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Planning is the Key

In-House Projects

As we emerge from the busy winter golf season, when Florida golf courses make hay at the cash register, superintendents go through the spring rituals of turf renovation and managing the transition

phase owners, superintendents and members need to consider all the pros and cons of doing the project to make sure they get the desired results. It may look good on paper to use people already on staff with the thought of an immediate cost savings, but while the staff is digging ditches, laying pipe or installing

rainy season. What effect will weather delays have in the project?

Another key consideration is the expertise of the staff to handle overly ambitious projects. Not everyone was born a civil engineer or golf course architect and that goes for the



Removal of stumps and sodding the gaps left by storm-damaged oak trees became the Winter Pines G.C. unplanned, in-house project for 2004

from overseed back to the bermudagrass base. But in a state with a 365-24-7 turf season, the impending warm summer months mean only that we will be making hay in the fairways and roughs. And while play slows down the grass growth speeds up. What better time to consider major projects for the golf course? I'm being a tad sarcastic, but in reality from a customer-service standpoint, it is probably the best time to take on major projects. The next question is how: In-house, outside contractor or a combination of the two?

The key to any major project on a golf course is the planning of course, and during this

drainage, coring out bunkers and hauling sand, striping and grading tees, laying truckloads of sod, cutting down trees, planting trees — you name it — the growing turfgrass still needs mowing, edging and fertilizing.

Then there is the question of closing the course or working in play. Both approaches have their pluses and minuses in course conditioning for the players and disruption of the progress of the work. The main thing is to make sure everyone is on the same page so the customer isn't surprised if things aren't up to usual expectations. And of course the summer is our

armchair experts in the clubhouse too. Hiring at least a consultant to oversee the more technical aspects of a major project is well worth the cost.

In general, superintendents are innovative and creative people, but they may not know all the intricacies of land planning and construction engineering. That's why people major in other fields besides turf management.

Taking on and successfully completing an in-house project can be an extremely rewarding and team building endeavor. Just make sure you do your due diligence before you break ground. Good luck.

In House Projects

Building One Project at a Time

By Joe Ondo, CGCS



Winter Pines has been selectively rebuilding the old push-up greens over the years to improve drainage and performance and to replace contaminated putting surfaces. Photo by Joel Jackson.



New 7-foot wide concrete paths replace and re-route the old asphalt paths. The crew often led by the owner Ed McMillin pours the new path in 110-foot long sections, which equals one truck load of concrete. Photo by Joel Jackson.

When I first started at Winter Pines in April 1979, the owners had just built five new holes. They installed new irrigation on those holes and on parts of the other four holes on the front nine. The rest of the course had some automatic controls on greens and tees and all quick couplers in the fairways.

When the new owner bought the course, the decision was made to add automatic irrigation to one or two holes at a time to keep the course open and minimize disruption to play. We basically duplicated what had been done on the other holes. All the work was conducted during normal play and by our own crew.

The city of Winter Park built a new water treatment plant in 1983 and offered the effluent water to us in 1984. They also offered to help pay to finish the last hole and the driving range so they could use the course to dispose of the treated water. We had our old well capped and sold our pump and have been using the effluent ever since.

This project allowed us to install lots of isolation valves and group our sprinkler heads to run

together either on high mounds or low areas needing less watering time. We installed Griswold valves and controls and they have worked well managing the effluent water.

Besides the irrigation system upgrade, we also engaged in a long-term greens-rebuilding program. All of the greens were native soil, push-up construction with no internal drainage. Some we could fix by installing drainage, but some of the

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One of eight new bridges installed by the Winter Pines staff. Photo by Joel Jackson.



The project to lower a high bunker lip was a snap compared to some of the long-range, in-house projects accomplished at Winter Pines. Photo by Joel Jackson.

greens also suffered from some of the typical off-type contamination/mutation prevalent in that era and some gave us problems at different times of the year.

Some we fixed by re-sodding, but we knew that was just a short-term solution.

We decided to hire someone to help us rebuild a green – still using our own crew. After doing one and seeing the results, we decided to continue doing one green a year. We'd mow a temporary green in the fairway for our players, and then strip the old sod off the green, add drainage haul in some good greens mix, do a rough shaping, have it fumigated, pack it and then plant sprigs and grow it in.

This system worked well but it took 9-10 weeks before we could reopen the green. We are a public course and most of the players didn't mind because they could see we were making improvements to the course.

After doing five greens this way, we heard about Rapid Turf and decided to give it a try. Everything was prepared just about the same way as before, and then the Rapid Turf folks brought in and installed the 50-foot-long by 4-foot-wide rolls of Tifdwarf sod. It was unrolled, packed and top-dressed. Even if it wasn't fully rooted down, the green was useable in three weeks. It was better than putting on a temporary green for another seven weeks. We made the green's size approximately 5,000 square feet with lots of cupping areas to handle traffic since we do around 80,000 rounds per year.

We built six greens using this method and even added on to some smaller greens to make them bigger. The new Tifdwarf closely matched our good old greens and has stayed pretty clean so far and putts pretty well. We didn't do a green this year, and with all the hurricane-clean up, I'm glad we didn't. We will consider doing more greens as we see ones that start giving us trouble.

Another in-house project we tackled was replacing our asphalt cart paths with concrete and extending the ending points to higher and drier ground. Most of the black-top paths had lots of holes and patches and were built in too many low areas or just in the wrong place for the play of the hole. We came up with a plan of doing 110 feet of path, 7 feet wide at a time.

This allowed us to demolish the old path, lay out the new path route formed up with two-by-fours and pour a ten-yard truckload of concrete at a time. Most of the course did not have access for a fully loaded cement truck, so we hauled most of the concrete ourselves using our dump-body EZ-Go utility vehicles, a third of a yard per trip,



Railroad-tie curbing is installed along the new paths at the tee boxes. Non-skid rubber mat runners are installed to prevent golfer slips and falls. Photo by Joel Jackson.

until we emptied the truck.

We have done more than 6,000 feet of concrete path along our greens and tees and installed railroad ties for curbing along the tee slopes. We also poured an additional 250 yards of concrete to enlarge our customer parking lot and create a pad around our maintenance building and made three storage bins for topdressing, sand, gravel and golf course landscape/storm debris that needed to be hauled away.

We also replaced the bridges on the course. Most of them were 30-inch corrugated pipe covered with limerock and asphalt. The pipes and fill were dug out and a concrete pad poured on each bank. Three steel beams were welded in place and 10-foot-long, 4x6 pressure-treated planks were installed on the beams with lag bolts. Twelve-foot-long 6x6 beams were used as side rails. We have done eight bridges over the years.

And last but not least we have installed more than two miles of drain pipe in low wet areas to keep the course open and more playable during the rainy season.

As you can see, we have successfully completed many in-house projects. Our owner, Ed McMillin and his son Jon, are always striving to make improvements to Winter Pines to give area golfers an enjoyable place to play golf at affordable prices. Once we fully recover from the effects of the 2004 hurricane season, I'm sure we will have more projects in the works.

Editor's Note: Recovering completely from the hurricane damage is requiring Ondo and his crew to cut down damaged trees, remove stumps and clear extensive areas of surface roots from decades-old oak trees and then backfill, grade and sod the scores of bare areas.

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Super Tips

Whistling While You Rake - at the Straits

By Darren J. Davis

Whistling Straits, located one-hour north of Milwaukee in the village of Kohler, Wis., was host to the 86th PGA Championship this past August. While Vijay Singh was crowned the tournament champion, in my eyes Golf Course Superintendent David Swift and Director of Golf Course Operations Mike Lee were the true champions of the event.

If you have the opportunity to visit Kohler, I would strongly urge you to do so. The area

is home to world-class accommodations, dining, shopping and four of my favorite golf courses, all owned by Herb Kohler, Jr., chairman of the board and president of Kohler Company. Kohler is a company that undoubtedly many of our clubs do a significant amount of business with.

Of the four courses at Kohler, 36 holes are located at Blackwolf Run. Blackwolf Run, designed by legendary architect Pete Dye, opened for play in June 1988. The remaining 36 holes are located at Whistling Straits. Whistling Straits opened in 1998, and was also designed by Pete Dye.



The open, rugged and windswept terrain at Whistling Straits translates into often deep, steep-faced challenging bunkers to maintain. Photo by Darren Davis.

At Whistling Straits, Dye sculpted a bit of Ireland and a touch of Scotland on the 560-acre parcel of flat land along two miles of Lake Michigan shoreline. "Open, rugged and windswept terrain" are words often used to define the courses at Whistling Straits. This translates to deep, steep-faced bunkers.

Steep bunker faces that are a challenge to maintain, are not unique to Whistling Straits. I can vividly recall the same challenge while employed as a crew member at the Augusta National Golf Club. The strategy employed at Augusta is similar to that at Whistling Straits. The employee starts the process outside of the bunker, reaching as far down as possible with the rake, so once inside the bunker, they know how far up the slope to climb in order to rake every inch of the sand face. The challenge once inside the bunker is to rake the entire slope without digging your feet into the sand on the slope, creating indentations. This is the same problem that Lee and Swift faced at Whistling Straits.

Lee and Swift used some old-fashioned ingenuity to solve the problem on their course. To add length to the leaf rake without drastically increasing the weight of the tool, a 20-foot section of 1-inch PVC was bolted to the existing handle of a leaf rake. To create the tool, 1-inch PVC is slid over the rake handle and two holes are drilled through the PVC and the rake handle. The pipe is then secured to the rake handle with a nut and bolt. The result is a light-weight, inexpensive, easy-to-store and transport tool that decreases the time and effort involved in raking steep bunker slopes. If a 20-foot rake is slightly larger than what you desire, the PVC pipe can be cut to fit the needs at your golf course.



Whistling Straits Superintendent David Swift shows a standard bunker rake and one of the long-handled hybrids he developed to maintain the bunkers. Photo by Darren Davis.



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USGA Report

Counting Down The Days

By John H. Foy



For golf courses throughout Central and South Florida, a basic management objective during the initial part of the winter season is to survive until mid-February and then to the first of March. Once we get past Valentine's Day, along with a steady increase in day

length, the potential for cold fronts making their way down the peninsula becomes progressively less. As nighttime temperatures climb back into the high 50-60-degree range, the base bermudagrass begins to wake up, and it is possible to produce a degree of recovery from "golfer blight."

As discussed by Todd Lowe, USGA Agronomist covering Florida's west coast, in an ear-

lier regional update, all courses suffer from "golfer blight" because peak play occurs when bermudagrass growth has essentially come to a stop. Significantly increased evidence of ball-mark damage on putting surfaces, tight fairway lies, and a loss of definition between the fairway and rough cuts because the turf has become beat down by moderate to heavy cart traffic are all signs of "golfer blight."

Further complicating matters this winter was the very active hurricane season, which resulted in a six- to eight-week setback in accomplishing routine management programs and fall preparations. There have been a few S-O-S calls, but for the most part everyone survived the first part of the winter play season in acceptable condition. Superintendents are counting down the days until the winter play officially comes to an end so that they can begin growing grass again.

For the interim, continue to aggressively manage cart traffic and aerate high traffic areas followed by an application of 0.25 to 0.5 lbs of actual nitrogen per 1,000 sq. ft. from a readily available source. This will minimize further deterioration and help initiate the recovery process. While it can be a real challenge to get any work accomplished with peak winter season play, supplemental non-disruptive

aeration of putting surface is strongly encouraged.

Water injection cultivation or aeration with small-diameter solid tines or star tines does not affect surface smoothness, and is very beneficial to maintain good moisture and oxygen infiltration into the upper rootzones of the greens. The very dense canopy of the ultradwarf bermudagrasses, as well as the normal buildup of compaction, can severely restrict infiltration. Periodic supplemental non-disruptive aeration treatments need to be performed through the winter, and it will be very important to closely monitor all turf areas for the rapid onset of drought stress.

Based on visits to courses throughout the state, cleanup and recovery from the hurricanes is 80 to 90 percent complete. Debris piles in out-of-play areas are still common, and plans are in place at many courses to begin bunker sand refurbishment or removal and replacement of contaminated material. Another common finding is a continuing loss of pine trees. With the onset of hot weather, tree loss will likely increase due to environmental stresses or outbreaks of pine bark beetles that are attracted to damaged trees. Unfortunately, we will continue to be plagued by the lingering effects of last year's very active hurricane season for quite some time.

Plants of the Year

The Florida Nursery Growers and Lawn Care Association (FNGLA) is proud to announce the 2005 Plants of the Year. The plants selected for this program have been found to be good performers in the Florida environment and require less maintenance and inputs. Here are two flowering shrubs for your consideration.



Common name: Princess Flower
Botanical name: *Tibouchina urvilleana*
Hardiness: Zones 8b-11
Mature height and spread: 5-8 ft
Classification: Large flowering shrub in South and Central Florida, Perennial in North Florida
Landscape use: Flowering shrub for informal hedge or mixed border used as an accent or in masses
Characteristics: The silver-green foliage on the Princess Flower shows off 5-petaled purple flowers that open 3-4 inches across from red-tinged buds through the warm season.



Common name: Yellow Elder
Botanical name: *Tecoma stans*
Hardiness: Zones 8-11
Mature height and spread: Can be kept 5-10 ft. tall by 4-6 ft wide
Classification: Large flowering shrub
Landscape use: Specimen for long-lasting blooms
Characteristics: The Yellow Elder's light green compound pinnate leaves are complete with large yellow bell-shaped flowers at growing tips. It blooms almost constantly during warm weather and is a hummingbird attractor. This shrub may die to the ground in North Florida, but emerges in the spring. A type called 'Gold Star' has been found to be a very reliable, free-flowering small shrub with a mass of golden-yellow flowers through much of the year.

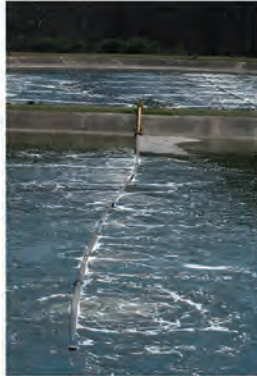
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Recycled water usually varies by location, season, quality and nutrient content. Depending on the uniformity of your source, you may need to monitor water quality daily, weekly or monthly. SeaIsle will do quite well with up to 4, 5, even 8 thousand TDS.



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Multiple Objectives Highlight Hill Trip

The 2005 Florida GCSA delegation of FGCSA officers Joe Pantaleo and Greg Pheneger, Coastal Plains GCSA director Shane Bass and



FGCSA's 2005 legislative delegation from left, Scott Sewell, Gulf Coast GCSA; Joe Pantaleo FGCSA president; Mike Goldie, FGCSA lobbyist; Greg Pheneger, FGCSA past president and Shane Bass, Coastal Plains GCSA. Photo by Joel Jackson.

Director of Communications Joel Jackson were joined by Gulf Coast GCSA director Scott Sewell and FGCSA lobbyist Mike Goldie on March 21, 2005 when they called on legislators to garner support for a matching funds proposal for statewide donations made for turfgrass research.

Lobbyist Mike Goldie has been working on language for the proposal that will be in an upcoming appropriations bill, and he has been working key leaders in both the house and senate to get their support for the proposal. Our mission was to put a face on the end users and talk about why it is important not only for our industry but for the Florida environment and economy.

We met with Senators David Aronberg, Michael Bennett, Rod Smith and Ken Pruitt and Representatives Don Davis, Ken Littlefield, and Chris Smith. Senator Smith may be running for governor and he is currently the chairman of the Agriculture Committee. All the rest have either key committee positions or have recognized golf's contributions to the state and are willing to support our matching-funds initiative.

On Tuesday morning, the group met with Dr. Dennis Howard and Dale Dubberly of the Florida Department of Agriculture and Consumer Services (FDOACS) to discuss the latest news from the regulatory agencies. The MSMA Groundwater Study negotiations are proceeding slowly while at the federal level, re-registration proceedings are moving along on schedule. There may be some label changes coming that will restrict use in some vulnerable soil locations.

FDOACS referred us to the Bayer

Environmental Sciences website for information on soils maps for Namacur use after May. We also asked about Curfew being reinstated in Dade County when Namacur runs out. They referred us to Dow AgroSciences since they voluntarily pulled Dade off the list in order to expedite the labeling for the rest of the state. They are continuing the Amnesty Milk Run program for the pickup of obso-

lete or expired chemicals and alerted us to possible concerns over the disposal of old containers.

We also met with Commissioner of Agriculture Charles Bronson, who expressed his support for the golf business saying it has more to do with agriculture than most people realize. But in a hopefully overly conservative warning, he gave us a heads-up on the pending litigation being brought by farm workers over a cluster of birth defects that they are claiming have been caused by pesticide exposure. The commissioner had concerns that this situation might escalate to all commodities using pesticides. So he just wanted to make sure all applicators were up to date on their safety and training programs.

During the trip we hosted Scott Sewell from the Emerald Bay Plantation Club in Destin. We wanted Scott to see that the FGCSA works for the benefit of all Florida superintendents. We hope the Gulf Coast GCSA will find a way to join the state's other 12 local chapters to unite all our efforts under one banner.

RISE Supports Nomination of EPA Administrator

RISE (Responsible Industry for a Sound Environment) announced its pleasure with the nomination of Stephen Johnson to be the administrator of

the Environmental Protection Agency by President Bush on March 4.

"Over the years, we at RISE have found Steve Johnson to be a fair regulator who takes into consideration comments from all organizations, NGOs as well as industry, when making a decision," Allen James, president of RISE said. "We believe he makes balanced and responsible decisions for our industry."

"RISE looks forward to working with Steve on issues such as ESA counterpart regulations, pesticide rule-making, and maintaining FIFRA as the federal pesticide standard," James said.

According to the White House when confirmed, Johnson will become the first professional scientist to lead the EPA. During his 24-year career with the agency, he has advanced through many management positions to his most recent position of deputy administrator of the EPA.



Stephen Johnson, EPA acting administrator

RISE is the national association representing the manufacturers, formulators, distributors and other industry leaders involved with pesticide products used in turf, ornamental, pest control, aquatic and terrestrial vegetation and other non-food/fiber applications. Visit the RISE website at www.pestfacts.org.

Editor's note: It will be interesting to finally have a science-based person leading the agency instead of political appointee. What a concept.

FGCSA Government Relations Notes and Comments

New EPA Administrator

It is refreshing to see a scientist who has seen a lot of history at EPA to be named to head the agency for a change instead of another politician. I have heard nothing but good things about Mr. Johnson from members of our allied associations who also deal with numerous pesticide issues and registrations.

When I saw the above news release I called Carrie Riordan, director of government relations at GCSAA. Carrie said that GCSAA also supports Johnson's appointment. She added that they have met with him personally in the past on issues