

TURFGRASS MAINTENANCE CALENDAR for NORTH CENTRAL WASHINGTON

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Proper timing of cultural practices is an important part of having a nice lawn. Performing critical maintenance tasks at the wrong time generally yields poor results and wasted effort. This calendar is offered as a general guide to optimum times for common cultural practices.

Turf Growth Rate

Month	Average High Temp °F	Growth Rate
January	33	None
February	40	None
March	51	Low
April	61	Medium
May	70	High
June	77	High
July	85	High
August	84	High
September	75	High
October	61	Medium
November	44	Low
December	33	None

Weather varies greatly in North Central Washington and the data shown roughly approximates climatic conditions typical in much of Central Washington. The data for average high temperature °F was obtained at the author's discretion by selecting and averaging the maximum temperatures of the following NCW weather stations at Wenatchee, Pangborn Field, Waterville, Plain, Chelan, Chief Joseph Dam, and Conconully. The chart above depicts growth patterns of turf during an average year. Turf is dormant during winter and, under unirrigated conditions, most grasses will not survive more than one year.

Mowing

Number of mowings per month											
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0	0	0 - 2	4	4 - 6	4 - 6	4	4	4	2 - 3	0	0

Mowing has a greater influence on the year-round quality of turf than any other practice. Proper cutting height varies for turfgrass species. Lawns composed primarily of Kentucky bluegrass, fine fescues, or turf-type perennial ryegrass do well when mowed at a height of 1.5 to 2.5 inches.

Weekly mowing is adequate to produce good quality turf during the greater part of the year. If you can't manage to mow regularly, don't expect to maintain top quality turf. Frequent mowing at the proper height requires less time and effort than infrequent mowing and results in a healthy, dense, vigorous turf with fewer maintenance problems.

Fertilizer

Application Timing			
High Fertilizer Rate	Med. Fertilizer Rate	Low Fertilizer Rate	Optional Fertilizer
May	Mid-May – Early June	Nov	May – June (low rate)
June – Early July	Nov		Sept – Oct (high rate)
Mid-Nov			Sept – Oct (med. rate)

Fertilizer is a tool that can help you maintain quality, weed-free turf year round. Since expectations vary, programs for three different levels of culture are outlined. All applications are at a rate of 1 lb. nitrogen per 1000 sq. ft. This rate is adequate assuming you are using soluble or mixed soluble, slow-release nitrogen fertilizers. Depending on soil test value, you may choose to use straight nitrogen materials such as ammonium sulfate or complete fertilizers containing N-P-K. Optimum ratios for N-P-K materials range from 3-1-2 to 6-1-4.

Dethatching

Optimum timing for dethatching is early spring (April to May) just as the turf growth rate is increasing or in late August/early September when temperatures begin to moderate. Many problems are attributed to excess thatch. When thatch buildup is heavy, most roots are in the thatch layer and not in the soil. When this happens, drought tolerance decreases because the roots draw moisture from a smaller reservoir. You have to irrigate more often and will find it harder to have a uniformly nice lawn. Mechanical dethatching is still the best solution to thatch control. Dethatching should be followed by a nitrogen fertilizer application to stimulate rapid recovery. In areas where annual grasses are a problem, spring dethatching can be followed by an application of an appropriate herbicide in addition to fertilizer.

Irrigation

Estimated inches of water used per month											
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0	0	0	0 - 3	3 - 5	4 - 6	5 - 7	4 - 6	3 - 4	1 - 3	0	0

The main questions in turf irrigation are how much and how often. Frequency is largely a matter of preference and soil texture. For most of the irrigation season, lawns will need to be irrigated from 1 to 3 times per week if you want an attractive lawn. Perhaps the best way to gauge frequency is to watch the lawn. If you are irrigating once per week and the lawn turns brown between waterings, you should irrigate more often. If you are irrigating too often and the lawn is soggy wet, reduce the frequency.

The best time to water a lawn is in early morning, such as 4:00 to 7:00 AM. In situations where early morning watering is not possible, irrigation could be done later at night, such as 11:00 PM or later. Limit watering to these times so leaf surfaces are not wet for long durations and disease development is lessened.

How much water to put on can be estimated by calculated *evapotranspiration* numbers. Evapotranspiration (ET) is a fancy term describing the amount of water used by the turf. ET can be calculated from evaporation data accumulated at weather stations. See EB 1280, *Turfgrass Soil-Water Relationship*, for determining irrigation frequency using evaporation data. Homeowners can use other methods to estimate watering frequency including soil sampling and tensiometers (a measuring device that obtains the negative hydraulic pressure or tension of water in the soil in its present place). The most direct way to check soil moisture is by digging into the soil with a trowel, soil core tool or shovel. Look at and feel the soil for moisture content. Utilize this method as needed to determine the depth of wetted soil.

It is commonly accepted to apply 1 to 1½ inches of water per week throughout the growing season for a healthy lawn. The amount of water per application should wet at least the top 4 to 12 inches of soil including the root zone area if the soil is that deep. The entire root zone should be moistened with each water application. Water evenly and deeply but infrequently so roots grow deeper into the soil, increasing lawn drought tolerance. Sprinklers that have overlapping coverage and that deliver large droplets of water close to the ground are the most effective. Hand sprinklers vary in their water distribution pattern. A wave-arm type delivers more water at the extreme ends of the cycle. A whirling type delivers more water closer to the sprinkler head whereas a stationary fan type delivers little water close to the head. Impact head sprinklers apply water rapidly yet fairly uniform.

You can use the following simple measures to determine the water amount that your sprinkler type provides: 1) Take 5 empty tuna or cat food cans and set them out from the sprinkler to the edge of its spray pattern. 2) Turn on the sprinkler(s) and run for precisely 15 minutes. 3) To obtain an average for water depth in all the cans, measure the water depth in each can, add the numbers together and divide that number by 5. 4) In the table to the right, find the average water depth in tuna/cat food can after 15 minutes. For convenience, the second column provides a total watering time in minutes for 1 inch of water. Keep in mind that the total watering time is an approximation. Factors including grass type, soil texture and drainage, climate variations (rainfall, sunlight, wind, humidity, etc.) influence the specific water requirements of your lawn.

Average water depth in tuna/cat food can after 15 minutes	Total watering time in minutes for 1 inch of water
1/8	120
3/16	80
1/4	60
5/16	46
3/8	40
1/2	30
5/8	24
3/4	20
1	15
1 1/4	12

Establishment and Renovation

The best time for seeding is generally between mid-August through mid-September. Spring seeding may be done but requires more care after planting and may be invaded by weedy summer annual grasses. Sod can be planted anytime from late April to mid-October. Mid-summer plantings require careful irrigation due to hot, dry conditions. For details on establishing lawns in Eastern Washington, refer to EB 1153, *Establishing a Lawn in Eastern Washington*, and EB 1117, *Thatch and Its Control*, on the WSU Extension Publications website at <http://pubs.wsu.edu/cgi-bin/pubs/index.html>. Select Plants, then Lawns and Turf. Renovation involves reseeding a lawn without removing the existing sod or rototilling the soil. This is often done after severe dethatching or after the original turf has been killed with a chemical spray. Renovation is most successful in the fall but may also be done in May.