

BRIEFS



LAKE CITY OFFERS IRRIGATION TECH

LAKE CITY, Fla. — Lake City Community College is offering a new one-year certification program in irrigation technology to train residential and commercial irrigation technicians for the golf, irrigation and landscape industries. Instructor Steven King has more than 15 years of irrigation experience. He has developed a state-of-the-art irrigation laboratory on campus. The extensive curriculum was developed with input from practicing irrigation professionals, the Florida Irrigation Society and the Irrigation Association. The first class began Aug. 23. Interested people should contact John Piersol, chairman of the Golf, Landscape and Forestry Division, at 904-752-1822, ext. 1225.

CYBULSKI EARNS CGCS

Scott Cybulski, head superintendent at Falmouth (Maine) Country Club, recently received his designation as a Certified Golf Course Superintendent, making him just the fourth active superintendent in the state to earn the distinction. Cybulski has been at Falmouth CC since 1992 and served as head superintendent since 1995.

MSU adds Spanish to turf curriculum

By MARK LESLIE

EAST LANSING, Mich. — In a testament to the prominence of Hispanics on golf course grounds crews, Michigan State University has made a class in the Spanish language mandatory for two-year turfgrass students.

The class, Spanish for Golf Course Management, has been taught in the turfgrass program for two years, but this will be the first time it is mandatory, said MSU Professor John "Trey" Rodgers. He added that it will be available, but not mandatory, for four-year students.

"It's interesting that when our four-year students come off internship, one of the first questions they ask is if the Spanish class is available," Rodgers said.

Around the country, he said, Hispanics often comprise a large portion of the golf course work force, and Spanish is their operative language. Without knowing Spanish, it is difficult to work with them, Rodgers added.

The 10-week, three-day-a-week, two-credit course has two focuses:

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Post-traumatic stress syndrome

Cleaning up after The Majors is like clearing a battle field after war

By MARK LESLIE and TREVOR LEDGER

PINEHURST, N.C. — It's five weeks after the U.S. Open and the roughs are lower, the fairways longer and the greens slower on Pinehurst No. 2 here. "You would hardly know right now that we had [an Open]," said Director of Golf Course Maintenance Brad Kocher, whose course is blessed with fast-growing, fast-healing Bermudagrass.

Augusta National Golf Club Senior Director of Golf Course Operations Marsh Benson and superintendent Brad Owen opened their course for play the day after the Masters Tournament concluded and, in this dry year, had the playing areas back in shape in two weeks.

Three weeks after Carnoustie Golf Links hosted the British Open, July 15-18, superintendent John Philp was removing all the periphery items which come first in the regeneration of the famous course after its first Major in 24 years.

But at Medinah (Ill.) Country Club, whose No. 3 hosted the PGA Championship on Aug. 13-15, superintendent Danny Quast was in more of a rush, waiting for the last of the corporate tents to be removed from the neighbor-



This gallery area between the 14th green and 15th tee is indicative of the damage superintendent Paul Jett and his crew faced following the U.S. Open. The inset shows how it appeared on June 23. Above is how it looked by July 6.

ing No. 2 course so that his crews could seed bentgrass and return it to normal playing conditions.

Quast, who hosted the Open in June in 1990, pointed to the importance of timing in recovering from his mid-August event.

"The main concern about how the course will look next spring is how fast they get the tents out of my way," he

said. "But some have an urgency to do so: They need to get out to Boston for the Ryder Cup.

"The main trick of success is how soon you can seed the course. The later you do it, the longer it takes to germinate. If I can get it to germinate in the first part of September, we will have very beautiful fairways next spring. If

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George Frye, H2O and The Ocean Course



Lack of quality water the bane of Kiawah super

By MARK LESLIE

KIAWAH ISLAND, S.C. — "Water, water everywhere, but not a drop to drink." George Frye could pen his own refrain to this lament. The superintendent at Kiawah Island Resort's famed Ocean Course, which is running short on available effluent, is paying the high price of potable water and monitoring his three sister courses on the island, which are watering with deep-well, brackish and waste water.



George Frye

Frye may be best known for readying the Pete Dye-designed Ocean Course for the 1991 Ryder Cup even before the course was built, or for preparing Tom Fazio's Turtle Creek course here for the World Cup matches in 1997, or for his course being a test site for a major Clemson University toxicology study. But he points to water as his most consuming issue.

"Water. It's getting as expensive, if not more, than providing electricity. It's our biggest challenge of the future," said Frye, calling for extensive research into how to grow turfgrass with low-quality water.

The Kiawah Island courses "are considered — not to golfers or myself, but others — as sewage dispersal sites, a means of getting rid of excessive effluent," Frye said. "The problem right now is, we have too many courses for the effluent. We need more houses in order to provide effluent."

In the meantime, the Ocean Course is irrigating with aquifer water and a small amount of effluent, while the other courses get a combination of potable, effluent and deep-well water.

Dealing with less-than-perfect water has led to experimentation with methods to treat that water. For instance, the deep-well water contains "a lot of bad constituents, such as high bicarbonates, high carbonates, high sodium, high boron," Frye said.

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AUDUBON CERTIFIES OCEAN COURSE

KIAWAH ISLAND, S.C. — The Ocean Course has achieved designation as a Certified Audubon Cooperative Sanctuary by the Audubon Cooperative Sanctuary System (ACSS). The Ocean Course is the fourth in South Carolina and 177th course in the world to receive the honor. The other three courses in South Carolina are The Club at Seabrook Island, Palmetto Hall Plantation, and Whispering Pines Golf Course.

George Frye

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To neutralize these constituents, the Ocean Course system uses sulfur dioxide, burning it in an SO₂ generator and converting it. "As the sulfur is burned, it turns into SO₂ and then SO₃ and SO₄ and as it does, it gasses off the bicarbonates as CO₂," he said.

"When you have a lot of bicarbonates in the water," he said, "they very quickly hit the calcium in the soil and displace the calcium, leaving sodium. Sodium reduces the permeability of the soil and causes poor drainage, poor filtration, and can create black layer. Whenever the salt index in the soil becomes greater than the plant, the plant can't take up available nutrients, or available water."

Meanwhile, he said, more and more courses have to use effluent and, therefore, must deal with chlorides and suspended solids that can adversely affect the permeability of the soil and cause black layer.

WATER DETERMINES SOIL

"The soil is going to become what the water is," Frye added. "If you have bad water, you will have bad soil. So good water is a prerequisite to being successful agronomically."

Frye called for more emphasis and re-

search on "the kind of water qualities we are forced to deal with — whether it is deep-well, brackish, or effluent."

Water quality, he said, "has a tendency to affect the efficacy of our fertilizer, insecticides, all our agronomic practices — our whole holistic approach to managing the course. We've got to really focus and direct a lot of research dollars in that area to have a good understanding of where we're going to be in the future."

What of desalination, especially for courses near the ocean?

"People talk about desalination, but how many people can afford a \$1-million desalination plant?" Frye asked. "If you do that, you have to pass the expense on to someone."

Meanwhile, Frye also predicted "a big push into using more salt- and drought-tolerant grasses in the future."

When it was built, The Ocean Course became a point of focus, not only for the Ryder Cup matches that followed but also for its attempt to prevent its water runoff from affecting the surrounding environment.

"Pete [Dye] did a great job laying out the golf course in the environment that was already here, so it 'fits,'" Frye said. "He also designed the fairways from the outside in, so that when we do apply insecticides, nitrates or nitrites, they buffer through the soil profile and are

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recycled and prevented from going out to non-fairway areas. They are taken up in the ... infrastructure of the golf course, and we keep everything recycling. We recycle about 250,000 gallons a day from the back nine to the front nine."

A four-year study by Clemson's Toxicology Institute for Wildlife and Environmental Technology found that the Ocean Course has "very little runoff into non-target areas, whether internal or surrounding areas," Frye said.

STEWARDS OF THE ENVIRONMENT

Citing the chemical industry's ability to produce "environmentally sensitive products that have allowed every superintendent to fulfill the obligation of being good stewards," Frye called for even more tools.

"Not only are we superintendents, but we are acting as stewards of maintaining golf and the environment together as one entity," he said. "That is our responsibility as golf course superintendents... I think that is going to be one of our primary roles for the future. And that is why Audubon International has been so successful."

Because of that philosophy of stewardship, The Ocean Course has become certified as an Audubon Cooperative Sanctuary System and works closely with the Kiawah Island Nature Conservancy.

The course has a number of bat, owl and bluebird boxes, and a deer feeding station. About the deer feeding station, Frye explained: "The deer like to munch on a lot of the annuals we plant. So we put in a feeding station with a salt block and corn, and it keeps the deer away from the front of the clubhouse. Deer will gnaw pansies right down to the ground. Now pansies are part of our annual planting.

"That's what it's all about — having nature and golf coexist as one entity."

Under the Audubon program, the Ocean Course also adopted a school.

"We let the kids plant annuals and play some golf," Frye said. "It gets them involved and lets them know we are sensitive to the environment, not just out here pushing golfers around to make a dollar — even though without the economic impact, the golf would not exist.

"There are a also lot of novice golfers who come out here and enjoy the wildlife — least terns, pelicans and cranes. We're creating the public perception that we're not only stewards of golf but the environment as well."

MANAGING NATURE

While turf care consumes much of the time for most superintendents, Frye's main concern is the natural areas that are "constantly in motion."

"Grass is fixed. You maintain it, it stays there. You want to keep it disease and insect free," Frye said. "We spend tremendous amount of dollars, manpower and focus on non-turf areas. At least 50 percent of our effort is non-turf."

"Managing 'natural' is very difficult," he said. "Nature wants to change and evolve. That's one of our biggest challenges. The whole golf course is shifting, it's changing, and you have to adapt your managing practices to change with the course.

"We're trying to maintain the integrity of the design and all these environmentally

sensitive areas. It is a challenge when compared to a more conventional golf course."

With permission from the Office of Coastal Resource Management, Frye's crews have had to selectively manage the peripheral areas of the course because those are changing the most. In all the dune areas they have to constantly prevent natural vegetation from overgrowing the dunes and natural areas so that golfers can see from the tee to the fairway.

"If you didn't do anything to these dunes for two years, they would become overgrown. They would evolve and change," Frye said.

"We also have to selectively prune a lot of the wax myrtles," he said. "And we do a lot of barking around the oak trees on the front nine. We double-shred and put a lot of bark around the root system out to the edge of the canopy of the trees. That makes it feel like the root system is in a forest environment. If the bark were not there, the cart traffic and wind would erode away from the root system. On oak trees, a lot of nutrients and water is taken in through the feeder roots on the surface. It looks really good, but we're actually doing it to protect the tree."

The most telling testimony to this evolution are aerial photographs from the 1991 Ryder Cup and today. "Look at those photos and you'd wonder if they are the same golf course," Frye said. "We're constantly moving sand around, trying to keep dunes from overtaking a hole."

"We're constantly pushing sand around, grading cart paths, edging the fairways with Roundup to keep the 419 [Bermudagrass] from encroaching into the dunes," he added. "We're trying to give it a 'managed' look — not just a wild, unkempt look."

A NATIVE SON RETURNS

When Frye came to Kiawah Island in 1985 it was a return of a native son. He grew up in Robbins, N.C., worked at Pinehurst Resort summers, attended Campbell College for two years before transferring to North Carolina State University, where he graduated with a turfgrass degree in 1978. He worked at Seabrook Island next door to the Ocean Course for four years, then with Robert Trent Jones Sr. on the grow-in and development of Crooked Oaks.

He also spent 1984-85 with architect Jay Morrish renovating the A.W. Tillinghast-designed Oak Hills Country Club in San Antonio, Texas, which hosted the 1985 Texas Open.

Upon his return, the 36-hole resort expanded to 54 with Tom Fazio's Osprey Point. Frye was involved in the construction, development and grow-in of that track, which opened in 1988. He saw the Ocean Course through construction, the Ryder Cup and Hurricane Hugo, and the Turtle Creek course through PGA Cup matches.

It proves you can return home.

Life, and golf, are good for the Frye family — wife Lou and sons George III, 16, and Mack, 13 — even with myriad challenges and deadlines.

"This has been the first year I've had a chance to sit back and breathe," Frye said. "But I wouldn't change anything. I've been very fortunate to be able to stay in the same place and have the number of challenges I've had. Others have had to move three or four times to get these challenges."

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