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Hole of the Month

HOLE NO.

18

WHITEMARSH VALLEY COUNTRY CLUB ▶ LAFAYETTE HILL, PA

Designed in 1908 by the legendary George C. Thomas Jr., Whitmarsh Valley Country Club in Lafayette Hill, Pennsylvania sits on grounds rich with American history that extends back long before the course's inception.

Now home to one of Pennsylvania's Top 25 Golf Courses, the land on which Whitmarsh Valley stands was once a campsite for the Continental Army led by General George Washington, while the original clubhouse acted as headquarters for General "Mad Anthony" Wayne during the Revolutionary War.

Whitmarsh Valley Country Club began to build its own history in 1917 by playing host to the Patriot Open, which took the place of the US Open during World War I. After holding the 1934 Women's US Amateur Championship, Whitmarsh Valley was the site of the PGA Tour's Philadelphia IVB Classic from 1963 to 1980, played and won by legends such as Jack Nicklaus, Arnold Palmer and Tom Kite.

With help from Ed Shearon III, Whitmarsh Valley experienced a sympathetic restoration that coincided with the club's centennial celebration in 2008. The renovation included the stunning Hole #18, which features a gorgeous central view of the Whitmarsh Valley clubhouse along with several well-placed bunkers, creating "one of the most challenging finishing holes in golf," according to Whitmarsh Valley's Certified Golf Course Superintendent Tony Gustaitis.

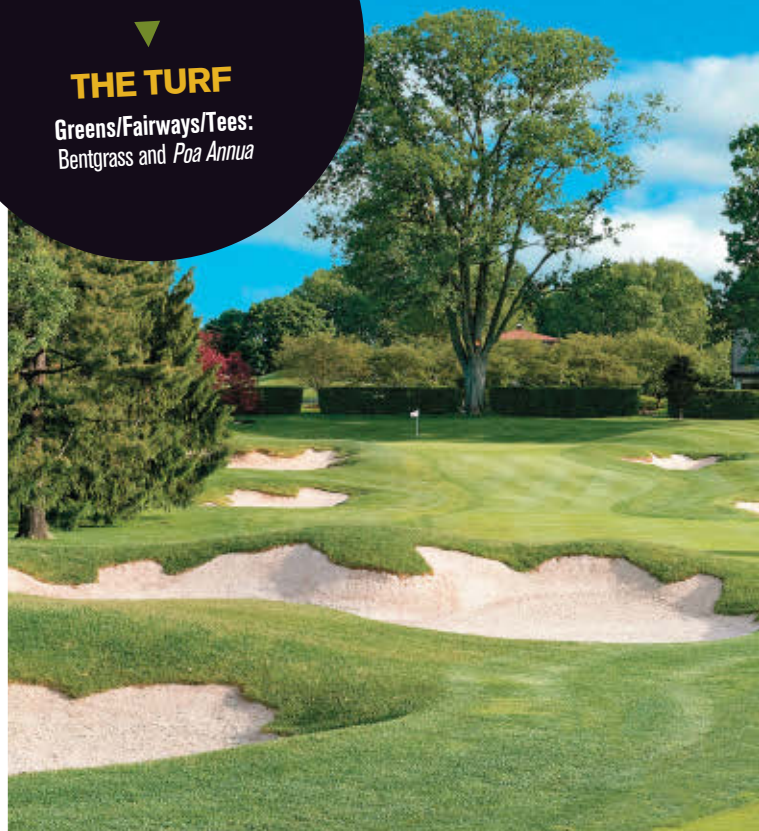
Gustaitis, a University of Maryland Turf Management graduate, has overseen the grounds at Whitmarsh Valley alongside green chairman Jack Rowe since 1988. Gustaitis uses fast-acting Dismiss® herbicide for lasting postemergence control of sedges and kyllinga along with a reduction in future weed populations. "I rely on fast-acting Dismiss to keep kyllinga and sedges under control on our course." Combined with Segway® fungicide, which Gustaitis calls "a weapon" used for pythium control, historic Whitmarsh Valley Country Club looks to be in for an even brighter, more beautiful future.

HOLE STATS

Distance: 466 yards, Par 4

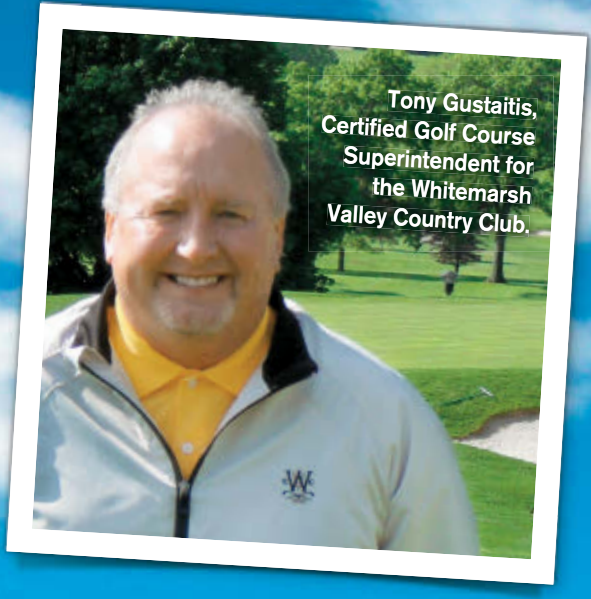
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Tony Gustaitis,
Certified Golf Course
Superintendent for
the Whitmarsh
Valley Country Club.



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There's been plenty of crazy weather at the Lake Omigosh Country Club in Central Florida and across the country. As we enter the second quarter, early dry heat down South and late-spring snows up North and out West have disrupted maintenance schedules across the country.

I ran into our superintendent, Duffy McDuffy, down at the 19th Hole & Whine Bar grumbling in his hops and barley about politics, EPA regulations and local ordinances as I pulled up a stool next to him at the bar. "Duff," I said, "I haven't seen you smile in a long time. You need to stop and smell the roses, my friend. You're going to get an ulcer if you don't lighten up!"

"Yeah, I know," he said. "So, tell me some good news or something funny to make me smile."

I'll admit that with this wild weather and soaring gas prices, I didn't have a whole lot of good news... but I had a few unusual but true anecdotes I could share with Duffy, and I'll share them with you. I hope they make you smile as well.

Lobster balls – Some enterprising folks are manufacturing biodegradable golf balls with a large percentage of lobster shells in the composition. They say lobster balls degrade faster than other eco-friendly balls. But while lobster balls supposedly fly straight when hit, they don't go as far as regular golf balls. So how should they be used? Perhaps vacationers on cruise ships could blast shots into the ocean from the fantail. Residents who hit golf balls from their lakefront homes could send them sailing into the water, too.

I can't imagine there's a huge demand for golf balls among cruise passengers and eccentric golfers. I, for one, hit enough water hazards accidentally without pumping golf balls into the ocean. I want to break the habit—not perfect it.

Superintendents who are serious golfers need to keep an eye on lobster balls. If anyone ever solves the distance limitations and lobster balls move into the mainstream, EPA might make their use mandatory. If there's ever a shortage

On Strange Terms

BY JOEL JACKSON



of lobster shell ingredients and people must use crab shell substitutes, your game could be in real trouble. Why? The answer lies in the lyrics of an old Smothers Brothers song: "Crabs walk sideways and lobsters walk straight!" Rapidly disintegrating golf balls would also make rangers and used-ball divers extinct.

Grass stations – This little ditty came to me via the 2011 Word Origin Calendar my daughter gave me for Christmas. Yesterday's word or phrase was "Grass Station." It was a phrase coined in 2006 that originated not so unexpectedly in California. While I know you think you are way ahead of me on this one, you might be wrong.

Grass station refers to a place where you can procure biofuels that can burn in a modified automobile engine. It is obviously a play on "gas station," but given the hoopla over the recent explosion of medicinal marijuana shops in California, it was easy to misjudge that one.

Spray-on mud – This one is a couple of years old, and comes from an inventor in England. City dwellers who want to look like they really need those 4-wheel drive SUVs can buy a can of spray-on mud to make it look like they are rugged outdoorsy folks as they tool around the suburbs.

Too bad we can't reverse the science on this one. Much more useful to my pal Duff would be "spray-off mud," for those boardroom meetings that always take place right after an irrigation leak.

So long from Lake Omigosh, where the superintendent is now smiling, the crew only mows "the grass" and the food and beverage manager is stockpiling lobster shells.

I, FOR ONE, HIT
ENOUGH WATER
HAZARDS ACCIDENTALLY
WITHOUT
PUMPING GOLF
BALLS INTO THE
OCEAN. I WANT TO
BREAK THE HABIT—
NOT PERFECT IT.

Certified superintendent Joel Jackson is Executive Director of the Florida GCSA.

Golfdom's Annual **PUTTING GREENS** Special

S3 Green Day Greens can be both easy and hard, complicated and simple. But one thing is for sure: they're still the most important part of a golf course. **BY BOB SELIGMAN**

S9 The Legend of Old No. 5 A superintendent remembers the best green he ever had the pleasure of maintaining.
BY ANTHONY WILLIAMS, CGCS, CGM

S10 Reading Greens with Rees Jones "The Open Doctor" talks about what makes a golf green great, how bermudagrass will rule the South, and when it's a good time to ignore the greens committee. **BY SETH JONES**

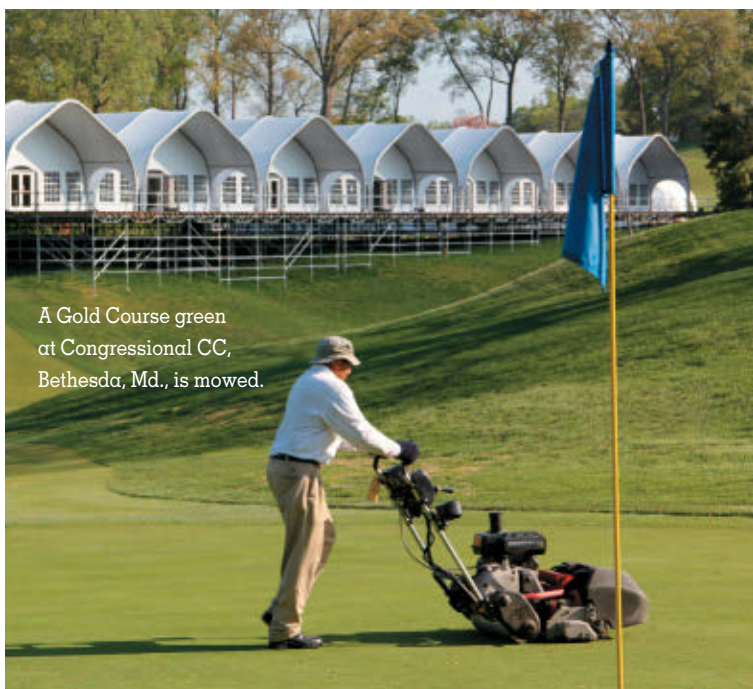


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The Joys of Raising Greens

BY SETH JONES, EDITOR IN CHIEF



A Gold Course green at Congressional CC, Bethesda, Md., is mowed.

dents say the same thing — that maintaining his 19 greens was like raising 19 kids, all with different personalities.

Just like raising kids today, taking care of greens has never been harder, while at the same time, never been easier. There is more technology than ever to help superintendents better maintain their putting greens. Meanwhile, there are more expectations than ever. Mowers can be changed from greens mowers to thatching units and then back again in seconds. At the same time, there's so much equipment out there, how do you choose what's best?

This special supplement to *Golfdom*, sponsored by The Toro Co., is all about putting greens. We talk to superintendents about the pain — and pleasure — they take to maintain the greens at their courses. We check in with “The Open Doctor,” golf course architect Rees

Jones, to pick his brain about putting greens. Finally, we let Anthony Williams, CGCS, CGM at Stone Mountain (Ga.) Golf Club, take his putt with an essay about the fondest putting green he's ever maintained.

This section won't tell you the secret to maintaining your greens. You already have and know your own secrets. We're not going to tell you how to raise your own kids, after all.

This is more of a celebration of maintaining putting greens. It's what every superintendent does best. No superintendent brags to his colleagues about his tee boxes, right?

So good luck with your greens this year. We trust that you'll raise them right.

Isn't parenthood great?

Seth Jones (sjones@questex.com) is editor in chief of Golfdom.

In a game that is all about the playing surface, no playing surface is as vital to the game as the putting green. Players are, in theory, taking two shots on every green. When they get back to the clubhouse, they're talking about the greens. How they were rolling, how they held shots, how they compared to the course they played last week.

As the saying goes, you drive for show, putt for dough.

So much effort goes into maintaining greens, especially in these upcoming hot summer months. It's an art form, one that the keenest of golfers is fully aware of. The not-so-keen golfer? He was in such a rush to line up his putt that he ignored his ballmark.

I remember walking with a superintendent once — if memory serves correctly it was Fred Klauk before he retired from TPC Sawgrass, but I'm sure other superinten-

GREEN DAY

According to David Swift, head superintendent at Minnehaha Country Club in Harrisburg, S.D., the difficulty of maintaining a putting green can be as hard as you want it to be. Maybe it's all in the way you read the breaks and the undulations and how you handle the speed.

"It's certainly not hard," says Swift, who previously was the head superintendent of the Straits Course at Whistling Straits. "We put pressure on ourselves. Mother Nature can make it hard, members' demands can make it hard and we can make it hard. But it's grass and it needs a little bit of water, it needs a little bit of sun. It needs a little bit of fertility and in today's world it needs a little bit of fungicides from time to time."

Greens can be both easy and hard, complicated and simple. But one thing is for sure: They're still the most important part of a golf course. **BY BOB SELIGMAN**

It can need plenty of patience, lots of communication, creativeness and having the best equipment to keep the putting surface in pristine shape. How you handle it and learn from it — and keep the golfers happy — can determine whether you've aced the job or 3-putted.

Continued on page S4

No. 3 at Cobbs Creek Golf Course has been rebuilt and rebuilt again, thanks to the course's namesake.

PHOTO COURTESY: BILLY CASPER GOLF



The famous floating green at Coeur d'Alene Golf Resort presents unique challenges for superintendent Kevin Hicks.



Continued from page S3

Take the situation at the No. 3 green at Cobbs Creek Golf Club, a public course in Philadelphia, where flooding was such a problem that Darren Wondolowski, the head superintendent, might have wanted to call in an “Ark-itect,” as in Noah, instead of a golf course designer.

When Wondolowski came to Cobbs Creek in 2009, flooding had been an ongoing problem at the third green, the culmination of the course’s signature hole, as well as on other parts of the layout. Cobbs Creek was built in 1916 and designed by Hugh Wilson, who also designed Merion, which is just up the road. As

can happen with a hole that’s by an active creek, water can take center stage.

“The primary feature of the golf course is obviously Cobbs Creek, which runs through the middle of the golf course,” says Wondolowski. “We have five holes that run right along the creek bed. Cobbs Creek, under heavy rain events, floods. I don’t know the volume of water that runs through it but it’s significant.”

When Billy Casper Golf assumed management of Cobbs Creek in 2009, it rebuilt the No. 3 green from scratch and had it ready to play in April. “It was our crowning achievement for our first year of management of the property,” says Wondolowski.

The crown quickly lost its luster on the first Sunday of August when severe rains flooded and completely demolished the green, damaging a 1,200- to 1,500-sq.-ft section of the 4,000-sq.-ft. area. But Wondolowski and his staff put their noses to the root zone and had the green in playing condition in 14 days.

But on the 15th day, Mother Nature played another cruel joke when three more inches of rain completely destroyed the green for the second time in two weeks. As Wondolowski says, it was tough to watch. Once again, the green was repaired in 14 days with the help of some guidelines from the Army Corps of Engineers.

“We used the Army Corps of Engineers specifications and built an underground sandbag levee (with more than 5,000 hand-filled sand bags) to try and protect the back of the green,” says Wondolowski. “So far it’s been effective. We’ve had several rain events and the water is being currently diverted by the levee.”

Wondolowski says the experience has given him an amazing respect for the power of water. If floods damage the green again, it’ll be déjà vu.

“I’ll do the same thing as I did before. Rebuild and try again,” says Wondolowski. “I’ll just get to work. That’s what we do. Part of the job is dealing with what nature deals you. You’re never bored as a golf course superintendent, that’s for sure.”

From umbilical cords to ears

While rebuilding the No. 3 green at Cobbs Creek took a lot of labor, maintaining the famous 14th hole floating island green at Coeur d’Alene Golf & Spa Resort in Coeur d’Alene, Idaho, is also labor intensive because everything has to be transported there by boat.

“We have our own small barge that we use for transporting mowers and top dressers and things like that,” says Kevin Hicks, golf course superintendent at the resort. “It’s a dedicated work boat. It doubles as our driving range picker. That’s another unique facet we don’t see at too many golf courses. You’re hitting floating balls.”

But when you have a solitary 15,000-sq.-ft. island pontooned in a nearly 50-square-mile lake, environmental concerns must be handled just as uniquely — if not more so — as getting the equipment there in the first place. Anything that’s applied to the green like water, fertilizers and pesticides has to be contained within the green and can’t go back into Lake Coeur d’Alene.

“That’s a very strict stipulation within the EPA and our state permitting that it has to be contained and shipped back to shore. That’s accomplished through a pretty incredible system that we call ‘the Umbilical Cord,’” says Hicks. “It’s got a line that’s four inches in diameter and more than 300 yards long that has to be flexible because the green moves. It goes from the green via a pumping system back to the shore through a dry well where we can monitor what’s coming through.”

A liner underneath the green directs all the drainage into a central drainage sump — a containment tank — in the front bunker. Drainage flows from the back to front, which is the way the green is shaped. Once the tank is full, its contents are pumped via the umbilical cord back to shore and transported off-site. The entire green is a USGA-constructed root zone that is completely contained within the liner system.

While some greens might require an umbilical cord to get things right, others only need a sentimental ear to solve problems. At Minnehaha CC, for example, members have different desires about the conditions they want in their greens. Some view them as too soft, others too firm. Some may feel the speed is tortoise-like, while others see it as “hare-raising.”

In his role as head superintendent, Swift knows listening and communication can be the means to solving the problems of the greens.

“We have over 300 members and for half of them the greens are too slow and for half the greens are too fast. Half of them are too firm and half of them are too soft,” says Swift, who has listened to the likes of Pete Dye at Whistling Straits. “Superintendents want to please everybody but you’re never going to please all the people all the time so we put a lot of pressure on ourselves. Golfer’s perceptions put a lot of pressure on us.

“We try to keep the greens relatively fast; not ridiculously fast but relatively fast,” adds Swift. “When it’s hot and humid and raining more than it should be, there’s times of the year when it’s difficult to maintain the greens speeds that the members expect on a day-to-day basis. We’re getting better every year with the technology and research that’s going on. We can do a lot more than we used to be able to. It’s becoming easier in many ways but golfer’s expectations are becoming higher.”

Swift attains feedback by playing golf with the members, having lunch with them or just interacting with them. He calls communication the No. 1 tool in his arsenal in maintaining greens.

“When we run the risk of compromised putting green quality, particularly due to heat, humidity or extreme moisture and we can’t deliver what they want, I’m not afraid to stand

Continued on page S8

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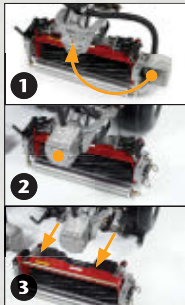


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Count on it.

Continued from page S5

on the first tee on men's day or during the club championship and tell the membership that today the greens are not quite where we want them to be and this is why," says Swift. "Here's the situation and here's how we dealt with it and here's how the impact is going to be during your round of golf today. Nine times out of 10, as long as the membership and the other players have an understanding before they tee off, the main issue becomes a non-issue because we communicated that beforehand."

The right tools

Having the right equipment can also keep members — and superintendents — happy. On the greens it's the perfection that differentiates you, says Helmut Ullrich, senior marketing manager at The Toro Co. As with Swift's handling of the members at Minnehaha, you have to listen to your customers.

"Part of the job is dealing with what nature deals you. You're never bored as a golf course superintendent, that's for sure."

— Darren Wondolowski, Cobbs Creek Golf Club

"It's a real challenge for a manufacturer to make one piece of equipment or several pieces that will fit every golf course in the world," says Ullrich. "You have to constantly listen to the customers and understand the challenges they have and find solutions for them. In the last decade many courses have changed cultivars to ultra dwarf varieties, like A or G series in the North and Champion or Paspalum in the South. They tolerate a lot lower cutting heights to meet the golfer's demands for faster green speed over the last decade, or even longer. They require that they be a lot lower because the golfer demands a

faster golf speed over the last decade, or even longer. That requires new equipment and approaching things differently. Our equipment today cuts a lot lower and a lot more perfect than it ever has.

"The lower you cut, the more susceptible greens become for diseases. The root system of the grass is proportional to what's above the ground. The shallower the root system is the more susceptible the greens are," adds Ullrich. "We're really concerned about turf health. How can we help in that direction? One way is to do less damage to the turf. You do less scuffing, you do less gouging, you do less tire damage. If you can avoid those things it goes a long way in helping superintendents to have healthy greens and a great putting surface."

Ullrich says Toro's equipment avoids turf problems and keeps greens healthy in a variety of ways. Superior floatability in the cutting enables the mowers to be gentler on greens and handle undulations easier. Toro is also following the trend toward being environmentally friendly by embracing alternative fuels and pioneering Lithium Ion battery technology as an industry first.

"We believe you have to have slight contact between the reel and the bedknife to efficiently, cleanly cut the turf, which contributes to turf health," says Ullrich. "If you do not have contact between the two cutting devices then you just beat the grass up and it's more susceptible to diseases."

Toro's new Greenmaster Triflex riders come in four different configurations: gas and diesel powered, full hydraulic and hybrid drive systems. A special tire configuration lessens imprints on greens and avoids damage.

Features like tires that are capable of lessening imprints on greens are ironically making a bigger imprint on the minds of superintendents. Tools like these are a reminder that they are not alone in the quest for better putting surfaces. With the help of the right tools, maintaining greens can be easier. Sure, some greens might need umbilical cords while others keep flooding, but today's superintendent has more tools than ever for the end goal of making golfers happier.

On greens, the grass has never been greener. ■

Bob Seligman is a Greater New York City area-based freelance writer.

The Legend of Old No. 5

Being a golf course superintendent means different things to different people, but at the core of the role is taking great care of putting greens.

In my 25-plus year career with Marriott Golf I have been charged with the care of 59 putting greens at two properties. Each green is different in form and microclimate. As you serve your duty as superintendent you come to develop a deep understanding of each green — its strengths and weaknesses and how to best manage the many programs and events that impact the quality, and sometimes survival, of the greens under your care.

Often a green can teach the superintendent many things about the art and science of green keeping. This is true for me and “Old No. 5” at Pinelsle Resort in Buford, Ga.

Old No. 5 was conceived by golf legend Gary Player and golf course architect Ron Kirby. She was skillfully built and seeded in 1972 by Charlie Scott on native clay soils. Charlie handed her off to Allen Baston (former superintendent at Augusta National) who gave her care to Bob Thompson who entrusted her care to me.

I spent 20 years learning and teaching her secrets. Old No. 5 was 31 paces with the shot and 19 paces across the shot. She was tucked into a small peninsula on the shores of the 38,000 acre Lake Sydney Lanier. She was the final proving ground for Pinelsle’s signature fifth hole, a 477-yard par five; the locals call the cove that caused the forced water carries “Cocktail Cove.” She was a true championship green, helping crown five LPGA champions, including the likes of Nancy Lopez, Pat Bradley and Rosie Jones.

Old No. 5 taught me a lot of things about green keeping. She held a steady pH of 6.2 and enjoyed full sun and great air movement. Despite her being referred to as a “push



BY ANTHONY L. WILLIAMS
CGCS, CGM

up” green she held on to her original Pennncross Bentgrass until 1995 when I was given the task of rebuilding her to modified USGA specifications and gave her a new crop of Pennncross to tempt players with the notion of right edge or left edge.

She taught me that in some cases you can use a floating bunker pump to water a lakeside green and she smiled a bit when I carded my first eagle on her in 1986 after bouncing my second shot off the riprap onto Old No. 5 and sinking a 30-footer. She saw us go from walking

greens mowers to tri-plex greens mowers back to walking greens mowers. She saw mowing heights go from “a fat quarter” .265” (yes, that is how we talked in those days) to .105”. Old No. 5 and I made it through droughts, floods, tornadoes, the storm of the century (1993) and Y2K. She taught me that not all foliar products are equal and that if she is slightly blue in the upper right tier you have roughly 20 minutes to get the hose out for some hand watering before all your agronomic wisdom goes up in smoke.

Old No. 5 was a great green by any measure but she was investigated for steroid use when we installed ins and outs on her irrigation loop.

I left Pinelsle in 2005 to learn 39 new greens at Stone Mountain (Ga.) Golf Club, and I carried the lessons and memories from Old No. 5 with me. They have served me well. In my office there is a great photo of Old No. 5. It hangs on newly installed drywall and fixtures paid for with prize money won from a contest looking for odd events experienced on the course. I told a classic tale of escaping fugitives, bloodhounds and police cars with lights flashing on, you guessed it, Old No. 5.

Anthony L. Williams, CGCS, CGM, is director of golf course and grounds at Stone Mountain (Ga.) Golf Club.

Reading Greens with **REES JONES**

“The Open Doctor” talks about what makes a golf green great, how bermudagrass will rule the South, and when it’s a good time to ignore the greens committee. **BY SETH JONES**



“The superintendents, they’ve got better mowers than they’ve ever had before,” Jones says.

The son of legendary architect Robert Trent Jones, Rees Jones has stepped out of his father’s shadow by designing over 100 golf courses, as well as multiple redesigns of venues hosting major championships. Indeed, Jones has his hand in both this year’s U.S. Open (at Congressional Country Club in Bethesda, Md.) and the PGA Championship (at the Atlanta Athletic Club.)

After meeting up with Jones at the annual Golf Writers Dinner in Augusta, *Golfdom* put the call out to Jones to chat with our own Jones, as in Seth Jones (no relation), to see what Rees had to say about the most important surface in the game.

***Golfdom:* What, in your mind, is the recipe for a fantastic putting green?**

Rees Jones: I think a fantastic putting green is where if you knock it within 20 feet, you have a real good opportunity for birdie, but if you knock it 40 feet away, you’re going to have to go across some transitions. So it pays to hit with a driver so you can get the ball close to the flag, have that birdie opportunity, and not worry about 3-putting.

The greens contours are your last defense as far as par is concerned. I think the (greens) transitions like at Augusta (National), Torrey Pines, Congressional all make it imperative to go for a flag. I think that’s really important now that the pros are hitting it 350 yards.

***Golfdom:* How about at more of an every-man’s golf course? Is there much of a difference in philosophy in greens from a course that hosts a Tour event to a low-budget course?**

Jones: Yes and no. If you look at Donald Ross, he had the crown greens, greens were pitched from back to front to get the water off them. There were a lot of steep

slopes on them — now, the speed of greens is much higher, so you have to be more careful on the degree of slope. (They) have to be concerned with the average player, but of course they don't run the greens at 14 on the Stimpmeter for the average golfer. They run them 9 or 10, so the greens are more puttable and easier managed at that speed.

Golfdom: How much has the evolution of course maintenance changed the golf green?

Jones: Augusta is a good example of how it's changed the green; they've had to ease up on some of the hole locations. I think Ben Crenshaw just eased up a couple locations on Pinehurst No. 2, because of the speed of the greens. The new grasses are more closely mowed. They're more dense, easier to get fast and firm... so you have to modify the greens and take some of the contours out of some of the old greens.

At Atlanta Athletic Club, we converted (the greens) to Champion bermudagrass so the grass will be fast and firm this summer, and especially in August (for the PGA Championship), whereas 10 years ago, the greens were a little slow and soft because they were bentgrass. I think you're going to see this in a lot of places, especially in the South.

Golfdom: You read my mind on an upcoming question, the bent/bermuda debate in the South. How does a course make this decision? When you're brought in to advise, are there certain elements you look at to make the decision?

Jones: Even for regular tournaments you don't want soft and mushy; it's bad for the turf, bad for the game. You get footprints. You really have to have a turf that allows you not to use too much water and still keep it in good shape. You don't want to make the grass alive with overwatering.

Now, the bermudas are a lot better. We couldn't have done this if it were tifdwarf or 328. We can do it with Champion.

Golfdom: How would you describe your own style when it comes to designing greens?

Jones: They're all different. It usually depends on whom you're designing for and if you're designing for a championship. But there are different ways to make it a championship player... I mean, at Bethpage, those greens are real subtle.

You have to remember, the greens contours protect the hole location, protect the pin as much as a pond, the rough, a bunker. Sometimes people forget that. They don't talk about the greens contours.

Golfdom: Care to name drop? What are some of your favorite greens out there?

Jones: Oh, boy. I've never even thought of that. ...The third green at Augusta National is a great green because it's a short hole. The seventh hole is also a great green, both are designed as short par 4s, yet both greens really make the holes a challenge. I think the 18th at Congressional (Country Club in Bethesda, Md., site of this year's U.S. Open) is one of the best finishing greens. The greatest greens are the ones that make you make choices.

Golfdom: Did your dad (Robert Trent Jones Sr.) have any advice he passed down to you on putting greens?

Jones: I think he knew as much about putting greens as anybody because he had the transitions. Oakland Hills greens are mostly Donald Ross. A couple are my dad's. He learned from that. He learned from working at Augusta. He did the 16th green, the 11th green and the 13th green over, and he built the 16th hole. I think he got a lot of advice from Bobby Jones because he was a

family hero. He brought the ideas back from the Old Course at St. Andrews, as far as contours. In today's world of contours, the things Bobby Jones did at Peachtree and Augusta and continued to do at Bellerive, is more essential because the ball goes so far. To protect par, it's the green contours now.

Golfdom: How good of a putter are you?

Jones: Average. I'm like a lot of people. If I start off well, and I start getting the stroke going well, I do tremendously well. And if I start going bad like (Rory) McIlroy did at the Masters... you miss a few and then you start thinking about it too much.

Golfdom: Any parting shots for the superintendents out there striving to make their greens great for golfers?

Jones: The main thing is, find the fine line between healthy and moist without overwatering. That's good for everybody. You don't have the disease problems. They're still great surfaces to hit into. You don't have a ballmark that takes a minute to fix.

With these new bermudas and bents, you have to verticut often. It doesn't affect the golfers like it did in the old days, where they'd aerify the heck out of them and they weren't playable for three weeks. Get rid of the thatch, and don't topdress with any material other than what the greens were built with. It chokes off the greens.

The mowing, too, is important. The superintendents, they've got better mowers than they've ever had before, so the equipment is to their advantage.

Every superintendent needs to do what they think is right. Don't listen to the member saying, "I've got the member/guest. I want it 14 on the stimp." If it's going to be 90-something degrees, just do what you think is right. ■

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Golfdom

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With summer almost upon us I thought I would put myself out there and try predicting what the summer will be like weather-wise. Predicting weather, at least for me, is as much of a crapshoot as filling out my 2011 NCAA basketball brackets (and given my poor record of picking NCAA champions, no doubt my credibility is low).

Complicating matters, it seems we hardly ever experience normal temperatures and rainfall. However, looking at climate trends, we may at least get an idea of where we are heading. Based on the following, I think it's likely we will have a hot summer with periodic downpours similar to those of 2010. I base this prediction on the following:

- The average temperature in the United States has increased 2 degrees Fahrenheit in the last 50 years. This increase is greater than the global average (Peterson, et al. 2009).

- The eight warmest years on record since 1880 have all occurred since 2001, the warmest being 2005 (NOAA, 2008).

- Increasing temperatures tend to increase evaporation that leads to more precipitation. As global temperatures have increased, so has precipitation. In the United States precipitation has increased 5 percent in the last 50 years.

- During the last 50 years the greatest increase in precipitation in the United States has occurred in the Northeast and Midwest.

- Climate models predict a tendency for an increase in heavy downpours and a decrease in the lightest precipitation events.

High soil temperatures impact cool season turfgrass growth such as creeping bentgrass by causing root growth to slow. Eventually, that slowing could lead to a dieback. Periodic heavy downpours saturate the soil, causing anoxic conditions that only accelerate root death, which can occur within hours. Although warm season turfgrasses are adapted to higher temperature conditions, root loss can occur with high soil moisture content.

Golf course superintendents in South Florida know the combination of hot and wet

A Summer Forecast for Turf

BY KARL DANNEBERGER



**MECHANICAL
MANAGEMENT
PRACTICES SHOULD
BE ADJUSTED
ACCORDINGLY —
MAINLY THROUGH
REDUCING THE
INTENSITY.**

conditions can greatly reduce bermudagrass root systems. It goes without saying that an efficient drainage system along with a root zone that has an adequate infiltration rate is critical to maintaining turf. Irrigation practices should continue to keep the turf on the dry side so as not to contribute to a situation where you can lose control of the turf during summer rains.

Diseases like pythium blight and brown patch can be expected to be severe. In addition, on annual bluegrass (*poa annua*) turf, summer patch can be quite devastating under high temperatures and cycles of rain and intermittent dry periods. Last year, throughout the Midwest we saw a spike in summer patch in areas where it has not been a problem before.

In many ways, weather like that of summer 2010 should occur more frequently. Given that, mechanical management practices like mowing, verticutting, grooming, brushing, topdressing and coring should be adjusted accordingly — mainly through reducing the intensity. The key is predicting when the stress is beginning. So track soil temperatures. Once average soil temperatures remain above 70 degrees Fahrenheit on cool season turf the stress period is underway.

Finally, I will hedge my bets on my prediction. As I am writing this column, in Ohio we are approximately one week behind for the plant growth and development season. At this time last year we were a week to 10 days ahead. So maybe this year will not be as bad as last year and we will actually get a breather. But given the long-range outlook, any breather will be short-lived.

Karl Danneberger, Ph.D., Golfdom's science editor and a professor at The Ohio State University, can be reached at Danneberger.1@osu.edu.

THE 2011 PLANT HEALTH SERIES



GOLFDOM AND BASF Professional Turf & Ornamentals have teamed up to bring readers the 2011 Plant Health Series. We've taken a three-pronged approach to the plant health series.

In **part one**, published in the April issue, we took a journalist's approach, utilizing *Golfdom* staff to report on the advent of the plant health label in the turfgrass industry. We spoke with superintendents who were familiar with the label, and those who weren't so familiar with the label, as well as to researchers and the two companies who currently offer fungicides with plant health benefits to customers.

In **part two** of the series, we asked *Golfdom* contributing editor Clark Throssell, Ph.D., to

take a scientific look at plant health, utilizing his contacts in the turf research industry. Throssell interviewed numerous industry experts about what they're seeing in labs, greenhouses and on golf courses around the country. We're proud to present part two here.

In **part three** of the series, which will appear in next month's issue, we round out our coverage by

asking a superintendent to write about what plant health means to him and his peers. Anthony Williams, CGCS, CGM at Stone Mountain (Ga.) Golf Club, has been tasked with the job.

We're excited to report that last year's Plant Health Series won a 2011 Turf and Ornamental Communicators Association award for "best series." We're aspiring to live up to that standard this year.

The now award-winning Plant Health Series would not be possible without the support of BASF Professional Turf & Ornamentals.

Now, we present part two of the series, "Beyond Pest Control," by Dr. Clark Throssell.

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Sustainably Adding Value

Over the last several years, many golf course superintendents have felt that their turf, budgets and sanity were drying up.

Although the economy is still recovering, golfers expect course management to reduce prices and superintendents to produce pristine conditions.

There is increasing financial and environmental pressure to make sustainability-driven improvements to reduce inputs — including water, chemicals and fuel. But reductions must not sacrifice turfgrass playability. Fulfilling sustainable course maintenance needs and business demands is challenging but not impossible.

Like superintendents, BASF sees sustainability as achieving more using fewer inputs, while ensuring profitability and environmental consciousness and meeting the needs of present and future generations. BASF research and development continually brings new innovations to market that help superintendents create smarter, more sustainable turf maintenance programs.

Recent examples of this research and development include pyraclostrobin-based fungicides Insignia SC Intrinsic and Honor Intrinsic.

The lackluster economy is forcing superintendents to create efficiencies out of necessity. Consequently, superintendents have a more heightened sense of value. They're looking for turf products that help cut costs and conserve resources while maintaining quality.

Intrinsic brand fungicides are the first fungicides in the turf market labeled for disease control and plant health. They give superintendents industry-leading, broad-spectrum disease



BY THAVY STAAL

control and the bonus of plant health activity — without additional inputs. Pyraclostrobin supports the entire plant during a stress event such as drought, temperature extremes and aeration, which helps superintendents get more from their fungicide applications.

Intrinsic brand fungicides prime the plant's immune system before a stress event occurs, which helps the turf endure and overcome the event through root retention. In addition to controlling a broad-spectrum of diseases — such as dollar spot, anthracnose, patch and spot diseases —pyraclostrobin-based fungicides have been shown to activate plant defenses so that turfgrass is better prepared to defend itself when pathogens attack.

In the quest for sustainability, superintendents are embracing change and investing in inputs that provide the highest potential return. Laboratory and field research demonstrates that the turfgrass treated with pyraclostrobin-based fungicides is healthier and stronger.

Clemson University's disease control Programs 10 and 13, conducted by Bruce Martin, Ph.D., showcased pyraclostrobin-based fungicides' unique activity and industry-leading performance. Applications of Insignia or Honor were the backbone of a solid summer stress management program. Field observations from Summer Stress

Programs in 2007 at Clemson University Turfgrass plots showed the ability of A-1 bentgrass to tolerate extended periods of high heat and humidity with the use of fungicides Insignia and Honor. Temperatures at or greater than 100 degrees Fahrenheit were recorded for numerous days during the trial. The pyraclostrobin-treated plots showed higher turf quality for the entire season as well as recuperative growth throughout the winter and spring of 2008.

Field input shared with BASF from superintendents across the country using Intrinsic brand fungicides indicates that, when used as part of an integrated pest management program, turf treated with Intrinsic brand fungicides 10 days prior to a stress event better withstood the stress compared to those that weren't treated with pyraclostrobin-based fungicides.

The pressure to sustainably nurture quality, playable turfgrass seems greater than ever, leaving superintendents with even more to worry about. Intrinsic brand fungicides help BASF customers get more value from disease control applications, which improves peace of mind.

Learn more about Intrinsic brand fungicides at www.Intrinsic-PlantHealth.com and other BASF Professional Turf & Ornamentals innovations at www.betterturf.basf.us. ■

Thavy Staal is marketing manager for BASF Professional Turf & Ornamentals.

