

BO YARD SMART A Guide to Environmental Gardening

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Special Insert to University of Nebraska–Lincoln Extension in Lancaster County **The NEBLINE**

Conserve Water with Proper Irrigation

A careful homeowner avoids under- or overwatering their landscape. However, many people unintentionally overwater — which needlessly wastes water and can lead to foliage diseases. An estimated 75–85 percent of plant problems result from overwatering. An irrigation system applying 1 inch of water to an average size lawn* which has already received sufficient rain wastes more than 3,000 gallons of water — a year's supply of drinking water for 17 people.

CHOOSE APPROPRIATE IRRIGATION SYSTEM — Choose the appropriate irrigation system and then install and maintain it properly.

Drip and soaker hose irrigation systems best serve trees, shrubs and flowers. These systems place water on the soil surface in the immediate vicinity of a plant's root system, reducing evaporation loss and irrigating only the desired plants. An added bonus of these systems is the reduction in foliar diseases which can accompany sprinklers.

Sprinklers are generally used for



Trees, shrubs and flowers are best served by drip and soaker hose irrigation systems.

turf. If you install a sprinkler system, the rate and uniformity of the application must be carefully designed. Plan emitter patterns to fit water output to the shape, soil infiltration rate and wind characteristics of your site. If you are using a conventional hose and sprinkler, remember the location and quality of the sprinkler head determines how efficiently water is delivered.

ZONE WATERING — Automatic irrigation systems can be designed to

support zone watering. Zone watering means grouping plants with similar water requirements in the same area of the landscape. Remember all shrubs, trees, flowers and turf in a given irrigation area or zone will receive the same amount of water. The water conserving value of buffalograss will be defeated if it is in the same irrigation area as trees needing more water.

AVOID RUN-OFF — You want water on the plants, not down the gutter. Careful location of emitters may not be enough to minimize run-off. You may need to reshape land to reduce slopes that encourage water to move too quickly for soil to absorb it. The slope should direct water toward the plants that are high water users and away from hard surface areas such as driveways, walks and patios. Another way to reduce run-off is to incorporate compost into the soil to improve the infiltration rate and water-holding capacity of the soil.

MINIMIZE EVAPORATION — The best time to water is early morn-

ing between 4 and 10 a.m. Less water is lost by evaporation, and disease incidence is reduced. Water emitters which distribute water uniformly at the soil surface can minimize evaporation, even on windy days.

AVOID OVERWATERING — Closely observing landscape plants and the soil is often the best way to determine whether watering is needed.

**Approximately 5,000 square feet*

FOR MORE INFORMATION

These University of Nebraska–Lincoln Extension NebGuide publications are available at the extension office or online at <http://ianrpubs.unl.edu>

- "Watering Nebraska Landscapes, When and How Much" (G1400)
- "Conserving Water in the Landscape" (G1061)
- "Perennial Flowers for Water-wise Gardeners" (G1214)
- "Evaluating Your Landscape Irrigation System" (G1181)
- "Checking the Performance of Your Landscape Irrigation System" (G1221)

Estimated water requirement for maintained LAWNS in eastern Nebraska landscapes*

Season	Estimated inches per week
April/May	.75-1.0
June	1.0-1.5
July	1.5-2.0
August	1.0-1.5
Sept./Oct.	.75-1.0

The low end of the range should be used for low maintenance turf, while the upper end of the range reflects the amount of irrigation needed for high maintenance turf. High maintenance turf is defined as a lawn that is mowed at 2.5 inches or less and receives four or more fertilizer applications each year.

Estimated water requirement for WOODY PLANT and ANNUAL/PERENNIAL FLOWER BEDS in eastern Nebraska landscapes*

Landscape zone (based on expected water use)	Types of plants associated with zone	Estimated inches per week
Very low	Native and/or adapted plants with high drought-tolerance and minimal water use that require little or no supplemental water once established	0-0.25
Low	Native and/or adapted plants with moderate drought-tolerance and moderate water use that require occasional supplemental water during periods of drought	0.25-0.5
Average	Native/adapted or exotic plants with low drought-tolerance and moderate to high water use that require frequent supplemental water during and beyond drought periods	0.75-1.5
High	Mostly exotic plants with little or no drought tolerance that require consistently high soil moisture	1.25-2.5

*Site factors such as amount of sun/shade, wind protection, type of soil and amount of slope may require adjustments to estimated irrigation amounts.

Good Lawn Care Practices Reduce Need for Chemicals

A healthy, dense stand of turf reduces weeds and recovers quickly from insect or disease injury. Cultural practices play a big role in the health of the lawn and need for pesticides.

Lawns requiring frequent pesticide use — in particular herbicides — may have an underlying problem causing the repeated invasions of pests, such as weeds. Correcting the problem leads to a healthier lawn that can resist weed invasions and reduce the need for chemical use.

Good lawn care practices can also save water and prepare turf for dry summer months. Taller mowing and proper fertilization result in a deep and efficient root system which reduces the need for additional water.

SOIL CONDITION — Many lawns are growing on

soils high in clay, compacted and poorly drained. Aerating and topdressing with organic matter or screened compost may improve these conditions. Another option is starting over and amending clay soils with compost. Thoroughly preparing soils before seeding or sodding is critical.

GRASS SELECTION — Make sure the proper grass species is used on the site. Full sun and sun/shade environments call for different grasses. Kentucky bluegrass is the primary species for lawns in full sun; in some cases mixed with perennial ryegrass and/or fine fescues. For shade areas, shade-tolerant Kentucky bluegrass cultivars are commonly mixed with fine fescues.

WATERING — Proper watering includes irrigating as lawns need it and getting mois-

ture down into the root zone.

FERTILIZING — Proper fertilizing includes supplying adequate nutrients and proper soil pH. In particular, avoid excess or lack of nitrogen, fertilize during cooler weather (especially early and late fall) and use controlled-release nitrogen fertilizers. Don't apply high rates of nitrogen in spring.

MOWING — Proper mowing has a major impact on lawn health. Many lawns are mowed too short, allowing weeds to invade and other problems to appear. Mow between 2- and 3- inches and mow often enough so no more than one-third of the leaf blade is removed in any one cutting.

CORE AERATING — Manage lawn stress factors, such as thatch, shade and soil compaction. Core aerating on a regular basis is an excellent



Core aerators can be rented at some garden centers and rental agencies.

practice to consider, in particular for sodded lawns over clay soils. Spring and fall are good times to aerate. Topdressing the turf with screened compost after aerating will further help relieve these stress factors.

Occasionally, problems

will still come up requiring special management. Start by identifying the problem, then look at control options; both cultural and chemical. When using pesticides read, understand and follow all label directions.