall grass grows more slowly and encourages deep roots, which will result in the need for less water and fertilizer. Tall grass also shades out weeds, has fewer insect problems, and provides habitat for more beneficial insects that control nuisance pests.
- For a quicker spring greenup, lower the mowing height for the first cut of the season. This removes excess dormant vegetation and heats up the soil faster.
- Let grass blades fall back onto the lawn to act as mulch. Clippings decompose and release valuable nutrients (e.g. nitrogen) back onto the lawn and also provide soil moisture. Clippings returned to a lawn all season can contribute up to 25% of a lawn's fertilizer needs. Make sure to sweep or blow clippings from paved surfaces to prevent them from ending up in the storm drain.
- In the fall, mow leaves onto your lawn as mulch. Leaves are also a good source of nutrients.
- Apply fertilizer in the cooler temperatures of fall to improve the root system and enhance early spring recovery.
- Avoid mowing up to the edge of a water body. Create an unmowed buffer of about 25 feet from the edge of a river or lake. This area will act as a filter and prevent pollutants such as fertilizer, pesticide, and dog waste, from directly entering the water. Buffers also provide habitat for wildlife and shade to the water.

Low-cost solutions

Properly managing your lawn can save money because a healthy lawn has a thick, dense turf with deep roots and requires less time and money for maintenance. This is because a healthy lawn naturally resists many weeds, pests, and diseases. Also, alternatives to a traditional grass lawn can result in an aesthetically appealing, low-maintenance landscape in communities.

SEMCOG

Our Water. Our Future.

Ours to Protect

Source: Wayne County Department of Environment

Mowing Practices (continued)

- Keep mower blades sharp—a dull blade can tear grass and provide entry for disease. Sharpen the blade at least twice per year.
- Keep mower deck and the underside clean for proper mulching and discharge of clippings.

Irrigation Practices

Not all irrigation needs are the same. As with fertilizer, decide your irrigation practices based on the purposes of the lawn. As with other areas of managing your landscape, experience will likely be a guide in determining practices. Consider logging information on irrigation and other landscape practices to track how a site reacts to various irrigation practices. Other variables to consider when choosing your irrigation program may include:

- Adequate water can help maintain a healthy lawn. Without adequate water, the grass will be stressed and will be more susceptible to pests and disease. On the contrary, too much water can also cause stress and cause fertilizer materials and nutrients in the soil to leach out and perhaps reach groundwater or surface water.
- Determine plant and soil types. Once established native plants often need less water than other landscape plants. Also, sandy soils may need more irrigation. However, adding organic matter to the soil may decrease your irrigation needs.
- Water lightly after fertilizing. The water carries nutrients to the root where they can be gradually used to support growth. The fertilizer moves into the soil and does not run off into the storm drain, rivers, or lakes. Over watering after fertilizing can cause the nutrients to run off the lawn into the storm drain system.

Turfgrass Selection

The establishment of a satisfactory, permanent lawn requires the selection of adapted grass species and cultivars that will thrive in Michigan. Those not suitable for planting in Michigan can prove to be expensive and time consuming to maintain.

Suitable grasses for planting in Michigan include:

Kentucky Bluegrass
Fine-leafed fescue
Perennial Ryegrass
Turf-type tall fescue

Turfgrasses not recommended in Michigan include:

Bentgrasses
Zoysiagrass
Annual Ryegrass

Often, two or more species are sold in a mixture, which allows you to meet a broader range of site conditions. When using only one species of grass like Kentucky Bluegrass in sod, choose blends, which are two or more cultivars. Always follow the labeled rates for seeding. Applying seed at higher than recommended rates will favor the species that establish the fastest and these will out compete other species that you paid for in the mix.

Consider Lawn Alternatives
Many of the turf grasses used today require a lot of maintenance to look good. Consider replacing some lawn area with low maintenance plants. This can reduce the amount of time, money, and energy spent maintaining turf. Lawn alternatives include Buffalo Grass, Pennsylvania Sedge, and Wild Strawberry. Also, some nurseries sell "no mow" lawn mix that reduces the need for mowing and fertilizing. These are all low growing plants that can tolerate some foot traffic.

Collecting Yard Waste

Many municipalities rely on contractors to supply yard waste collection. However, some suggestions for yard waste storage and collection include:

- Require that residential yard waste be bagged or containerized as opposed to placing it directly into the street.
- If your municipality collects yard waste to be transferred to a composting facility, make sure the waste is enclosed and covered to prevent rain and snow from washing debris into storm drains and ditches.
- If you supply compost to the public, make sure the material is properly enclosed and covered.
- Encourage the public to compost in their backyards. Compost material can be used in flower and vegetable gardens, on the lawn, as a mulch over bulb planting, and around trees and shrubs.

Ways to Build Healthy Soils

Healthy soil is the foundation of a healthy lawn. Healthy soil has good texture, key nutrients, the right pH or acidity, and moisture. The following practices help build soil health:

Texture

- Check the texture of the soil to determine whether it is heavy with clay, light and sandy, or in between. Lawns grow best in soil with "loamy" soil that has a mix of clay, silt, and sand.
- If your soil contains mostly clay or sand, consider adding organic material periodically, such as grass clippings or compost. This material helps the infiltration of clay soil and helps sandy soil retain water and nutrients.
- Check to see if soil is compacted, which makes it more difficult for air and water to penetrate and for grass roots to grow. Aeration involves creating air spaces so water and nutrients can penetrate to the roots.

Nutrients

- Healthy soils need nitrogen, phosphorus, and potassium. Fertilizer can provide the necessary balance of these important nutrients. (See Fertilizer Fact Sheet)

Acidity Balance

- Healthy soils also need the proper acidity or pH balance. Grass is best able to absorb nutrients in soil having a pH of 6.5-7.0. A soil test can be conducted to determine this acid level. (See Fertilizer Fact Sheet)

Moisture

- Mulch prevents evaporation of water from soil and keeps soil cool. Mulches include leaves, needles, twigs, bark spent flower blossoms, fallen fruit, and other organic material. Mulch also prevents soil disease from splashing on plants, prevents compaction, and also adds nutrients to soil.
- As stated above, adding compost to soil impacts moisture by increasing holding capacity to sandy soils and increasing infiltration of clay soils.

Michigan Natural Resources and Environmental Protection Act

It is illegal in Michigan to discard yard waste in landfills. Section 324.11514 of Public Act 451, 1994 states, "A person shall not knowingly deliver to a landfill for disposal, or if the person is an owner or operator of a landfill, knowingly permit disposal in the landfill of, any of the following: More than a de-minimus amount of yard clippings, unless they are diseased or infested."

Cover photo: Courtesy of Oakland County Parks.

Weed Management

Source: City of Troy

A weed management plan will vary depending on the types of lawn surface (e.g. municipal facility/office lawn v. park etc.) Weed growth in a location such as a park may not be a priority to address. However, in areas that warrant a more aesthetically pleasing look, you may want to apply or pesticide to eliminate weeds or pests. Raising the mowing height and providing moderate fertilizer are some long-term strategies for managing weeds. (For more information on weed and pest management see the fact sheets on Integrated Pest Management (IPM) and pesticide application).

Other Pests

Routinely monitor lawn areas for dead or dying areas or spots, patches or other patterns that begin to discolor, eventually turning brown. These may be signs of insect damage or disease problems caused by a fungus. Insects tend to be most active along sidewalks, curbs, slopes that face south and other areas that tend to heat up. Diligent monitoring can catch many lawn problems before they become severe. Don't treat with any pesticide unless you have correctly identified the problem, it is active, you have implemented the recommended management practices above, and you have been advised that treatment is your only option at this time. Always spot treat problem areas if treatment is advised.

Lawn Care

Resources

Michigan State University Extension-Macomb County. *"Answers to Frequently Asked Questions about Soil Testing."* http://macombcountymi.gov/msuextension/soil.htm.

Michigan State University Extension-Oakland County. *"November/December Landscape Guide.* www.msue.msu.edu

Michigan State University Extension-Oakland County. *"Earth Friendly Fertilizer Selection & Application."* Brochure. www.msue.msu.edu.

Michigan State University Extension-Oakland & Wayne Counties, SOCWA. *"Healthy Lawn Care Program for Oakland and Wayne County Residents."* Report.

SEMCOG. *"Our Water. Our Future. Ours to Protect.—Seven Simple Steps to Clean Water."* www.semcog.org.

HomeRepair.about.com. *"Organic Lawn Care-Aeration and Mowing."*

Organic Gardening. *"Lawn Alternatives."* www.organicgardening.com.

"Michigan Master Composter Manual". 1998.

U.S. EPA. *"Healthy Lawn Healthy Environment: Caring for your Lawn in an Environmentally Friendly Way."* www.epa.gov 2004.

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