

LANDSCAPE MANAGEMENT

Do you know the mowing basics?

The turf type, the mower, the operator: all play vital roles in maintaining healthy grass.

■ "Mowing is the primary cultural practice in turfgrass management," observes Dr. Beth Baikan of Cornell University. And as such, it should be the number one consideration of turfgrass managers who want a healthy, attractive stand of turf.

She defines mowing as: "removal of photosynthetically active tissue that temporarily reduces the food-making process and weakens the plant."

In one sentence: if you're not mowing correctly, chances are that you're creating more problems for yourself.

Mowing height, Baikan says, is determined by:

- turfgrass species;
- intensity of maintenance; and
- how the turf is being used.

"All species have a mowing tolerance range," she says. Bermudagrass should be mowed at 0.2-0.5 inches; St. Augustine, carpetgrass, centipedegrass at 1.5-2 inches; turf-type tall fescue and bahiagrass at 2-3 inches.

"The shorter the grass is mowed, the more frequently it needs to be mowed," Baikan further observes. "You can compromise mowing height and frequency on less highly-maintained turf, but not on intensely-maintained turf like golf greens."

Also, grasses which grow in shade typically lack vigor; its leaves are weaker than grasses growing in sunlight. So mowing heights should be raised 30-50 percent of the normal recommended height.

Other factors—"Selection of equipment is critical," she says.

"And adjustment of blades is also important."

She suggests adjusting the mower blades before every mowing.

Rotary blades cut in a horizontal mode, reel blades in a circular mode. Rotary blades use a suction-effect to stand the grass up straight and then rip the tip of the plant off in a scythe-like manner. Reel blades, on the other hand, use a cleaner, more efficient scissors-type action with the blade slicing off the turfgrass tips against the bedknife.

"Season, time and temperature also play an important role in mowing practices," Baikan notes.

In cool, wet periods, you should use a higher cut to promote deep rooting. When it's hot and dry, a shorter cut means less water evapotranspiration loss. "You have to see where the line is," she says.

Problems—Common problems which arise from improper mowing practices include:

- 1) At lower heights, the plant is stressed more, meaning more opportunity for weed encroachment.
- 2) Dull blades will rip the plant, causing injury.
- 3) When the mower is travelling at an excessive forward speed, the turf tends to show a wavy appearance.

4) Mower bounce on unlevel ground contributes to an inconsistent cut.

5) An improperly-set deck could result in scalping, which is removing an excessive amount of leaf tissue. Baikan and other turf experts recommend setting the deck so that not more than 1/3 of the leaf tissue is removed. "Scalped grass is more susceptible to pests and turf," she says.

6) Mowing stressed grass just places more stress on the plants, resulting in a bevy of problems.

7) Mowing frosted grass removes needed moisture from the plant's access.

8) Improperly maintained mowing equipment contributes to turf damage by leaking gas, oil and hydraulic fluids.

9) An excessive accumulation of clippings results in an unhealthy appearance when it dries up. She suggests collecting clippings when they show an excessive accumulation, or mowing more frequently.

10) Continually mowing in the same direction causes formation of a "grain." "You can create a pattern of beauty just by cutting in different directions," she says.

—Jerry Roche

ATHLETIC FIELD MOWING HEIGHTS

USE

In-season

Off-season

Bowling, cricket

1/4"-1/3"

1/4"-1/3"

Field hockey

3/4"-1 1/2"

2"-2 1/2"

Baseball outfield

1"-1 1/2"

2"-2 1/2"

Soccer

1"-1 1/2"

2"-2 1/2"

Rugby, lacrosse

1 1/2"-2"

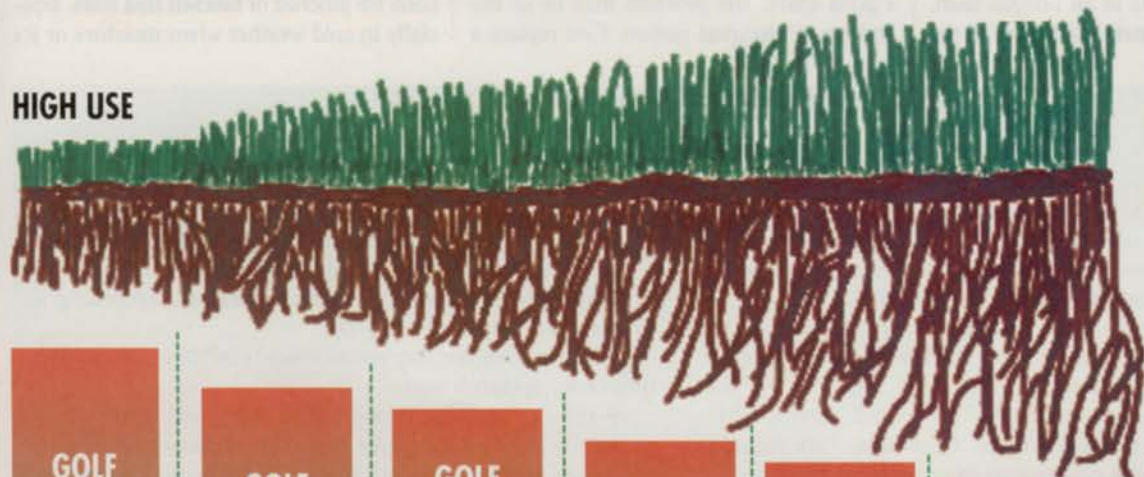
2 1/2"-3"

Source: Beth Baikan

CULTURAL INTENSITY

LOW USE

HIGH USE



GOLF GREENS
short,
smooth
true rolls

GOLF TEES
minimize
grass
interference

GOLF FAIRWAYS
longer for
playability,
bounce and
good lies

ATHLETIC FIELDS
midcut for
footing and
safety

HOME LAWN:
midcut for
beauty

UTILITY TURF:
longer heights
for infrequent
mowing, avoids
scalping



Beth Baikan:
tip number one is
mow at the proper
height.