



Mowing is a fundamental practice in maintaining a good lawn. Correct mowing produces a neat, even, well-groomed appearance that is a source of personal pride and satisfaction. A lawn's density, vigor, water consumption, weed infestation and resistance to weather stress is largely affected by how it is mowed.

The effectiveness of all other lawn maintenance — fertilizing, watering and weed control — depends on proper mowing. There is more to mowing than just cutting the grass. Here we discuss other important factors for homeowners to consider:

Mowing height	Mowing pattern
Mowing frequency	Mower operation
Blade sharpness	Mower selection
Mowing safety	Clippings

Mowing Height

Mowing at the proper height is critical to the development of a healthy lawn. Grass species have different growth habits. Set the mower at the right height for the species of grass you are mowing.

Cool-season grasses such as bluegrass, tall fescue, and perennial ryegrass are mowed higher than warm-season grasses because of their erect growth habit. Because hot weather is stressful for cool-season grasses, they should be cut at the higher end of their tolerance range during the summer. The additional height helps insulate the ground against heat, furnishes more food-producing area, and encourages roots to penetrate more deeply into the soil. Stay within the tolerance range or the grass may become coarse, stemmy, and may lodge.

Mowing too low during hot weather places cool-season grasses under stress and leads to excessive watering. If done repeatedly, infrequent, short mowing produces thin, weak turf that is highly susceptible to weeds. Avoid a drastic or sudden reduction in cutting height (scalping), which seriously diminishes root growth.

Recommended mowing heights for lawns

Bermudagrass	1–2 inches
Bluegrass	2–3½ inches
Buffalograss	2–3 inches
Perennial ryegrass	2–3 inches
Tall fescue	2½–3½ inches
Zoysiagrass	1–2 inches

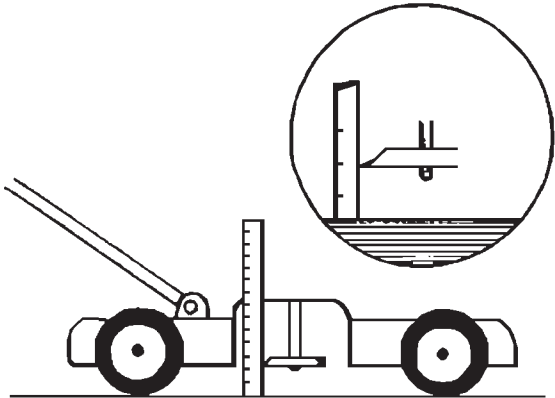
Tolerance to short mowing ranked best to least

Bermudagrass	Best
Zoysiagrass	
Perennial ryegrass	
Buffalograss	
Kentucky bluegrass	
Tall fescue	Least

Mowing heights for warm-season grasses, particularly bermudagrass and zoysiagrass, are shorter than for cool-season grasses because their leaves are produced on runners (stolons) that grow close to the ground. Bermudagrass and zoysiagrass accumulate excessive thatch when mowed higher than recommended. A strong correlation exists between mowing height and thatch accumulation. Turfgrasses with a thick layer of thatch (greater than one-half inch) are less drought resistant.

Mowing Frequency

Along with mowing at the correct height, mowing with adequate frequency is crucial to producing a high quality, attractive lawn. A practical guideline for determining when to mow is the “one-third rule,” which says never to remove more than one-third of the canopy height at any one time. Failure to follow the one-third rule leads to excessive removal of leaf tissue, which shocks the grass and results in thin, stemmy turf with a poor root system. Mowing grass that is too tall is hard on the mower, takes more time, and produces an abundance of clippings that need to be removed.



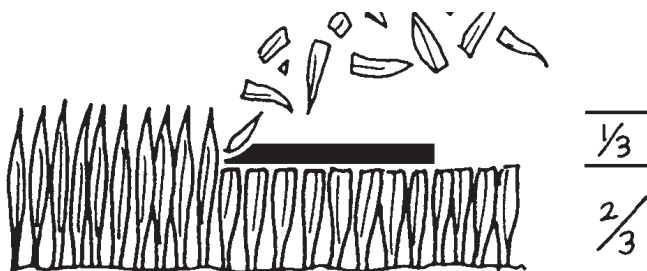
Check the cutting height on a sidewalk or drive.

Following the one-third rule, you will not mow according to a time schedule. Mowing frequency will be determined by the growth rate of the grass, which varies with seasonal changes in the weather and the amount of water and fertilizer applied. At certain times of the year, you may need to mow more often than once per week and less at other times. Additionally, the height of cut has a dramatic effect on mowing frequency. The shorter a lawn is maintained, the more often it needs to be mowed to follow the one-third rule.

Use the information below as a guideline for determining when to mow for your mowing height. If mowing is delayed because of weather conditions or vacations, raise the mowing height for the first mowing and gradually decrease the height in subsequent mowings until the original height is attained.

Following the One-Third Rule

Your mowing height	Mow when grass gets this tall	Amount of grass removed (one-third)
1"	1½"	½"
1½"	2¼"	¾"
2"	3"	1"
2½"	3¾"	1¼"
3"	4½"	1½"
3½"	5¼"	1¾"
4"	6"	2"

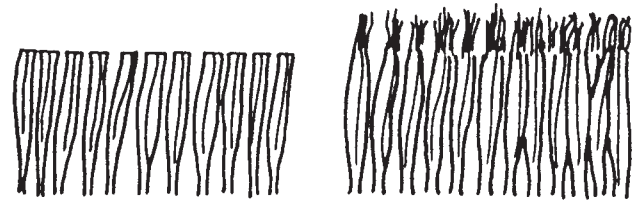
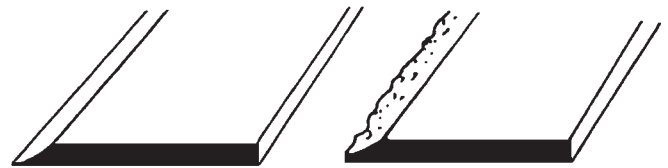


Don't cut off more than one-third of the grass.

Keep the Mower Blade Sharp

A sharp blade is the key to a quality mowing job. Dull blades beat and tear the grass, leaving frayed leaf tips that give the lawn a whitish cast. More energy is required for the grass to recover. A sharp blade cuts cleanly and easily, so you use less fuel. Sharp blades are especially important for tough-bladed grasses such as zoysiagrass, ryegrass, and tall fescue.

Inspect the blade after each mowing, checking for sharpness and nicks. How often you need to sharpen the blade is affected by how much mowing you do, as well as the grass species and the presence of debris (e.g., rocks, sticks, etc.) in the lawn. It is a good idea to keep an extra, sharp blade on hand.



Sharp blades cut cleaner, quicker, and require less energy.

What About Clippings?

If you follow the one-third rule, there is no need to remove clippings. The short clippings will quickly shrivel and filter down into the turfgrass canopy. Excess clippings from infrequent mowing exclude sunlight and favor disease development.

Mulching mowers are another way to deal with clippings. Mulching mowers cut the grass and then recut the clippings. Smaller clippings filter into the turf more easily. Mulching mowers do not work well on tall or wet grass. You must still follow the one-third rule for a healthy lawn.

It is a common misconception that leaving clippings on the lawn contributes to thatch formation. In fact, clippings do not contribute to thatch. Because they are 85 to 90 percent water, they shrink and decompose readily. Clippings are a source of nutrients for the lawn. Where they are routinely removed, annual nitrogen fertilizer applications must be increased by about 25 percent to provide the same amount of nutrients.

Mowing Wet Grass

Although it is best to mow when grass is dry, during rainy weather it is better to mow wet grass than to let grass grow too tall. Besides being easier to mow, dry grass does not stick to the mower as badly as wet grass. Wet clippings stain buildings, concrete, and clothing, and clump together on the lawn.

Mowing New Lawns

Newly planted Kentucky bluegrass, tall fescue, and perennial ryegrass lawns should be mowed as soon as grass reaches the desired height. For example, mow at 2 inches as soon as the grass becomes 3 inches tall. It does not hurt new grass to mow it unless the mower blade is dull. In fact, as with established lawns, it is harmful to let the new grass get tall and then cut it back. New zoysiagrass, bermudagrass, and buffalograss lawns should be mowed at 1 to 1½ inches as soon as it reaches 1½ to 2 inches in height. The goal is to make it spread rather than grow upright. New grass is quite succulent and tends to stick to the mower for the first few mowings. Try to mow on a warm, dry afternoon or evening. Avoid watering a day or two before mowing. Mow frequently to encourage the grass to spread and fill in.

Be Careful Mowing Around Trees

Bumping young and thin-barked trees with a lawnmower causes serious injury. What may seem like a minor bruise can enlarge to a deep wound, destroying the cambium (growth) tissue just underneath the bark. Bumping the tree each time the lawn is mowed may eventually kill the tree. Nylon cord trimmers also can injure young and thin-barked trees. Prevent tree injury by maintaining a cultivated or mulched area 2 to 3 feet in diameter around the trunk or hand-trimming around trees with a pair of grass shears.

Mowing Pattern

It is a good idea to alternate mowing direction from one mowing to the next so soil compaction and wear from the mower wheels is distributed uniformly over the lawn. Grass blades tend to lean in the direction of mowing. Prevent this by mowing in different directions. Establish several mowing patterns that make as few turns as possible. This not only speeds up mowing time, but reduces damage to the turf from the turning mower wheels.

Mower Operation

Operate the mower at a safe speed (3 to 5 mph). This cuts grass cleanly and thoroughly. Excessive speed results in a poor cut. Slow down when making sharp turns to avoid damaging the turf. Make wide, gradual turns when possible.

Keep the mower properly adjusted and watch for loose or broken parts. Check the engine oil level each time you mow. Change the oil and grease wheels, bearings, chains, and shafts according to manufacturer's recommendations. Air cleaners need frequent cleaning, especially when mowing in dusty conditions. Become thoroughly familiar with your mower by studying the operator's manual.

Clean dirt and grass from the mower housing immediately after mowing or it will become dry and difficult to remove—a putty knife is handy for this purpose. Also, wash off the mower, but take care not to get water on a hot engine.

Mower Selection

Select a mower large enough to mow the lawn in a reasonable amount of time, but small enough to be maneuverable. Be sure the mowing height is adjustable within the range recommended for your grass. Select an engine with sufficient power, and check for availability of parts and service.

There are two basic types of mowers for lawns — the reel mower and the rotary mower — each with advantages and disadvantages. The reel mower produces a smooth cut, runs quietly, is more energy efficient, usually doesn't scalp on uneven ground, and does not throw objects. This type of mower is especially good for close-cut turf (1 inch or less). Reel mowers are generally not suited for mowing heights above 1½ inches and are relatively expensive.

Rotary mowers are relatively inexpensive. They are easy to sharpen and maintain and the best fit for home lawns. Rotary mowers are not suitable for mowing heights below 1½ inches. They are noisy and require more fuel than reel mowers. They can scalp close-cut turf on uneven ground.

Safety

Power mowers can be dangerous and can cause serious injury if not used properly. Become familiar with the equipment, use good judgement, and follow these safety guidelines:

- Read the operator's manual for safety instructions.
- Pick up all debris before each mowing.
- Keep children and pets a safe distance away from mowers.
- Keep feet and hands away from blades when starting and running engine.
- Wear sturdy shoes and long pants.
- Operate mower at a safe speed of travel.
- Always push mower rather than pull it toward you.
- Watch your footing on steep slopes and wet grass.
- Don't leave a running engine unattended.
- Refuel the engine only when it is shut off and cool.
- Do not refuel engine in the turfgrass. Spilled fuel will kill the lawn.
- Wear goggles when operating cord trimmers and power edgers.
- Stop engine and disconnect spark plug wire before working on engine or blade.
- Keep the mower in good repair and adjustment.

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