



achieved. Anthracnose outbreaks believed to be associated with topdressing may in fact be a result of too little sand being applied to effectively modify the canopy.

Additionally, once a topdressing program is initiated it is important to remain consistent to avoid layering in the profile, Inguagiato says. Root-zone layering impedes uniform drainage and can contribute to disorders, such as black layer, and could enhance diseases like pythium root rot.

#### TECHNIQUES

Superintendents employ various methods of topdressing, usually sticking with techniques that have worked well and produced good results. But they are flexible enough to change on the fly when need be. For example:

- J. Ryan Bentley, superintendent at North Ranch Country Club in Westlake Village, Calif., established a fairway topdressing program six years ago. "The first three years we topdressed at 20 tons per acre, once in the spring and once in the fall," he says. "We have modified that and we now topdress four to six times a year and 10 to 12 tons per acre. The major goals of our topdressing program are to firm the surface for improved maintenance and playability, and to improve the soil physical properties for better turfgrass quality and health."

- Juan Maldonado, superintendent at Glendora Country Club in Glendora, Calif., has for the past eight years blown the sand into aerification holes using push blowers after two passes with a drag mat. Light topdressing is dragged in only once. Blowing the sand in the holes after just two drags has always worked well, he says, adding a coconut fiber mat is very good for either application.

- Fabrizio has been topdressing greens with the standard light and frequent – every two to three weeks – method with a No. 55 grade sand, which is slightly finer than Daniel Island's greens construction. "This light method is necessary because it is difficult to work the sand in with the dense mat on ultra-dwarf Bermuda greens, and to minimize sand pick up at mowing heights of .09 to .115 inches," he says. "In addition, we have been on an aggressive fairway and approach topdressing program for almost seven years with a medium/coarse grade sand to amend our muck/clay/ gumbo soils. This has helped with consistency of nutrient and water requirements, drainage, and earthworm management, which is one of our biggest pest problems."

- Sparta used to lightly topdress every third week, but now he goes every week. "We don't put out much but it keeps your thatch layer diluted and keeps the greens smooth," he says.

- Barrington has switched to kiln-dried straight sand topdressing, which allows him to go out more frequently and lightly topdress with no disturbance to the golfer.

- Brandenburg has changed his methods to coincide with the installation of new ultra-dwarf turf. "Now, I'm topdressing much more frequently with lighter amounts and it is working well," he says. "We try to match topdressing amounts with vertical growth/nitrogen applications, and we throw in Primo applications."

Topdressing programs should be monitored carefully for best disease suppression results, Inguagiato says. "Programs should be monitored regardless of whether your objective is to manage thatch accumulation or suppress diseases, such as anthracnose," he says.

Recommended topdressing rates and intervals are only a starting point from which to develop your own site specific programs. The goal of your topdressing program should be to match sand accumulation with the growth of the turf stand. This can be difficult to do, although examining the surface profile for the presence of sand when changing cups can give you an indication of whether more or less sand is required.

Determining the volume of topdressing applied per area is a more accurate record keeping method, Inguagiato adds. This can be done by making a pass over a known area, collecting the material and measuring it in a container graduated in cubic inches. **GCI**

*John Torsiello is a freelance writer based in Torrington, Conn.*

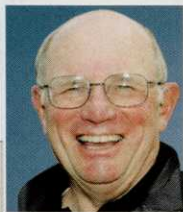
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**Monroe Miller** is a retired golf course superintendent. He spent 36 years as superintendent at Blackhawk Country Club in Madison, Wis. Miller can be reached at [groots@charter.net](mailto:groots@charter.net).

## MAKING THE MOST OF IT

Jeff Carlson was in our town last winter for a speaking engagement. He's one of our best golf course superintendents, a pioneer and leader in developing an organic approach to course management. I've heard him speak a number of times and even stopped at his course on Martha's Vineyard during a genealogy trip on the island. He's an interesting guy to listen to. I chatted with him for a while and he told me he appreciated this column as a viewpoint from an older superintendent.

I was flattered! At 64, I am both older and retired, and these two experiences have provided rich subject material for me to muse and write about. And it seems an inevitable result to be tempted to share a couple of lessons learned along the way.

The first, most obvious and most important advice I would offer after a year and a half is to make the most of your time. It applies throughout life but is especially true for retirement years. One reason that quickly comes to the forefront for me is health. A few months after I retired on Dec. 31, 2008, I suffered a detached retina. A surgeon reattached it, but I now live with diminished eyesight. That is compounded by the need for cataract surgery in the near future. Any decrease in eyesight is scary.

Pat Jones wrote about tinnitus in the April issue; I have the same affliction. Many golf course superintendents have skin cancer; count me among them. High blood pressure? I am taking meds for that as well. I still consider myself as "healthy" but I know as you age you are more and more vulnerable to health problems. I guess you sort of wear out. That realization led me to a simple arithmetic calculation. If I live to 84, then I have 20 years left and that translates to only 7,300 days. Making it to the ripe

old age of 90 gives me about 9,500. As fast as time flies, there isn't much time to complete your bucket list, make a contribution for the greater good and repay the debt you owe to your profession.

It is always useful to look around and see people who are making the most out of their retirement years. For example, take Dr. Jim Beard. He and his wife, Harriett, remain a productive team, on our behalf, studying and researching and writing and preserving our heritage. Closer to home I watch emeritus professor Wayne Kussow, still cheerfully contributing to the science important to all of us.

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...making the most of the years we have left will be **rewarding and fulfilling** and fun as a result.

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So I am trying to follow their example working part-time for the Wisconsin Turfgrass Association, trying to make it a little better and enjoying the feeling of productivity and usefulness at the same time.

It's certainly not like Cheryl and I aren't staying on our goal of travel. Last year we were away from home for 114 days! We were out in the world, visiting and traveling and having a good time together, making the most of each day.

For a while I bemoaned my bad luck at timing retirement. The tenacious recession has sent lots of us newly retired or nearing retirement reeling. In our case, we stayed the course and the plan we have followed for years, refusing to buy high and sell low. Slowly our retirement nest egg crawled enough back to where it was that we rolled everything into one traditional IRA and hopefully secured ourselves for the long haul.

What I celebrated was the good for-

tune that we have been good savers, a lesson well learned from our Depression-era parents. We owned our current home early, own our vehicles, have zero debt and *never* carried any credit card debt. If we couldn't pay for something, we did without until we could. It is safe advice to say that saving money is a big key to a secure retirement. While it makes sense to have some investment in the stock market, the recent past notwithstanding, mostly it has been a big fairy tale over the last decade. If you invested \$100 a decade ago in the stock market, today you would have \$100. You could have put it under your mattress

and done as well.

Problems with social security in the near future, the impact of Greek (and European) debt, unsettled security issues in the Middle East and on the Korean Peninsula, the huge U.S. debt (much of it held by China), diminishing natural resources and a hundred other factors make the future somewhat frightening. Likely there will not be any quick solutions to retirement security, so my recommendation is to save as much as you can as the pay periods come and go. It will also be very helpful to have a well-designed plan as a guide.

There is a lot of truth to the old saying: "It isn't what you make, but what you spend." We continue to follow it and have found making the most of the years we have left will be rewarding and fulfilling and fun as a result. In fact, we are almost ready to leave on our third vacation of the year. Someday I'll tell you all about the Chautauqua Institute. **GCI**

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# Alternatives to overseeding

Budget cuts and increased labor costs have made more superintendents wonder whether overseeding is the right choice.

By David McPherson

Overseeding has side effects that become evident when transitioning back to Bermudagrasses. Weak areas may take a few weeks to a couple months to recover.

Traditionally, in the fall, golf courses in warmer climates have overseeded their Bermudagrass (which goes dormant in the winter) with ryegrass. This keeps the course green during the colder winter months. This maintenance practice has its advantages and disadvantages. The obvious benefit is the aesthetics of mowing patterns that appeal to many golfers or club members. Another benefit is playability, as ryegrass provides fluffy turf for additional golf ball support. Unfortunately, these benefits have side effects that become evident the following summer when transitioning back to Bermudagrasses. Depending on weather patterns, weak areas may take a few weeks to a couple of months to properly recover. Overseeding annually also provides plenty of food for nematode survival during the cooler months.

Budget cuts, and the increased labor costs associated with overseeding, have made more and more superintendents wonder whether overseeding is the right choice. When you choose to overseed, you commit to more of everything such as water, fertilizer, labor, hours on the mowers and chemicals.

“Each course is different, but it comes down to the question: can you make an overseed budget that can show a profit?” explains Anthony Williams, director of golf course



and resort grounds at Stone Mountain Golf Club in Stone Mountain, Ga., just outside Atlanta.

"There is no doubt that overseeding looks good during that wet/transition period in March and April, but while golfers may be more complimentary of the aesthetics of the course it does not necessarily translate to more revenue," Williams says.

Williams, who has worked in the Atlanta golf market for 24 years, overseeded consistently throughout the 1990s. Then, one year he chose not to overseed, so the course could complete an irrigation project; the results changed his maintenance practices.

"We saw rounds remain consistent, so we began experimenting with some other strategies," says Williams, who won the 2010 President's Award for Environmental Stewardship by the Golf Course Superintendents Association of America. "The results were simple. We could no longer justify overseeding."

Dr. Leah Brilman, director of research and technical services at the Seed Research of Oregon, says in resort areas such as where Williams works, or in places where there are a lot of snowbirds, the aesthetics of an overseeded golf course and the expectations of the golfers is the critical factor to deciding whether or not to overseed.

"Individual courses have reduced the area

"... while golfers may be more complimentary of the aesthetics of the course it does not necessarily translate to **more revenue.**"

— Anthony Williams, Stone Mountain Golf Club

overseeded with some success, but others find that the expectation, when competing for the winter golf dollar, is to play on green grass," she says. "If you don't have green grass and the guy down the road has green grass, you may lose golf dollars. It's all about revenue."

Greenkeepers need to also weigh what time of year their courses see the most rounds. "Often, agronomists state, you will have a stronger Bermudagrass stand in the summer without winter overseeding, but if only a fraction of your play is during the summer should summer turf strength be the deciding factor?" Brilman says.

Further south, along Florida's Gulf Coast, Allen Brissenden, CGCS, is one superintendent, who like Williams, has seen great results from not overseeding. At Dunedin Golf Club where he is the superintendent, he hasn't overseeded for the past two years.

"The Bermudagrass has got stronger and the ease of weed control definitely shows," he says. "According to my GM, we have not seen any loss in revenue. We have been able

to fill the golf course as long as the weather is good. This past winter was unusually cold, and although grass slowed to a standstill, we were only straw brown for about two weeks."

Before an extreme cold snap, Brissenden paints his greens lightly with Green Lawngr, which he says lasts about two weeks. He also fertilizes more frequently on his tees and fairways to moderate the plant temperatures and stimulate growth.

"Not overseeding does not necessarily reduce your budget," he adds. "In fact, depending on weather patterns, it may end up costing more. But, agronomically, it has been a sound decision and most of my members agree. Temperatures rarely stay cold for long, so the grasses never go into full dormancy."

To counter the effects of not overseeding, Brissenden increases his fertilization rates and uses wetting agents to maintain turf color and acceptable playing conditions.

What if you still plan to overseed? Are there alternatives you can try that may be better for the environment and cost less? Brilman and



her team at the Seed Research of Oregon are always looking into new seed varieties and studying the past to understand what still might work today. They've been looking at using other seed species in an overseeding mix such as chewing fescue.

"I looked back at old literature by Dr. James Beard, the guru in turf, who found in its seedling state that bentgrass didn't get its

roots deep enough into the thatch, which made it easier to transition than a ryegrass," Brillman says. "We have a grad student looking at water requirements when you are first seeding grass species. A lot of the ones we know are more drought tolerant when they are seedlings. People need to look at these options. We assume certain things that we have not verified through research, but we



Williams: "Each course is different, but it comes down to the question: can you make an overseed budget that can show a profit?"

can't just ignore what was done 20 to 30 years ago because sometimes you get some new clues from it."

Brilman adds greenkeepers shouldn't take an all-or-nothing approach. There are alternatives if you get creative. If you are cutting back, change the seeding rate or maybe just overseed the landing zones. "This gives you the best of both worlds," she says. "Try turning your course into a target golf experience by overseeding and greening it up only where golfers typically land. I know other superintendents who have overseeded just the rough and not the fairways."

Out on the west coast, Jim Alwine, superintendent at Stockton Golf & Country Club in California – the home to PGA Tour player and former U.S. Amateur champion Ricky Barnes – says they didn't overseed last year. The biggest reason was cost. He figures they saved \$35,000 by not overseeding – which included the cost of seed, the reduced need of fertilization and the associated labor costs.

Stockton G&CC also booked more tournaments during a time when the course was normally closed for overseeding – bringing in extra revenue. The other big reason Alwine chose not to overseed was members were upset over the course being closed during the fall – a prime playing time. And, with an older membership, having six weeks of cart path-only golf would restrict them from playing even when the course was open. When Alwine arrived at Stockton, he thought they needed to overseed just to have something to play on since most of their course is below sea level, with levies surrounding it.

"I proposed we didn't overseed for the health of the golf course," he says. "Bermudagrass is stronger and we don't get much play

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in the winter, so we are going to get softer whether there is ryegrass out there or not. So, I said, 'Why take away the best time of the year to golf for the time that sees the least play?' Financially, it made."

Alwine also let the *Poa* come into his fairways, so there was still turf to play on in the winter months, rather than making members play on mud. When the heat comes around in the spring the *Poa* fades quicker than the ryegrass traditionally did. "It worked out well," he says. "It was spotty in areas, but all in all, members told me they couldn't tell that I didn't overseed."

Leaving the last word to Williams, he says these days it's all about the bottom line. "I remember a time when overseeding was considered the cost of doing business. Those days are over. We evaluate this issue each year and balance the return on investment with the golfers' true expectation." **GCI**

*David McPherson is a freelance writer based in Toronto.*

### The argument for and against NOT overseeding

#### Advantages of not overseeding:

- Savings on cost of seed/labor/energy
- No spring transition – can sustain a stronger strand of warm season grasses
- Water conservation (i.e. less water is used to establish and maintain ryegrass)
- Uninterrupted fall play – play can continue as normal
- Ease of weed control – better control of all types of weeds
- Nematode control – environmental factors that control nematodes are temperatures and food; overseeding produces lots of roots for nematodes to feed on
- No continuous mowing – crew members can work on aesthetics or projects
- No unsightly tracking of ryegrass

#### Advantages of overseeding:

- Aesthetics – No lush green color or mowing patterns
- Wear – Some areas will get thin from cart traffic, reducing playability
- Marketability – Players prefer green

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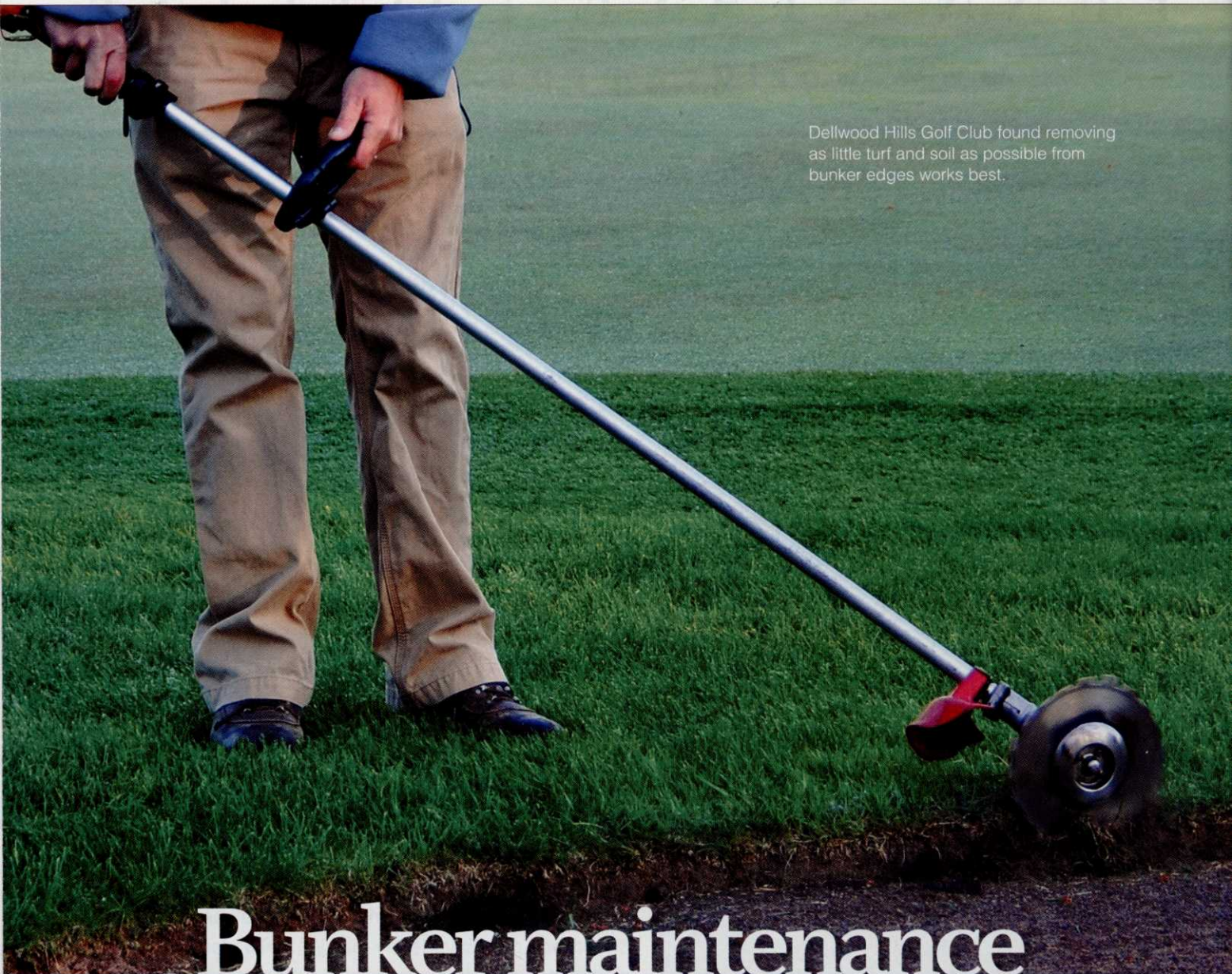
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Dellwood Hills Golf Club found removing as little turf and soil as possible from bunker edges works best.

# Bunker maintenance

For the team at Dellwood Hills Golf Club, a good bunker starts with a crisp edge. By Eric Peterson

**R**akes in the bunker. Rakes out of the bunker. No lip. Two-inch lip. Four-inch lip. Firm sand. Fluffy sand. Smooth sand. Sand with ridges. One can argue the intricacies of whether bunkers should be treated more like a hazard or a playing surface. And we all know maintenance practices vary throughout the world and from facility to facility, but there is little doubt that the appearance and playability of bunkers is a critical part of the maintenance of the majority of American golf courses.

Dellwood Hills Golf Club is a 40-year-old, private 18-hole club located 20 minutes northeast of the Twin Cities. The club is a full-service country club but has been a players' club historically. The course has a rating

of 74.2 and a slope of 141 with water and out-of-bounds coming into play on 15 of the 18 holes. Although we only have 36 bunkers and the character of the club is more of a native, natural look, the membership values a sharp-looking bunker.

Our process for keeping our bunkers looking good starts with creating a crisp edge. What we have found works best for Dellwood Hills Golf Club is to remove as little turf and soil from around the edge of the bunker as possible. A Red Max reciprocating edger and a skilled employee are the first two key necessities. The edger is held with the blades running vertical, removing enough to create a clean edge. The edger makes a quick horizontal undercut around the entire area that