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TURF MANAGEMENT

turf health with proper nutrients, fertility, water and oxygen first. Even though all superintendents want to save money and reduce mowing, don't over apply. And give the plants some time during the year to develop roots, like early fall or mid spring."

FUTURE. There aren't a lot of new compounds being introduced, Bigelow says. Instead, researchers are "playing around" with ways to use what's on the market. One of his objectives is helping turf tolerate summer stress – heat, humidity and dry conditions.

Brotherton sees a bright future for the use of plant growth regulators.

"As we continue to conduct more research, we are able to better understand how they work amongst the many scenarios and

settings in which they are used," he says. "Our research continues to lead us down a path where we are constantly developing new PGR products and unique applications for them."

Companies continue to conduct research to bring new, novel compounds to the market, Mudge says. In lieu of new products, companies are now selling premix combinations of two or three existing PGRs.

"As for the future, PGRs will continue to be an integral part of golf course management programs," Mudge adds. "PGRs are being used more and more for resource management and turf quality benefits. Golf course superintendents are very innovative [and] will continue to identify new uses for PGRs that allow them to do their job more

efficiently and provide quality playing surfaces."

ADVICE. "Low and slow, that is the tempo," Mudge says about introducing PGRs to a maintenance program. "Don't rush into using a new product because the wrong product, rate or timing can result in setting the turfgrass back during a critical growth period. It is better to use lower label rates and more frequent applications than high-rate applications until you are comfortable with how your turfgrass reacts to a new PGR.

"Since plant growth is affected by the environment and agronomic practices, adding a new PGR into the program may require some additional fine-tuning," he adds. "Review research findings from different universities and regions, and try a

few test areas or some small-scale applications before applying a new product across the entire golf course."

Corbett agrees with the university approach, but also urges additional research on the PGR, as well as the company from which you purchase the PGR.

"Never use a product without looking at the data to see how it performed in university research," he says. "Purchase products from manufacturers that support the industry and not from a company that you haven't seen before or don't know anything about. That way you will have someone to call on for support in the event there is an issue." **GCI**

Rob Thomas is a Cleveland-based freelance writer and a frequent GCI contributor.

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THE STATE OF SUSTAINABILITY AND GOLF

First things first: If you are reading this, the Mayans were wrong. Whew...we made it to the beginning of yet another year.

Now that we know that we have survived to face the upcoming months and years ahead, this is a great time to stop and look at how the world around us is really doing. And while we're at it, let's review what we personally and professionally have contributed.

So as not to totally come across in a negative way, let say there are individuals in the golf industry who have taken to heart their responsibilities to become better stewards of the environment. Their actions have changed the faces of many golf courses, as well as the way golf course maintenance facilities are being designed and managed. Those facilities serve as catalysts for improved water quality and increased wildlife habitat.

During the last few decades, golf organizations such as the USGA have invested millions of dollars toward research efforts, aimed not only at uncovering the facts connected with what golf may or may not be doing to or for the environment, but suggesting management changes, as well. These efforts serve as the foundation for the development of new products that deliver increased environmental and economic efficiency. To all of that I give a hardy "Bravo!"

Now here comes the other shoe. Sustainability is not a destination, a sign, an award, or, for that matter, environmental management by another name. Sustainability is an attitude and a combination of methods collectively aimed at fostering economic viability, environmental health and improved social wellbeing. To put it bluntly, from nearly every aspect, the economy is down, the health of the environment is down, and the social wellbeing of a growing number of human's

on Earth is down and continuing in a downward trend.

Over the past few years I have talked with the management at a number of facilities that I believe represent the leading edge of environmental stewardship efforts connected with golf course management. I asked each if they believed, or better yet,

To put it bluntly, from nearly every aspect, the economy is down, the **health of the environment** is down and the social wellbeing of a growing number of humans on Earth is down and continuing in a downward trend.

if they could prove that biological diversity had gone up, down or stayed the same. Likewise, I wanted to know if they could demonstrate that water quality had improved, or that they reduced their water use rates and so forth. Without exception the answers were all affirmative. Then I asked each if they believed the same could be said for the communities in which their facilities were located. And without exception the answer was "No!"

If the golf course industry is truly going to become engaged with the topic of sustainability, the industry must think beyond golf. Yes, golf must walk the walk at each golf course facility, but the industry – and to an extent individual courses – must carefully consider and take actions that are focused on topics of real importance that are well beyond golf.

For example, consider that 1.1 billion people lack adequate drinking water access; and 2.6 billion people lack basic water sanitation. Add to those the fact that the average American uses 30 times more water than a person who lacks adequate access to water. In other words, we simply take this vital resource for granted.

Think about the fact that every ecosystem on Earth is in decline. Nearly all of the major fish stocks in the world's oceans are over fished and in decline and the oceans' dead zones are growing, not shrinking.

I have been trying to capture the attention of the golf industry concerning these and other topics for more

than 25 years. My hope is that in the next few years the industry wakes up and makes the decision to truly become engaged in sustainability.

There seems to be a growing effort to use the terms "sustainability" and "sustainable golf." However, many of these efforts are, in my opinion, a mile wide and an inch deep.

They are simply the same-old-same-old... but with a new name. That simply will not get the job done. And further more, it will lull most people into a false sense of security that will not only be dangerous for the future of the golf industry, but it will add nothing to the efforts needed to help move society toward a more sustainable future.

It's sort of like rearranging the deck chairs on the Titanic and making certain the ship is at least heading in the right direction as it slowly slips beneath the icy waves.

So to those individuals in our industry who have given it their all over the past 25 years, I offer you a sincere "Thank you."

But to the vast majority of those in the golf industry who have done nothing, I say, "Wake the Hell up." **GCI**

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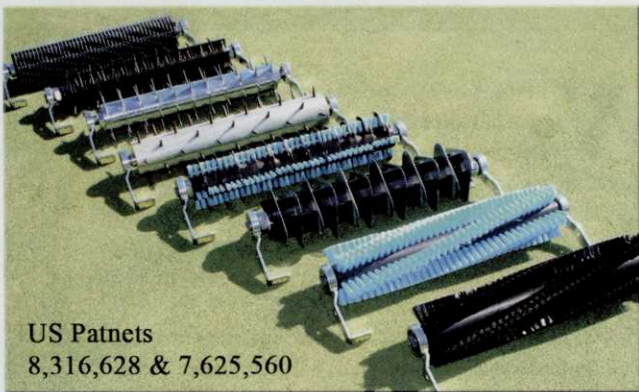
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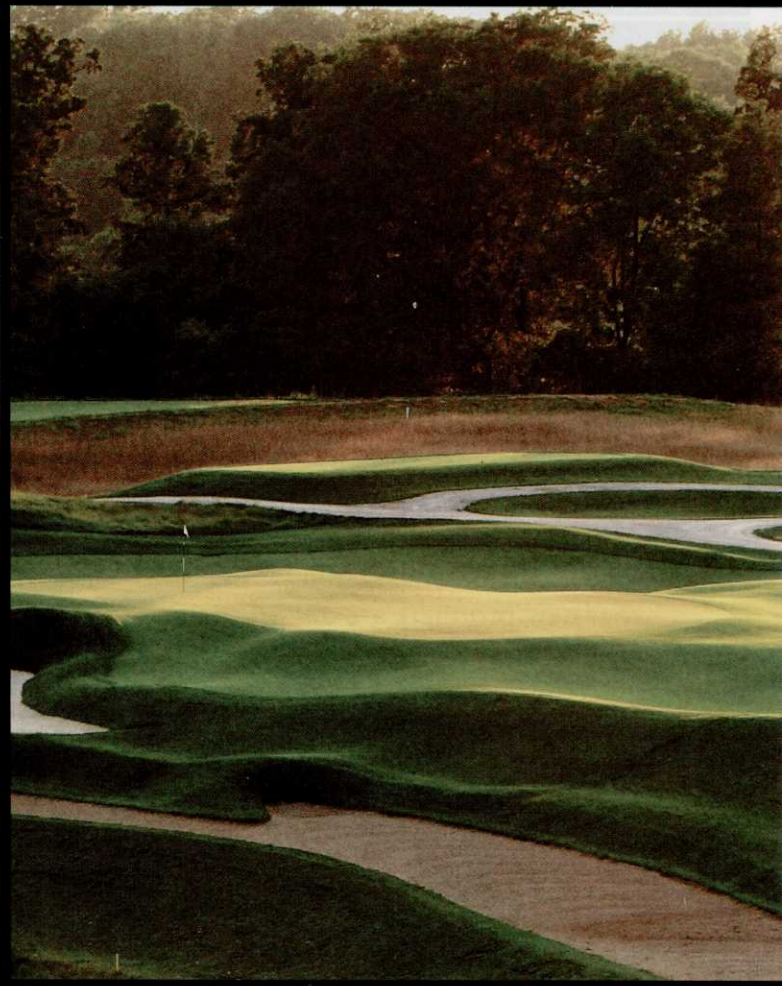
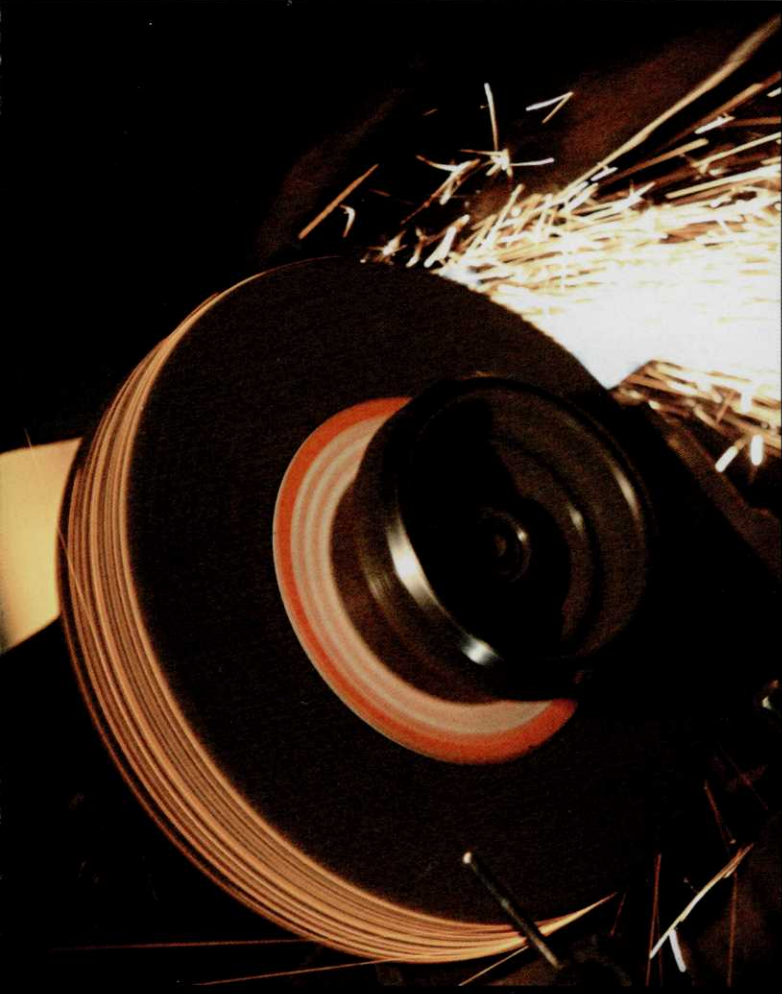
**Robinson readies
for double duty.**

By Trent Bouts

When Kevin Robinson's mother saw the Olympic Club on television during this year's U.S. Open, she was taken aback. Mottled fairways and greens bound by straggly rough had her shaking her head. Later, on the phone to her son, who will prepare Pinehurst No. 2 for the 2014 Open, she said of Olympic, "It's not such a pretty course." Robinson sucked in air: "Oh, mom. Wait until you see us."

Thanks to an overhaul, labeled a restoration as distinct from a renovation, Pinehurst No. 2 will bear little resemblance to the sea of green that spellbound the golf world for the Opens of 1999 and 2005. Depending on your tastes – and the weather leading up to the early summer date – the golf course will either look like heaven, or like hell. There will be no room for ambivalence. As Pinehurst Resort chief executive officer and owner Bob Dedman Jr.

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ALUMNI UPDATE

“**B**efore going to Syngenta’s SBI conference, I had heard from a few of my close friends who had previously attended the conference about how great an experience it was for them. I left the SBI this past December truly changed as a superintendent. It wasn’t about learning how to grow grass in the harshest climates or what new products are out on the market today. It was about learning how to effectively lead and manage a group of individuals toward a desired goal and how to be a better leader for your operation.”



Randy Samoff
Superintendent
Redstone Golf Club
Houston



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PROFILE



The most striking change No. 2 is the absence of rough in the conventional sense. That turf is gone. Thirty five acres of it.

has said: “...it will probably be the smartest thing we’ve ever done, or the dumbest thing we’ve ever done.”

To date, expert consensus leans strongly toward the former. No. 2 is every bit the memorable experience the restoration sought to provide.

The most striking change is the absence of rough in the conventional sense. That turf is gone. Thirty-five acres of it, replaced largely by wire-grass and a lottery of low-growing natives across sandy waste areas that may be hard pan under one foot and beach soft beneath the other. What turf remains is mowed at two heights – greens, and everything else.

With the rough gone, those Super-model-thin fairways of '99 and '05 have put on some flesh – up 13 acres to 41 now – but they won’t necessarily play any wider. Architects Bill Coore and Ben Crenshaw ditched 650 of 1,100 irrigation heads in favor of an austere centerline system. If it’s hot and dry in the run up to the Open, the edges will be lightning fast and sepia-toned like some of those old photos Coore and Crenshaw based their work on.

After decades of American golf characterized by excess – wall-to-wall grassing, ornamental bunkering

and checkerboard mowing patterns – the 21st-century Pinehurst No. 2 stands as a 180-degree turnaround. Minimalist is the mantra. The golf course – that is, where you’re supposed to hit it – still gets all the care and attention it needs. But stray from that path and you’re subject to the elements. As Robinson says of the new “old” philosophy for No. 2, “We’re no longer picking up pine cones before they hit the ground.”

So, Mrs. Robinson may indeed be in for an eyebrow-raiser but you have to think that somewhere the spirit of Donald Ross is grinning from ear to ear. The golf course looks more like the one he designed, where strategy and skill counted for more than sheer strength in the rough. Others like USGA executive director, Mike Davis, are also smiling. No. 2 is now a showcase for the kind of sustainability the USGA says is vital for the future of a game that needs to be more economical to maintain and, consequently, more affordable to play.

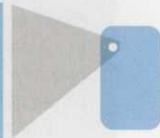
Kevin Robinson grew up in Linville Falls in the mountains of western North Carolina before the family moved to the foothills in Morganton when he was a teenager. Ross

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courses were nearby at Linville Golf Club and then Mimosa Hills Golf and Country Club but while Robinson played some with his father and older brothers, his primary interests were baseball and wrestling. He loved the outdoors and was aimed at wildlife science when he went to North Carolina State University.

There, he met up with "some guys from the agronomy club" including Ron Kelly, now certified golf course superintendent at the

Country Club of North Carolina. Through Kelly, Robinson picked up some work and pocket money on the crew at North Ridge Country Club under the tutelage of Carolinas GCSA past-president, Butch Sheffield, CGCS. His career path was turning before he realized. But he caught on soon enough and graduated with a Bachelor of Science degree in Agronomy with a concentration in turfgrass in 1992.

Now, 20 years later, he is pre-

After decades of American golf characterized by excess – wall-to-wall grassing, ornamental bunkering and checkerboard mowing patterns – the 21st-century Pinehurst No. 2 stands as a 180-degree turnaround.

Not *Rain*, Nor *Sleet*, Nor *Snow*

Come June of 2014, all the focus will be on how the A1/A4 bentgrass greens on Pinehurst No. 2 are handling the heat in the lead up to back-to-back men's and women's U.S. Opens. But heat wasn't always the major concern. Indeed when the greens were being laid during the restoration, the biggest obstacle was the cold. "It was snowing sideways when we were laying some of the sod," Kevin Robinson, CGCS says.

Even getting to that point was a challenge.

Originally a grower north of Pittsburgh was to supply the sod but a brutal early start to winter set 18 inches of snow over the grass. The supplier did his best and managed to ship some product but his equipment was damaging more acreage than it was harvesting so in the end he had pull out of the deal. Alternative suppliers were found in New Jersey but the cold issues weren't over.

The new sod froze solid en route south. "We'd come in and let their trucks into the shop at midnight," Robinson says. "We would set up banks of space heaters to thaw it out so we could get it down the next day." He even secured thermal blankets from a local concreting contractor to help the process.

Grass for the final green came locally from Sandhill Turf. Robinson laughs now, and well he might. The end result is superb. But it took a lot of teeth chattering hours to get there.

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