

# Lawn Care

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*Healthy lawns require proper care and maintenance. Learn the key practices for maintaining a healthy lawn all year round.*

## Healthy lawn practices

Even well-established lawns can deteriorate due to lack of proper maintenance. Practices such as mowing the lawn at regular intervals and at the proper height, applying fertilizers as needed, irrigating if necessary, and managing weeds, diseases, and insect pests can prolong the life of an attractive lawn.



*How often and how high you mow are important factors in maintaining a healthy lawn. (Photo credit: [www.flickr.com/creative commons](http://www.flickr.com/creativecommons/))*

## Turfgrasses and optimal mowing heights

In West Virginia, cool-season grasses such as Kentucky bluegrass, perennial ryegrass, and tall fescue are the predominant species used for lawns. The optimum

mowing height for bluegrasses is 2.5 to 3 inches. Tall fescue and ryegrass can be maintained at a slightly higher mowing height (the length of a business card). Mowing too close will result in a poor stand of grass and ultimately in excess weeds, such as ground ivy and crabgrass. To adjust the lawnmower setting, measure the distance from the ground to the mower-blade. Always use a mower with sharp mowing blades as dull blades can trigger diseases and may also reduce the vigor of a lawn, in addition to affecting the lawn's appearance.

A good rule of thumb is not to remove more than one-third of the lawn's top-growth during a single mowing. Mowing frequency should be adjusted based on the rate of grass growth so that the one-third rule can be followed whenever possible. If this rule is followed, it is best to recycle the grass clippings back into the lawn. This reduces the demand for fertilizers. If clippings are over one inch, they may be raked and removed to avoid clumping.

## De-thatching

"Thatch" is the term used for dead or disintegrating organic matter composed of clippings, shoots, or root tissues of turf. Excessive thatch may cause poor water infiltration and air-exchange, and may also provide a haven for diseases and insect pests. Thatch may be removed periodically using a verti-cut mower, sometimes called a "de-thatcher." This machine has blades oriented perpendicular to the ground that, when adjusted to the appropriate height, cut into the sod and remove thatch. The exposed thatch may then be raked away and composted.

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## Fertilizer

The first step in proper lawn fertilization is to contact your WVU Extension Service agent who will provide you with soil sampling instructions and a mailer to get a free soil analysis from the WVU Soil Testing Lab. The amount and type of fertilizer needed will depend upon soil conditions, the grass variety, and upon what fertilizers have been previously applied. Lime may also be needed if the soil pH is below 5.5.

Application of fertilizers in fall helps to improve overall root vigor and grass health. Fertilizers applied in fall should have higher levels of phosphorus and potassium, while those applied in spring and/or early summer could have higher levels of nitrogen. Always follow the recommendations of a recent soil analysis.

For a successful fall fertilizer application, mow the lawn slightly lower than usual, then apply the recommended fertilizer; but do so by Thanksgiving for best results. Be careful not to mow too close to the ground whereby the tissue generating new leaves (crown tissue) will be damaged. Excessive shoot tissue on turf during winter months may cause 'snow mold.'

Although cool-season grasses have predominant growth periods during spring and fall, repeated applications of low levels of nitrogen throughout the growing season will help minimize sudden flushes of growth. Fertilizers should be applied as uniformly as possible using properly calibrated spreaders. Attention should be given to avoid overlaps while applying fertilizers. Care must also be taken to keep fertilizers away from surface waters. Apply fertilizer to a dry lawn, then water the turf after application if there is no rain.

## Irrigation

Lawns should be watered only when necessary, using a sufficient shower to penetrate the soil slowly (place a coffee can under the sprinkler and irrigate until water is one inch deep in the can). Deep watering will promote deeper rooting instead of surface rooting, making the grasses better able to withstand heat and drought. Ideally, a lawn should not be watered in the evening because the grass does not have sufficient time to dry properly before nightfall, making it prone to diseases.

## Weed, disease and insect control

Lawns often fall prey to many diseases, insects, and weeds which may result in serious lawn problems. Although many commercial lawn fertilizers contain herbicides and insecticides which will control certain weeds and insects, there are some lawn problems which cannot be controlled by general maintenance practices. Persistent lawn problems, be they weed, insect pest, or disease, should be accurately identified so that proper treatment may be determined. Your county WVU Extension Service agent can provide recommendations on pest control.

## Aerating and topdressing

Compacted soil creates unfavorable growing conditions for turf because it reduces air circulation within the soil and prevents moisture from penetrating to the root zone. Periodic aeration of heavy clay soils helps alleviate this condition. An adequate amount of moisture in the soil facilitates better aeration as it allows for clods to be removed from the soil. Hollow tine aerators are more effective than other equipment such as spading forks or spikes used for aeration. The aerator should be rolled over the area several times and in different directions for better coverage. Since aeration during summer months may encourage weed growth, fall is the best time for aeration.

Topdressing a lawn surface with compost following aeration is a good practice. Where necessary, amendments may be incorporated into the rooting zone to

## Patching and repairing bare spots

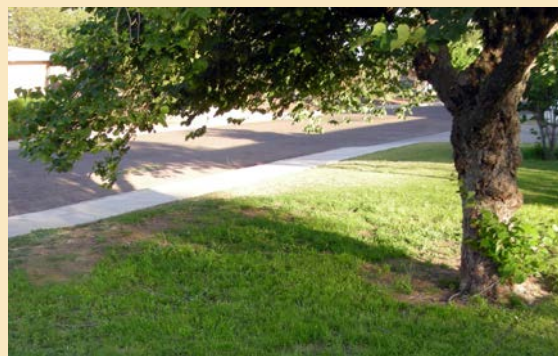
## Lawn care under trees

## For more information

improve the physical and chemical characteristics of the soil. Common topdressing materials include compost or other organic matter, and sand. Such materials will enter the holes left by the aerator and encourage deeper root growth.

Bare spots in lawns may be repaired by reseeding or installing sod patches. If reseeding, the homeowner should make certain the same species and variety or mixture of grass is used to reduce an uneven appearance. Sparse or bare spots should be tilled, and organic matter and fertilizer should be added to the soil before reseeding. The patched area should be kept moist until the grass becomes established. If a sod patch is preferred, the sod may be rolled lightly to attach the roots to the soil below, thereby giving the patch a better start. Like reseeded patches, sod patches should be kept moist until the sod is established to prevent drying out. While patching bare spots can effectively create a uniformly lush lawn, if over 50 percent of the lawn area needs renovating, we suggest rebuilding the entire lawn.

Grass can be difficult to grow under shallow-rooted trees or under trees which cast heavy shade. Ideally, a shade-tolerant grass variety or mixture should be used to establish a shade lawn. Other measures such as removing the tree's lower branches and thinning its crown to improve light penetration may further improve the performance of shaded turf. Homeowners may want to consider the alternative of placing shade-loving plants and groundcovers in the areas where excessive shade makes growing grass difficult. (See also "Maintaining Trufgrass in Shady Areas")



*Patching and repairing bare spots improves the look of the lawn, as well as deters weed growth. (Photo credit: [www.flickr.com/creative commons](http://www.flickr.com/creativecommons))*

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