

# May The Force Be With You

*An alternative method for incorporating topdressing sand into high-density putting green turf.*

by JOHN H. FOY

**T**OPDRESSING of putting green surfaces is a standard practice today. Frequent and light topdressing treatments throughout the growing season aid in thatch management and also help provide a smooth, true ball roll and medium to fast putting speed. While there are exceptions, straight sand topdressing programs are most commonly used with putting greens.

With Tifgreen (328) and Tifdwarf bermudagrass based putting surfaces, incorporation of medium to coarse sand particles has not been a major problem because of their relatively open growth habit and the higher heights of cut normally maintained. However, the incorporation of topdressing sand into the turf canopy has been an issue with bentgrass and *Poa annua* putting surfaces for many years. This has become even more of an issue with the newer high-density bentgrasses that are being maintained at a height of cut of  $\frac{1}{8}$  inch or lower. With the development of new bermudagrass cultivars such as Champion, Floradwarf and Tifeagle, southern golf course superintendents now have to deal with this same problem. These new cultivars all have significantly greater shoot densities compared to the old standards and also need to be maintained at a height of cut of  $\frac{1}{8}$  inch the majority of the time. As with the new bentgrass varieties, these bermudagrasses have a faster rate of thatch accumulation. Thus, adherence to a frequent and light topdressing program is even more critical.

The bane of golf course mechanics and equipment managers is the damage that occurs to mowing units following topdressing treatments to putting surfaces. Even at courses that have the luxury of a backup set of sand reels that can be used until the topdressing works into the turf, additional time and money are consumed with reel maintenance operations.

At the Jupiter Island Club in Hobe Sound, Florida, complete reconstruction of the putting greens and conversion to Tifeagle bermudagrass was conducted over the summer of 1998.

The course was reopened to member play in the mid-fall, and the greens have received rave reviews as far as their smoothness, speed, and lack of grain. Yet, during the final stages of the grow-in and following the reopening of the course, it became apparent that adjustments were needed in the topdressing process to better incorporate the sand into the turf canopy.

As long as time was available, light verticutting or turf grooming could be used to open up the turf canopy prior to dustings of topdressing sand. Then, standard brushing operations were adequate for incorporating the majority of the sand.

However, during the winter play season in Florida, time for accomplishing maintenance practices is a precious commodity. Also, during the winter months, when the base bermuda is not actively growing, care must be exercised in the amount of mechanical stress and injury exerted on the turf. Adjustments in the topdressing program were tried, including the use of a dried and bagged topdressing sand, application with rotary spreaders, and then working the sand in with triplex-mounted vibratory rollers. This process has worked quite satisfactorily, but the time required and cost could be issues at some courses.

In discussing this topdressing dilemma one afternoon with Rob Kloska, golf course superintendent, and Richard Weixler, head mechanic at Jupiter Island, Richard offered the suggestion of blowing the topdressing sand down into the turf's surface with hover-type mowers. These mowers have been used extensively on Florida golf courses for maintaining steeply sloped bunker perimeters, lake banks,

and other areas. Their popularity, however, has declined a little bit over the past few years because of the reduced quality of cut provided by the string head attachments compared to the metal blade setup. The change to the string head setup has been dictated by insurance companies because of personal injury concerns.

Richard's thought was that the cushion of air that supports these mowing units could be used to force the topdressing sand into the turf canopy. A few days after our initial discussion, it was given a try on the practice chipping green at Jupiter Island Club and found to work very well. Regardless of the topdressing rate, a very high percentage of the sand was worked into the canopy. It was also noted that by methodically working the hover mowers across the putting surface, it was possible to push some of the very coarse sand particles off the putting surface completely. Furthermore, the forced air helped dry out the sand.

Finally, during periods of intense environmental stress, causing additional damage and wear on the turf cover with brushing or drag-mat operations to incorporate topdressing sand can be a concern. Using the forced air of the hover mowers to work the sand in is far less abrasive and also further reduces vehicle traffic on the putting surfaces. So, the next time you are faced with a problem of working topdressing sand into the turf surface, you might want to take the *Star Wars* approach and "May the Force Be With You."

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JOHN FOY's "force is with him" in Hobe Sound, Florida, where he directs the Green Section's Turf Advisory Service.



*Incorporation of topdressing sand into the canopy of the new high-density bentgrasses and bermudagrasses can be a problem. The hover-type mower is an effective and efficient tool for forcing the sand down into the turf.*