Toro
experience,
innovation
and
leadership
cover new
ground
every day.



Toro is the product of choice for more golf courses than all other brands combined. Toro anticipates changing irrigation needs with products that save time, water and money and provides tools for control to the superintendent. From labor-saving retrofit conversion assemblies to the industry's most advanced, computerized central control, Toro experience, innovation and leadership cover new ground every day.

Toro provides more than just irrigation products – we provide turf solutions. For more than thirty years, we've supplied a full line of quality irrigation equipment to fit any golf course need. Customers have grown to trust Toro. In fact, 74 of the top 100 golf courses in America choose Toro irrigation. That's experience.

Toro leads the revolution in golf course product development. We translate new technology into productive irrigation products for every turf requirement. Our list of "firsts" goes on and on. First plastic geared golf head. First pressure-regulating valve. First dedicated golf service organization. First modular controller. First central/satellite control system. First reliable wireless irrigation control system. That's innovation.

Toro has the experience and innovation to provide our customers with more than just irrigation products – we provide solutions. That's leadership.



Golf Sprinklers



730/750 Series Sprinklers

Efficiency and performance have been designed into each Toro 730 and 750 Series golf sprinkler. Designed for low friction loss and flushing at activation, these low-pressure golf sprinklers will stand the test of time. Toro offers the widest range of choices to match any design requirement, including Check-O-Matic models to prevent low-head drainage and a selection of body threads: ACME, BSP or NPT. Toro 730 and 750 Series full-circle sprinklers have a 3-inch pop-up to clear tall grasses, manual control at the head for diagnostics and four factory-set pressure designations to prevent tampering. They open and close smoothly to reduce pressure spikes and damage to the hydraulic system. And, installation is easier with nozzles that are color coded according to the radius and flow rate.

760/780 Series Sprinklers

Toro 760/780 Series sprinklers provide more precision-engineered features than any other. Both feature full-circle and adjustable part-circle versions that maintain consistent nozzle performance regardless of the model. And, the durable stainless-steel riser design produces low flush at activation, making them very effective in lower-pressure systems. Like the 730/750 Series, nozzle selection is easy with nozzles that are color coded by radius and flow. They open and close smoothly to reduce pressure spikes and damage to the hydraulic system. Also included is a 3-inch pop-up to clear tall grasses, four pressure settings to prevent tampering and a selection of body threads: ACME, BSP or NPT.

Golf Central Control Systems



OSMAC° Field Satellite (Digital Wireless Paging)

COMPATIBLE WITH SITEPRO AND TOUCHNET

Convenient. Dependable. Completely Flexible.

The OSMAC irrigation system field satellite combines Toro's expertise in irrigation and paging technology to create one of the most convenient dependable and flexible satellites on the market. And, OSMAC satellites are great for retrofit projects. Six 8-station output cards stretch flexibility even further, allowing you to expand from eight to 48 stations without adding wires or altering hardware. OSMAC is the convenient solution.



Network LTC™ Plus Field Satellite (2-Way Wireline or Wireless) COMPATIBLE WITH SITEPRO AND TOUCHNET

Unprecedented power. Completely customizable.

The Network LTC Plus irrigation field satellite gives you extraordinary power and modular flexibility. It provides exceptional value with the ability to increase from 16 to 64 stations in 8-station increments. Sixteen independent programs (with 8 programs capable of running simultaneously) makes Network LTC Plus one powerful product. Toro recognizes that our customers deserve value. So we made Network LTC Plus completely customizable - so you buy only what you need, when you need it!

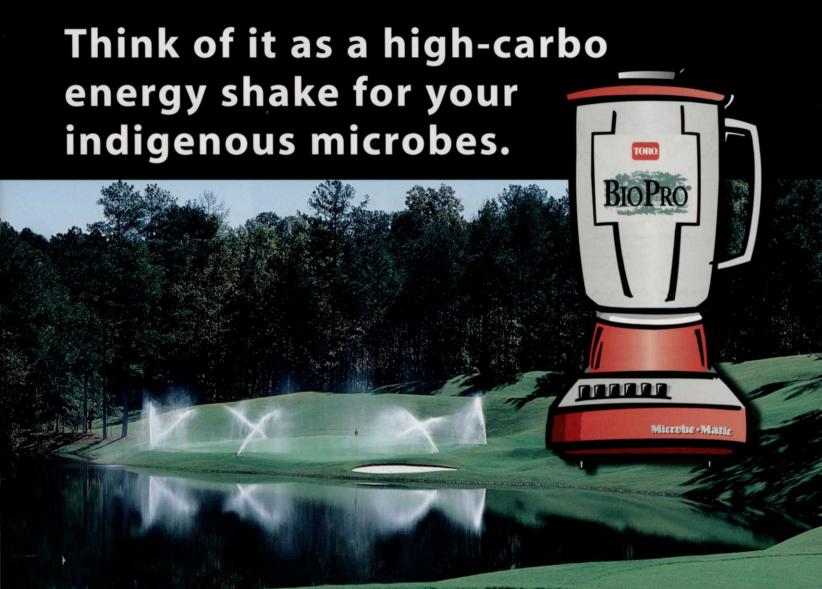
For Additional Information Contact Your Local Toro Distributor.



954-429-3200







Give a serious Toro® BioPro® energy boost to the hardest workers hidden below your turf's surface — the soil microbes. Plant Rhizosphere Relationship Rule #1: keep your indigenous microbes plentiful and active.

Unfortunately, pesticides may kill off these natural organisms found in your soil. That's why you need Toro BioPro in your program to replenish the soil and rejuvenate these hard-working microbes.

Unlike products that contain large numbers of imported microbes that often die quickly after application, Toro BioPro products maintain and stimulate your indigenous microbes. Take the scientists advice to achieve

healthy turf and do your plant system a favor. Give it a Toro BioPro energy boost.

In Northern Florida, contact: Zaun Equipment Co. at 1-800-393-8873

In Southern Florida, contact: Liquid Ag Systems at 1-800-375-5274





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The lifelike sculpture of an old man and his "pet" gator on Laurel Oak's No. 3 West created by local artist Jack Dowd causes a few double takes by the golfers. Photo by Joel Jackson.

SUMMER 1998

FOREWORDS PRESIDENT'S MESSAGE, DOC NOTES
SPOTLIGHT PRESIDENTS AWARD, USGA MEETING, SPRING EVENTS14 Suncoast GCSA honors Mack Baugh with Presidents Award; USGA Conferences drew full houses; Poa, Envirotron Classic, Suncoast Scramble, Ridge Invitational, South Florida Expo, Mike Richards Memorial all were successful.
COVER STORY EVERYBODY KNOWS WHAT'S GOING ON!
HANDS ON ARE YOU THE MAN WITH THE PLAN?
INDUSTRY ROUNDUP LIGHTNING, FTRF & FTGA REPORTS
REGULATION ARE YOU LEGAL?
STEWARDSHIP SNAKES AND BIRDS
RESEARCH NITRATE LEACHING, FAIRY RINGS
AFTERWORDS EL NINO, FAREWELL, DECEIVERS

About the use of trade names: The use of trade names in this magazine is solely for the purpose of providing specific information and does not imply endorsement of the products named nor discrimination against similar unnamed products. It is the responsibility of the user to determine that product use is consistent with the directions on the

Jackson says the profession consists of Receivers, Deceivers and True Believers.

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Advertising Information

The Florida Green welcomes advertising inquiries to:

Marie Roberts, Association Manager 1760 NW Pine Lake Drive Stuart, FL 34994 561-692-9349 800-732-6053 Florida WATS rowsing through past issues of the *Florida Green*, *Green Sheet* and other turf publications, I have found one common goal. Everyone is trying to accomplish better communications. Open lines of communication are established with the FTGA, GCSAA, USGA and other golf

and turf associations so we can keep our members better informed on up-to-date news that affects our jobs and workplace.

Educational information from local meetings, regional seminars, pesticide safety workshops, Hands On articles is another way the FGCSA is

communicating now.

industry.

Jackson, has been attending meetings of the FQPA Action Committee and Pesticide Review Council and sharing that information with you through our publications and reports to each chapter's external vice president. He has already put together a contact list of all state and federal legislators for each chapter to use for making contact on government relations issues. In the coming months, he will also be working on compiling a list of media contacts statewide to be able to send and receive information about our profession or any other issues concerning our

Our director of communications, Joel

I urge any superintendent or local chapter officer to be sure and contact Marie or Joel with any information they might think we may need to know about. It doesn't have to be bad news or just government-related stuff. We'd also like to share names and contact numbers of good speakers you had for a chapter meeting; recognize local award winners; tell people about some community project your chapter or course may be involved in and job changes and openings. There's lots to talk about!

We communicate on a daily basis with our bosses and employees so this is an area we should all do pretty well. I know we can't always read every magazine, newsletter and all the literature and comes across our desks everyday, but you should try to at least look at your state and local publications. They are always trying to give you the latest of what's going on internally and externally that affects you as a member of the FGCSA.

Communications is a two way street. The more informed we are the better we will be able to communicate effectively with everyone. You can communicate with us at:

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What We Have Here is the Ability to Communicate

PRESIDENT'S MESSAGE



Joe Ondo, CGCS President FGCSA



For 40 years, we've provided you with quality products, good value and experienced professionals who are specialists in satisfying your irrigation, water systems, landscape, turf maintenance, and golf course product needs. Our convenient locations serve South Florida, the Caribbean and Latin America. Call us today at 1-800-782-7399 or visit our web site at www.kilpatrickco.com.









There's never been a documented case of pythium resistance to Banol® Fungicide. But like I told Matt, there's a lot more to the story...



Like every other superintendent in the country, Matt had a healthy fear of a pythium outbreak on his greens. But since I introduced him to Banol systemic fungicide a few years back he'd used it regularly during periods favorable to pythium, and it had worked exactly as advertised. Still, I was

uneasy. Just because there's never been a documented case of pythium resistance with Banol doesn't mean it couldn't happen. So I convinced him to adopt a disease-resistance management program that rotates Banol with other fungicides having different modes of action.



Banol

Matt thought I'd lost my mind. I

told him I'd rather keep him as a
long term customer than sell a
few extra cases of my fine product for one season. "AgrEvo reps," he laughed,
then he sent me a dozen golf balls
from the club.



opefully by now any superintendent reading this will have heard about the impact that the implementation of the Food Quality Protection Act may have on the agriculture and turf industries. People need to be aware that mosquito control, commercial and residential structural pest control, lawn care operators and golf courses will also be affected.

Your FQPA 'Risk Cup' Runneth Over It is ironic that 80 percent of the purchase and use of residential pesticides are by homeowners and they may not even be considered.

The main focus of FQPA is to protect the public from residues in dietary and non-dietary sources. Some provisions:

 A single, health-based safety standard for pesticide residue tolerances

in both raw and processed food.

- An explicit determination that residue tolerances are safe for children.
- Consideration of (1) aggregate exposure to residues of pesticides (including food, drinking water and residential use) and (2) exposure to all other pesticides with a common mechanism of toxicity, when setting residue tolerances.

Using these guidelines will profoundly change the way tolerances are determined. For example, since all organophosphate (OP) insecticides have the same mechanism of toxicity, EPA must consider their cumulative effects on an aggregate basis when setting a residue tolerance level for one of them.

What does all this mean? The example of a "risk cup" is used to describe aggregate exposure estimates. A full cup represents the level of exposure that a person could receive every day for 70 years without experiencing appreciable risk.

This is determined through animal studies where a no-effect exposure amount for the pesticide is identified for rats. This amount is reduced by a hundredfold factor to determine the daily/lifetime safe exposure for humans. FQPA requires that an additional safety margin up to tenfold be applied for infants and children.

Before FQPA, there was one risk cup for each pesticide active ingredient based on the exposure associated with its use on food crops and how they act on human health. Now, the same cup must hold the risks from dietary exposure plus the risks from any exposure to residues in drinking water, residential use, commercial lawn and ornamental care, commercial pest control, sports turf, golf courses and mosquito control programs (aggregate exposure).

Result: The cup fills more quickly. There is less room for new and even existing pesticides and uses.

Pesticide manufacturers could:

- Make label or formulation changes so the pesticide is safer. This means the pesticides or uses require less room in the cup.
- 2. Drop pesticides and/or uses from the cup. This will make room for other products and uses.

All pesticide tolerances must be reviewed by EPA by the year 2006, but the deadline for organophosphate and carbamate fooduse tolerance is August, 1999. Minor crops like fruit and vegetables, turf management of parks, sports fields, home and commercial lawns and golf courses are at risk for label restrictions and loss of product registration. If you manage such crops or green spaces, be aware that your pesticide options may change over the next few years.

What can you do?

 Be informed about FQPA and its impacts on pesticide use. This can translate into lower crop productivity, using more expensive, less effective

D.O.C



Joel Jackson, CGCS Director of Communications FGCSA

Your Choice for Treating Localized Dry Spots Just Got Clearer.

AQUEDUCT

Proven to be the most effective surfactant to treat LDS and promote the rapid recovery of turf under stress.

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The One and Only.

HERITAGE®-An Ounce of Prevention...

HERITAGE is a highly flexible fungicide that exhibits both preventative and curative activity against most turfgrass diseases, plus the following advantages:

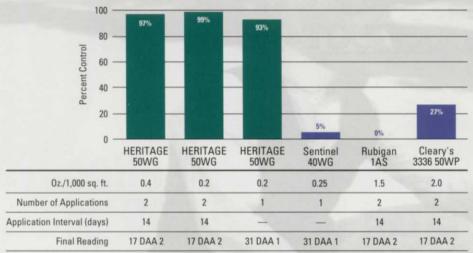
- · Improves turf quality
- Controls brown patch, Pythium, take-all patch, summer patch, anthracnose and snow mold
- · Reduced risk to environmental resources
- · Low risk toxicological profile
- · Low rates, extended spray intervals
- · Novel mode of action

Once you learn about the powerful, preventative protection and its fit with your best management practices, you'll agree that it's time to change the course of your turfgrass disease management program, with HERITAGE.

For more information, contact your authorized Zeneca Distributor, or call Zeneca Professional Products Toll Free at 1-888-617-7690.

www.zenecaprofprod.com

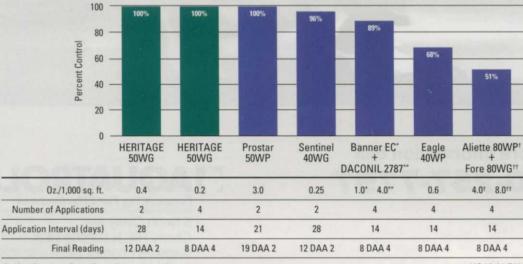
Anthracnose¹ (Colletotrichum graminicola) on 80% Annual Bluegrass, 20% Perennial Ryegrass



Dr. Don Scott, Purdue University, 1995
Also isolated from plots: 2 species Rhizoctonia; 3 species Pythium; and several species Curvularia.

US 67-95-P354

Brown Patch (Rhizoctonia solani) on Colonial Bentgrass



Dr. Pat Sanders, Penn State University, 1994

US 66-94-P356