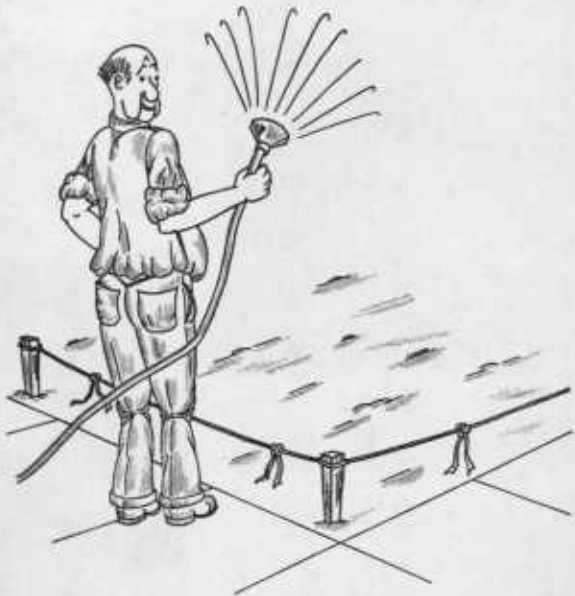


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LAWN

Care and Maintenance



Federal Cooperative Extension Service

Oregon State College

Corvallis

Extension Circular 657

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LAWN

Care and Maintenance

Correct fertilizing, mowing, and watering are important in maintaining a beautiful lawn that is green, vigorous, and free of disease. Liming and aerating the soil are important under certain conditions. There is no substitute for these practices properly timed and applied.

Fertilizing the Lawn

Lawns need regular feeding for a healthy, vigorous turf. A vigorous turf resists infestations of weeds, moss, undesirable grasses, and diseases. Following a fertilizer schedule, such as outlined below, helps in getting such results.

Elements necessary for lawn growth

Nitrogen is the nutrient that is generally deficient for lawns. It is responsible for most of the dark green color and leaf growth. Phosphorus and potassium generally are not needed as often as nitrogen; however, it is sometimes desirable to use a complete fertilizer. (A complete fertilizer always includes all three of the basic plant nutrients—nitrogen, phosphorus, and potas-



Too little — Just right — Too much

sium—plus other less important ones.) Phosphorus, potash, and sulfur encourage growth of clover. Consequently, complete fertilizers are especially important to lawns where clover is desired. In Oregon, restricted use of phosphorus and sulfur may be necessary if clover is not wanted in the lawn.

Fertilizer schedule for watered lawns

Rates of fertilizer application on lawns are based on the TOTAL nitrogen content of the fertilizer. The percent of total nitrogen is given on each bag.

The following fertilizer formulas are common: 5-3-2, 10-6-4, 10-16-8, 6-10-4, 16-20-0, 15-0-0, 21-0-0, 20-10-5, 33½-0-0, 38-0-0, 45-0-0, etc. In these formulas the first number or numbers indicate the percent

of total nitrogen. The second is the total phosphorus percent, and the third is the total potassium percent.

Percent of nitrogen in fertilizer (*)	Approximate date of application. Approximate lbs. fertilizer per 1,000 square feet (**)		
	Spring (March or April)	Summer (***) (June 15)	Fall (September 15)
<i>Percent</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>
5 to 6	24	20	20
10	12	10	10
15 to 16	9	7	7
20	6	5	5
33 to 35	4	3	3
45	3	2	2

(*) Total percent of nitrogen is listed on each bag of fertilizer.

(**) The spring and summer applications may be of a nitrogen fertilizer such as ammonium sulfate, ammonium nitrate, urea, or calcium nitrate. The fall application may be of a complete fertilizer.

(***) Our best lawn grasses are naturally adapted to cool, humid conditions. If a vigorous, green lawn is desired through the warmer summer months, the lawn must have special attention.

If only one application is going to be made, it should be made in May or early June.

Barnyard manure is sometimes used for top dressing the lawn. Manure is relatively low in plant nutrients, and often contains weed seeds.

Three rules for lawn fertilizer application

1. Do not apply too much fertilizer.
2. Distribute the fertilizer evenly.
3. Apply when the grass is dry. If the grass is at all moist, water immediately to avoid "burning" the grass.

How to apply lawn fertilizers

Lawn fertilizers can be applied with a spreader, through the irrigation water, or by hand. Spreaders are available at garden supply stores and are very satisfactory. To apply through the sprinkler system, ferti-



Use care in applying fertilizer.

lizer must be water soluble. Convenience and ease of applications are advantages, but getting an even distribution may be a problem. If spread by hand, divide the fertilizer in half. Spread the first half in one direction and the second at a right angle to the first.

Lime and Your Lawn

In general, lime is not needed on lawns. Most of our lawn grasses are rather tolerant of acid soils and don't benefit much from liming unless the soil is strongly acid. In the coastal area, however, and on some soils in the Willamette Valley, lime will benefit turf. Apply 75 to 150 pounds of finely ground limestone per 1,000 square feet in either spring or fall, once every 5 years. Avoid liming close to rhododendron, azalea, and camellia, and other acid-loving plants.

Water Only When Necessary; Then Deeply

Watering is necessary to keep lawns green during summer. Under western Oregon conditions dry lawns will be revived by fall rains. The watering of the lawn during the summer greatly enhances the appearance of the home.

Water thoroughly, to a depth of 12 inches, once a week or oftener if necessary



Early morning watering saves water. A hot sun can evaporate half the water before it reaches the ground.

to encourage deep root growth. Let the sprinklers run until soil is soaked to this depth.

Apply water only as fast as soil will absorb it. On slopes and heavier soils, a perforated hose or special nozzle which applies water slowly, may be needed to prevent runoff. Early morning is the best time of day to water the lawn. Less water is lost from evaporation then.

Avoid Close Mowing; Mow Regularly

Lawns in Oregon should be mowed at least 1½ to 2 inches high. Cutting too close weakens the grass, making the lawn more susceptible to drought injury and weeds.

Regular mowing of the grass improves the appearance and helps maintain the vigor of the lawn. Clipping after an inch of new growth is desirable. These short clippings may be left to benefit the lawn. Don't allow them to accumulate or become unsightly.

Bentgrass lawns should be mowed very close ("scalped" one inch or closer) once a year to prevent matting and thatching. From one to three or more trips over the lawn may be required to get it that short. Early spring (March or April) is the best season for close mowing. Mow the lawn at normal height again after close mowing.

Keep the mower sharp. Dull mowers tear off the grass, rather than cut it, giving the lawn a bleached cast.

Soil Aeration

Where the soil is badly compacted, irrigate the surface slowly, then spike, preferably with a hollow-tined fork. Spiking improves aeration and fertilizer and moisture penetration.



Mow grass at least 1½ to 2 inches high.

Weed Control

Lawns planted in adapted grasses and well managed generally have very few weeds. Broad-leaved weeds, such as dandelion and buckhorn, are easily controlled with 2,4-D spray. Follow the manufacturer's directions on the container. More tenacious weeds, including chickweed, white clover, and hop clover, require repeated treatments with a mixture of 2,4-D and 2,4,5-T to hold them in check. 2,4,5-TP and Endothal show promise for controlling chickweed and speedwell. They will soon be on the market in small containers.

For chickweed control with 2,4,5-TP,

use 2 tablespoons of chemical in 3 or 4 gallons of water per 1,000 square feet of lawn.

For speedwell (*Veronica sp.*) control with Endothal, spray with 3 tablespoons of chemical in 3 or 4 gallons of water per 1,000 square feet. Spray when the speedwell and grass are growing rapidly; respraying in 10 days may be needed for speedwell eradication.

Annual bluegrass is difficult to control, but it is most troublesome under conditions of soil compaction, impeded drainage, reduced soil fertility, shade, overwatering, and close mowing. Avoidance of these conditions will reduce the chances of infestation. Crabgrass is gradually becoming more of a problem in Oregon lawns. It is most serious on warm sites where maintaining a vigorous, permanent turf is a problem. A commercial crabgrass killer may be used, according to the manufacturer's directions, on established lawns, but the infestation is likely to remain unless improvement is made in the conditions that caused weakening of the permanent grasses. Overcoming soil compaction, improving aeration and penetration of water, and fertilizers, improving soil moisture and fertility, and avoiding too close mowing, are means of improving the vigor of lawn grasses.



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