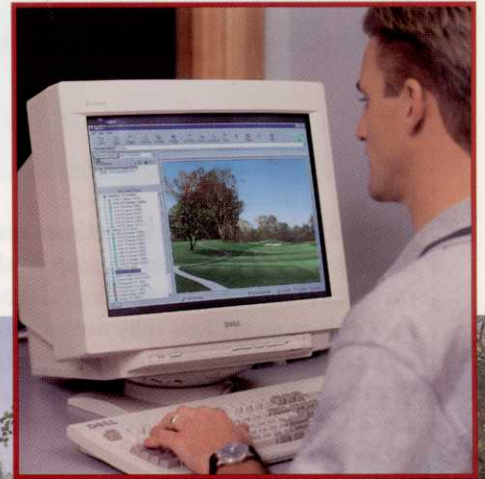


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***The best time to flush is during the early morning or***

***late afternoon. Pour approximately 1 quart of soapy***

***water per square foot over fresh active tunnels.***

***Multiple locations in a 20-foot area can be flushed at***

***the same time. Marking with a flag makes a good***

***reference to locate the flushed spot.***

locate the flushed spot. Sometimes under dry conditions, an extra soap flush may be needed after the first has soaked in. Adult mole crickets may not surface for several minutes (5 to 10 minutes). Occasionally, tender foliage may be susceptible to slight burn from the soap under hot conditions.

Peak-season mole cricket activity varies depending on location and temperatures. Determine and record the identification of the mole crickets with each collection. Save collected specimens in labeled 4-ounce jelly jars half-filled with alcohol for future reference to predict egg hatch. Make sure all specimens are dated.

#### **Mole cricket sex identification**

You will need to be able to identify the female mole cricket in order to examine their eggs to predict egg hatch. The easiest way to determine the sex of mole crickets is to examine the wing area of the adults.

Adult tawny and southern mole crickets have wings that overlap and are the length of the abdomen. Hold the specimen so the wings are visible. Observe just behind the head at the base of the wings. The male will have a raised triangle that looks V-shape at the base of the wings. The female mole cricket will not have the darker raised area at the base of the wings and is lighter in color. This can be confirmed by rubbing a fingernail over the area at the base of the wings.

#### **Mole cricket egg development and early hatch**

Once you have identified the female mole crickets, you can examine their eggs to predict egg-lay and hatch.

Peel open the abdomen and locate the oval-shaped eggs behind the internal organs. In general, if eggs are small (pinhead size), light in color, flat or very soft to the touch, the female is in the early stages of egg development. In the later stages of egg development, the eggs become larger and more oval but remain soft and light in color — she may lay eggs within a few weeks. However, if the eggs are firm, and sometimes darker in color, egg lay can be expected within five days and hatch should begin in two weeks.

If you do not find eggs, the females may have already laid their eggs, and you should begin to monitoring for hatch. Start by soap flushing and observing for small nymphs (1 centimeter in size). These come to the top of the grass within a few minutes of soap flush. Small nymphs can be difficult to detect, so pay careful attention. Look closely for movement, because it is easier to see and collect small nymphs that are moving. You may notice nymphs when flushing for adult mole crickets. If your soap solution has too much foam, you may miss some nymphs.

Keeping records on species, numbers, sex and stage of development will provide useful information for MERIT ap-

plication timing. Record the size of nymphs collected if the program is initiated after egg-lay.

#### **MERIT application timing**

If the majority of females are in early stages of egg development, wait a week and scout again. If the majority are in the later stages of egg development, application time is near. Scout this area once or twice a week for small nymphs. If very small nymphs are found during flush, apply MERIT within seven to ten days. If larger nymphs (1 centimeter) are found, apply MERIT at first opportunity. Do not wait longer than one week.

#### **Irrigation**

Adequate irrigation or rainfall is needed after application to move MERIT into the soil. Apply sufficient irrigation to wet soil a minimum of 1 inch deep. For optimum control, irrigation or rainfall should occur the evening of application and before mowing.

#### **Summary**

- MERIT effectively controls mole crickets and the white grub complex with only one preventative application each season. This two-in-one approach is economical and a time saver.
- MERIT provides the option of self-application or custom-application.
- Proper timing is critical to achieve the best results with MERIT. Scouting for adult mole cricket activity is the best way to determine proper timing.
- Mole cricket egg-lay can be predicted by observing eggs in the female's abdomen. If eggs are firm, hard and sometimes dark in color, egg-lay can be expected within five days.
- Male mole crickets have a dark, raised v-shaped at the base of their wings, females don't.
- MERIT is most effective when timed with the first hatch of mole crickets.

*PAT COBB, PH.D.*

*Entomology Professor Emeritus  
Auburn University*

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New Orthene® 97 is proving to be a popular pest-control choice on golf courses throughout the South.

Here's what three Florida golf course superintendents have to say about new dust-free, low-odor ORTHENE 97:



*The Great Outdoors Golf Resort, Titusville*

"Changing to the new ORTHENE 97 pellet formulation just seems logical. I continue to get the trusted results I've always had with ORTHENE at the same low cost, yet with no more dust and very little odor. These features make this product easy to handle and address the worker exposure issues."

— Geoff Coggan, certified golf course superintendent at The Great Outdoors and immediate past president, Central Florida Golf Course Superintendents Association



*Tank mixing is a breeze with new dust-free ORTHENE 97.*



*Cobblestone Country Club, Palm City*

"Somebody did their homework when they created this product. It's a lot neater in my chemical room because of the resealable bag. My technician finds ORTHENE 97 much easier to work with because of the low dust. I've had my crew mention that the odor is less, and the members have also noticed less odor with this product."

— Lee Bladen, golf course superintendent, Cobblestone Country Club



*From tee to green, ORTHENE 97 is the new choice at Cobblestone Country Club.*



*Atlantis Golf Club, Atlantis*

"I've really liked ORTHENE, and I've used a lot of it over the years. What I like about ORTHENE 97 is the smell. It is much better. But the most noticeable difference is the elimination of dust. The resealable bags are perfect. You don't have to worry about it spilling or making the chemical storage room dusty."

— Karl Schmidt, golf course superintendent, Atlantis Golf Club



*Atlantis superintendent Karl Schmidt is sold on new Valent ORTHENE 97.*

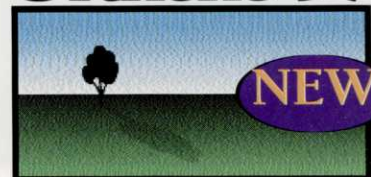
To learn how new ORTHENE 97 can benefit your golf course, crew and guests, contact Helena/Golf Ventures, Southern Ag, Agro Distribution, UHS, BWI, Harrells or VW&R.

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## How Ya Gonna Keep 'Em Down On The Farm?

**O**n a recent "turf tour" with a few of my peers, we visited The Farm Golf Club in Dalton, Ga. where Tim Kennelly, CGCS has been employed for six years. As with most golf course visits, I left with several tips that I may use in my operation.

The first thing that greeted our group at The Farm was a sign on the front door of the grounds management facility that read, "Our Goal - For all our golfers to tell their friends how great The Farm Golf Club is."

Kennelly placed this motivational sign on the door upon accepting the position at The Farm. Like many good ideas, the thought originated from a similar sign that Kennelly once saw while he was employed at The Naval Academy in Annapolis, Md. Kennelly said, "It is important to remind the golf course staff on a daily basis of the main reason we are employed at The Farm."

Inside the grounds management facility we discovered another motivational tool, an "employee of the year" plaque on a few of the employee lockers. Kennelly initiated this honor at The Farm in 1996. Although Kennelly presents the award each year, the recipient is selected by an employee vote.

Three weeks prior to the annual end-of-the-year staff party, nominations are taken from the crew. The top five vote-getters are then placed on the ballot for the award. One week prior to the big event, ballots are passed out and the employees are instructed to place their completed ballots in a locked box up to one hour prior to the party.

During the end-of-the year-party, while the employees are munching on steak, shrimp, and Alaskan king crab claws, Kennelly counts the votes. The winner not only receives the plaque on their locker but also will have their own private parking spot for the upcoming year.

"There are no set rules since our employees seem to recognize those who put forth the extra effort and are deserving of the award," Kennelly said. He added, "I think the award along with the dinner has been well received by the employees and their stomachs!"



*Employee of the Year plaque on employee lockers at The Farm.*



*Sign on the Grounds Management Facility at The Farm, "Our Goal — For all of our golfers to tell their friends how great The Farm Golf Club is."*

Saving money from the vending machines and recycling aluminum cans raises the funds for the event.

Not all is lost for those crew members who are not elected "employee of the year." Prior to the party, one raffle ticket is given to each employee and after the huge feast, items that were given to Kennelly throughout the year by vendors such as hats, shirts, jackets, etc., are raffled off to the employees.

Kennelly said, "The pro shop and vendors that we have done a lot of business with throughout the year are also hit up for donations." Kennelly seems to have mastered the fact that a happy, well-motivated crew will work hard and make him look great.

*Darren J. Davis  
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FTGA UPDATE

### Cisar Passes Turf Liason Baton to Working Group

At the Florida Turfgrass Association's March 24 board meeting in Gainesville, UF/IFAS Turf Coordinator, Dr. John Cisar passed the responsibility of industry liaison to the Turfgrass Working Group headed by Dr. Bryan Unruh.

Under the IFAS reorganization instituted by UF/IFAS Vice President Mike Martin, each commodity group served by IFAS has developed a working group of faculty members. Turf is no exception and Drs. Unruh, Trenholm, Miller and Nagata make up the core leadership of the Turf Working Group.

In a special presentation ceremony by Dr. Martin, congratulations and thanks were expressed to Dr. Cisar for filling the industry-requested turf coordinator role. We add our thanks to Dr. Cisar and look forward to his continued contributions in turf research as part of the new Turf Team.

#### 48th Annual Conference

As we move into summer, the FTGA office staff and conference and show committee members are wrapping up the list of speakers and topics for the 48th Annual Conference and Show Aug. 14-16 at the O'Connell Center on the University of Florida campus in Gainesville.

This year all of the classroom education has been moved to the O'Connell Center or just across the street in the Florida Gymnasium Building. No more cross-campus hikes to catch a concurrent session or workshop. Park at the garage next to the O'Connell center and you're set!

This year the Trade Show will kick off with an afternoon and evening grand opening and reception on Tuesday, August 15th from 5 to 8 PM. This format has been gaining widespread popularity at other trade shows and

## 2000 Florida Plants of the Year - Part 3

*Editor's Note: The Florida Plants of the Year program was launched in 1998 and has been beneficial to both consumers and growers. Purchasers are introduced to under-utilized but proven Florida plant material. The plants are chosen each year by a committee of horticulturists, nurserymen, educators, landscape architects and other members of the horticulture industry representing Central, North and South Florida.*

### COMMON NAME: Ficus TooLittle

**BOTANICAL NAME:** *Ficus benjamina* 'TooLittle'

**HARDINESS:** Low to medium light

**MATURE HEIGHT AND SPREAD:** At one year old the plant is 12-24 inches high and 8-10 inches wide.

**CLASSIFICATION:** Ornamental foliage plant

**LANDSCAPE USE:** Bonsai or small topiary

**CHARACTERISTICS:** This true dwarf ficus can be distinguished from the regular benjamina by its unique small curled leaves and tight internode space.

This is a chance mutation that was discovered in 1988. Ficus 'TooLittle' is a full plant with approximately 7-10 times more leaves than its parent benjamina. The numerous leaves give

'TooLittle' its dense appearance. 'TooLittle' is currently being grown from tissue culture and its small size makes it a good candidate for bonsai. The large sparse roots under the soil can be exposed to add to the bonsai effect. The 'TooLittle' also lends itself well to use by the small topiary foliage market.



### COMMON NAME: Golden Jasmine

**BOTANICAL NAME:** *Cestrum aurantiacum*

**HARDINESS:** Zones 8-10

**MATURE HEIGHT X SPREAD:** 8 feet tall and wide

**CLASSIFICATION:** Landscape shrub

**LANDSCAPE USE:** Specimen or mass plantings

**CHARACTERISTICS:** Bright orange-yellow flowers in spring and summer.

The sprawling habit of this shrub can be contained by light pruning. Orange-yellow flowers are attractive to butterflies. This fast grower blooms continuously from spring to summer, requires full-sun or partial shade and tolerates drought and poor soil. It may die to ground in colder zones, but recovers quickly in the spring.



### COMMON NAME: Mahogany Fern

**BOTANICAL NAME:** *Didymochlaena truncatula*

**HARDINESS:** Zones 9-10

**MATURE HEIGHT X SPREAD:** 2-3 feet tall, upright

**CLASSIFICATION:** Tropical upright fern

**LANDSCAPE USE:** Ground cover for medium to dense shade

**CHARACTERISTICS:** Rich mahogany new growth enlivens the dark green glossy mass of foliage

This ground cover flashes a glossy green foliage with contrasting bronze new growth reminiscent of Autumn Fern, but more upright. Mahogany Fern grows best in shade and evenly moist conditions.



gives attendees a chance to enjoy a libation, some snacks and take in the trade show at the same time.

The FTGA leadership is counting on all segments of the turf industry to support the conference and show. While golf course superintendents have been key in this effort in the past, our numbers have been tailing off the last couple of years.

With universal issues facing the total turf industry these days, the FTGA Conference and Show will be a good place for everyone to gather and join forces.

There are plenty of moderately priced hotels west of campus located at exits 75 and 76 on I-75. Last year I stayed at the Red Roof Inn for only \$34.50 a night. There is also a cluster of hotels on U.S. 441 (SW 13th St.) south of campus.

There is also a new DoubleTree Hotel on campus at the corner of SW 34th St. and Hull Rd. This will be the



*At the FTGA's Spring board meeting in Gainesville, Dr. Mike Martin, vice president of IFAS presented Dr. John Cisar with his thanks and a plaque commemorating his service as IFAS Turf Coordinator for the past two years. Martin announced that IFAS is now installing a Team Working Group approach to communicate with various industry commodities. Dr. Bryan Unruh will be the chairman of the new Turf Working Group for IFAS. Photo by Joel Jackson.*

site of the GCSAA Leadership Seminar. All of these locations are just minutes away from the O'Connell Center.

JJ

UF/IFAS OVERSEED FIELD DAY

## Combined Event Draws Crowd

**S**uperintendents from as far away as Naples and Miami took advantage of the combined Overseed Field Day and FTGA board meeting to visit the turf plots to make seed variety evaluations and listen to research updates at the G.C. Horn Memorial Field Laboratory and the Envirotron Research Laboratory.

Out at the G. C. Horn turf plots Dr. Al Dudeck reviewed the 1999-2000 Overseed Trial results. Dr. Jerry Sartain updated data on his cool season turfgrass fertility research and Dr. Grady

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New UF/IFAS faculty member Dr. Carol Stiles was introduced by Dr. Everett Emينو at the IFAS Overseeding Field Day held in March. Stiles's specialty is turf pathology and she is looking for input from superintendents on their current disease problems. Photo by Joel Jackson.

## 48th Annual FTGA Conference and Show

### Monday, Aug. 14

- 8:00 AM Registration
- 10:00 AM to 4:00 PM Workshops (2 hours each). Topics include: Weed ID & Weed Control; Lawn, Trees or Shrub Maintenance; Turfgrass Insect Control; Ornamental Troubleshooting; Sprayer & Spreader Calibration; Sod Production; Landscape Beautification; Vertebrate Pests; Personal Protection Equipment; Pest & Weed Control in Sod Production.
- 2:30 PM University Tour (Includes the Envirotron, athletic fields, turf plots)
- 12:00 PM to 6:00 PM Golf Tournaments
- 6:00 PM to 10:00 PM Toro Corn Boil on the Touchdown Terrace

### Tuesday, Aug. 15

- 8:00 AM Registration
- 8:00 AM to 4:00 PM Equipment Technician Seminar. Buses to Lake City CC.
- 8:00 AM to 12:00 PM GCSAA Leadership Series Seminar - .35 CEU's available.
- 9:00 AM to 12:30 PM Long Grass Concurrent Sessions. Topics include: Sod Certification; Annuals; Athletic Field Management; Biostimulants; Florida Fertilizer & Seed Laws; Worker Protection Standards; How To Legally Hire An Employee; Pest Control In Outdoor Structures. Some of the Monday Workshop topics will be presented in a condensed format.
- 11:30 AM to 12:30 PM UF/IFAS Research Reports
- 1:00 PM to 2:30 PM Annual Meeting and Awards Luncheon
- 3:00 PM to 4:00 PM UF/IFAS Research Reports
- 4:00 PM to 5:00 PM Protecting Our Natural Resources. Special presentation by Wes Skiles. John Wildmon helped in this project which was filmed and shown on the A&E cable network.
- 5:00 PM to 8:00 PM Reception and Trade Show Grand Opening

### Wednesday, Aug. 16

- 8:00 AM Registration
- 8:30 AM to 11:30 PM Short Grass Concurrent Sessions. Topics include: Crisis Management Plan; Management Practices for USGA vs California Sand Based Greens; New Seashore Paspalum Grass. Some of the Monday Workshop topics will be presented in a condensed format.
- 10:00 AM to 3:00 PM Trade Show Open

Miller demonstrated the methods used to determine damage to soccer field turfgrass based on cleat design.

There were plenty of replicated plots of seed varieties and fertilizer combinations to give the audience a good look at performance differences.

Dr. Everett Emينو, assistant dean of research administration, introduced the newest member of the IFAS turf team, pathologist Dr. Carol Stiles. Dr. Stiles didn't waste any time getting her feet wet as she distributed a questionnaire asking for turf disease input from the attendees.

Then everyone traveled over to the Envirotron where Emerald Island Turf served up another delicious barbecue lunch. Those guys are putting a lot of miles on that tow-behind grill. Mr. McCall, thanks for the grub.

Before lunch, however, there were more turf plots and greenhouse experiments to check out dealing with *Poa trivialis* seeding rates, nutrient concentrations and leaching, light intensity and cutting heights on ultradwarf greens, soil amendments, tropical signalgrass and torpedograss controls and shade tolerance of St. Augustine.

Principal investigators on these projects include Drs. Grady Miller, Laurie Trenholm, Jerry Sartain, Russell Nagata, John Cisar, and Bert McCarty; plus researchers Jan Weinbrecht, J. R. Higby, Ray Snyder, Travis Shaddox, Jason Kruse, Eric Brown, and Jeff Edenfield.

Attending one of these field days is always a good reminder that turf research is on-going and time consuming. There's very little instant gratification in research. It is a body of work in progress that takes our continual support.

#### USGA REGIONAL SEMINAR

## Topics Are Up, Attendance Down

The 2000 USGA Regional Conferences held in Palm Beach and Tampa this year were chock full of interesting information as usual, but





# Golf Course Environmental Compliance, Safety, and Security Starts With Safety Storage

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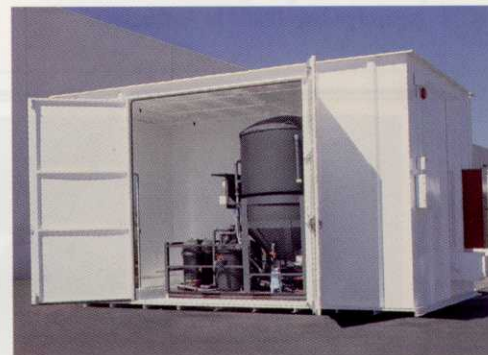
This self-contained, above-ground system captures washwater runoff at a drive-on rinsate pad for recycling back to the treatment unit.

The closed-loop, zero discharge treatment unit removes pesticides, insecticides, herbicides, soil, oil, fuels, solvents, hydrocarbons, and other contaminants from the recycled washwater. Clean water is returned to the rinsate pad at a rate of up to 30 gpm.

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Scott Gillihan, Director of the Colorado Bird Observatory told the audience at the USGA Regional Conference in Tampa that golf courses have an opportunity to send a very positive message about bird habitats to the general public. Photo by Joel Jackson

USGA officials were disappointed the attendance numbers were down from previous years.

The presentations this year offered a wide variety of topics. Some of the maintenance highlights from the Tampa conference:

•Behind the scenes of a major championship - Tim Morahagn, director, USGA Championship Agronomy, had this to say about charges that the USGA tricks up U. S. Open courses to run up the scores, "Some people say we try to embarrass the best players in the world. We say we try to present conditions which identify the best players in the world."

•Regrassing: It's more than picking the right variety - Chris Hartwiger, USGA agronomist Southeast and Florida Regions, focused on making sure greens locations had adequate sunlight to grow grass. He talked about plotting sun and shade patterns before you install the new turf. Other-

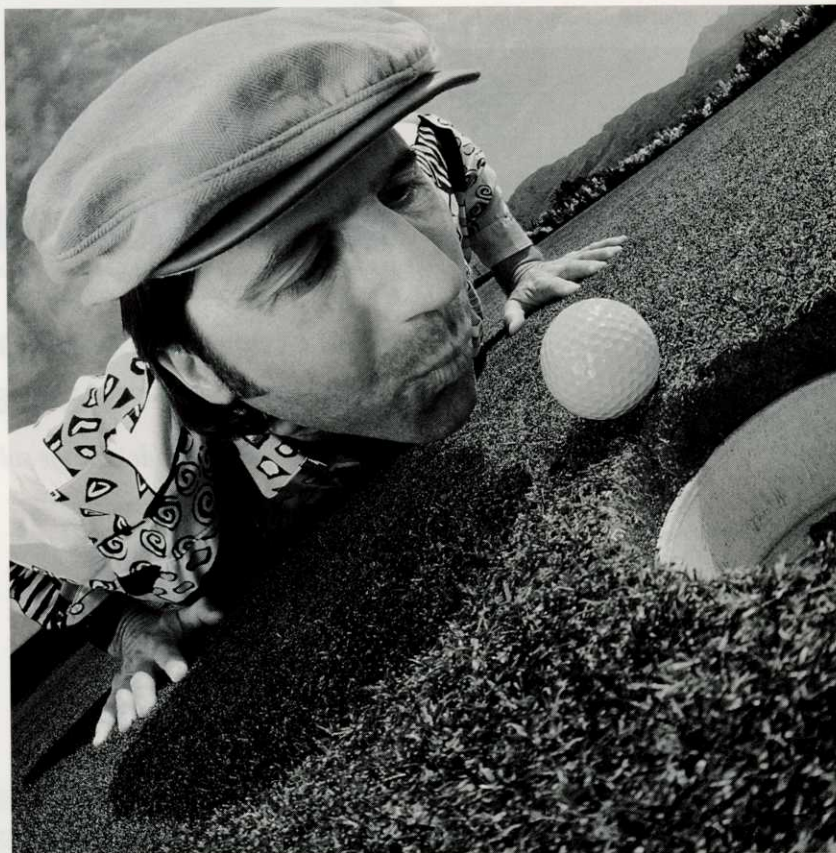
wise the new grass will be doomed to fail as well.

•Digital Imaging: See it before you do it - Keith Harpp, USGA agronomist Mid-Atlantic Region had a great presentation of how superintendents and clubs can view projects before and after the fact on screen to avoid mistakes discovered only in hindsight.

One example was the planting or removing of trees. Computer software makes it possible to install and grow a tree to see the effect it will have on shot values on a digital picture of your golf hole.

•Sharing your golf course with birds - Scott Gillihan, director of the Colorado Bird Observatory had a very hopeful message for golf courses. He has come to regard golf courses as one of the best potential habitats for birds as they become the obvious refuges in the urban sprawl.

He went on to say that domestic cat



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