## LAWN MOWING

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Mowing is the most basic and frequently practiced of all lawn care operations. Proper mowing is essential in the maintenance of quality turf.

## CUTTING HEIGHT

Turfgrasses, like all other green plants, must carry on the process of photosynthesis in order to survive and grow. Close mowing reduces the amount of leaf area available for photosynthesis and in turn may reduce plant vigor. As cutting height is reduced, lawns become less tolerant of environmental stresses and more prone to invasion by weeds than lawns maintained at a higher cutting height.

The root systems of grasses generally become shorter and less prolific as cutting height is reduced. Although a closely cut lawn can be maintained successfully, the shorter root system will result in a need for more frequent watering and fertilization to compensate for reduced ability to obtain water and nutrients from the soil. Therefore, it is desirable to maintain your lawn at the highest cutting height that looks good and is acceptable for the intended use of the turf. For most lawns a cutting height of 2 to 3 inches is best.

## MOWING FREQUENCY

How fast a lawn is growing determines how frequently it requires mowing. In order to avoid stressing the turf, no more than one third of the existing shoot growth should be removed at any one mowing (the ' $1 / 3$ Rule). For example, if a lawn is being mown at 2 inches, it should not be allowed to grow higher than 3 inches before it is mown again. If a lawn grows excessively high, the mowing height should be gradually reduced to the proper height over a span of several mowings rather than all at once. This will minimize excessive buildup of clippings as well as prevent physiological shock to the plant which may occur when the grass is severely defoliated after being allowed to grow too high.

## CLIPPING REMOVAL

Unless an excessive amount of clippings remain on the lawn following mowing (because of infrequent mowing, for example), there is no need to remove clippings by bagging or raking. In fact, clippings are a valuable source of nutrients. Clippings returned to a lawn will return nitrogen and other nutrients to your lawn over the course of a season, thus reducing the need for fertilization. Also, the addition of organic matter in the form of clippings may help to improve the status of your soil over time especially if it is sandy and/or low in organic matter. Contrary to popular belief, returning clippings to the lawn does not normally contribute to increased thatch formation. Clippings are composed primarily of easily degradable compounds which break down rapidly and do not accumulate.

If the lawn is mown when wet, clippings may clump together and make removal necessary. Mowing when the lawn is dry will help to prevent clumping; however, the lawn should not be allowed to grow excessively high merely because the grass is wet. Mowing a wet lawn (assuming no disease is active) will not damage it. However, mowing should not be done when the soil is very wet to minimize the potential for soil compaction.

## MOWING PATTERNS

The direction of mowing should be varied with each mowing event in order to promote upright shoot growth. The formation of a horizontal growth orientation (known as grain) can be minimized if the lawn is mown at right angles on alternate mowings.

## MOWING EQUIPMENT

The two principal types of mowers available for use on lawns include 1) reel mowers and 2) rotary mowers. Reel mowers employ a rotating cylinder of blades (usually five or six) which catch the grass against a stationary bedknife in order to cut it.

While reel mowers provide the finest quality of cut available, they are expensive, sometimes difficult to adjust, and require specialized equipment for sharpening. Also, they cannot be used where stones, twigs, or other debris are often present because of potential damage to the cutting units. For these reasons reel mowers are generally restricted to fine turf areas such as golf courses and high maintenance athletic fields.

Rotary mowers employ a horizontally rotating single blade and are by far the most commonly used mower for home lawns. Rotary mowers cut the grass by impact (similar to how a machete works) and thus cause a somewhat rougher cut than a reel mower. However, a sharp and properly adjusted rotary mower will do an acceptable job on virtually any lawn and are much easier to maintain than reel mowers.

Mulching mowers are rotary mowers which cut the clippings into small, fine pieces. This allows the clippings to fall down into the turf canopy more easily and to decompose more quickly.

It is very important to keep mower blades as sharp as possible regardless of which type of mower is chosen. Dull mowers tear the grass blades rather than cut them. This results in excessive injury to the plants as well as a brownish cast to the turf.

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