

Managing Putting Surfaces

By Joel Jackson, CGCS

Putting-green management is undergoing a world of change, and today's superintendent needs to proceed with caution when implementing management programs. Yesterday's grasses - Tifgreen and Tifdwarf - are still in abundance, but the new ultradwarf bermudagrasses and the seashore paspalums are moving onto scene rapidly.

Complicating the picture are the greens afflicted with off-types and/or mutations. These splotchy patches of turf are just different enough to create eyesores and putting surface disruption when changing heights of cut or trying to do some verticutting in the warm season.

In pursuing this topic, I learned one thing for sure: there is no one sure-fire method for grooming your greens. The key is to patiently learn what your turf will tolerate and how it reacts to changing weather conditions. All turf requires the basics of nutrition, water, aeration and thatch control coupled with a mowing program that fits the site and weather conditions. The trick is to learn what, when and how.

An unnatural variable is the demands and expectations of the clientele of a particular golf club. The need for speed, which is highly overrated, forces

superintendents to keep the turfgrass living on the edge. One misstep in judging stress factors and greens can crash and burn when the weather goes south or the irrigation system misfires during a dry spell.

No one ever accused golfers of being rational or prudent. They can be brutal when the ecosystem of a putting surface gets out of whack and poor playing conditions manifest themselves. The cure is usually simple, but it isn't as fast as the failure. Raise the height, feed it and give it some time. It will usually always grow back unless there is something really nasty going on below the surface.

So much for the philosophy part of managing greens. What are people doing in the real world to keep the customers and their bosses happy?

Well for starters they had better be communicating constantly about their programs and products and the latest information coming out of IFAS and other turf research sources. As long as your customers know you are staying on top of technology and giving them as much information as you can, you can sometimes muffle some of the critical remarks.

Superintendents need to take juggling classes too. That's so they can keep the turf and the golfers happy at the same time. No mean trick sometimes, when Mother Nature's windows of prime agro-

nomic opportunity are slammed shut for special events to promote the revenue stream. But turf is tough and if given half chance it will respond.

Let's look at a couple of scenarios and how your peers are coping with the challenges of managing today's putting surfaces.

Winter Pines Golf Club is a public golf course that does an excess of 80,000 rounds a year. Superintendent Joe Ondo, CGCS has been there for nearly 20 years so he knows his Tifdwarf greens like the back of his hand. Ondo manages 18 greens of different grass types and maturity as the club has embarked on a gradual regrassing program. The greens are ostensibly all Tifdwarf, but the grass came from different sod farms, so there are differences in responses and off types.

Because of the off types, Ondo says he can't take his mowers below .150 inch or they will scalp and be unacceptable. Fortunately his customers tend to be senior golfers who don't handle super fast greens anyway, so his 8.0 stimpmeter readings fit them just right. His number-one tool for grooming is judicious use of his verticutter when conditions are favorable, along with weekly spiking to keep the surface open for air exchange with the root zone. He backs off when it gets too cool for good turf recovery.

Because his course is so busy, it isn't feasible to completely shut down for routine cultural practices so, using pencil-tines on his aerifier, he does two or three holes a day ahead of play. There is minimal disruption to the putting surface with the small tines. Since he doesn't have one of the new spinner-

Quick Facts Box

- Superintendents should learn how their new greens respond before assuming old programs will work.
- Aggressive cultural practices are best done in late spring and early summer. Late-season weather can put the turf under stress.
- Don't starve the turf. A healthy turf will respond to manmade and weather stresses much better.
- Don't hesitate to raise the height of cut when the growing conditions worsen.
- Lighter and more frequent verticutting and top dressing are more effective.
- Communicate. Communicate. Communicate.

type top dressers, Ondo usually topdresses the greens only twice per year when he core aerifies.

Winter Pines irrigates with reclaimed water and Ondo can tell when the greens begin to seal up from the sodium and bicarbonate build up. He usually applies granular and/or liquid gypsum products twice a year to keep the soil in balance and the grass healthy.

Like most superintendents today, Ondo uses a combination of granular and liquid fertilizer applications to feed the turf. During normal operations he likes to apply a granular 10-1-10 from Howard Fertilizer and he switches to Harrell's 18-2-18 during transition. His liquid arsenal includes alternating blends of potassium nitrate at 10 lb./acre, 15-0-0 at 4 oz./1000 sq. ft. and a product called NPK also at 10 lb./acre.



Putting surfaces are the most intensely managed pieces of real estate on the golf course.
Photo by Susan Jackson.

Ondo's neighbor to the north, Stuart Leventhal at the Interlachen C.C. is a study in contrast as the private-club members want fast greens. Leventhal said whenever discussing greens management, the first thing that needs to be mentioned is the age and type of grass so everything can be put in the proper context. Interlachen's greens are seven-year old Tifdwarf greens. The course opened in 1975 so these

membership's desires.

Leventhal used to believe in the lean-and-mean school of fertility to get faster greens using only 6-8 pounds of Nitrogen per year, but he found he was battling too much turf stress and so he has upped his totals to 10-12 pounds of N per year and now grooms a much healthier surface for speed control. A typical program during warm season

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are second- or third-generation greens. Leventhal has been there since 1985. He currently has a chipping green planted in TifEagle for the members to evaluate a potential conversion to an ultradwarf surface in the future.

Leventhal's members aren't as much concerned with green color as they are with smooth, fast putting surfaces, so his mandate is to keep them quick while also keeping them healthy. Like all good superintendents who have to keep their greens near the edge, Leventhal keeps an eye on the weather and adjusts his routines as needed so as not to intentionally stress the grass.

With an average height of cut near .100 inch that means really paying attention to what's going on. The height is lowered to .09 inch for special tournament conditions and don't stay there more than a few days. With low mowing heights, any aggressive grooming or verticutting practices are limited to the active growing season and taper off in the cool months.

During the warm months, vertigroomers and brushes help stand up the grass for a clean cut to produce the needed speed. Leventhal's number-one tool for speed management is to double cut the greens. He finds that's the most effective and least stressful way to affect speed. A typical tournament greens preparation might be to double cut with triplex mowers followed by double-cutting with walking mowers with brushes followed by single- or double-rolling with triplex rollers. Yes, they are quick, but that fits the

might be .5 - .75 lb. N/1000 sq. ft. every two or three weeks in a granular fertilizer. During cooler weather the program shifts to more foliar feeding with .1 lb. N/1000 sq. ft. in alternating blends of 20-20-20, iron, and a minor nutrient package.

Leventhal has also gotten away from the old aggressive Mat-Away verticutting practice and shifted to a schedule of more frequent but light verticutting, vertigrooming and topdressing cycles two or three times a month, depending on conditions. Aerification is accomplished by using deep tines in the spring and quadra-tines in the fall. A Sisis slicer is also used in the summer during the rainy season to help the greens dry out.

I haven't been ignoring putting green management on the new ultradwarf grasses, but the more I listen, the more obvious it becomes that the book on these new varieties is still a work in progress. The early fears were that these aggressive thatch producers would require drastic measures to keep the biomass manageable. After some preliminary assaults with severe deep verticutting, people like Matt Taylor growing Champion at Bonita Bay East and now Royal Poinciana found that a regimen of lighter but more frequent verticutting did quite well. The key is always to watch out for the weather and don't stress the plant when it doesn't have good growing conditions to recover. That means getting the most aggressive management practices done as early in the spring as possible. Late summer's tropical-storm season can be very

stressful on the greens without the added injury of verticutting.

Bob Randquist, CGCS at the Boca Rio C.C. told me at the GCSAA conference in Atlanta that learning a new management program to deal with converting from Tifdwarf to TifEagle can be made a little easier by taking the GCSAA Managing Ultradwarf Greens seminar presented by Drs. John Cisar of Florida and Dave Kopek of Arizona State. Randquist said the seminar helped to speed up his learning curve and avoid a lot of problems.

One of the suggestions from the seminar was to remove every other blade from your verticut reels and go two ways on the green. The stolons are so thick in the ultradwarfs that a standard verticutter setup is essentially doing a severe scalp job on the stolons instead of a therapeutic thinning.

Also because of the feared thatch build up, the initial fertility programs tended to be of the lean-and-mean school and, just as Leventhal found out on his greens, it's better to work with a healthy turf plant than one that is anemic. That's especially true if you are going to stress it with some low cuts for special events.

Because to the dense growth habit of the ultradwarf varieties, foliar feeding is the most effective and popular means of supplying nutrients. Granular blends are still used, but are more effective when the turf has been opened up by verticutting and aerification. Sometimes even water penetration can be a problem on the tight turf, so regular spiking is another practice that has proven to be effective.

Perhaps an even more basic concept when discussing ultradwarf putting surfaces is undulations and surface contours. If you have greens with severe humps and bumps and your club is on a fast track to re-grass with an ultradwarf, take five minutes and consider your new mowing heights. The 1/8-inch-and-lower effective cutting heights cannot be achieved practically on severely sloping greens without scalping. It may take more than just cutting off the old turf with a sod cutter and throwing down the new sprigs. Golf course designers have to modify their putting surfaces to accommodate these new parameters.

When it comes to tackling putting green management, don't ever forget your greatest source of information - your fellow superintendent who may have already broken the trail you are now following.

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