The University of Florida's new research green in the background was added last fall next to the old green. The Envirocaster system in the foreground, which collects weather data, is in the center of the older green. The hybrid Bermudagrass cultivar Tifgreen 328, on the left, and Tifdwarf, on the right, are maintained at 3/16-inch height. The new green is being planted with Tifdwarf.

**Florida research green sheds light on effects of maintenance**

**By Peter Blais**

The University of Florida's research green in Ft. Lauderdale has yielded interesting findings regarding the effects of nitrogen levels, various fungicides and maintenance practices on Bermudagrass putting surfaces, according to researchers and course superintendents. New and ongoing studies involving pesticide movement through turfgrass, organic biostimulants and experimental Bermudagrass cultivars should help Southern superintendents grow stronger turf in the not-so-distant future, according to Monica Elliott, the university's Research and Education Center coordinator.

"The research green project has been very well received and well supported so far," said Kevin Downing, superintendent at nearby Willoughby Golf Club. Downing is also chairman of the Florida Golf Course Superintendents Association committee that spearheaded development of the Otto Schnneier research green. The facility opened almost two years ago.

Elliott listed some of the early findings on the original 20,000-square-foot USGA-spec green and the new 10,000-square-foot, 85-15 (sand-to-organics) root-zone mix addition added last fall:

- Synthetic nitrogen levels can be reduced a moderate amount without adversely affecting turf characteristics, although extremely low application levels do cause a dropoff in quality. Researchers tested low, moderate and high N levels.

Tour of Duty

**RICKY WIDEMAN**

Harbor Town Golf Links
Hilton Head Island, S.C.

MCI Heritage Classic
April 15-18, CBS

Ricky Wideman was familiar with the nooks and crannies of Harbor Town long before he arrived in Hilton Head two years ago from Palmetto Dunes. Wideman used to crew at Harbor Town during the Heritage Classic while a student in the turf program at Harry Coege Town College in Myrtle Beach. Now the 33-year-old native of McCormick, S.C. is running the show. He says the best/worst things about hosting a PGA tournament are closely related: "The best thing is everyone coming together to do the job right. The worst thing is the letdown afterwards. Everybody works so hard, and when it's over, we all get the post-tournament blues."

Things to look for: "We just went through a three-month renovation project, installing a new irrigation system and cart paths. We've gotten to know the Tour officials pretty well, and you go to plan B, which can be pretty stressful when things don't go like clockwork. If it doesn't work, we try to find a way to make it work."

Mike Link, a 34-year-old native of Ponca City, Okla., came to the Woodlands after serving as assistant superintendent at The Club at River Plantation at the 27-hole River Plantation Country Club in Conroe, Texas. He is a 1980 graduate of Oklahoma State University with a B.S. in agronomy.

**Mike Link**

TPC at the Woodlands
The Woodlands, Texas

Shore Houston Open
April 29-May 2, ABC

Mike Link, a 34-year-old native of Ponca City, Okla., came to the Woodlands after serving as assistant superintendent at the 27-hole River Plantation Country Club in Conroe, Texas. He is a 1980 graduate of Oklahoma State University with a B.S. in agronomy.

Things to look for: "It's been awfully wet here the last three years. I've been trying to apply a pre-emergent herbicide this week (March 5-9) and the rain has delayed that. Weather is the biggest headache for us. I have a game plan that I go by and, if the weather cooperates, everything goes like clockwork. If it doesn't you go to plan B, which can be pretty hectic. I've worked 12 events, so I've gotten to know the Tour officials pretty well."
MAINTENANCE

From rain gauges to reel grinding, the savvy super has helpful hints

Continued from page 13

smaller, the original size of the green can be found each spring and fall to keep the surface the size it was designed for by the golf course architect.

MOWER ROLLERS

On triplex greensmowers and five-gang fairway mowers, superintendents have been installing weihle rollers to the rear roller, instead of the usual solid roller to get a much smoother/low cut and to lessen the bouncing of the individual mower units. This idea caught on with superintendents hosting national amateur championships and professional weekly Tour events, and it’s amazing how much of a difference switching rollers does improve the angle of the bedknife deeper into the turf surface.

WALK-BEHIND GREENSMOWERS

At the advise of our local greensmower distributor, we built a walk-behind greensmower flat surface piece of steel that we lay on top of our work bench to properly align our mowers after totally replacing all bearings/seals and grinding the reels/bedknives. We called our local specialty steel company and ordered a 36 by 36-inch, quarter-inch thick piece of perfectly flat steel and had one side “blancharded” to take out any imperfections.

Two original equipment bedknife height adjustment bars are laid end to end and then welded on the threes sides to the steel top about 4-inches from the edge.

The greensmower is then placed on top of the steel top, fully assembled, with the front of the bedknife up against the side of the height adjustment bar that was not welded, placing as many reel blades on top of the height adjustment bar as possible.

Now, the reel can be made perfectly parallel to the rear drive roller ad then the height adjustment can be made with an Accu-Gage, aligning the front roller with the rear drive roller, allowing the mower to then tract perfectly straight.

The piece of steel weighs about 90 pounds, so it is stable enough, will not bend whatsoever, and can used on other areas such as a mechanics table on wheels, etc.

LOCATING THINGS UNDERGROUND

I have taken the idea of locating “stuff” underground one step further by using used railroad spikes instead of cutting up steel rebar with an acetylene torch. Used railroad spikes are readily available in most scrap steel yards, cost anywhere from 15 to 20 cents a piece, and the large head of the spike makes hammering them into the ground quite easy.

We then purchased a Schonstedt metal detector. Items we then marked inside all areas of the course when we measured with a laser distomat, such as the fairway turning points, and each individual
teeing ground.

All underground irrigation equipment such as gate valves, isolation valves, wire splices, air relief valves, and quick coupler valves can be found easily if the grass grows over them.

SPRINKLER HEAD YARDAGE

We have three yardages on each of our sprinkler heads that are etched into the same size plastic tag normally used. The number in the center is largest of the three and is measured to the center of each green. The number to the left is the measurement to the front of the green, and the number to the right is the subsequent yardage to the rear of the green.

This extra yardage data has been very popular with our members and guests and, as Tom Weiskopf says best: “The more information that you give a player, the better!”

REEL GRINDING

We purchased a diamond-tip stone dresser, which was an optional accessory for our bedknife grinder, and placed it on our reel grinder instead.

The stone dresser was mounted to our automatic reel grinder on the far left-side bracket that holds the mower bottom to the grinder using a bolt already in place to secure it to the bracket.

As the reel grinder passes back and forth, each time it goes all the way to the left, it passes over the stone dresser each and every time to keep the stone perfectly dressed for a more consistent reel sharpening.

RAIN GAUGE

Tired of going outside to read how much water is in your rain gauge? I have a raingauge “inside” my office that holds five inches worth of water in a removal glass cylinder which is mounted inside a window sill. A quarter-inch plastic hydraulic tubing runs up to the rooftop, where it attach to a collection cup-type funnel. The Rain-Minder Remote Reading Rain Gauge is available from Texas Electronics, P.O. Box 7225, Dallas, Texas 75209; telephone 214-631-2490.

A TURF’S-EYE VIEW OF

What’s really frightening about this vision is that every year your turf is seeing more of them. And it’s this increased traffic that’s making even your hardiest varieties more vulnerable to disease damage.

That’s where CHIPCO® brand 26019 fungicide comes in. With its unsurpassed control of Helminthosporium Leaf Spot and Melting Out, Dollar Spot, Brown Patch, Fusarium Blight and Red Thread, CHIPCO® 26019 is simply the best investment you can make to ensure the quality and play-ability of all your turfgrasses. It even protects against