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Lawn care

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Quick Facts

Proper lawn management, including watering, mowing and fertilizing, is the key to a successful lawn.

Watering deeply promotes deep roots and a healthy turf.

The ideal mowing height for most bluegrass varieties is 1½ to 2 inches (3.8 to 5.1 centimeters).

To perform well, a bluegrass lawn needs about 4 pounds (1.8 kilograms) of nitrogen per year.

Application should be at the rate of 1 pound (.45 k) of nitrogen every four to six weeks beginning in late April or early May.

The desired quality of lawn can be determined at the time the lawn is started. To have a good lawn, only high quality seed or sod should be used. There is no economy in planting mixtures of cheap grass seed or in buying poor quality sod. The best general-purpose lawn grass for Colorado is Kentucky bluegrass. There are several varieties of Kentucky bluegrass, including Merion, Adelphi and Victa.

For more information on establishing a lawn from seed and sod, see Service in Action sheets 7.203, *Seeding a bluegrass lawn* and 7.204, *Sodding a lawn*.

Correct management practices are essential in maintaining a healthy, dense turf. In most cases, proper watering, mowing and fertilizing will produce an attractive lawn with minimum problems.

Watering

A good stand of healthy Kentucky bluegrass

may require as much as 1½ to 2 inches (3.8 to 5.1 centimeters) of water per week during the summer. During cooler times of the year much less may be needed to keep good turf.

Water the lawn uniformly to a depth of 8 to 12 inches (20.3 to 30.5 cm) to encourage deep roots. Frequent and light sprinklings only moisten the surface and may cause shallow-rooted turf that will be subject to injury from winter drought and summer heat. Light sprinklings also encourage germination of weed seeds.

The amount of water necessary to wet the soil to the desired depth can be determined through trial and error. The depth of watering can be checked from three to four hours after irrigation by digging in a flower bed or other cultivated place that was watered with the lawn. In a loamy soil, a steel rod or screwdriver can be used to determine the soil moisture depth. The length of time that the sprinklers were run to wet the soil 8 to 10 inches (20.3 to 30.5 cm) should be noted as a guide to future watering.

Rate and frequency of watering is largely determined by soil type. It will take less water more often on sandy soils than on loams. Grass growing in the shade requires less water than that in full sun. More water is required where tree or shrub roots compete with the grass.

Grass that takes on a grayish-green or purplish cast is suffering from a lack of water. Such grass should be watered regardless of whether the day is hot or cool.

Watering should be done occasionally in late fall if dry weather persists. During extended dry periods of winter and early spring it may be necessary to water occasionally. At that time of year particular attention should be paid to dry areas, such as exposed slopes and sites with shallow soil.

Sprinkler heads and hose size determine the rate water can be applied. Sprinklers, such as the pulsating type with revolving parts and a high back pressure, deliver less water in a given period

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than the open "frog eye" sprinkler that has no moving parts. Sprinkler heads that deliver large drops of water may water an area faster and give better distribution than those that throw a fine mist or throw water high into the air.

On slopes and heavy clay soils there is a tendency for water to run off. Such problems sometimes can be corrected by using a low-capacity sprinkler.

The inside diameter of a hose is important. The smaller the hose diameter the greater the friction. This reduces the amount of pressure and amount of water delivered.

A hose with an inside diameter of three-fourths inch (19 millimeters) with a low-pressure sprinkler head will deliver approximately 30 gallons (113.6 liters) of water per minute, or 1 inch (2.5 cm) of water on 5,000 square feet (450 square meters) in two hours. It would require more than 11 hours to deliver the same amount of water with a one-half inch (1.3 cm) inside diameter.

Hose lengths also affect rate of water delivery. The longer the hose, the lower the pressure.

See 7.200, *Watering lawns*, for a detailed discussion on lawn watering.

Mowing

To keep a good lawn, proper mowing is necessary. Cutting close weakens the grass, and causes shallow, weak roots and a weed infested turf.

The ideal mowing height for most varieties of bluegrass is 1½ to 2 inches (3.8 to 5.1 cm). Common Kentucky bluegrass and the older lawn varieties normally do best when cut at 2 inches (5.1 cm). Some of the new varieties perform well at lower cutting heights. It is the frequency, not the height of cut that determines the attractiveness of a lawn.

The lawn should be mowed often enough so that no more than one-third of the leaf blade, or one-half to 1 inch (1.3 to 2.5 cm), is removed at one time. Short clippings readily filter into the turf. Removal of too much of the blade results in shock and yellowing. Well kept bluegrass lawns may need to be mowed at least twice a week during the spring. The lawn should be mowed late into the fall or as long as the grass seems to be growing. Leaving the grass too long during the winter makes spring cleanup difficult. Short cut turf is subject to winterkill.

A dull mower will bruise and fray the grass blades, causing the lawn to have a brownish cast. Properly adjusted reel-type mowers give a good cut.

A rotary mower should be sharpened frequently. Under most situations a rotary mower blade should be sharpened every third or fourth mowing. An extra blade for the mower makes it easier to have a sharp one ready to go.

Grass clippings have some fertilizer value and also can be useful as a mulch. Often a lawn will look more attractive if the clippings are removed. This is especially true if the lawn is not mowed frequently. A heavy thatch can prevent proper penetration of water and fertilizers into the soil. If thatch accumulates to a depth of one-half inch (1.3 cm) or more, it should be removed

with a power rake—either in the spring or fall when the grass will recover rapidly.

Fertilizing

Kentucky bluegrasses need nitrogen fertilizer to produce a dense attractive turf. Most bluegrass varieties perform well when fertilized with about 4 pounds (1.8 kilograms) of available nitrogen per 1,000 square feet (90 sq m) per year. An application of fertilizer to supply 1 pound (.45 k) of available nitrogen every four to six weeks, beginning in April or May and ending in September, should be sufficient for a good lawn.

The law requires that the analysis of a fertilizer appear on each bag. The analysis is expressed in percent of major nutrients, such as 20-10-5 and 15-5-5.

The first figure is always the percentage of total nitrogen, the second the percentage of available phosphate and the third the percentage of water-soluble potash.

The amount of fertilizer to apply should be based on the percentage of actual nitrogen. For example a 40-pound (18 k) bag of 20-10-5 fertilizer contains 20 percent or 8 pounds (3.6 k) actual nitrogen ($20\% \times 40 \text{ lbs} = 8 \text{ lbs}$). If the fertilizer is to be applied at the rate of 1 pound per 1,000 square feet (.45 k per 90 sq m), the 40-pound (18 k) bag of fertilizer would cover 8,000 square feet (720 sq m).

Instructions on the lawn fertilizer bag should be read and followed. Many commercial lawn fertilizers will state the proper spreader setting for various rates of application on the bag. If spreader setting instructions are not on the bag, the gardener should be sure to properly calibrate the spreader.

Fertilizer should be applied only when the grass blades are dry, unless instructions on the bag state otherwise.

It is best to travel in two directions—at right angles to each other—when applying fertilizer. This is particularly true with drop-type spreaders. The cyclone or rotary-type spreader usually causes less streaking and applies the fertilizer more rapidly.

Iron chlorosis is a common problem in Colorado lawns. Colorado's alkaline soils frequently cause iron chlorosis because the iron, while present in the soil, is not in an available form. Yellowing of the grass blades especially in summer usually characterizes a need for iron. Iron fertilizer can be applied to green the grass where it begins to yellow.

Several forms of iron are available to prevent or correct iron chlorosis. The iron can be applied alone or in combination with other fertilizers. Iron sulfate is often used to alleviate iron deficiency. One of the simplest methods of applying iron is to dissolve 2 tablespoons (30 milliliters) of iron sulfate in about 1 quart (liter) of hot water. Dilute this with 2½ gallons (9.5 l) of cold water and apply to 1,000 square feet (90 sq m) of lawn. A hand pressure pump or hose sprayer can be used. The hose sprayer will not apply the solution as evenly as the pressure pump sprayer. Do not water for at least 24 hours after applying iron in liquid sprays.