

# TEE MANAGEMENT:

## CARING FOR THE COMBAT ZONE

By Matthew Trulio

No area on a golf course takes more abuse than a tee, and none is more difficult to manage. Between the high traffic and club action tees receive, and the less-than-ideal environments in which they are often located, combined with their low cutting height and aesthetic requirements, they can become a superintendent's worst nightmare.

"Taking care of tees is a tough job," says Leon Howard, general manager of International Sports Turf Research Center in Olathe, KS. "It depends on the type of hole you're playing, what type of club is being used, the size of the divot that the average golfer is taking, and the traffic the course gets."

The most critical factor in golf tee management, according to Howard, is how the tee is constructed in the first place, something which is more often than not out of the control of the course superintendent. Howard adheres to USGA green specifications, which he helped write, when he builds tees. Although tees should *appear* level to the naked eye, those that Howard designs are never completely flat.

"You want a smooth plane with a gentle pitch that you can't even detect, one-tenth inch fall for every ten feet is the rule I use," he reveals. "The slope of the green can fall either toward the back or the front of the tee, depending on whether the hole plays uphill or downhill. But this gives you enough pitch to get good surface drainage, which is important to me since I never put subdrainage in tees. Of course, you *do* want the tee to be perfectly level from side to side."

Like initial construction, the size of a tee plays an integral role in its management, and this too is often out of the superintendent's hands. According to Jim Snow, director of the USGA Green Section, the size of a given tee should, ideally, accommodate the amount of play on the course and the type of club, wood or iron, most commonly used to tee off from it.

"The general rule of thumb on four- and five-par holes is to have 100 square feet of tee for every thousand rounds of golf which

are played each year," Snow explains. "So then, if a course gets 50,000 rounds of play per year, the greens on its four- and five-par holes would be no less than 5,000 square feet. On par two and three holes, where golfers use irons for the most part, the rule of thumb is 200 square feet for every thousand rounds annually. Anybody who used these guidelines when building a green would, at least, be starting off on the right foot.

"You also have to take into account the type of play the course receives most fre-

quently," Snow continues. "If most of the play you're getting is between the middle tee markers, that's where most of your tee area should be. It doesn't make sense to have most of the area devoted to the championship tee, if that tee doesn't get the majority of play."

On top of everything else, the environments where tees are often located, such as densely wooded areas, may be spectacular for golfers, but are less-than-ideal for growing grass.

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A small slit seeder is useful in tee management.



Such protected, tree-nestled areas often have poor air circulation. That translates to heat stress on the tees during the hot, dry periods. Inadequate air circulation can also keep tees from drying out quickly enough after irrigation or natural rainfall, which leads to the problems which accompany too much moisture in the root zone. And if air circulation isn't a problem on a tee in a deeply wooded area, shade and tree limb obstruction can create headaches of their own.

"There's hardly an old course out there that doesn't have tree limb interference on some of its tees," Snow points out. "If a tee does have tree limb interference on one side, golfers will want to tee off from the other side. The obstructed side of the tee may be thatching, while the other side of the tee may be worn down to soil."

#### **Fighting Back**

It's unlikely that the powers-that-be of a golf course will write a blank check to its superintendent to relocate, rebuild, and expand the course's problem tees (although it does happen from time to time). But rather than relegating golfers to driving off bare earth on such tees, there are a number of practices superintendents can use to keep tees in the best possible shape.

Probably the most obvious of these practices is the regular movement of tee markers to decrease wear. Few things will burn a hole through turf faster than hundreds of golfers standing in the same spot, trying to hit golf balls.

Moving tee markers daily is common. "On some of the municipal courses I used to visit, tee markers were moved *twice a day*," says Snow. "By noon, the area between the morning markers was pretty worn."

Ideally, of course, the superintendent will have enough room on a given tee to rotate the areas of greatest wear. Extra tee space can offer tremendous advantages to a superintendent caring for a high-traffic course.

Howard of ISTRC is currently working with a superintendent who is expanding his driving range tee area from 30,000 square feet to 50,000 square feet. The superintendent plans to use a six-to-eight-week traffic area rotation.

"He wants to have a reasonable shot at keeping his players on grass," Howard notes. "After his heavy traffic is in a given area for one day, the markers should be moved. It will be six to eight weeks before

golfers tee off from that area again. In that time, the superintendent expects the ryegrass to heal and grow back."

The type of grass on a tee, Howard notes, looms large in its recovery ability and speed. "In bermudagrass country, the grass may heal itself quickly enough so you really don't have to worry about replacing divots."

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However, he is quick to point out, not all courses are located in the warm-season zone. Cool-season grass tees, and many warm-season grass tees for that matter, require regular divot replacement and overseeding programs. "You've got to use the same material you used in the seed bed for replacing divot marks," says Howard.

Snow of USGA suggests replacing divots no less than once a week, and more if necessary. Overseeding, which is often done twice a year, can be done more frequently if required.

Regular fertilization is another effective tool for keeping tees up to par. According to Snow, tees can require more fertilizer than greens, depending on circumstances such as tee size, traffic, and growing environment. "Nitrogen is going to be the most important nutrient as far as turf recovery goes, but you need to use a good, overall balanced fertilizer," he suggests. "Potassium and phosphorus also play a role in turf recovery."

Next to greens, tees usually have the lowest cutting height requirements on a golf course, ranging from 1/3 inch to one inch. The machinery a tee is mowed with and the height at which it is cut can have a profound effect on tee turf health and appearance. Mower reels should be kept as sharp as possible to give a clean, even cut. At such low cutting heights, anything less than a precise cut will lead to obvious browning of the turf at the tips of the grass blades.

"Most tees are cut every other day, depending on the type of grass," Snow points out. "What you mow them with is very important. A small tee probably won't take well to a large triplex mower. A lot more courses have gone to walk-behinds for small tees in shaded areas, or tees that just have problems. Of course, if you have a big, healthy tee out in the sun, then a triplex mower is just fine."

"You want to mow your tees at a height that is conducive to the culture of the grass," says Howard. "Honestly, most golfers would prefer to hit off 1-1/2-inch tall grass than bare soil. If you have to raise your mowing height to encourage the growth of your grass, I would recommend doing it."

Because tees receive so much traffic, frequent aeration can become necessary. Greens aerators are a natural choice for aerating tees. However, frequency, spacing, and depth of tee aeration hinges on several variables.

"Even on a sand-based tee, you're going to have to do some cultivation," says Snow. "Frequency will depend on many factors, but most courses in the north, for example, cultivate once or twice a year. Problem tees may require more, and spacing generally depends on the particular problem you're trying to address."

The irrigation needs of tees can be similar to those of greens. Both Snow and Howard advise regular irrigation of tees. However, when it comes to the placement of heads on tees, they have different perspectives.

Snow sees a problem with running an irrigation line down the center of the tee. Such placement, he suggests, can eat up valuable tee space and lead to tees sinking. Whenever possible, he prefers irrigation to come from the sides of a tee.

Howard, on the other hand, prefers to place heads in a row down the middle of the tee. "That way, I make sure I get the coverage I need."

Snow and Howard disagree on little else when it comes to tee management. Both acknowledge that the challenge can be formidable, and proper tee construction in the first place can make the task far less stressful. But on those courses where tees are not quite perfect, diligent, attentive superintendents can make a significant difference through careful maintenance and cultural practices, and keep golfers driving off these healthy, green "combat zones" and into the course beyond.