

Club members occasionally say to me, “We want to move our course to the next level, what would you suggest we do?” If the golf course is maintained at a relatively high level, I tell them, “Sand topdress your fairways.” From a golfing perspective it is hard to explain the exact sensation of hitting an iron from a sand-top-dressed fairway. The feeling is like hitting off a links fairway in the United Kingdom or Ireland.

And during wet periods, sand-top-dressed fairways allow golfers to quickly get back out and play, whereas natural soil conditions (soil containing silt and clay) do not.

As a sand layer becomes moisture saturated, it still retains strength and structure, allowing for play and golf cart use that would not have been possible prior to topdressing. The advantage of sand-top-dressed fairways is most apparent during wet springs and periods of summer thunderstorms, when play can be resumed and, in the long term, partially offset the cost of topdressing fairways.

Sand-top-dressed fairways are expensive. Sand, shipping, topdressing equipment and labor are not cheap. The amount of sand going down per topdressing application is significant. The goal is to produce a two- to five-inch layer of sand in a relatively short period of time. Thus, light, frequent sand topdressing is not going to be the most efficient program.

The type of sand used is important, and in the quest for an ideal topdressed fairway, sand strength is important. Research looking at sand characteristics on sports turf can serve as a guide for topdressing fairways (Crum et al., 2003; McCoy, et al., 2004; Yi et al., 2002; Zhang, et al., 1999). Sand that moves or shifts under a load has inadequate bearing capacity, where bearing capacity is defined as the maximum contact pressure the sand can withstand without producing sheer failure. In other words, bearing capacity is the ability of the soil to support a load, such as golfers and equipment.

From research done at Michigan State (Crum et al., 2003) and Penn State (Yi et al., 2002) it appears that coarse and uniform sands

Sand Topdressing and Fairways

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have the lowest strength and that reducing uniformity adds to strength more so for coarser sand than finer sand. Sand shape appears to play only a minor role, unless the sand is rounded. Amendments such as soil or peat tend to strengthen sands regardless of whether sands are round or angular.

Based on the research, avoid coarser, uniform and well-rounded sands. You can choose either uniform finer sands, or coarser, less uniform sands. I would not add soil, but if you do, only add a small amount and only to coarser sand. Organic matter accumulation and soil contamination, in my opinion, will occur naturally on the fairway during the sand topdressing process. However, the sand component is just one factor in a successful fairway sand topdressing program.

To get the desired effect of sand topdressing, drainage is important to install in areas where water accumulates or is channeled in the fairway. For a better term, if the sand-topdressed layer gets “supersaturated” with water, all strength will be lost regardless of sand type or mix composition. Drainage is a critical component to the success of sand-topdressed fairways.

Sand topdressing fairways may sound like a radical practice, a costly one limited to poor soil conditions. But sand topdressing is actually one of the oldest turf practices. Old Tom Morris often shouted to his assistant, “*Mair sand Honeyman*,” which meant apply even more sand topdressing to the greens, tees, and fairways. (Beard, 2002).

Maybe the next step is not as radical as you think.

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