

LeTriomphe, a Robert Trent Jones, Jr., course tucked into the heart of Cajun Country, has been open for 26 years. For the past 21 years, it has served as host for the Web.com Tour's Chitimacha Louisiana Open and is one of the five oldest stops on that Tour. But a dozen years ago, the course was struggling to meet PGA Tour standards with regards to greens condition.

"The property was facing challenges when I was asked to come to LeTriomphe," says Poynot, who directed golf maintenance at the property for 12 years.

The course was closed for much of 2003 when the greens were reconstructed, and during that time Poynot sought a superior turf product.

"Our thought process was to avoid the ultradwarf Bermuda grasses," Poynot says. "We didn't want a turf that would require the intense and disruptive processes of frequent vertical moving and topdressing. What we really wanted was a tiftwarf from a farm that had no history of mutating."

After consultations that included PGA Tour involvement, the club went with a mid-dwarf or tweener, one that was receiving a lot of attention for its quality, consistency and texture along with a lack of mutation history.

However, the rhizome and root development with that strain of turf proved to be limited, and after three seasons of extra aerifications and fertility and cultural practices recommended by the USGA, there was still no in-ground improvement in the roots and rhizome structure.

Although LeTriomphe maintained good surfaces and the greens were exceptional for

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— Scott Poynot, LeTriomphe Golf and Country Club

major events such as the Web.com Tour stop, it was getting more and more difficult to produce a consistently high-performing surface.

Since the roots weren't doing their job, Poynot implemented the full-foliar fertility approach. Even though the greens would not dry down like the Open or Players' Championship surfaces due to the lack of root and rhizome development, the surface quality remained at a high level with Poynot foliarly applying everything the plant needed to be healthy.

The foliar feeding program produced a superior turf than relying only on soil intake, but Poynot questioned the sustainability. Because of the current turf's limits and his desire for a greener approach, he convinced LeTriomphe owner Mike Maraist of the benefits of investing in research.

"Mike has always been tremendously supportive of whatever we've done," Poynot says. "Without him, we wouldn't have the quality surfaces that we have, and we wouldn't be putting the time and effort into this project."

The background research led to Poynot and the club installing its own turf research plot, an area that Poynot hopes will lead to innovations in regional turf grasses. "When you're dealing with grass species that are native to your area, less maintenance and fewer resources are needed," he says. "When the greens are healthy and fewer fertilizers and chemicals are needed, everyone benefits."

"Think about it... golf began in Great Britain with cool-season grasses in a cool-season environment in very sustainable soil conditions. These courses haven't been touched for a hundred years. You don't see them changing out greens every couple of decades or spending anywhere near the amount of money that we do in the U.S." **GCI**

Dan McDonald is a freelance writer who authors a golf column in *The Lafayette Advertiser*.



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Jeffrey D. Brauer is a veteran golf course architect responsible for more than 50 new courses and more than 100 renovations. A member and past president of the American Society of Golf Course Architects, he is president of Jeffrey D. Brauer/GolfScapes in Arlington, Texas. Reach him at jeff@jeffreymbrauer.com.

NO. 100

Back in May 2004, I sat down to write my first Golf Course News column. That I wrote even one is a miracle, considering the editor they had just fired recommended me. I figured I was probably out the door before I was even in. That I have written a hundred of these columns is even more miraculous. It's been fun, even with the monthly panic of "What do I write this month?" being a constant companion. I wonder how newspaper columnists wordsmith on a regular basis.

I started at a time when I had already realized the value of expressing design ideas in writing. I figured if I couldn't explain my design philosophy clearly in writing, then I probably didn't have a strong one. I had been writing some thoughts in short bites to clarify my ideas anyway, and in many ways, this column simply forced me to keep it going constantly.

My father's advice (he was a business executive) also helped me as an "amateur" golf course architecture writer. In high school, my father, sensing computers were the future, insisted I take the girl-dominated keyboarding class. He stressed the importance of expressing my thoughts in writing, and to do it succinctly. He felt any ideas not expressed in two or three sentences were probably "as well formed as a post-oatmeal bowel movement." At his urging, I wrote a business plan for my then new business venture, and even before reading it, he made me trim it from a dozen pages to three, while leaving in all the important content.

Those editing skills come in handy, as that is how these columns are written. At various times, my maximum word limit has been 450, 600, 800 and 1,000 words. My first draft usually takes a day to write, and I spend at least one more day whittling it

The **lowest point** was an email from a superintendent saying, "Thanks a lot. My GM slammed your column on my desk, and fired me, saying I should have known how to solve this problem."

down to size, usually by cutting my bad puns, old stories and other fluff, to my regret and the probable delight/relief to readers. Sometimes I "cheat" by spreading content into multiple columns, like my series on the superintendent's role in construction.

My instructions through three editors have been to write about 2/3 "meat and potatoes" columns and 1/3 on design issues. The first President Bush didn't "get the vision thing" and when it comes to golf course design, most readers don't either. They prefer reading about more practical issues of immediate need. In total, I've written:

- 34 design issue related columns
- 11 on master plans
- 10 on irrigation or environmental issues
- 10 on construction/reconstruction
- 7 on bunkers
- 3 each on greens, drainage, trees and maintenance
- 2 each on cart paths and tees
- 1 each on safety and ADA

The other 11 touched on golf-related memories, tributes to recently deceased industry members, or similar topics. I focused on humor twice, once using the style of Rodney Dangerfield to explain the moribund state of the industry (*To save money, one course replaced the superintendent with the golf course dog...when I called to ask about their golf course conditions, the answer was "ruff."*) In another case, I assumed the persona of "Dat Effen, Golf Course Architect," to explain how angry golfers are when the design doesn't suit their game. (It seems like Dat Effen, Golf Course Architect,

designed EVERY course I play.)

While writing is fun, and there is always some self-satisfaction at heeding my late-father's advice in writing clearly to share 36 years of accumulated golf-design knowledge with readers, it is always a highlight when readers take the time to provide feedback on the columns. I get at least one email most months complimenting me. A few ask for free advice, which I give if I can from long distance.

I had only two lowlights over these 100 columns – one company accused me of unfairly "pitching" a competing supplier. As it happens, their national sales manager shares my last name (not related) and I do remain neutral.

The lowest point was an email from a superintendent saying, "Thanks a lot. My GM slammed your column on my desk, and fired me, saying I should have known how to solve this problem." That was my column on adjusting approach-area sprinklers to different reverse points to reduce wet spots. I was passing on free, easy to implement advice that USGA construction guru Jim Moore had been researching. Obviously, it was new info to many, not something "every superintendent should already know."

I appreciate GCI's editors for nominally paying me for these few days of writing fun each month, and appreciate all who read me regularly (You three know who you are). While I do slightly panic every month, in looking back at what I have written, I see there is so much more I want to cover. Here's to another 100, providing you'll still have me. **GCI**

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Soak it UP

Effectively moving water through your soil profile means not only healthier turf, but potentially lower irrigation costs.

By Katie Tuttle

As superintendents find ways to use money more efficiently, and at a time when water conservation is becoming an increasingly important topic, wetting agents have become a much larger part of the discussion.

This interest stems primarily from the 2008 drought, says Dr. Keith Karnok, University of Georgia professor of agronomy.

"[It] really woke people up," Karnok says. "Water restrictions essentially affected everyone, especially golf courses and the rest of the green industry. Water scarcity and conservation is something that has become a concern for all regions of the country. The fact is, short of desalination, we aren't making anymore water, yet population and use continue to grow."

Karnok has spent the last 25 years focusing on using wetting agents on water repellent soils and/or water repellent sand rootzones. This research, Karnok says, has found that wetting agents, when used on water repellent roots zones, reduces the amount water used on sand-based putting greens by 30 to 50 percent.

It's a statistic superintendents dealing with reduced water availability issues may find interesting.

"We have shown conclusively that when rootzones are water repellent, wetting agents can save significant amounts of water," says Karnok. "Therefore, we feel confident that if a golf course is dealing with soil water repellency in greens, tees or fairways, the use of a wetting agent will be beneficial."

Over the past few seasons, superintendent Erin McManus has witnessed warmer temperature and heavy rains at Medina Golf and Country Club in Medina, Minn. The course was built on farmland in 1922 and, although it is relatively flat, several holes have peat bog soil, as well as heavy clay soil.

McManus employs various types of wetting agents depending on whether they want to move water into the profile, hold moisture into the profile, or a combination of both. "By using the wetting agent we are able to hold moisture on the high spots and let the water infiltrate in the lower areas," he says. "[However] what works for my course will not work for all golf courses and that is where we, as superintendents, can experiment with different wetting agents to get the desired result."



A water-repellent core. Inset, the absorption of water in treated (left) versus untreated (right) soil.

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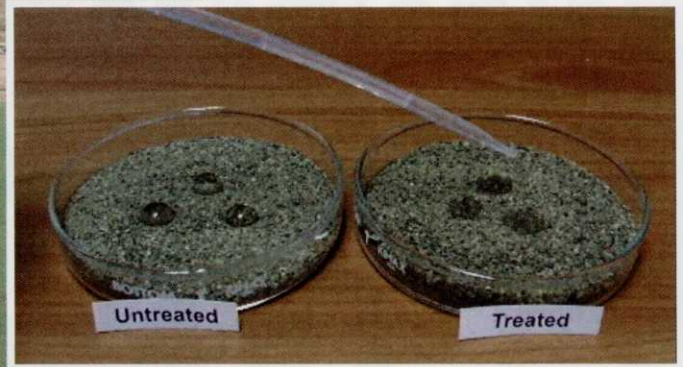
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Left, localized dry spots (LDS) caused by water repellent soil. Above, an instant visual of what happens to drops of water on treated and untreated soil.

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—Erin McManus, Medina Golf and Country Club

Because quality water has become such a premium, Mica McMillan, senior research agronomist for Aquatrols, says more pressure is placed on superintendents to conserve this resource – from both an environmental and financial/budgetary standpoint.

“It’s more bang for your buck,” McMillan says. “You not only save water, you save water costs and you also saves costs of anything you apply with your water.”



Left, Superintendent Erin McManus.



Right, Dr. Keith Karnok.

Not only do wetting agents save superintendents money by using less water, they also save money by using less fertilizer. Many superintendents inject fertilizers with their wetting agents and it is important to make sure that the fertilizers are absorbed into the soil and do not run off.

Wetting agent use on water-repellent soils helps move inputs such as fertilizers and pesticides more uniformly into the soils, Karnok says. “More effective chemical use results in a healthier turfgrass plant,” he adds.

Research data supports improved efficacy of fungicides or herbicides with wetting agent use, McMillan says. “It helps maximize not only your water but your fertilizer applications as well,” he adds

In the end, it all boils down to money savings. On top of the money saved from less water and more efficient fungicide or herbicide application, there is also the energy saving side of things to consider.


If you’re running your pumps all the time to continuously wet up your soil, your pumps continue to use energy. If you use a wetting agent to keep wetting and rewetting the soil, the pumps do not use as much energy, creating less of a negative environmental impact.

Not 100 percent sold? Consider what’s best for the golfers. “Playability is one of the leading factors in what we as superintendents look for in projects,” McManus says. “A wetting agent can help keep the putting surfaces more firm and fast. This increases playability during rain events and other factors that we cannot control.”

However, not every golf course necessarily needs to use a wetting agent, McMillan says. If you have recently built a new golf course or a new hole, and you have made sure the construction was perfect, there will not be any hydrophobic coatings and therefore it is a good idea to save your money by waiting. It typically takes six months to develop a hydrophobic layer.

McManus also does not believe every course needs a wetting agent. Superintendents should ask themselves what goal they want to reach from using the agent, he says.

“Make sure you use a wetting agent that



How they WORK

Wetting agents work in two ways – they break surface tension and they improve water use efficiency, says Mica McMillan, senior research agronomist for Aquatrols. Wetting agents do this by coating the hydrophobic coatings on the soil particle. This moves the water in and around the soil particle and down into the soil profile. If your soil is having a problem taking in water, a wetting agent may help.

For more information, check out the online presentation by Aquatrols Territory Manager Ken Mauser, who explains the behind water repellency in soils Enter [bit.ly/WzAmRR](#) into your browser, or check out the presentation in the iPad/iPhone edition of this issue.



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WATER MANAGEMENT

suits your needs and don't be afraid to run some small trials on your course to find out what works for your individual case," he says.

McManus worked with Winfield to run a wetting agent trial on their greens over a couple seasons. He says the results from those trials will dictate the types of products he uses on the course.

Another situation where no wetting agent is required would be if your course gets a lot of rain or has very wet conditions.

"Look at your soils and ask if you really need a wetting agent," McMillan says. Of course, once the soil does dry down, the hydrophobic coatings will start to reorient themselves and you will have trouble rewetting your soils. Then you will need to use a wetting agent, or a lot of water, to rewet it.

"I don't always recommend that you go out and mindlessly spray a wetting agent," McMillan says. "Look at your conditions. What's the age? What are the environmental conditions? Are your soils water repellent?"

However, Karnok offers a different view-

point. "Some research, including our own, suggests that under certain circumstances the application of a wetting agent to non-water repellent soil could be beneficial in terms of water savings and improved turfgrass health and quality," he says. "We have found this to be the case in some situations, but not all. Therefore, I cannot say with complete certainty that all golf courses should be using a wetting agent."

Despite this, Karnok says a lot of superin-

tendents use wetting agents.

"It should be pointed out that our surveys of golf course superintendents have shown that 94 to 98 percent of all golf courses in the U.S. use wetting agents either regularly or occasionally," he says. "They are without a doubt an important tool for almost all golf course superintendents." **GCI**

Katie Tuttle is an assistant editor at GCI.

Test for water repellent soil

As you know, water repellency ruins distribution uniformity (DU) and therefore reduces irrigation efficiency (IE). However, many turfgrass managers don't know how to test for it.

- After a few dry days, pull a soil core and place small drops of water from the thatch/mat layer downward. Soil must be completely dry to determine water repellency.
- Note time for complete penetration of drop
- Five seconds or more – definite presence of water repellency. Greater than 60 seconds – severe water repellency.
- Any delay in penetration – water resistant.
- Solution: Apply soil surfactants to reduce surface tension and hydrate water-repellent soil particles.

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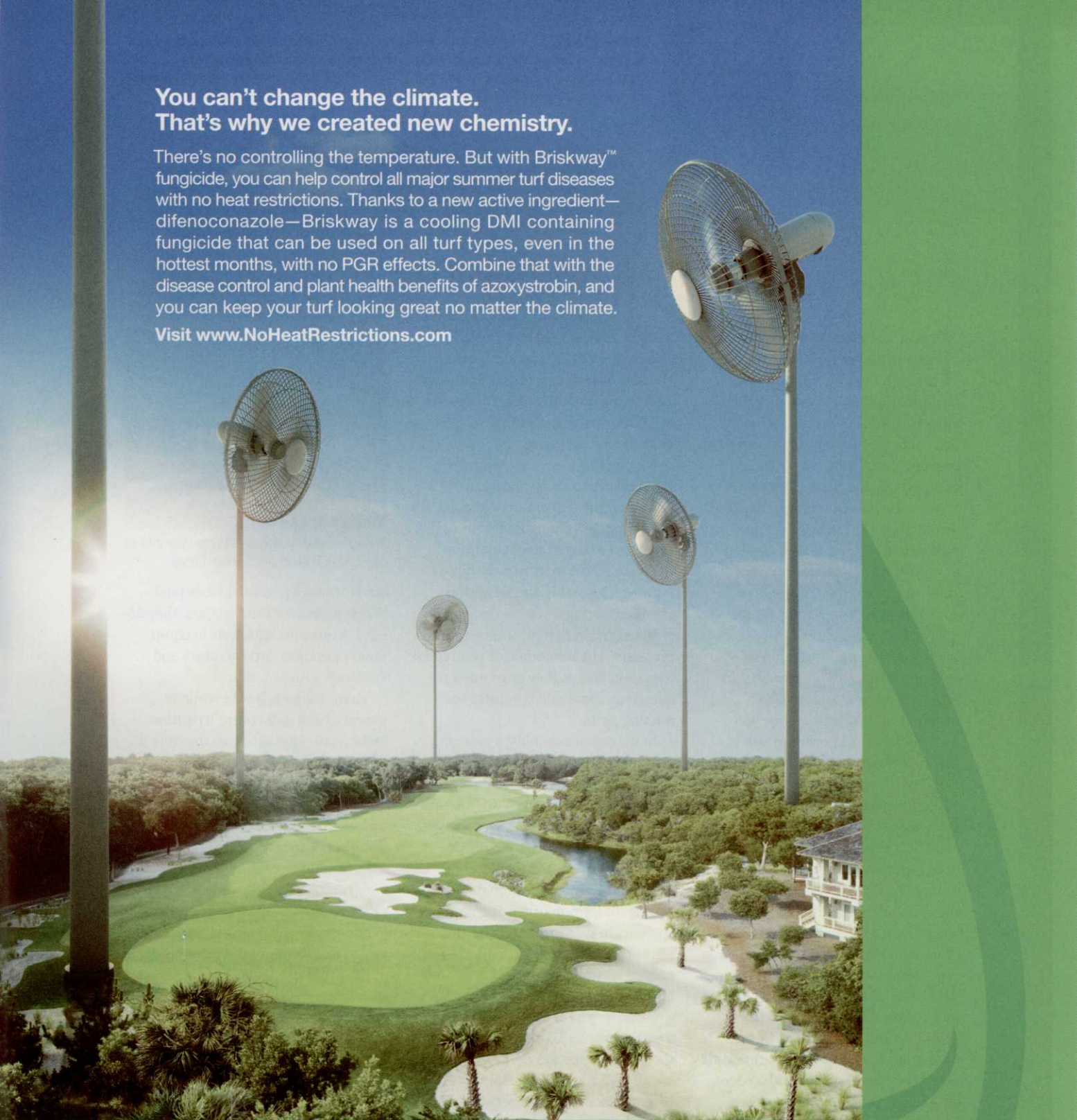
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Brian Vinchesi, the 2009 EPA WaterSense Irrigation Partner of the Year, is president of Irrigation Consulting Inc., a golf course irrigation design and consulting firm headquartered in Pepperell, Mass., that designs irrigation systems throughout the world. He can be reached at bvinchesi@irrigationconsulting.com or 978/433-8972.

PICK FROM THE CREAM OF THE CROP

If you were fortunate enough (the pride) or unfortunate enough (the money) to have children go through college, then you've noticed every area of study has some type of national student competition. In it, students compete against their peers at other colleges and universities. For example, when I was in college, way back when, I put a model airplane engine and a transmission in a small toy tractor and competed in a tractor pull. Yes, a tractor pull – miniature sled and all.

My son – a commercial pilot – competed in a flying competition between schools and won two national championships. In turf management, the competition is the Turf Bowl, held each year at the Golf Industry Show.

For horticultural students, the Professional Lawn Care Network (PLANET) holds its competitions each year in March during Student Career Days (SCD). Along with the student competitions there are workshops, a career fair and various other educational opportunities. Each year around 900 students from more than 60 schools compete in one or more of the 28 events. These include skid steer and compact excavator operation, hardscape installation, turf and weed identification and leadership skills, to name a few. A green industry company or group of companies sponsors each event and is responsible for developing, setting up and judging. Always held in March, the competition moves around the

country from school to school. This year's competition was at Auburn University, last year Kansas State and next year Colorado State. For more SCD information, visit the website: studentcareerdays.org.

For the last 12 years, I've had the pleasure to be involved as both a workshop presenter and as a judge. It's my favorite volunteer endeavor of the year. Three irrigation competitions that take place: irrigation design, irrigation assembly and irrigation troubleshooting.

In irrigation design, students have a professional commercial or residential irrigation design they must answer questions about and complete the missing parts.

In irrigation assembly, a pair of students receive a small, two-zone irrigation plan and have to build, operate, adjust and program it within 110 minutes. You see things done with pipe and irrigation equipment you never knew were possible. It's both entertaining and educational.

Irrigation troubleshooting requires students to fix a mechanically and electrically sabotaged irrigation system, as well as complete a written qualifying test.

Okay, so why is this of interest to a golf course? SCD's participants are the industry's cream of the crop. They are all well trained and many have several years of field experience. In fact, a large percentage are second-career individuals and/or outside your typical college-age demographic.

I bring this to your attention because you may be unaware that these



Three irrigation competitions take place at PLANET Student Career Days.

students are a potential labor pool. While most aren't turf majors, they do have diverse backgrounds in equipment operation, arboriculture and landscape construction.

These students have excellent potential as a golf course irrigation technician. I get asked all the time if I know of any irrigation technicians available or anyone who would be interested in being one. Wouldn't it be nice to hire someone who knew something about irrigation to start with; solvent weld cementing, valve and wire troubleshooting, or how to properly size pipe or make a wire splice? While training is required, you won't be starting from ground zero. Look at the list of participating schools on PLANET's website, or contact your local community or four-year college's horticultural program. Do they have students graduating with experience and an interest in irrigation?

And as the saying goes, "Put your money where your mouth is." I watched a very smart young lady kick ass in all three of the irrigation competitions over a 3-year period. Now she is one of my employees. **GCI**

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