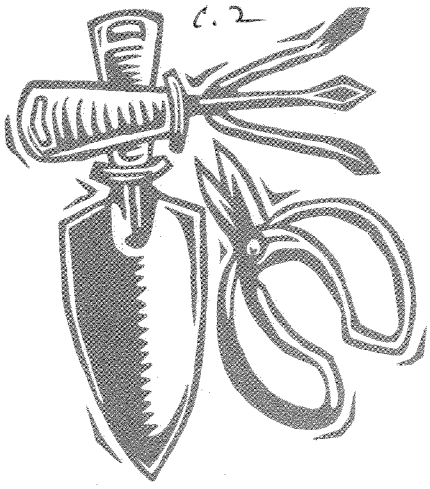


G A R D E N I N G S E R I E S

BASICS

Fall and winter watering no. 7.211

by J.R. Feucht and J.E. Klett [1]

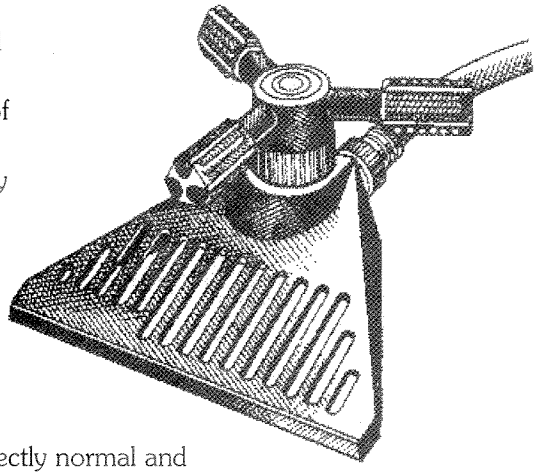
Quick Facts...

Trees, shrubs and lawns need watering during prolonged dry fall and winter periods to prevent root damage that affects the health of the entire plant.

Water only when air and soil temperatures are above freezing.

A soil-needle attachment for a garden hose is efficient in getting water to root systems of newly planted trees and all shrubs.

Established large trees have a root spread equal to or exceeding the height of the tree; lawn sprinklers, rather than soil needles are therefore needed to ensure that the entire root system is watered.



Dry air, low soil moisture and fluctuating temperatures are fall and winter characteristics in many areas of Colorado. During extended periods, particularly October through February when there may be little or no snow cover, trees, shrubs and lawn grasses can be damaged if they do not receive supplemental water.

The result of long, dry periods during fall and winter is injury or death of plant root systems. The plants affected may appear perfectly normal and resume growth in the spring using stored food energy, only to weaken or die in late spring or early summer when stored energy runs out. Weakened plants also may be subject to insect and disease problems later.

Plants Requiring Late-Season Watering

Most **woody plants** with shallow root systems require supplemental watering during extended dry fall and winter periods. Included in this group are shade trees such as European white birch, Norway and soft (or silver) maples and lindens (basswood). Also included are evergreen trees such as Colorado Blue spruce.

Evergreen shrubs, particularly those growing near a house, may suffer root-system damage during dry spells. Included are Pfitzer and "Tammy" and other junipers, Manhattan euonymus and Oregon grape-holly.

Lawn grasses also are prone to winter damage. Newly established lawns, whether seed or sod, are especially susceptible to damage in dry fall and winter weather. Susceptibility also increases with lawns having south or west exposures.

Watering Guidelines

Water only when air temperatures are above freezing and the soil is not frozen. Apply water early in the day so that it will have time to soak in before possible freezing occurs during the night. If water freezes around the base of a tree or shrub, it can cause mechanical damage to the bark. Heavy coatings of ice on turfgrasses also can cause suffocation or result in matting of the grass.

Monitor recent weather conditions and water during extended dry periods (four to six weeks without snow cover.)

A soil-needle (root feeder) attachment for the garden hose is recommended for applying water to newly-planted trees and all shrubs. The attachments are available in garden supply stores.

Colorado State University Cooperative Extension

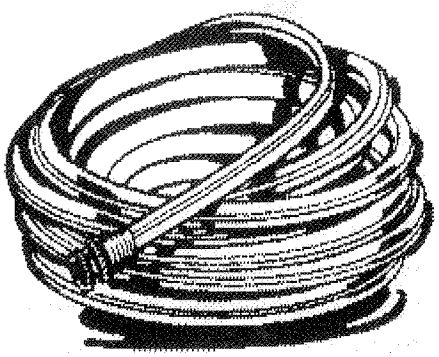
Water only when air temperatures are above freezing and the soil is not frozen. Apply water early in the day so that it will have time to soak in before possible freezing occurs during the night.

If the water is applied with a soil needle in a zigzag pattern around the plant, all parts should receive an adequate amount of water. Do not leave the soil needle in the ground for more than one minute in any one spot. Move the needle frequently, from 6 to 8 inches apart and repeat the procedure. Slant the needle slightly away from the plant.

This procedure helps avoid over-watering and improves aeration of the roots. In sandy, well-drained soils, do not leave the needle in the soil for long periods of time because water will be wasted and valuable minerals will be leached below the root zone.

Newly Planted vs. Established Trees

In watering woody plants planted in the last two seasons, the most important area to water is the distance from a point halfway between the plant and the outer stretch of the branches to approximately 1 foot beyond the "drip line" or branch extremities. The majority of absorbing roots are in this area. (See fact sheet 7.226, *Care of young transplanted trees.*)



Water trees that are two or more years old with a lawn sprinkler to ensure coverage of all the root area. Roots will extend radially at least as far as the tree is tall.

For shallow-rooted trees, such as birch, a sufficient amount of water may be applied with sprinklers. Lawn areas also will benefit at the same time.

[1]*J.R. Feucht, Colorado State University Cooperative Extension landscape plants specialist and professor, (retired). Reviewed by J.E. Klett, Cooperative Extension horticulture specialist, horticulture and landscape architecture.*

Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Milan A. Rewerts, director of Cooperative Extension, Colorado State University, Fort Collins, Colorado. Cooperative Extension programs are available to all without discrimination.