Watering Your Lawn

Cooperative Extension Service
College of Agriculture and Home Economics

Guide H-504

Lynn Ellen Doxon, Extension Horticulture Specialist

This publication is scheduled to be updated and reissued 9/01

Proper watering is important to maintain an attractive, healthy lawn; however water is a limited resource in New Mexico. Efficient water use on home lawns makes a significant contribution to water conservation. Use these guidelines to water your lawn efficiently.

- Soak the soil in the root zone.
- Do not let thatch build up.
- Water only when necessary.
- Check sprinklers for uniform application.
- Test water quality.

SOAK THE SOIL IN THE ROOT ZONE

Each watering should moisten the soil to a depth of 6–8 in. on bluegrass and 8–12 in. on other grasses. This is the grass's active root zone. The length of time and amount of water it will take to moisten the root zone depend on soil type and the irrigation system. Water will penetrate sandy soils more quickly and more deeply than clay soils.

To determine the length of time required to moisten your lawn's root zone:

1. Run the sprinklers for 15 minutes.
2. Twenty-four hours later, dig a small hole in the ground or use a probe to determine how deeply the soil is moistened. You will use this information to determine how long to water each time.
3. To calculate the number of minutes to water the lawn divide 120 by the depth of the moistened soil in inches. For example, if the water soaked in 4 in., figure 120/4 = 30 minutes. It would take an hour to soak in eight inches. If it soaked in 6 in., the lawn should be watered for 20 minutes (120/6 in. = 20 minutes).

However, bluegrass has a shallower root system than other grasses; it needs to be soaked to a depth of only 6–8 in. (instead of 8–12 in). Take the second example above: In 15 minutes, water soaked in 6 in. You would need to water a bluegrass lawn for only 15 minutes instead of the 20 minutes calculated for other types of grass.

Once the length of the watering period is established, use the same period each time you water, no matter what the season.

If water starts to run off the lawn before the end of the watering period, turn the water off for one hour and let the water soak in; then turn the sprinklers back on and finish watering.

DO NOT LET THATCH BUILD UP

Runoff is sometimes caused by excess thatch. If thatch is more than 1/2 in. thick, the lawn should be dethatched. Dethatch cool-season lawns (bluegrass or fescue) in early spring or late summer. Dethatch bermudagrass lawns in late spring. Proper mowing, watering and fertilization can reduce the buildup of thatch. To reduce thatch buildup, avoid overwatering the lawn.

HOW OFTEN TO WATER

How often you water will change with the seasons and soil type. First determine how much water is applied during your watering period. Set straight-sided containers like cans around the lawn and turn on the sprinklers for your usual watering period. At the end of the watering period, measure the amount of water in each of the cans. (If the depths vary widely, the sprinkler system needs adjustment. Adjust or replace the sprinkler heads as described below to get more uniform application, then do the can test again). Use the average amount of water in the cans to determine watering frequency.

In the hottest part of the summer, bluegrass will use 1/4–1/3 in. of water per day. Bermuda grass can be

maintained on 1/5–1/6 in. although it will use more if more is applied. If your watering period is 30 minutes on a bluegrass lawn and you apply 1 in. each time, you need to water once every 3 days in the hottest part of the summer. If you are applying more water during each watering, water less often. If you are watering your lawn more than three times per week consider soil modification, a different grass species, or a change in management practices. In spring and fall, water less frequently but for the same period of time.

Avoid frequent, shallow watering. It encourages a shallow root system, which makes the lawn more susceptible to drought and grub damage. Watering too deeply should also be avoided. Water that percolates below the root zone is wasted. Water is a scarce and valuable commodity in the West and should be used carefully.

WATER ONLY WHEN NECESSARY

When the lawn needs water the grass will take on a bluish or dull green color and the blades will begin to fold or roll. Footprints will remain visible after the lawn is walked on.

Tree and shrub roots competing with the turf will require additional water. Once a month soak the soil very deep to encourage tree and shrub root development below the turf root zone. Leave the sprinklers on three times the normal time or use a soaker hose under the entire tree canopy.

The best time of day to water is in the early morning. Less water evaporates if lawns are watered when temperatures are cool and winds are calm. These conditions occur most frequently in early morning. Late afternoon and evening watering also reduces evaporation losses if winds are calm, but tends to encourage disease because the grass stays moist all night. Many of the fungus diseases that affect grass require water droplets or high humidity to sporulate and infect the plants. Midday watering is more convenient for many people and does not harm the lawn. However, more water is lost to evaporation.

In most situations sprinklers are the most effective way to water lawns. Flood irrigation can also be used on level lawns where a water source is available. Sprinkler spray patterns should overlap 80–100% depending on the type of sprinkler system that is installed. Follow the manufacturer's directions for proper sprinkler installation. A good system must provide even water distribution to all grassed areas. The water must be applied to only the grassed areas, not to walls, sidewalks, driveways, or streets. Use the can test described above to gauge uniformity. Most sprinkler heads have a spring adjustment to control the flow of water. Sprinklers that water less than a full circle can be adjusted to direct water away from walls and paved areas. If some sprinkler heads have been replaced, it may be necessary to replace all of the sprinkler heads in order to achieve uniform application.

TEST WATER QUALITY

If the irrigation water is not supplied by a municipal water system, have the water quality tested before using it for irrigation. The test will determine if the water quality is good, borderline, or too poor to use. If the water quality is borderline high in soluble salts, pH, magnesium, calcium, or sodium you may need to use more water and leach some of the excess salts or minerals below the root zone. There is no need to apply extra water unless the water you are using is of borderline quality.

Adapted from materials published by Kansas Cooperative Extension Service and Texas Agricultural Extension Service.

Reprinted for electronic distribution September 1996 **Las Cruces, NM**