

MOWING TURFGRASSES IN THE DESERT



Figure 1. Reel mower.



Figure 2. Reel mower blades



Figure 3. Rotary mower blade



Figure 4. Rotary mower

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Turfgrasses on golf courses, sports fields, or residential lawns are mowed for functionality and aesthetics. Turfgrass mowing height and frequency of mowing are directly related. Fine textured turfgrass varieties that tolerate close mowing (1 inch height or shorter) must be mowed more often than grasses that have wide leaf blades and an upright shoot stature. Mowing turfgrasses at shorter heights within a variety's tolerance range often results in increased shoot density and a narrower leaf blade width (finer texture). Turfgrass that is mowed short grows upright at a faster pace to keep up with the production of new leaves and shoots. Therefore, it needs to be mowed again sooner rather than later when compared to turfgrass that is mowed at a taller height.

Excessive leaf removal causes the plant to be in a very stressed condition. The general rule is to never remove more than one-third ($\frac{1}{3}$) of the height of the lawn at any mowing event. Excessive mowing results in "scalping" that gives the turf a "burned" appearance. Turfgrass that is weakened by stress conditions requires frequent irrigations and becomes susceptible to infestations by weeds, diseases, and insects.

Selecting the proper type of mower is critical for optimal turf maintenance. The general rules for selecting a mower are:

- Use reel type mowers (Figures 1 & 2) for mowing heights of $\frac{1}{2}$ inches or shorter. Reel type mowers are designed and constructed to give a clean, uniform, and even cut.
- Use rotary mowers (Figures 3 & 4) for heights of $1\frac{1}{2}$ inches and taller. Rotary mowers can be used on lower maintenance turfgrasses that grow taller and often have an inherently wider leaf blade when mowed less frequently.

Using a mower with dull blades can cause scalping, torn or shredded leaves, and a damaged appearance to the turf. Always keep the blades sharpened and adjusted properly.

Mulching mowers are improved rotary mowers that cut smaller sized clippings that may decompose faster. Clippings should be collected and removed when 1) unusually excessive, 2) the turfgrass is diseased, or 3) weeds are setting flower heads or seeds. Turfgrass clippings contribute very little to the development of thatch. When mowing at the proper mowing height and frequency, clippings left on the turf generally do not cause thatch build up. Excess clumps of clippings left on the lawn will shade and weaken the lawn.

During periods of summer heat stress, raise the height of cut if possible. This provides for more root growth and also provides insulation at the base of the plant where the new shoots emerge. Similarly under shade of trees or on the north side of a building, allow the grass to grow taller and enable it to capture more light.

Avoid mowing wet turfgrasses that tend to ball up and clog mower blades and the deck.

Each species or variety of grass has a base mowing height based on a maintenance level (high, medium, or low maintenance). High maintenance refers to mowing grasses at a low height tolerance, which requires mowing more frequently. Low maintenance turf is mowed taller and less often. For each type of grass, the next mowing event should be when the grass is 33% taller than the base height at the maintenance level selected (Table).

	High Maintenance		Intermediate Maintenance		Low Maintenance	
	Base Ht.*	Mow At:	Base Ht.*	Mow At:	Base Ht.*	Mow At:
Height in inches						
Tifgreen 328 bermudagrass	1/4	1/3	-	-	3/8	1/2
Tifway 419 bermudagrass	1/2	2/3	3/4	1	1	1 1/3
Santa Ana bermudagrass	3/4	1	1 1/2	2	2	2
Midiron bermudagrass (EZ turf)	1	1 1/3	1 1/2	2	2	2 2/3
BOB Sod bermudagrass (MS Choice)	3/8	1/2	-	-	1 1/2	2
Common bermudagrass	1	1 1/3	1 1/2	2	2	2 2/3
Zoysiagrass	1	1 1/3	1 1/2	2	2	2 2/3
Buffalograss	1 1/2	2	2 1/2	3 1/3	3	4
Perennial ryegrass	1/2	2/3	1 1/4	1 2/3	2	2 2/3
Annual ryegrass	1 1/2	2	1 3/4	2 1/3	3	4
St. Augustinegrass	1	1 1/3	1 3/4	2 1/3	2 1/2	3 1/3

*Multiply the base height by 1.33 to determine the maximum allowable height of the turf before mowing

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