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## TURF MANAGEMENT

B.C., but today's climate patterns seem to make all the new technology and computer models about as accurate as reading the stars.

The warmer temperatures made *Poa annua* control an earlier issue than usual. "We have been relatively wet, and with the mild winter temperatures this was one of the worst *Poa* seasons I have seen," says Roger Meier, CGCS, golf course superintendent at Valhalla Golf Club in Louisville, Ky.

Annual bluegrass causes several types of headaches on the golf course. The rapid seedhead development is first, and PGR (Plant Growth Regulator) sprays to control the pesky intruders must be timed with the appearance of the "boot" or seed sheath. Some superintendents use Growing Degree Days (GDD) to start their program, while others rely on weather patterns. Phenology clues, such as forsythia blooming, are also employed.

"A turfgrass plant doesn't recognize the calendar," says Dean Mosdell, technical manager for Syngenta. "When conditions are right, it wakes up and grows regardless what the calendar says."

"Spring temperatures have been higher in most of the northern tier states and that translated into earlier *Poa annua* maturity and seed head production," says Roger Storey, vice president of the turf and ornamental division of SePRO Corporation.

"You want to put down Embark right after the last frost," says Kevin Hicks, superintendent at Couer d'Alene Resort Golf Course in Couer d'Alene, Idaho. "This year we sprayed on March 15, and we're usually done around the first of May."

With the famous "floating green," Coeur d'Alene is a destination course, and needs to be in top condition during its relatively brief play-

Once the right weather conditions are in place, *Poa annua* moves quickly to seedhead development.



“We put our last application of Cutless down about last Halloween, and we started up again about four weeks earlier than normal – about the first of April.”

— Clay Stewart, Idle Hour Country Club

ing season. “We have seven months to make money,” says Hicks. “If I make a mistake, it affects revenue.”

The challenge lies in the large percentage of *Poa annua* on the course. When Hicks began working on the course nine years ago, the greens and fairways, originally seeded bentgrass, were largely *Poa*. “I was in a meeting this morning where the rep had a product that promised to take out the *Poa*,” Hicks says. “I wouldn’t have any grass left!”

A split application of Embark “carries us through the heavily seeded part of the year,” says Hicks. “Then we use a combination of Primo and Proxy for trailing seedheads.”

During mid-summer, Hicks switches gears again. “We’ve been really happy with Legacy; it’s a combination product and gives us very effective long-term control.”

“Initial applications of Legacy at the lowest label rate recommendation should be started after the bentgrass is fully active,” says Storey. “After the initial application, rates can be increased to gain the desired turf growth and clipping reductions.”

Strategies to deal with *Poa* will vary depending on how what percentage of the turf is “infested.” Clay Stewart, superintendent at Idle Hour Country Club in Lexington, Ky., is “only looking at less than five percent on the greens and 10 percent on the fairways.” The unusual weather

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“A turfgrass plant doesn’t recognize the calendar. When conditions are right, it wakes up and grows regardless what the calendar says.”

—Dean Mosdell, Syngenta

patterns has affected his application timing as well.

“We put our last application of Cutless down about last Halloween,” he says, “and we started up again about four weeks earlier than normal – about the first of April.”

“Under a Cutless program, it is important to continue applications through the summer months during the periods that *Poa annua* is stressed,” says Storey. “The most significant declines in *Poa annua* population are achieved by continuing the program starting in the spring and continuing through the summer and into the fall.”

Stewart sprays every two weeks with 10-13 ounces per acre of Cutless on putting greens. On fairways, approaches and tees he uses eight ounces of Cutless mixed with six ounces of Primo every three weeks. PGRs should be watered in after application.

“We vary our rates according to the weather,” Stewart says. He is on a season-long program to suppress the annual bluegrass. “We make the rates a little higher in the spring and fall and back them off in the summertime. It also depends on whether we are also spraying fungicides and which ones we are using – some have growth-regulating properties. So we’ll back off that week because you don’t want to shut everything down.”

The type of PGR and the rates and application timing will also depend on whether the goal is control or elimination. “Primo is used when maintenance is the goal,” says Mosdell. “If control or elimination is the goal, you can use stronger PGRs such as Trimmit.”

“In the Southwest, superintendents use Trimmit on bentgrass greens in early summer until it gets really hot,” says Dr. Dave Kopec, turfgrass specialist with the University of Arizona Cooperative Extension in Tucson. “At that point, the *Poa* retreats. Then they can pick up applications in the early fall.”

Overseeded Bermudagrass greens require a different regime. “You can use multiple applications of Legacy, but you need to be careful when the Bermuda breaks dormancy,” Kopec cautions. “The PGR can actually slow the Bermuda down, because it’s taken in by the roots as well as the shoots.” In the summer, *Poa* isn’t an issue in Bermudagrass greens because the vigorous growth will choke out the invader.

Of course, the bottom line is that healthy, vigorous turf will minimize *Poa* infestation no matter what type of grass is grown. “As soon as we are able to control moisture and grow healthy turfgrass plants, we can combat the *Poa* and keep it in check,” says Meier.

“We actually have a good climate here in Kentucky for *Poa* control,” Stewart says. “It



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“As soon as we are able to control moisture and grow healthy turfgrass plants, we can combat the *Poa* and keep it in check.”

— Roger Meier, Valhalla Golf Club

gets hot and dry in the summer and *Poa* doesn't like that. So with the PGRs the *Poa* gets regulated and the bentgrass just crawls right over the top of it.”

Even the most diligent program will not result in complete eradication. Stewart is in the fifth season of his program. “By no means do we eliminate it, but we've been able to significantly reduce it,” says Stewart. “Especially in our fairways – we've seen a significant reduction.”

The take-away message? If you are on an ongoing program for *Poa* management, keep your timing on schedule. As temperatures rise, PGR rates should drop. Hot, dry conditions are *Poa annua*'s worst enemy. The best advice is the same as you have heard for almost every turfgrass challenge. Provide the best possible growing conditions for your turf, and you should be able to sail through the summer ahead. **GCI**

Helen Stone is a Las Vegas-based freelance writer and frequent GCI contributor.



Application of PGRs have to be properly timed to affect *Poa annua*.

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Syngenta Business Institute™

## ALUMNI UPDATE

One of the key things I took away from the Syngenta Business Institute™ was that golf's business model needs to evolve and change to survive. The old 1960s notion that the golf course is the man's domain and is his exclusive sanctuary on the weekends is a dinosaur — it's extinct. Today, wherever dad goes so do mom and the kids. Clubs that survive will be those that fill the needs of the entire family and not just the individual player. As a result learning about this new generational difference and discussing it with my peers, I began addressing these issues through my maintenance blog and I've started to work many of the concepts I learned into my blog posts.



Bill Davidson, CGCS  
Superintendent  
The Country Club  
of Naples



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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).

## SPORT'S TOUGHEST (AND BEST) TICKET

It's said a Masters ticket is the toughest one in sports – harder to come by than the Super Bowl, World Series, Stanley Cup or the NBA Championship. And yet, this April I had one, free of charge, just like many other golf course superintendents. We were, as in every other year, guests of the Augusta National Golf Club.

I take it as a sign of respect from the Club and recognition of GCSAA and our profession's importance to golf. I tried to find a club official to personally thank; I did drop a note to Billy Payne and I hope he actually reads it.

Waiting in line and looking around left me with a wonderful first impression. Annual flowerbeds are perfectly maintained, mulched beds are clean, all structural surfaces seemed freshly painted and even the concrete and blacktop seemed new. Every detail had been covered.

Once through the gate, a brief walk takes you past the huge pro shop, the food stand and suddenly you see the big scoreboard on your right and the first tee on your left. The setting forces you to stop and soak it all in. Then the big golf course captures you and brings you to reality and the tournament that is underway.

I had hoped to catch the honorary players – Arnold Palmer, Jack Nicklaus and Gary Player – but I missed them by minutes. I spent some time watching the players warm up, enjoyed seeing them up-close trying to figure out the green speed on the practice green.

Walking a golf course backward is the best way to see it during a big event. Although I am interested in the competition, I am more interested in the course. It was early enough for me to watch the staff work. They were still mowing, rolling and grooming and completing preparation for play. Rain on Wednesday had cancelled

completion of the Par 3 Tournament and closed the course, so there was some extra work to do, cleaning up under story area, raking needles, blowing leaves and debris from play areas, whipping dew and clippings and pushing water out of wet areas. Everybody hustled to get the extra work completed so as not to disturb players or patrons.

Along the way I greeted CBS broadcaster Vern Lundquist, who was checking the course after the rain. I cut my backward tour short when I ran across a Toro truckster. Almost immediately a staff member came to

### Walking a golf course backward is the best way to see it during a big event.

get it. I was looking for my Wisconsin colleague Scott Schaller and Tenia Workman, a colleague when I was our chapter publications' editor. She is the Georgia GCSA executive director. They have both worked on the golf course crew during the Masters week for a number of years.

When course preparation is complete, Scott and Tenia are stationed in a rough area on the Back 9 on an emergency response vehicle. The truckster is prepared to handle just about any unexpected event, just like the two veterans stationed with it. The previous day Brannon had an interesting assignment – filling divots on the 1st tee of the Par 3 Tournament, giving him a front-row seat.

The early spring left the Masters without its usual profusion of blossoms. But frankly, the course is so beautiful and well-prepared I didn't even notice until someone mentioned it. I did notice there were a number

of fairway mowers painted gray; I thought they were Toro's, but was too far away to know for certain. I also wonder how Brad Owen does it every year regardless of the cards dealt him.

The course was cut short, the fairways are wide and there isn't much rough. It is a big piece of property – I would guess more than 400 acres – that was an abandoned nursery when Bobby Jones and Cliff Roberts bought it for a golf course. That explains the presence of so many flowering ornaments. Today's clubhouse was part of the deal; it was the home of the owner and was built in 1854.

Most have heard about the lunch stands around the course and at the clubhouse area. There aren't any grills cooking hamburgers and brats. Instead you select from a menu that includes egg salad, pimento cheese and other sandwiches.

The ambience of the event leads to pleasant attitudes of fans, too. You can set your chair near a green, go to a restroom – which are immaculate – and find it there when you return. The Masters, to me, embodies so much of what I love about being a golf fan.

In 1969, I was assigned to Fort Gordon, an Army post on Augusta's western edge, for Army military police training. The city of Augusta and the area around the club were far different then; the course was on the edge of town. I had one weekend pass and I took a cab to the guardhouse at the end of Magnolia Lane. I explained I was a turf graduate and wondered if I could see a bit of the course. The guard was very kind, "I'm sorry, son, but I just cannot give you a pass." I remember hoping that someday I would get that chance.

This was my fourth trip to the Masters. My hope is that you get to make the trip yourself some day. It is worth it. **GCI**

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# Liquid assets

By John Torsiello

Wetting agents get the most out of the moisture on your course.

Somewhat remarkably, the number of wetting agent products on the market has increased during the past 35 years from four or five to more than 130.

There are several reasons for the explosive increase. But a primary igniter for this amazing burst of product is the increased expectations of golfers who now consider smooth, fast greens and pristine fairways to be a given. This, of course, has meant closer mowing heights and more intensive management to maintain the new standards, while at the time ensuring turfgrass health.

"There is little doubt that wetting agents are more popular or used more today than ever before," says Dr. Keith Karnok, a professor specializing in turf management at the University of Georgia's College of Agricultural and Environmental Sciences. He

estimates a whopping 90 percent of superintendents use wetting agents as an integral part of their management program.

"Currently, wetting agents are the best tool or management practice for managing localized dry spots caused by water-repellent soils," he says.

Depending on the situation, wetting agents can help improve fertilizer and pesticide efficacy, Karnok says. "Certainly, we have shown through research, wetting agents applied to a water-repellent rootzone can improve irrigation efficiency significantly," he says. "We now have some evidence that wetting agents applied to non-water-repellent soils will improve irrigation efficiency."

Traditionally, superintendents have employed wetting agents during hot, dry conditions, says Andy Moore, agricultural marketing manager for Aquatrols.

In recent years, with the advent of new, unique chemistry, turf managers are realizing specific wetting agents can help them balance water and air in the rootzone in wet and dry conditions.

"More people are beginning to use our products for overall water management rather than just curing dry spots," Moore says. "We also see more people using our Dispatch technology because it can save them money on water and energy costs, as well as make all their soil-directed inputs (fertilizers and chemicals) more efficient."

Soil surfactants contribute to healthier, more resilient turf that withstands stresses and maintains quality. They can also contribute to significant water and energy savings during the irrigation season. All this leads to enhanced playability of the course, which should bring in

greater revenues, Moore says.

"Not that I am saying by using our products all problems are solved. However, managing water effectively and efficiently can have a big impact on the bottom line. Water is at the foundation of all other agronomic practices. If water is being used effectively it can impact turf health, which impacts the turf's response to stress and the need for other inputs."

Chuck Champion, president of KALO, says university research over the years has confirmed the







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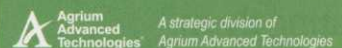
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value of soil sufficants.

"Next to labor costs, the purchase of city water and utility costs for pump stations represent the highest budget expense for most golf courses. Pumping hundreds of thousands of gallons of water on a course over a few days is not unusual for large courses during summer months," Champion says. "Wetting agent applications can pay for themselves in water and utility cost reductions." He says quantifying that savings is subjective.

"There are many claims about water savings but realistically 5 percent to 15 percent less water used to maintain equal turf quality should be possible with wetting agent use," he says.

Bert Brace, vice-president/formulator for AQUA-AID USA, says superintendents are better understanding how each product works and are adjusting chemistries as conditions, expectations and budgets demand.

"Presently, superintendents have three modes of action for wetting agent/surfactant chemistries to choose from in today's market and four ways to apply the chemistries," Brace says. "The three modes of action for surfactants are hydrating, penetrating and corrective. The four different ways to apply surfactants include tank spraying, injection, granular and hand watering pellets."

David Dore-Smith, superintendent at Copperleaf Golf Course in Bonita Springs, Fla., says soil sufficants helped him get through some potentially devastating weather in recent years.

"We have experienced two of the worst droughts over the past two years in this region and are now entering a third," he says. "The use of wetting agents has allowed me to prevent turf damage and continue to provide quality conditions for both our members and reciprocal players during these trying conditions."

Wetting agents have proven to be invaluable in providing consistent conditions," he says. "Hotspots are greatly reduced, thus eliminating over watering, playability is improved due to improved ball roll, labor is reduced due to not needing to chase after 'hot spots' and overall turf quality is 'superior.'"

Tim Schaefer, superintendent at Emerald Falls Golf Club in Broken Arrow, Okla., has used wetting agents in the past few years and the results have been promising.

"We have several different types of soil on our property, so a wetting agent is needed in some areas more than others," he says. "The best result we saw was water penetrating into the areas where we applied it instead of running to the valleys and further saturating them."

Dave Libby, superintendent at Prouts Neck Country Club in Scarborough, Maine, believes there is significant value in using soil sufficants. The first benefit, he says, is water savings. He has been able

"We have several different types of soil on our property, so a wetting agent is needed in some areas more than others. The best result we saw was water penetrating into the areas where we applied it instead of running to the valleys and further saturating them."

— Tim Schaefer, Emerald Falls Golf Club

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