

BEST PRACTICES

Lawn Care for Fall

Fall is perfect for doing work on your lawn. Work done in these months will prepare your lawn for overwintering and the following spring and summer months. Fall lawn care improves the overall health and appearance of your lawn while saving you money, time and water, and reduces chemical use.

The following fall lawn care steps steps will help your lawn look better and be healthier.

- First, identify areas were the grass is clearly doing poorly. Grass will always do poorly and require high maintenance and inputs under the shade of mature trees and in poorly draining soils. Consider removing grass in these poor areas and planting a garden of native shrubs and perennials more suited to the site conditions. The removal and replacement of the grass can be done in stages.
- Second, determine the pH, nutrient levels and compaction of your soil. Grass needs nutrients that are taken up by the roots from the soil. Applying chemical fertilizers and pesticides will not fix the soil. Just like in a vegetable garden, the nutrient leves in soil needs to be improved to support the plants.



Get a soil test done from Thurston Conservation District (360-754-3588) or Black Lake Organics (360-786-0537) where, for a small fee, you will receive a comprehensive analysis.

Soils in Western Washington are naturally acidic (under 7 on the pH scale). Turf grasses prefer a pH between 5.5 and 7. If the pH of your soil is above 5.5, there is no need to add lime. According to a WSU fact sheet *The Role of Lime in Turf Management*, "The most important role of lime is to maintain pH between 5.5 and 7.0, which is the most favorable range for," microbial activity in soil that makes nutrients available for plants.

Fertilizing the lawn is complicated. This is why fertilizer companies have developed general use "recipe" type products. Using these products bypasses knowing your soil needs as well as improving the soil. It's best to learn your soil's fertilizing needs with a soil test, improve your soil with aeration and the addition of fine compost and over-seeding, and, if needed, apply a slow-release type fertilizer according to the recommendations from the soil test.

How to Understand a Fertilizer Label

The three numbers on the fertilizer label represent the N-P-K ratio. The numbers are always in the same order and represent the percentage of nitrogen, phosphorus and potassium in the fertilizer.



- N-Nitrogen promotes strong leaf growth
- P-Phosphorous encourages roots, flowers, seeds and fruit
- K-Potassium is critical for overall plant health

Fertilizers with larger numbers (such as 29-2-3 or 18-16-10) are typically "quick release", with all the nitrogen released immediately. These fertilizers are made with ammonium sulfate, urea and ammonium nitrate. Very small amounts of this type of fertilizer is needed, and it's tricky to spread a little amount of fertilizer over a large area. Over-fertilizing with quick-release fertilizers is common. Because quick-release fertilizer is highly soluble, overfertilizing can burn the grass, cause plant stress and pest and disease problems. It can also create polluted runoff that harms our rivers, streams, lakes and groundwater.

Always use a properly calibrated fertilizer spreader and avoid getting fertilizer on sidewalks, driveways and the road. Sweep up and throw away any fertilizer that spills onto pavement.

Slow-release fertilizers are an excellent alternative to avoid these pitfalls. Slow-release fertilizers can be natural or organic fertilizers, or "coated" chemical fertilizers that are gradually released. Look for at least 50% insoluble nitrogen on the label.

(You may have to ask a staff person at the store to assist you to find it, since the majority of fertilizers contain a highly soluble nitrogen source.)

Avoid purchasing fertilizers with insect, disease or weed "control". These products allow broad application of herbicides and/or pesticides all over your yard. Spot treatment, whether by hand pulling or an appropriate herbicide, is more effective, cheaper and less polluting. In addition, some weed products contain herbicides or pesticides that target species that are not even present in

the Pacific Northwest. These are a waste of money as well as potentially harmful.

Fall fertilization will encourage deep root growth, so look for equal ratios of N and K, such as 6:1:6. (Potassium [K] encourages root growth.) Apply no more than 1 pound of nitrogen per 1,000 square feet per application. Check the weather, and apply before a light rain.

Fertilizer recommendation from Washington State University:

- 1 x per year: Sept.,
- 2 x per year: Sept. & June,
- 4 x per year: Sept., June, April & Nov.

Note: The Washington State Turf-fertilizer law, RCW 15.54.500 took effect on January 1, 2013. This law limits the use of lawn fertilizers that contain phosphorous to the following situations: when establishing a new lawn, repairing damaged grass or when the soil is deficient in phosphorous as determined by a soil test.

Check for soil compaction

Can you easily push a screw driver into the ground without pounding? If not, your soil is compacted and this keeps air, water and nutrients from entering the soil. Compacted soils have less microbial activity. Grass grown in compacted soils has shallower roots, more thatch and is generally weaker. If your soil is compacted, use a hand corer or mechanical aerator to punch holes through the grass and into the soil.







Tip: Check with your city/county stormwater utility. They may offer a lawn aerator rental program for residents.

Overseed for a thicker healthier lawn

Fall is a great time to reseed bare and thinning areas of your lawn. Select a grass blend that is suited for your soil and light conditions. Perennial ryegrass, fine-leafed fescues, bentgrasses and turf-type tall fescues are best-suited for Western Washington. Kentucky bluegrass is not recommended for Western Washington. Each grass type has its own characteristics for sunlight needs, durability and other conditions (see chart).

Aerate your lawn, spread a ¼ inch of loam soil or fine compost over the grass, then sow grass seeds. Water and fertilize with slow-release fertilizer. Water frequently to keep the soil moist until grass is established.

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Know How to Recognize and Measure Thatch

Thatch is a brown, straw-colored layer of living and dead stems, leaves and roots that accumulates between the green grass and the soil.

A small thatch layer (less than $\frac{1}{2}$ inch) is helpful - it functions like mulch to conserve water and block weeds.

Too much thatch (over $\frac{1}{2}$ inch) can block water, nutrients and air from reaching the roots. Once thatch is over $\frac{1}{2}$ inch, it needs to be removed using a dethatching machine.

Early fall or spring are good times to dethatch and reseed with half the seeding rate amount recommended for a new lawn. Following the dethatching, lawn care practices should be changed to avoid thatch build up in the future.



Watering deeply once per week, fertilizing lightly and infrequently, aerating annually, avoiding chemicals and using a higher mow deck setting are all practices to follow to keep thatch at a healthy level.

Shade Drought **Mowing Ht** Tolerance Tolerance (In inches) Characteristics **Perennial rye** Low Low 1.5 High wear tolerance; little thatch; blends well w/ other grasses **Tall fescue** 2 High High Deep roots; can grown in moderately wet soils; drought tolerant only if grass roots are deep 1.5 **Fine fescue** Highest Highest Tolerates light wear; but slow to recover from excessive wear; low maintenance grass; develops thatch more easily .75 Colonial Medium Medium-Produces a lot of thatch; mowed short; bentgrass low high maintenance





2, 4-D	Broadleaf weed killer, used in "weed & feed" type products
Carbaryl	Sevin insecticides, any combination slug/ insect baits
Diazinon	Insecticide
Diuron	Direx berbicide
Malathion	Malathion inscet sprays
Trifluralin	Preen herbicide
Triclopyr BEE	Crossbow herbicide

Help Salmon: 7 Chemicals to Avoid

By law, retailers selling pesticides and fertilizers containing these chemicals must display salmon warning information. Some stores and distributors have not complied with the court order, so it is important for you to know your chemicals.

For help finding safer options for lawn and garden products, visit: growsmartgrowsafe.org/

REFERENCES

- *Grow Smart, Grow Safe: A Guide to Lawn and Garden Products, Sixth Edition*, is a joint publication of Metro regional government of Portland, Oregon and the Local Hazardous Waste Management Program in King County, Washington. 2009
- *Principles of Turfgrass Management, Water Use and the Healthy Lawn*, brochure from Seattle Water Department, the Everett Public Works Department and Tacoma City Water based on information provided from Washington State University Research and Cooperative Extension turfgrass specialists.
- *Phosphorus and Home Lawns: Quick Facts and Recommendations,* Washington State University Extension Fact Sheet FS058E
- *Home Lawns*, Washington State University Extension Fact Sheet EB0482
- *"Toward a Low-Input Lawn"*, feature article from *Watershed Protection Techniques. 2(1): 254-264. Article 130. The Practice of Watershed Protection*, Center for Watershed Protection, 2000

More tips and detailed information, including fact sheets and how-to instructions, are available on the Stream Team website: www.streamteam.info under the "Actions for Clean Water" tab.

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