

# Fall into Fall Lawn Care

Fall is the best time of the year to work on your lawn. In Tahoe we grow cool season grass and with the return of cooler temperatures our lawns begins to thrive, healing the wounds of heavy use and summer heat. A fall maintenance plan of core aeration along with fertility and irrigation management will ensure that your lawn looks great come spring-time. It is also the time to evaluate your lawn and decide which parts are keepers or losers. Losers are the areas that are too difficult to maintain or are no longer useful to you.



## Creating Air Pockets for Water and Nutrients



Over time, soil becomes compacted with foot traffic and snow storage which impedes water and nutrients from reaching your lawn roots. Using a core aerator removes plugs of soil and creates air pockets through the compacted soil allowing water and nutrients to reach the grass roots. This can be done using either manual or mechanical devices.

Fall is the perfect time for aeration because the cool weather facilitates rapid recovery of the grass and soil moisture is necessary for the aerator tines to penetrate the turf and remove the plugs. Fall is also the best time because sometimes spring aeration creates voids in the soil for weeds to grow.

## Removing Thatch

If your lawn feels spongy this may mean you have an accumulation of thatch. Thatch is a layer of living and dead grass shoots, stems, and roots that forms between the green grass blades and the soil surface. Some thatch is beneficial; it acts like mulch to provide insulation from temperature extremes, helps keep moisture in the soil, and provides a protection from weed seeds.



It is not always necessary to dethatch.

Healthy soils rich with microbial activity break down thatch returning nutrients to the soil while excess thatch restricts movement of air, water, plant nutrients into the soil reducing the vigor of your grass. Where there is excess thatch, more roots will also grow into the thatch then dry out and die when the lawn surface dries.

Early fall is best time to dethatch while cool season lawns are actively growing and soil moisture is more abundant. Remove thatch with mechanical dethatching equipment with vertically rotating blades, manual dethatch rake or core aeration equipment when thatch is greater than or equal to one inch in depth.

## Feeding Your Lawn for Healthy Roots



While lawns benefit from nutrients throughout the growing season, the most beneficial time is in the fall when nutrients are stored in the grass's roots, crowns, rhizomes and stolons until favorable growing conditions resume. Fertilizers improve plant growth by supplying nutrients to the soil. The primary nutrients necessary for plant growth are nitrogen, phosphorus, and potassium. While a soil analysis will tell you what nutrients or amendments your soil needs, for established lawns, nitrogen is all your lawn usually needs on a regular basis. When picking a fertilizer, select a fertilizer that has slow acting water-insoluble nitrogen. This type of fertilizer releases nitrogen over weeks instead of days and is not easily leached through the soil past the root zone during rain and irrigation. Examples include sulfur-coated urea, urea formaldehyde, Isobutylidene diurea (IBDU), and organic fertilizers. If using a quick release-slow release combination fertilizer, the most effective products should have at least  $\frac{1}{4}$  to  $\frac{1}{2}$  slow-release nitrogen. Nitrogen fertilizer should be applied at the rate specified on the manufacturer's label and not next to waterways and Lake Tahoe.

In Tahoe, when using chemical fertilizer, we use phosphorus-free fertilizer to protect water quality. Our soil already has ample phosphorus so additional phosphorus is not needed. The chemical fertilizer bag label has a nutrient ratio N-P-K. The middle number is "P" for phosphorus. Be sure the number is 0.



Learn more about yard fertility at <http://www.unce.unr.edu/publications/files/ho/other/fs9411.pdf>.

### Managing Soil pH

Most lawns prefer a soil pH ranging from 6.0 to 7.0. If the soil is too acidic lime may be applied. Use agricultural limestone or pelletized lime in accordance with a soil test recommendation. Fall liming is preferred because rain, snow, and freezing/thawing of the soil over winter help work the limestone into the soil.

### Overseeding

Overseeding into thin turf or small patches of bare soil is best done in cool weather so the soil can remain evenly moist. Successful seed germination also requires good seed to soil contact so overseeding after fall dethatching or core aeration is the preferred time.

### Mowing Height Makes a Difference

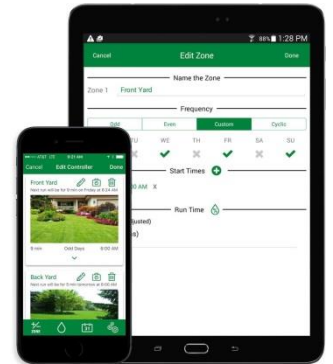
Our cool season turf grass should be mowed at 3-3 1/2 inches on a regular basis as long as the grass is growing. Longer grass blades shade the soil surface to help retain soil moisture and shade weed seeds to reduce germination. Frequency of mowing should be based on the growth rate of the grass. Clippings do not need to be removed if the frequency of mowing is adequate, not trimming more than 1/3 of the grass blade at a time. Leaving lawn clippings in place returns nitrogen to the soil reducing external fertilizer needs. Keep mowing until grass stops growing. Your final mowing should be slightly lower than normal to reduce the risks of snow mold and vole damage. Remember to keep mowing equipment blades sharp to reduce damage to the grass blades.

## Fall into a Fall Watering Schedule

Water only when your lawn needs it. As the air cools, lawns don't need as much water. Deeper, less frequent watering is best for our cool season lawns. This encourages deep and drought resistant roots. Shallow, frequent sprinkling is the worst way to water a lawn. It only encourages shallow, weak roots and disease development. Instead, irrigate to full depth of the root system, and wait until the supply is nearly exhausted before watering again. But do not let the grass undergo drought stress. You know your lawn needs water if the grass blades turn a bluish green color and it doesn't spring back after you walk over it.

Different soil types hold different amounts of water, especially if the soils were well amended prior to seeding or placing sod. Soils in the Lake Tahoe Basin are mostly composed of a mixture of loam and sand. This means they can only hold from ½ to ¾ inches of water in the top foot of soil where most of the grass roots are. Of this amount only 50% is available for use by the plant. The other 50% is bound in the soil and unavailable for absorption by plant roots. Tahoe soils typically need ½ inch of water to replace the water lost to evapotranspiration within the first 8-12 inches of soil between irrigation cycles. The frequency of irrigation cycles vary according to location-sun or shade, month of the year, and weather. In September and October you can usually reduce watering frequency to two and even one time a week and skip irrigation during rainy weather.

The UC Guide to Healthy Lawns and irrigation equipment companies have interactive web based irrigation scheduling tools to help you determine how much and how frequently to water throughout the growing season. If you want to automate your irrigation, consider utilizing a smart irrigation controller and sensors which adjust irrigation based on the real time weather and soil moisture conditions.



The change of seasons is always a good time to perform a sprinkler spruce up to make sure that you don't have any broken, misaligned, or blocked sprinkler heads, broken drip equipment, faulty valves or other malfunctions.

Learn more about healthy lawn care at <http://ipm.ucanr.edu/TOOLS/TURF>.

## Water Wise Landscape Consultations

South Tahoe Public Utility District customers can call to set up a free site visit to identify ways to make your landscape and irrigation system more water efficient. They also implement a Turf Buy Back and Efficient Irrigation Rebate Programs to help you maintain a beautiful Tahoe friendly lawn and landscapes. Learn more at <https://stpud.us/waterconsv/rebates-and-services/>.

## UCCE Master Gardeners of Lake Tahoe

[laketahoemg@ucanr.edu](mailto:laketahoemg@ucanr.edu) \* 530.314.8383

<http://ucanr.edu/sites/mglaketahoe/>

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