



Lawn Watering

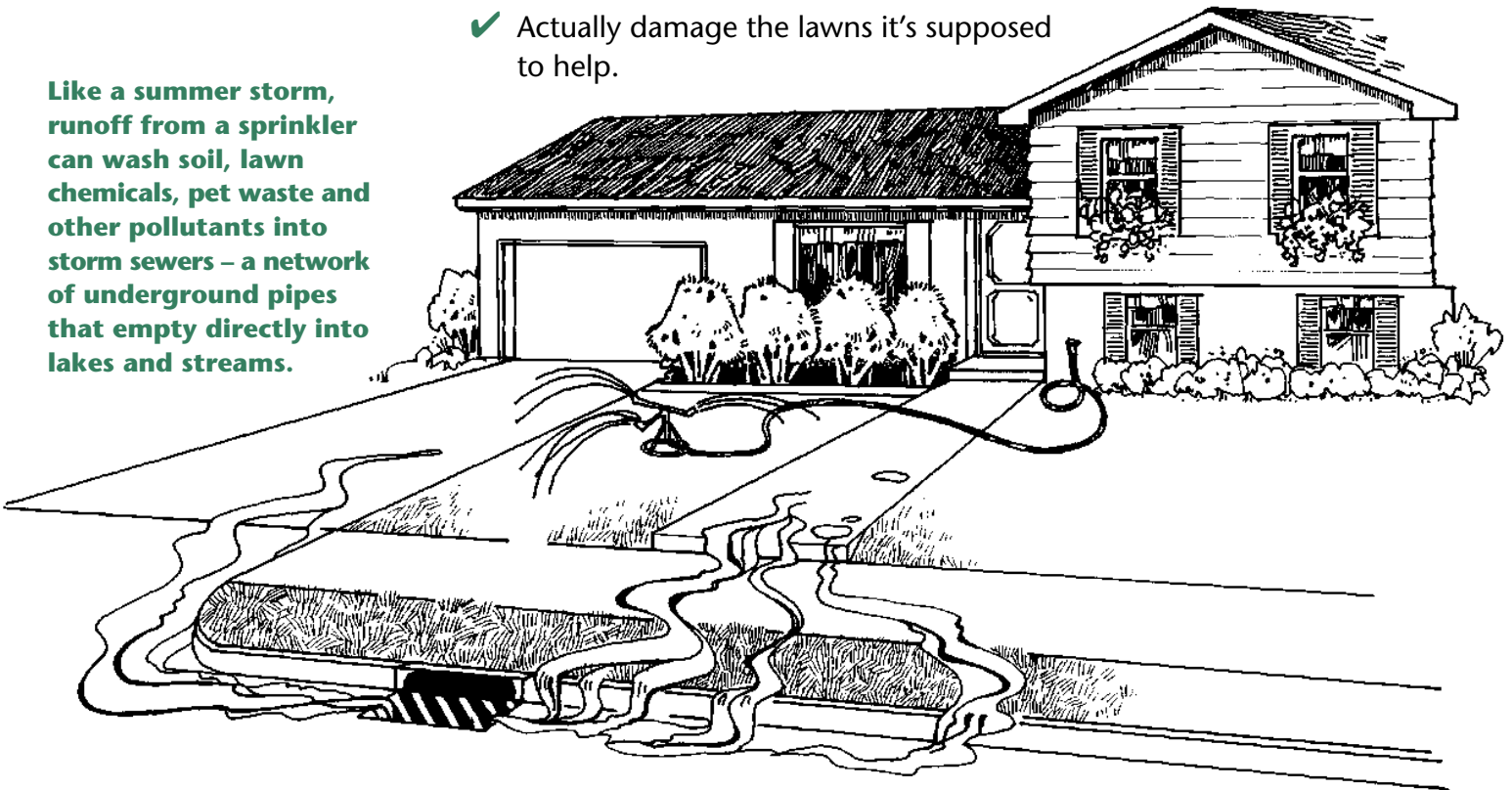
A SERIES OF WATER QUALITY FACT SHEETS FOR RESIDENTIAL AREAS

For decades, American cities and suburbs have grown and spread into the surrounding countryside. With this growth has come an unprecedented seeding and sodding of the landscape – literally millions of acres have been turned into bluegrass lawns. For many homeowners, the residential lawn is the symbol of a well-tended property.

Unfortunately, keeping the lawn emerald-green, barefoot-soft and dandelion-free requires a significant amount of attention, and can have serious impacts on lakes, streams and groundwater. Water from a sprinkler flowing down one driveway might not seem like a big problem. But careless watering on hundreds of lawns can:

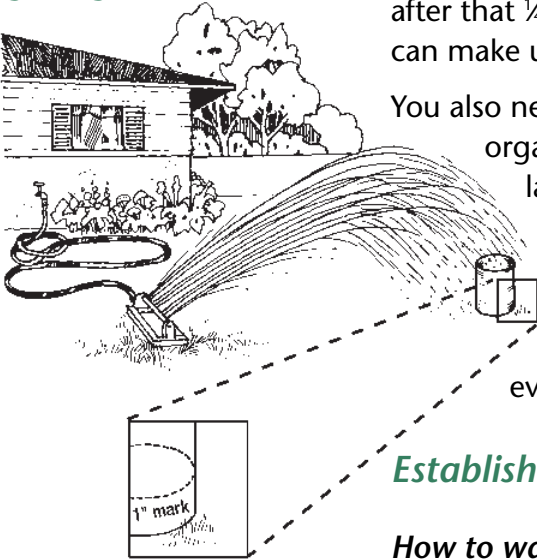
- ✓ Wash pollutants into lakes and streams.
- ✓ Deplete water supplies.
- ✓ Actually damage the lawns it's supposed to help.

Like a summer storm, runoff from a sprinkler can wash soil, lawn chemicals, pet waste and other pollutants into storm sewers – a network of underground pipes that empty directly into lakes and streams.



Because lawn watering can have far-reaching effects, there is growing interest among horticulturists, environmentalists, public utility managers and homeowners in how to water correctly. This publication offers practical lawn watering tips that will save water, help keep our lakes and streams clean, and produce healthy, attractive lawns.

A container with a once-inch mark placed under your sprinkler will help gauge how much water your lawn is getting.



A healthy lawn requires about one inch of water per week. As a general rule, apply the water all at once rather than in several light waterings. Before you water, do some arithmetic. If it just rained $\frac{1}{4}$ inch, you probably only need to apply $\frac{3}{4}$ inch with the sprinkler. Use common sense, however, and consider the weather forecast. If there is a good chance of rain soon after that $\frac{1}{4}$ -inch rainfall, don't water at all. If the rain doesn't come, you can make up the difference.

You also need to know your lawn. For example, sandy soils with little organic matter will require more water, heavy clay soils less. Sloping lawns are normally drier than level, low-lying ones. Lawns under large trees, especially during cool weather, may need little or no watering. Avoid watering during the middle of the day when evaporation rates are highest and the water you use will do the least good. Early morning watering will minimize evaporation and help newly seeded areas through the day's heat.

Established lawns

How to water

- It's best to water established lawns at the rate of one inch per week, applied all at one time to promote deep rooting. Frequent, light waterings favor shallow roots and plants unable to tolerate dry periods.
- Water early in the morning. If watering is done in the evening, grass stays wet all night, thus increasing risk of disease.

Keep in mind...

- Established, healthy lawns can survive several weeks of dormancy during summer with little or no water.
- Watering early in the morning puts less strain on public water supplies because the peak load is during evening.
- Excess water can keep the soil too moist, which damages roots.

If you use sod instead of seed...

How to water

- ✓ Soak newly laid sod with one inch of water. Use a marked container to measure the amount applied.
- ✓ Water lightly every other day for two weeks after sodding. When grass is established, water according to the guidelines for established lawns.

Keep in mind...

- ✓ Excess water can drown sod in poorly drained areas, or cause erosion between or under pieces of sod on slopes.

Newly seeded grass

How to water

- Mulch newly seeded areas with straw, marsh hay or lawn clippings to reduce evaporation from the soil surface.



- Light watering every other day is generally sufficient as long as the soil was moist at seeding time.
- Water less frequently when the grass reaches two inches high.

Keep in mind...

- Overwatering can wash away seeds, cause seeds to rot before they germinate, increase the chances of disease, or slow the growth of new grass.
- Grasses in Wisconsin lawns grow best in cool weather. Plant seed in spring (late April to mid-May) or fall (late August to mid-September) when it's cooler and more rain can be expected.
- When selecting seed, consider bluegrass and fescue mixes, which tend to be more drought-tolerant than ryegrasses.

REDUCING THE NEED FOR WATERING

Let grass grow taller

- To promote deep rooting and lawns that tolerate dry conditions, mow grass no shorter than two inches.
- Taller grass shades the soil surface, thus reducing evaporation and sprouting of weed seeds.

Use chemicals wisely

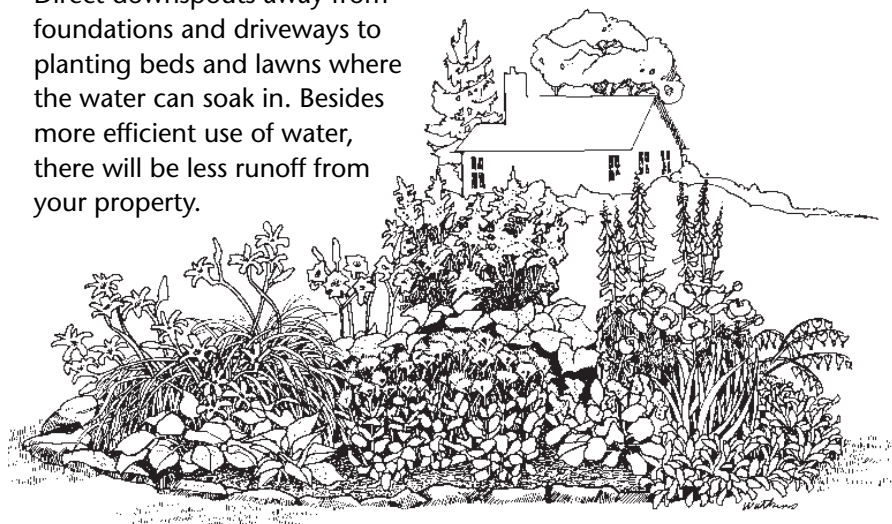
- Proper fertilizing promotes deep roots and drought tolerance. Improper fertilizing can have the opposite effect.
- Don't fertilize a dry lawn – high concentrations of nutrients tend to draw moisture out of grass.
- Control weeds to reduce competition for soil moisture. This may be done by hand, or with careful use of broad-leaf herbicides.

Consider the weather

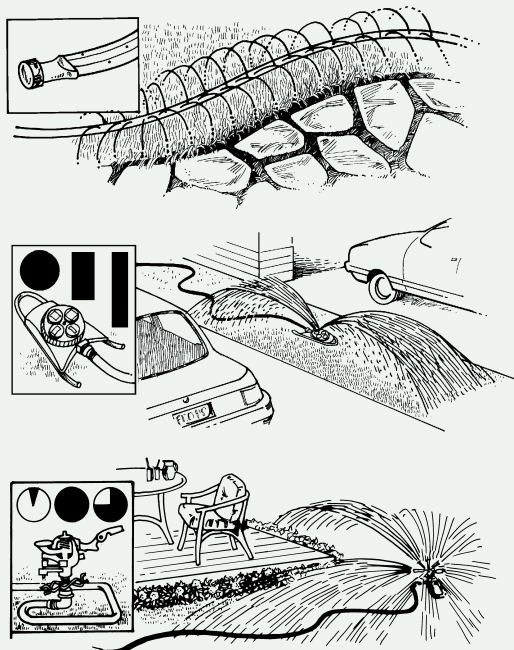
- Don't mow during the heat of day, especially when conditions are hot and dry; newly cut grass blades lose water quickly.
- Don't water if a one-inch rainstorm has occurred in the last week. Also, postpone watering if the forecast calls for rain in the next few days.

Be creative

- Plan and establish a landscape that has less lawn and requires less water and maintenance. Consider plant groupings that include drought-tolerant species and organic mulches that help keep the soil moist.
- Direct downspouts away from foundations and driveways to planting beds and lawns where the water can soak in. Besides more efficient use of water, there will be less runoff from your property.



- Learn to live with temporary brown-outs. A few weeks of dormancy will not hurt the roots of a healthy lawn.



Tips on sprinklers and efficient watering

Hardly anyone has a perfectly rectangular or circular lawn. Fortunately, there are many sprinkler types to deal with odd angles. (A few are shown here.) Over time, savings on your water bill will pay for the investment on several types. Other tips for efficient watering include:

- ✓ Consider a timed sprinkler, which automatically shuts off after a desired rate of application.
- ✓ Use a sprinkling can or hand-held hose to specifically target small areas where use of a sprinkler is wasteful.
- ✓ Aerate your lawn to improve water penetration and reduce runoff.
- ✓ Avoid using a conventional sprinkler on the strip of lawn between the sidewalk and street. Runoff from this area travels quickly and directly to the gutters and storm sewer. A soaker hose might be the best option.
- ✓ Don't forget to turn the sprinkler off! Forgetfulness can result in a trail of water flowing from your property.

**WE'VE ALL
SEEN IT...**

While everyone recognizes that this is a waste of water, other problems caused by careless watering are harder to see. Water flowing down the gutter often carries soil, pet waste, lawn chemicals and other pollutants into storm sewers, which empty into nearby streams and lakes.



Sprinkler runoff makes a natural problem worse. While occasional midsummer rainstorms wash pollutants into lakes and streams, careless lawn watering can create a “rain-storm” every day throughout the summer. This additional runoff occurs during the hottest weather and low water conditions in streams and lakes – prime conditions for growth of nuisance algae and aquatic weeds.

Water running off your yard can also erode soil from adjacent undeveloped lots, waterlog sensitive plants, or wash away fertilizers that have been recently applied to lawns and gardens. We can all help minimize these problems by following the common-sense tips in this fact sheet. The result will be healthier lawns and cleaner water.

**...that trail
of water
flowing in
the gutter
on a clear
day.**

Thinking things through

In the end, lawn watering is probably governed more by one’s point of view than anything else.

For example, a dry lawn has a blue-green color and does not spring back when you walk on it (your footprints remain). A lawn during mid-summer dormancy is a brownish green. To some people, neither of the above is acceptable. However, except under extreme circumstances, even the natural brown-out does no harm. And no amount of mid-summer watering will allow our cool season grasses to look as good as they do during spring or fall. By September, in fact, lawns that were watered throughout the

summer generally look no better than lawns that weren’t. In other words, a naturally brown lawn in August is not a sign of neglect.

Those who want the green look throughout the summer can benefit from the lawn watering tips inside. Those who are inclined to simply wait out the seasonal changes can be confident that they’re not going to harm a healthy lawn.

Above all, heed the suggestions and restrictions of your local water utility during droughts. If you have a private well, don’t jeopardize neighborhood supplies by unnecessary watering.

This publication is available from county UW-Extension offices or from Extension Publications, 630 W. Mifflin St., Madison, WI 53703. (608) 262-3346.

A publication of the University of Wisconsin–Extension in cooperation with the Wisconsin Department of Natural Resources.

Author: Gary Korb, UW-Extension

Illustrations: Carol Watkins

©1999 by the Board of Regents of the University of Wisconsin System. Send inquiries about copyright permission to: Director, Cooperative Extension Publications, 201 Hiram Smith Hall, 1545 Observatory Dr., Madison, WI 53706. University of Wisconsin-Extension is an EEO/Affirmative Action employer and provides equal opportunities in employment and programming, including Title IX and ADA requirements.

Editing and design by the Environmental Resources Center, University of Wisconsin–Extension.

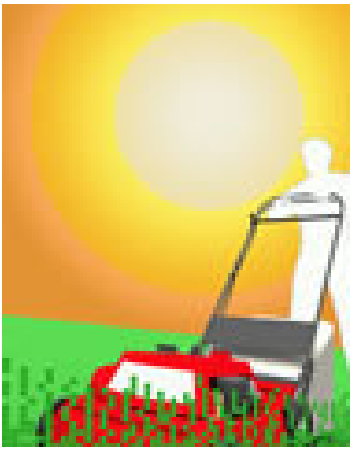


Printed on
recycled paper

**GWQ012 Lawn Watering
DNR WT-530-99
R-09-99-10M-30-S**

**UW
Extension**





Mowing the Lawn

DID YOU KNOW?

Grass clippings contain phosphorus, the nutrient that turns lakes green with algae. One bushel of fresh grass clippings can contain 0.1 lbs of phosphorus – enough to produce 30 – 50 pounds of algae growth if it finds its way to a lake or river!

WHAT CAN YOU DO?

Direct grass clippings away from streets, driveways, sidewalks and other paved areas.

Sweep up grass clippings and return them to the lawn.

Mow the lawn at a higher setting (over 2.5 inches) letting shorter blades fall back onto the lawn as natural fertilizer.

Mix grass clippings with leaves and soil to make a backyard compost pile.

Water your lawn in the early morning hours to avoid wasting water due to evaporation.

Evaluate your lawn needs and only water when necessary.



Yuck!

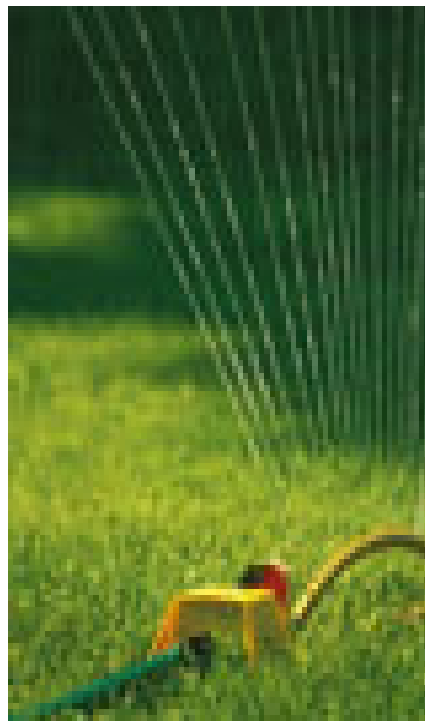
Tips

A healthy lawn requires about 1 inch of water a week.

Check for moisture in the soil about three inches under the surface by probing with a screwdriver.

To determine the rate at which your sprinkler system applies water to your lawn, place several small containers in the area being watered. Run the system for 15 minutes, then measure the depth of water in all of the containers and average them. Multiply the average by four to determine how much water is applied to the lawn per hour.

Watch the weather to see if watering the lawn this week is necessary.



Benefits

- Grass clippings are composed of 85% water!
- With grass recycling, use of fertilizers can be reduced by 30- 40% or more!
- Lawns mowed higher are more competitive against weeds.
- Lawns mowed higher withstand heat stress better, need less watering, and are more resilient, reducing bare spots and soil erosion.

This information is provided for use and dissemination by NEWS.C. Contact us with any questions.

920-722-2151 (phone)

www.news.c.org

P.O. Box 1861, Appleton, WI 54912

Public Service Announcement - Lawn Mowing (May 2005)

O.K., the weekend is here and it's time to mow the lawn, then you can go enjoy the lake. But, when you get to the lake there is a collective "YUCK" when everyone sees all the algae. Believe it or not, mowing the lawn contributed to the algae. Grass clippings contain phosphorus, the nutrient that turns the lake green with algae. Clippings from actively growing lawns have 4 to 5 times more phosphorus content than fallen autumn leaves.

What does that mean to you? When you mow your lawn, direct the clippings away from the street, driveways, sidewalks, and other paved areas. Sweep up your grass clippings and return them to the lawn. Lastly, mow your grass at a high setting and let the short grass blades fall back onto the lawn as natural fertilizer.

The Northeast Wisconsin Stormwater Consortium is a partnership of area communities working together to educate you on how we can make great strides in protecting and enjoying our environment.