



Building a New Driving Range Tee? SUPER SIZE IT!

Driving ranges once were an afterthought, but practice has become popular, and courses are responding with improved facilities.

BY DAVID A. OATIS

A friend once told me that “no one on her deathbed ever wished she had spent more time at the office.” The simple wisdom of the statement struck me, and years later I had a similar thought regarding driving range tees: “No course has ever regretted building its driving range tee too large!” In fact, just the opposite is true. Many courses regret not building their new tee larger, and one could argue that it is simply impossible to build a driving range tee that is too big. Driving ranges once were intended to provide an area for golfers to hit a few balls and warm up before a round of golf. Range balls were sold by the basket, and this subliminally encouraged golfers to economize on the number of balls they hit. That all ended with the advent of super-sized (unlimited) range ball programs, which became the norm in the 1980s. Unlimited range ball programs sounded the death knell for range tees everywhere and ushered in a new age in practice facility design.

Many courses have upgraded and expanded their driving range tees over the years, sometimes doubling or even quadrupling the amount of usable teeing area, only to find there is no net improvement in turf quality. How can that be? Simple. The increased area and improved tee attract more usage, and the rate of use far outstrips the turf manager’s ability to reestablish turf. Clearly there is benefit in allowing more golfers to practice, but the desired improvement in turf

quality often is disappointing. If you are thinking about upgrading your range tee, here are a few ideas to keep in mind:

SIZE MATTERS: "IF YOU BUILD IT, THEY WILL COME"

The best advice when considering upgrading an existing or building a new driving range is to think big. REALLY BIG, and build the tee as large as humanly possible. More turf means better turf, greater usage, and possibly a less frenetic maintenance schedule. However, even large tees require plenty of divot filling, and this can be expensive, both in terms of labor and supplies. Be sure to plan for this activity. There is a good rule of thumb for tee size on a golf course based on the number of rounds played annually. It is different with range tees.

Based on the experience of visiting courses in the Northeast Region for the past 15 years, the typical private course needs at least one acre and preferably two acres (or more) of usable teeing area. Courses with an acre or less generally have to limit usage, rely on artificial turf, and/or suffer with more wear. They also need the most aggressive turf management programs. Physical limitations make building tees of this size impossible for many courses, but it is a good target nonetheless. By the way, if your tee is in the low end of this range, be sure to include an area of artificial turf. You likely will need it.

DESIGN

All too often, designers put too high a level of importance on the elevation of the tee and too little importance on its size. Adequate size should be the most important consideration. Since all mounds taper inward as the elevation increases, reducing the elevation can create more usable area, and fill generated by the cut often can be used to expand it further. A significant change in elevation usually is required to affect the view of the target from the tee, and there is a simple way to test this point. Keeping your eyes on the target, squat down in the center of the tee and then stand up and climb up a couple of rungs on a step ladder. Usually the view does not change very much, and yet the area to be gained by dropping the elevation of the tee may be significant.

Another common mistake is to create a multi-level tee. The most efficient use of space dictates a single, very large tee. It may not be as visually interesting as a multi-level tee, but the additional

area is well worth this small sacrifice. Multi-level tees frequently waste 20-35% or more of the potentially usable area, so if square footage is in short supply, build a single-level tee. It should be noted that multi-level tees may be necessary in situations where the topography is severe, but they do not make for the most efficient use of space.

TURF SPECIES

Often there is a strong desire to turf the range tee with the species used on fairways. In the Northeast, this often means creeping bentgrass. Unfortunately, creeping bentgrass just does not handle wear or re-establish quickly enough for any but the very largest driving range tees. Unless your range is well over an acre in size, Kentucky bluegrass may be a better choice for initial establishment. Regardless, it is impossible to beat perennial ryegrass for speed of establishment and wear tolerance, so it is usually the best choice for filling divots.

In recent years, many courses initially have had good success in sodding driving range tees with Kentucky bluegrass and then filling divots with perennial ryegrass. Here are a few reasons:

- Kentucky bluegrass can withstand lower cutting heights ($\frac{1}{2}$ to $\frac{3}{16}$ "), if lightweight mowing equipment is used.
- Kentucky bluegrass is substantially more wear tolerant than creeping bentgrass and, unlike perennial ryegrass, it forms thatch that provides resiliency.
- Divots in Kentucky bluegrass are smaller than in creeping bentgrass.
- It is impractical to seed divots with Kentucky bluegrass because it is slow to germinate and is not competitive as a seedling.

Courses utilizing Kentucky bluegrass on smaller tees often find that the majority of the bluegrass has been divoted out after a season or two, and the remaining stand of annual bluegrass and perennial rye is thin and lacks resiliency. This is the time to start the process over and resod with Kentucky bluegrass. Courses with two tees may even resod one tee each year on a rotating basis.

Opposite page:
The popularity of practice is at an all-time high, and many golf courses have invested (or have plans to) in practice facility upgrades.



Driving ranges once were simple, designed to provide an area where golfers could warm up by hitting a few shots before their round of golf.

MATERIALS

Plenty of courses have built driving range tees by using their native soil, and the desire to do so is understandable, given cost and the size of the area in question. However, few native soils are well suited to the task. The basic function of the rootzone mix must be kept in mind when deciding on construction materials.

- The material selected must be stable. There will be plenty of traffic and shifting and twisting of feet. Turf grown on shifty, unstable mixes may wind up sustaining more turf injury from twisting feet than from divots.
- The rootzone mix must be capable of supporting healthy turf and, more importantly, regenerating turf once it has been divoted out. Droughty rootzone mixes should be avoided. Keep in mind that moisture-holding mixes used to fill divots will not be compatible with clean, rapid-draining construction mixes. Some of the poorest-performing tees in the Northeast are created when a clean (sometimes shifty), rapid-draining mix is used in construction.
- A good rule of thumb is that the divot mix you intend to use should not hold significantly more moisture than the underlying construction mix. Layering and poor drainage will likely result if the construction mix drains substantially better than the mix used for divots. Construction materials and their compatibility with the intended divot mix should be considered carefully when making selections.
- Also, keep in mind that divot-filling materials must hold enough moisture and nutrients to stimulate rapid germination and re-establishment of turf. This is another good reason to choose a rootzone mix that has some moisture and nutrient retention.
- A specialized irrigation system, designed with more and smaller sprinklers, can be a great advantage. The idea is to be able to water as small an area as possible, preferably watering some areas while golfers are using others.

Author's note: The rootzone mix selection criteria may be different for different parts of the world. The criteria mentioned here reflect conditions in the northeastern United States.

MANAGEMENT

An aggressive fertility and divot-filling program is essential. Divots should be filled as often as the budget will allow. Taking the time to pre-germinate the seed serves two valuable functions and is



highly recommended, particularly when perennial ryegrass is being used. Pre-germinating the seed before filling divots speeds up recovery by a day or two, but a more important benefit is that it eliminates the need to over-water the tee to encourage germination. Over-watered turf is less healthy, more prone to disease, and much more susceptible to wear injury.

Pre-germinating the seed does not need to be a complicated procedure. In the case of perennial ryegrass, simply mix the seed into the mix 2-3 days before it is needed. Keep the mixture moist and aerated, and use it just as the seed begins to germinate.

Regular movement of the markers is vital, and developing a systematic, regimented means of shifting play is strongly recommended. Start by measuring the available area and divide by the length of your season. This will give you an idea of how frequently wear must be shifted and whether artificial turf will be needed. Some superintendents use permanent monuments as reference points to aid in shifting wear.

SPREAD OUT THE DIVOTS!

Contrary to tradition and popular belief, concentrating divots as close together as possible is highly undesirable. Why? Because it slows recovery! Many golfers were taught from an early age to concentrate their divots, believing that this would use turf most economically. It does that, but unfortunately it also results in more damage and a much longer recovery period.



Far left:
Divots that are spaced farther apart recover more quickly. Less of the thatch layer is removed, so the turf retains more resiliency and stability, and it handles traffic better during recovery and after turf cover is restored.

Left:
Divots spaced too closely together reduce the percentage of recovery that occurs from lateral regrowth. The result is weaker, more traffic-sensitive turf that requires more time to recover.

For a single divot in Kentucky bluegrass, recovery usually comes from an approximately even combination of seed and lateral regrowth. Making divots too close together nearly eliminates the percentage of recovery that could come from lateral regrowth, so the majority then must come from seeding. However, seedlings are not wear tolerant and do not mature or produce thatch for quite some time. Thus, when larger areas of turf are removed, the result is thin turf, reduced resiliency, increased recovery time, and weaker turf that is more susceptible to wear injury. Spreading out the divots and moving the markers more frequently allow for play to return to a given area much sooner.

TRAFFIC FLOW

Traffic flow onto and off of the range tee has a big impact on wear, so be sure to keep the entry/exit areas as wide open and unobstructed as possible. Traffic flow for the ball retrieval equipment often is overlooked, and ball retrieval equipment can cause a tremendous amount of turf damage, particularly when used too often, at too great a speed, and when making too many turns. A simple idea for improving turf quality out in

the range is to limit the number of times the balls are picked up each day. Buy more range balls and pick them up less often. This is particularly important for new ranges where the turf is not fully mature. Time saved on ball retrieval can be better utilized filling divots. Finally, consider traffic flow for the transport of golf balls from the retrieval equipment to the tee.

CONCLUSION

It is possible to improve turf quality on many driving range tees, and careful management of wear and aggressive cultural practices can often help. However, insufficient space is usually the single biggest limiting factor in driving range tee quality. In the case of driving range tees, bigger is most certainly better, so look to make your new tee as big as humanly possible. It is nearly impossible to make it too big!

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