Watering New Lawns

Best Management Practices

K-STATE Research and Extension

Kansas State University
Agricultural Experiment Station
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The amount of water required to establish a home lawn depends on soil moisture content, soil and air temperature, wind, and germination requirements of different grass species.

Type of grass

Bermudagrass is commonly grown from sprigs. Zoysia and buffalograss are often grown from plugs. All three warm-season species can be established from seed if proper varieties are chosen. Kentucky bluegrass and turf-type tall fescue, usually grown from seed, also can be sodded. The same watering practices apply, regardless of establishment method.

Soil conditions

Heavy clay soils are slow to absorb water but can be loosened and made more receptive by incorporating organic matter, such as peat moss or compost. Consider adding 2 to 3 inches of organic matter, and tilling as deeply as possible. This helps improve water infiltration and soil aeration. Organic matter also improves sandy soil by improving water- and nutrient-holding properties. Adjusting the pH (acidity/alkalinity) and fertility based on soil test results promotes more efficient water use.

Off-site topsoil is often spread over disturbed sites before planting turfgrass. Topsoil should be blended into the surface of the original grade to create a gradient from one soil type to the other. Grass roots don't readily cross a distinct separation layer. Note: Lawn soil should be prepared just as thoroughly for planting sod as for planting seed. Don't skimp on soil preparation just because it will be covered up with sod.

Watering newly planted grass

Grass that is planted at the correct time will use water most efficiently during establishment. September is best for cool-season grasses such as tall fescue and Kentucky bluegrass. June is preferred for warm-season grasses such as bermudagrass, zoysiagrass, and buffalograss. Seeding rate is important. If grass seed is sown too thickly, individual plants compete for moisture; if sown too thinly, establishment rate may be slowed.

If soil is dry, soak the lawn thoroughly about a week before seeding to establish a reservoir of moisture in the top several inches of the soil profile. Clay soils may need to be irrigated at intervals to allow water to soak in without running off. Allow the surface to dry before preparing the final seedbed.

After seeding, keep grass seed moist until it germinates and becomes established. Initially, keep the seedbed surface moist with frequent, light irrigation, unless rainfall occurs. Light watering once or twice a day or more may be required to keep the seedbed moist. Grass seed that begins to germinate, then dries out, may die. A light mulch of clean straw can slow drying between watering cycles. You should be able to see soil through the straw layer. On slopes, pressing straw in with a light disk with the blade set vertically will help reduce washing. Problems may arise if the straw contains

weed seeds or is applied too thickly and blocks sunlight.

It is acceptable to water newly seeded bluegrass or tall fescue in the late evening during the fall. This makes water go further by keeping the seedbed moist throughout the night and into the next morning. In the cooler weather of early to mid-fall, nighttime watering is less likely to contribute to disease.

As the grass grows

After seedling grass begins to grow, extend the interval between irrigation cycles, but apply more water each time.

When germination is complete and seedling grass is 1-inch tall, stretch the watering interval to every other day, applying ¼ inch of water each time. Measure water depth in straight-sided cans.

During the second week after complete germination, water every third day, applying ½ inch of water per irrigation cycle. Thereafter, 1 inch of water every 5 to 7 days should support the stand of new seedling grass.

Plant maturity

Both sodded and seeded cool-season grasses, such as tall fescue or Kentucky bluegrass, will need to be watered regularly the first summer after planting. Warm-season grasses — bermudagrass, zoysiagrass, and buffalograss — also require regular watering during establishment, and perhaps during the first summer, whether planted by seed, sod, plugs, or sprigs.

Winter watering

Fall is the best time to plant a new lawn. When seeding make sure that grass is watered thoroughly before the ground freezes and during mid-winter thaws. This is especially important during a dry winter.

Newly laid sod

Water newly installed sod as you would a newly seeded lawn — frequently enough to keep the area between the sod and soil moist until new roots knit into the soil. As roots grow deeper, extend the watering interval.

Plugs or sprigs

Water plugs and sprigs much like seeded lawns. Keep soil moist until rooting has occurred, and then wait longer between waterings.

Authors
Ward Upham, horticulturist
Emily Nolting, commercial horticulture specialist, retired
Phil Sell, horticulture agent, Shawnee County, retired

Kansas State University Agricultural Experiment Station and Cooperative Extension Service

MF-2802 January 2008