a piece of equipment becomes more costly to repair than to replace.

2. Three will consider buying used equipment, "new" demos, etc.

3. Obviously only one leases equipment. They are in their third three-year lease, but will increase to a four-year lease to include more pieces and lower the payments. They will also do a buy-out of the seasonal equipment (aerifiers, etc) in the fifth year.

4. Most critical needs among the three were a roller, a new triplex and an out-front rotary trim mower.

5. Most do not routinely share equipment with other courses, but all confirm that in an emergency fellow superintendents are always ready to lend a hand or piece of equipment. One is part of the IGM group and they do share specialty equipment with one another.

6. In all cases, they report having rigorous preventive maintenance programs in place and tracking

scheduled and emergency repairs and repair costs on computerized recordkeeping programs. In one case, the course maintains a backup piece of equipment for as many critical units as possible and, with good mainteance and rotating the primary unit after four or five years years to a back-up role, they are getting a 10-year life span at that position. However, having backups also means needing to have the storage capacity to keep the equipment under cover.

In the case of the course with the lease program, the fact that the equipment technicians are so efficient is the reason they feel that can extend the lease period another year and save money.

I would like to thank Mike Caudhill, Lone Palm GC, Tyler Green, Southern Dunes GC, Dustin Plemons, IGM @ Ridgewood Lakes and Alan Puckett, Eaglebrooke GC for their comments and contributions to this article. Tom Burrows, Consulting Agronomist/Turfgrass Specialist Independent Consulting using "Brookside Laboratory"

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SUPER TIP Headache Rack Cuts Risk

By Darren Davis

On June 2, we embarked on a significant renovation and upgrade of the irrigation system at Olde Florida GC. The contractor chosen to perform the job was Leibold Irrigation. With offices in Illinois, Ohio and Florida, owner and President John Liebold has more than 100 employees and a fleet of trenchers, dozers, trucks, backhoes, pullers, pipe wagons and utility vehicles, many of which are equipped with custom-made Toro "headache racks."

According to Leibold, the headache rack is intended to reduce the risk of items shifting forward and potentially injuring the operator, and prevent sand or other loose material in the cargo bed from inadvertently entering the engine area. Leibold credits Fred Roepsch, Leibold Irrigation shop manager for the design and construction of the rack.

Roepsch, who has made more than 50 of them, estimates it takes him two and a half to three hours to build and install each rack. The price of each, excluding shop costs (grinding wheels, welding wire, paint, etc.) is between \$150 and \$175. His time and cost of materials drop considerably when he produces the racks in quantities of five or more.

The framing, which is 4 feet, 7 inches wide by 2 feet 7 inches deep, is made from 2-by-2-inch steel tube. Attached to this frame are six rectangular posts (two on each side and two in front), constructed from 1.5x2-inch steel tube cut in 6-inch lengths. The front and side pieces of the rack, which are stripwelded to the frame to avoid warping, are cut from 3/16-inch steel sheets.

When finished, the six posts welded to the underside of the frame are inserted into the two front and two side pockets of the Toro cargo bed. After insertion, Roepsch recommends tack



Custom-made rack prevents loads from shifting forward causing injury or damage. Photo by Darren Davis.

welding the six posts to the cargo bed for added safety.

Since the company's inception in 1987, Leibold Irrigation has completed more than 300 projects nationwide. eibold admitted that some of his previous clients were so smitten with the custom-made headache rack that he had Roepsch build a few for them to purchase.



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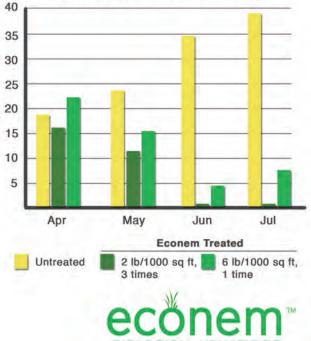
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New Fairway Regrassing Option for Florida Golf Courses

By Todd Lowe

USGA agronomists discuss many different topics during Turfgrass Advisory Service visits, and a popular one is long-range planning. Factors like the average life expectancy of components such as putting greens, irrigation systems, the success of new turfgrasses, and renovation techniques most suitable for a particular club are discussed. Fairway regrassing is often discussed, but for several reasons this practice has not been strongly encouraged for several reasons.

DIFFICULTY IN KILLING EXISTING BERMUDAGRASS Bermudagrass is a difficult grass to kill, and even our *No-till Celebration regrassing provided excellent playing conditions and consistent turf quality at less than half the cost of conventional renovation. Photo by Todd Lowe.*

most aggressive measures of multiple, long-interval herbicide treatments and methyl bromide fumigation only provide about 95 to 98 percent control. The bermudagrass that is not killed grows in size and number each year so that what initially starts as small spots can increase to large patches within three to five years after a renovation.

FIRM FAIRWAYS A layer of thatch and organic matter in fairways acts like a pad, providing surface resiliency and resistance to soil compaction from cart traffic. Conventional renovations remove this organic layer, and fairways are left overly firm following a renovation.

TIFWAY PERFORMANCE Tifway (419) bermudagrass was chosen for its fine leaf texture and overall uniformity. It has been considered the standard of quality for more than 40 years. Tifway bermudagrass provides excellent playing conditions in summer, but the peak golfing season for Florida occurs in the winter when bermudagrass is not actively growing. While Tifway does not go fully dormant in the winter in South Florida, it is not able to quickly recover from peak seasonal play and thus complaints about very tight fairway lies and a loss of definition between the fairway and rough cuts arise at most courses.

The Club Pelican Bay, a 27-hole golf course in Naples, undertook a major course renovation and updating project in the summer of 1999. During the renovation of the fairways, multiple Roundup herbicide treatments were applied as well as methyl bromide fumigation performed before replanting with certified Tifway bermudagrass. Even with this, previously existing bermudagrass off-types and common bermudagrass became apparent within two years following the renovation. Needless to say, golfers were not pleased with overly firm fairways that were inconsistent within just a few years.

At about the same time Celebration bermudagrass was making inroads on Florida golf courses because of its improved shade and wear tolerance compared to Tifway bermudagrass. Several shady areas at Pelican Bay were grassed with Celebration, and Bob Bittner, CGCS, also established a fairway test plot of Celebration. Two Roundup+ Fusilade treatments were applied at three-week intervals and the killed turf was then verticut and core aerated prior to sprigging with Celebration. The objective was to evaluate the playing conditions of Celebration bermudagrass on a golf course fairway as well as its longevity with such a simple regrassing technique. This initial fairway plot yielded excellent results in establishment and long-term consistency.

Additional test plots were established in 2006 and 2007 to evaluate other fairway turf conversion options. Even



A patchwork quilt appearance of multiple bermudagrass varieties can occur on all South Florida golf courses, even following complete conventional regrassing. Photo by Todd Lowe.

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At just over \$2000/acre, the no-till process is less than half the cost of conventional renovation

with plots that received no herbicide treatment and were simply row planted with Celebration sprigs, the springs established and the percent coverage has progressively increased.

Based on the results of all the test plots, it was decided to regrass nine fairways at Pelican Bay in summer 2009. The no-till process consisted of two herbicide treatments with Roundup + Fusilade II on April 20 and May 11. Fairways were verticut once, core aerated twice, irrigated, and fertilized to encourage turf re-growth between herbicide treatments. The last sprigging date was June 4, and the fairways were rolled and topdressed with sand to encourage good soil contact. Sprigs established quickly, as the organic matter from the previous fairways was left intact, providing ample nutrient and moisture retention for the developing roots. The fairways were open for play on Aug. 21.

Uniform turf quality was observed on the new no-till fairways, and golfers were very pleased with playing conditions. The winter of 2010 was one of the coldest on record in the past 40 years, and the new fairways outperformed the other 18 fairways.

At a cost of just over \$2000/acre, the no-till process is less than half the cost of conventional renovation and is now viewed as a no-brainer for the other 18 fairways in 2010 and 2011.

Conventional bermudagrass renovations of completely stripping the existing bermudagrass, methyl bromide fumigation, and sprigging with Tifway bermudagrass might be a bygone practice for South Florida golf courses. Conventional techniques are not foolproof, and alternative grassing techniques are being investigated, as they save a considerable amount of money and are showing excellent promise. Following the initial success at Pelican Bay, several clubs in South Florida are implementing no-till Celebration wall-to-wall in 2010. Many other clubs are also establishing their own evaluation plots for future regrassing.

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AFTERWORDS



The turfgrass industry has been under attack from environmental activists for over a decade. But it has only been in the past few years that the attack has been most direct.

Activists may be wellintentioned, but they are misinformed about the benefits of healthy, wellmanaged turf. Their attacks are mostly emotional and lack scientific validity.

The Tampa Bay Estuary Program (TBEP) has offered "science" that activists have promoted. But TBEP science relies on questionable statistical modeling that lacks independent peer review. TBEP and activists advocate a four-month summer ban of all residential fertilizer applications, which scientific studies have shown will be counterproductive.

In 2008, activist groups sued the EPA, saying that it had not done enough to protect the state's waterways, citing algae blooms as a result. The EPA settled the lawsuit by signing a consent decree to set legal limits for nutrients (primarily phosphorous and nitrogen) in Florida waterways. The EPA held a series of public hearings and will soon announce the limits, called Numeric Nutrient Criteria.

The prospect of one-sizefits-all NNC across the State has generated widespread opposition from numerous stakeholders, but the limits will come. Significantly, the onus will be on local municipalities to comply, which has left many of them looking for answers.

Last year, the state legislature tried to bring clarity to water issues through the passage of Senate Bill 494. The bill includes a model fertilizer ordinance that specifies amount, timing and certifications required for fertilizer applications. The ordinance also requires scientific documentation and approval by FDEP, IFAS and FDACS for adoption of local ordinances that are more stringent than the State model.

Until recently the turfgrass industry believed peer-reviewed science, BMP's and SB494 would suffice. Unfortunately this has not been the case.

Activists have campaigned for adoption of the TBEP proposal. And the Tampa Bay Policy Board (which is composed of environmental protection officials from Pinellas, Hillsborough, Manatee, Pasco and Polk Counties, plus the municipalities within these counties) has pledged support for the fourmonth ban.

It appears that the bans are going forward despite the fact that peer-reviewed science indicates the bans will do more harm to the environment than good. The bans are going forward despite the concerns of FDACS, FDEP and IFAS. The bans are going forward based on emotion, political expediency and the threat that activists will campaign against any opposition.

So, what will happen when these bans don't work? What next? What new municipalities (activists are working all over the state); what additional inputs (pesticides? water? sod varietals?); and what new industry sectors will be next? Golf is exempt from the new ordinances "for now." Activist objectives are clear, "Turf is a dinosaur that needs to be encouraged into extinction," said one of the group's leaders.

Beyond aesthetics, healthy turf is nature's best filter. Weakened turf is more prone to disease, weeds and other pests. Studies show that poor turf quality can result in lower real estate values. It can also adversely impact surface play, which in turn can decrease a club's income from lower green fees, and less spent on merchandise and food and beverage.

The industry must act now. It must show solidarity and support residential fertilizer applications, which is our first line of defense. As the umbrella association representing all industry sectors, the FTGA needs the support of all industry participants, not just a few. The FTGA needs money to carry on the fight, and it needs size to enhance our standing in Tallahassee.

The industry must change the dialogue and the debate. We all want safe, quality water. So we need to show our concern through ongoing environmental stewardship; embracing sound, peer-reviewed science. Our opponents are emotionally-charged activists who seek change they cannot substantiate. We should counter with our emotion over lost jobs and revenues that they have caused and we can substantiate, but we also must keep clean water as our primary objective.

Finally, the industry must build a war chest to fund research and education. The FTGA has proposed to create "environmental assessments" for those industry sectors that are under attack. In this way fertilizer, pesticides, irrigation equipment, enhanced turf variertals and other industry inputs can fund a unified response to activist actions.

Under the proposal each industry input would be asked to pay a small environmental assessment... less than one-half of one percent of product sales. Half of the assessment would be retained in the corresponding industry sector, and the other half would go to a larger industry-wide fund that is collaboratively managed.

As adherents to the scientific method, we in the industry need more research. Research is our ally. Education is our tool. We need to be sure that we are educating industry participants so we can continually improve our craft. We need education to reach out to policy makers. And we need to educate the general population that healthy, wellmanaged turf provides many environmental benefits.

Timeless Words of Wisdom



GREEN SIDE UP By Joel Jackson

The transition of The South Florida Green into The Florida Green marks the beginning of a new era for golf course superintendents in the state of Florida. As professionals in the golf course industry, our objectives and activities must be coordinated on a statewide basis in order to properly keep pace with today's technology and varied crises. We should continually seek to improve our professional image not only with upper management but with the general public. This can be demonstrated through work we do by continuing to upgrade our professional capabilities and through skilled communication such as this magazine. Only by making people aware of the skills, management, technology and immense responsibility required to operate a golf course facility, can the golf course superintendent

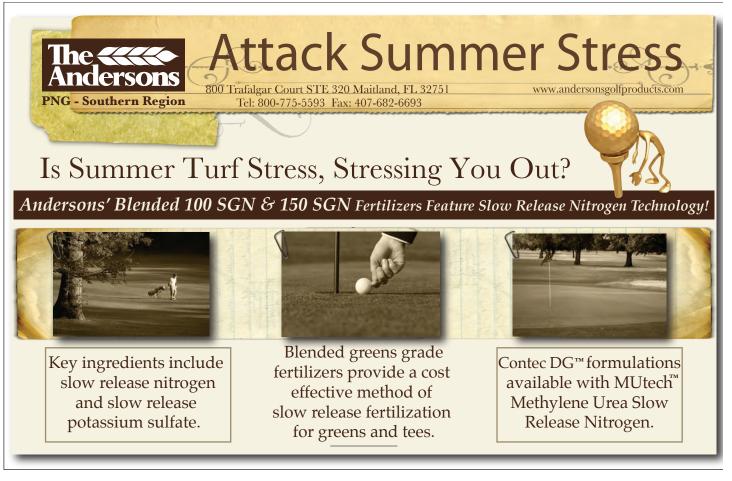
receive the recognition for his accomplishments.

This magazine is a valuable communication tool which if used properly will create a multitude of benefits. It's up to the individuals to promote themselves. The golf course superintendent is a great salesperson at budget time, why not promote him or herself with these same skills?

The re-organization of the Florida Golf Course Supt. Assoc. occured nearly two years ago. From the beginning, the officers of your local chapters have devoted many hours to carefully nuture and construct a solid foundation for our state association. Seven organized and unified chapters working toward a common goal and speaking with one voice can be more As a state association, our number-one priority is to focus on Florida issues and meet the demands of our members and their chapters.

productive than a fragmented organization. This does not mean a loss of identity, functions or uniqueness for your local chapter. In fact, the accomplishments of each chapter will be magnified because of increased communication across the state.

As a state association our number-one priority is to focus on Florida issues and meet the demands of



FTERWORDS

our members and their chapters (an example would be registering a complaint on the ban of DBCP in Florida). The number-two objective is to gain support and membership for the GCSAA. This is our national organization that needs our backing and input. The benefits will be many and the recognition that comes from unification of our efforts will be readily available to us.

But, there are many other benefits. Just recently, one of our fellow golf course superintendents Dan Meyers (CGCS) of the West Coast chapter had his story concerning golf course employees featured in the National Magazine, Golf Course Management. The article was pertinent to our

problems, beneficial and educational.

The golf course

superintendents in the state of Florida have been thrust into an enviable position. Because of geographical location, climate, tourist attractions, and expansion, Florida has the fastest-growing golf industry in the country. We should take advantage of these opportunities and assume a leadership role in the nation's turf industry.

Possibly, even with all our collaboration and hard work, government agencies will continue to tie our hands and people will still refer to us as "Greenskeepers." It's unfortunate that the work of qualified professionals can be affected or altered by the misuse of others less qualified

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and thousands of miles away. Let's join together and try the positive approach. Support your local chapter, the state association and the GCSAA. Hopefully, we can continue to endeavor in the field we love for ourselves and the game of golf.

NOTE: That was the Tim Hiers President's Message

in the first Florida Green 30 years ago. The more things *change, the more they stay the same. The future of our* profession and industry is in our own hands. We can found associations and magazines, but it takes people to make them prosper and be effective. *It's up to each and every one* of you to play a part in our success.

