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Turf Tips

Mowing Lawn Turf

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ORNAMENTALS TEAM

Mowing is the most basic practice for maintaining lawn turf. Mowing performed at the correct height and frequency is essential to the health and density of the stand. Removing leaf tips induces plants to form new sprouts, increasing stand density. Mowing can affect water quality, also. A healthy stand can withstand more pest pressure and needs fewer pest control inputs. The denser turf cover also helps prevent soil erosion, which is an important pollution problem for the waters in the Great Lakes basin.

Height of Cut

Turfgrasses are well adapted to frequent mowing, but mowing too short will reduce the vigor of the plants by reducing their ability to manufacture food. Also, there is a direct relationship between cutting height and the amount of roots a grass plant can maintain. Lowering the mowing height reduces the root system. This restricts the ability of the plant to absorb water and nutrients. In recent years, recommendations for mowing height have steadily increased for home lawns. Earlier recommendations for a cutting height of 1.5 inches were common. Current standards suggest between 2 and 3.75 inches. Higher cut lawn grasses are more stress tolerant. This is especially important during the summer heat period. Taller grass plants with higher density have a profound shading effect on the soil surface, which reduces germination of weed seeds, particularly crabgrass. This is an excellent way to reduce herbicide use, especially where the lawn is properly fertilized and watered to maintain vigor.

MOWING GUIDE

To cut one-third of the leaves

Height of cut	Mow when turf reaches	Growth between mowings
1.0"	1.50"	0.50"
2.0"	3.00"	1.00"
2.5"	3.75"	1.25"
3.0"	4.50"	1.50"
3.5"	5.25"	1.75

Mowing Frequency

A general rule of thumb is not to remove more than one-third of the total leaf surface when mowing your lawn. This may require mowing every four to five days during rapid growth in the spring. The table below describes the amount of growth allowed between mowings at specific cutting heights. As the table indicates, higher cutting heights allow more time between mowing cycles. This is desirable during periods of rapid growth. Removing more than one-third of total leaf surface can severely injure the grass plant by decreasing its ability to support its underground portions.

Dealing With Clippings

Current Michigan law restricts many residents from dumping yard wastes such as grass clippings and leaves into landfills, so it is best to manage them on your site. Return clippings to the lawn whenever possible. When the lawn is mowed so that less than one-third of the total leaf surface is removed, grass clippings can easily be returned to the lawn. Excessive accumulation of clippings from infrequent mowing may smother the turf and should be removed. A common misconception is that clippings left on the lawn will promote thatch buildup. This is not true. Clippings do not make significant contributions to thatch and should be returned to the lawn whenever possible. These leaves contain mostly water and break down rapidly, releasing nutrients back into the system. Returning grass clippings means that nitrogen applications can be reduced by as much as 1 pound per 1,000 square feet per year. To accommodate this practice, mulching

mowers are now available that chop the clippings into small pieces and distribute them back to the turf surface.

If clippings are removed, they can be used in compost piles or as mulch. Backyard compost stations are becoming increasingly popular, and grass clippings are a welcome addition. An important concept for composting is to create the correct carbon to nitrogen balance ("browns" to "greens") in the pile. Many experts suggest an ideal ratio of 30:1 carbon to nitrogen for best compost results. Grass clippings are relatively high in nitrogen, with an approximate 13:1 ratio for green clippings. Combining or layering grass clippings with tree leaves, straw, soil or other materials considered to have a high carbon content will be effective.

Many gardeners use grass clippings as a mulch in vegetable or ornamental gardens. This is an excellent use for this material, but caution is required if weed control products have been applied recently. In tests conducted at MSU, researchers applied several weed control products to lawn turf, then mowed at two and 14 days after application and used the clippings as mulch around a variety of annual flowers and vegetable plants. Some of the weed control products injured the plants when clippings were used as mulch up to 14 days after application. Insect or disease control products did not cause any noticeable injury. The conclusion: allow at least two weeks after applying weed control products before using clippings as mulch. These clippings can be returned to the lawn or directed toward the compost pile. The weed control products will degrade quickly during the composting process.

Mowing Tree Leaves

Mowing tree leaves in the autumn and returning them to the turf system is an outstanding alternative to raking and bagging (the same landfill constraints also apply to tree leaves). MSU studies have evaluated the effects of mowing tree leaves into lawns. In these studies, up to 6 inches of various types of tree leaves were mowed into lawns. No adverse effects were detected on the lawns. Reports from professional turf managers who have been practicing this technique on golf courses and commercial turf have been positive. Homeowners interested in an alternative to raking leaves might want to try mowing them. A couple of passes with the mower will break the leaves down into small pieces. The leaf residue will be evident after mowing, but it will sift into the turf within a few weeks and will be unnoticeable in the spring. You can even rake leaves that accumulate in planting beds, fence lines or other areas out into the lawn and mow them. For best results, raise your mowing height to better accommodate the tree leaves, and mow when the leaves are dry.

Mowing Equipment

The key to a quality cut with any style mower is to use a sharp, well adjusted mower. Dull, poorly adjusted equipment tears rather than cuts the grass, leaving a ready site for disease invasion and giving the lawn a frayed, brownish look. An easy way to accomplish this task is to purchase an extra mower blade for your machine so you can always keep a sharp blade on hand. The frequency of changing the blade is up to you. Many professional turf managers change blades daily, but once a month would be a good start. For best results, mow when the turf is dry; this will also eliminate clumping. Varying the mowing direction from time to time can reduce wear patterns. Recent industry advances in mulching mowers have made them increasingly popular. They differ from the side discharge and reel mowers by recirculating the grass within the mowing chamber to produce smaller pieces.

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