by the heavy-stress conditions. This programmed approach has improved summertime *Poa annua* greens performance in California."

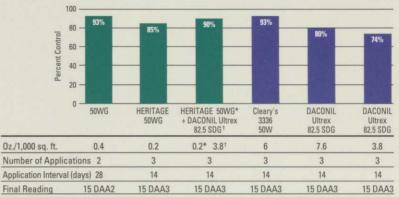
The Performance of HERITAGE on Take-all Patch

"Take-all patch is a root rot of creeping bentgrass caused by the ectotrophic root-infecting fungus, *Gaeumannomyces grammis* var. avenae," says Randy Kane, Director of Turfgrass Programs for the Chicago District Golf Association. Kane, a plant pathologist, has been studying this disease, along with Dr. Hank Wilkinson with the University of Illinois, for the last several years because of its damaging nature and increasing frequency on newly established bentgrass turf.

Kane explains that take-all patch is difficult to study in small plots in the field because of its randomly scattered distribution and year-to-year variability. "Disease control data is especially hard to get with small-scale fungicide trials, so we have established largescale plots on bentgrass fairways and nurseries, including plots at Nettle Creek Country Club in Morris, Illinois for the last two years," says Kane.

"Data from fairway trials at Nettle Creek and other Chicago area sites show that HERITAGE provided superior control of take-all patch at the rates and timings tested. Also, split applications in spring and fall have shown the greatest efficacy in our trails," reported Kane.

Gray Leaf Spot (Pyricularia grisea) on Perennial Ryegrass



All treatments began on August 27.

Dr. Bruce Clarke, Rutgers Turf Research Farm, Rutgers University, 1998

The Control of Brown Patch with HERITAGE

"HERITAGE is a welcome entrant into the fungicide arsenal for golf course superintendents," says Dr. Bruce Clarke, who has performed numerous fungicide evaluation trials in his position at Rutgers University. As one of the first cooperators for HERITAGE, Clarke says, "It is a superb material against a broad spectrum of diseases. The real strength of the material, though, is that it's one of the best brown patch materials I've ever worked with."

In 1998, Dr. Clarke helped evaluate selected fungicides, including HERITAGE, for brown patch control on colonial bentgrass maintained under golf course fairway conditions at Rutgers Turf Research Farm in New Brunswick, New Jersey.

Curative Control of Gray Leaf Spot with HERITAGE

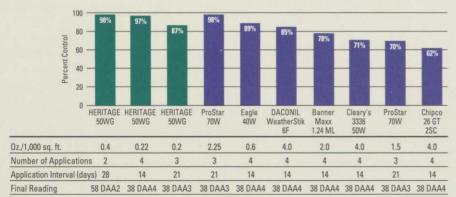
In another trial in 1998 at Rutgers Research Farm, Clarke conducted a fungicide evaluation for the curative control of gray leaf spot on perennial ryegrass. In summarizing this trial and others performed at the Research Farm, Clarke says, "HERITAGE was one of the top performers among all the fungicides in these trials."

The Effect of HERITAGE on Turf Quality

The fungicidal activity of HERITAGE provides long-term control of pathogenic fungi which cause leaf chlorosis, necrosis, premature senescence, and root injury in turfgrass. "There's an increase in turf quality with HERITAGE because it is such a broad-spectrum fungicide," explains Clarke, "HERITAGE reduces the number of different diseases present, including low-level diseases-the ones that aren't even noticeable to the superintendent." The turf plant's green leaf area and, consequently, the photosynthetic capacity of the leaves are maintained longer as a result of the material's broad-spectrum control.

"The reduction of diseases really enhances the density of the turf, a particularly important quality to the superintendent," says Clarke. Regular use of HERITAGE also results in enhanced vigor and color of turfgrass.

Brown Patch (Rhizoctonia solani) on Colonial Bentgrass



All treatments began on June 25

Dr. Bruce Clarke, Rutgers Turf Research Farm, Rutgers University, 1998

The Direction of HERITAGE

"HERITAGE came into the turf market with a technical profile unparalleled by any other fungicide," says Ross with Zeneca Professional Products.

"Its primary strength was, as it remains today, it delivers: HERITAGE delivers the turf protection its label promises. Two years ago, it was introduced as a broad-spectrum product, and now it is viewed as the most effective product against a number of diseases, particularly summer patch, take-all patch, gray leaf spot, brown patch and anthracnose.

"It is for this reason, among others," Ross says, "that HERITAGE has earned the respect of golf course superintendents. It has also gained the support of university and private researchers alike, USGA agronomists, and private consultants. Additionally, the USGA recommends HERITAGE as the best material for the control of gray leaf spot, a turf disease of growing importance in both the Midwest and the Northeast.

"Zeneca will continue to respond to the golf course superintendent's needs through label updates for HERITAGE," explains Ross. "We've added several new diseases, including fairy ring, gray leaf spot, southern blight and pink patch to the label and modified the application intervals. In response to users' requests, we've also clarified certain language on the label."

The direction for HERITAGE, according to Ross, is to remain focused on providing the best fungal disease protection possible. "HERITAGE is a product that has made great promises to the industry and kept them," says Ross. "And it will continue to do just that."



For more information on HERITAGE fungicide, contact your authorized Zeneca Agent or call Zeneca Professional Products Toll Free at 1-888-617-7690. Labels and MSDSs available 24 hours a day, seven days a week via Fax on Demand. Please call 1-800-640-2362.

www.zenecaprofprod.com



Off The Fringe

Business briefs

Briefs continued from page 8
year. Farm equipment demand continued to
decline during the quarter as a result of depressed agricultural commodity prices, which
reduced farm income, Deere reported.

In other company news, Deere announced it filed a federal lawsuit to stop Howard Price Turf Equipment of Chesterfield, Mo., from allegedly copying Deere's design for the Gator utility vehicle. Deere filed suit against Kubota Corp. of Japan in April.

Toro reports increase

Bloomington, Minn.-based the Toro Company reported net income of \$24.9 million for the second quarter — up about 20 percent from \$20.1 million for the same period last year. Net income for the first half was \$24.9 million, an increase of 31 percent over the \$19 million in 1998.

In other company news, Toro announced that Exmark Manufacturing Co., a subsidiary based in Beatrice, Neb., obtained a "favorable settlement" of a patent lawsuit against F.D. Kees Co., and Yazoo/Kees Power Equipment, a Nebraska-based manufacturer of lawn mowing equipment.

SRO acquires Advanta Seeds

Corvallis, Ore.-based Seed Research of Oregon acquired the North American turfgrass marketing program of Advanta Seeds, Inc. Terms of the agreement were not disclosed.

Both firms will also participate in a cooperative research program to develop new and improved turfgrass varieties through conventional breeding and biotechnology.

Rohm and Haas acquires Morton

Philadelphia-based Rohm and Haas Co. has completed its acquisition of Chicago-based Morton International Inc. in a cash and stock transaction worth \$4.6 billion. The merger creates a global specialty chemical company with annual revenues of \$6.5 billion.

Terra completes sale

Sioux City, lowa-based Terra Industries Inc. has completed the sale of its distribution business to St. Paul, Minn.-based Cenex/Land O'Lakes Agronomy Co. for a reported \$390 million.

Shotgun Heard 'Round the World

ark your calendars and ready your divot repair mix for June 24, 2000.

Organizers believe World Shotgun 2000 will be the biggest event in golfing history. On that Saturday, the goal is to have as many golfers as possible around the world strike a shot at the same time, with play coordinated by shotgun starts at the Royal & Ancient GC in St. Andrews, Scotland. Why?

It's an opportunity to celebrate six centuries of golf and the time-honored traditions of the game, says co-patron Sir Michael Bonallack, secretary of the Royal & Ancient GC, in promotional materials sent to Golfdom.

"By uniting golfers across the globe on one day, the World Shotgun 2000 will help promote the heritage, integrity and values of the game into the new millennium," adds Arnold Palmer, co-patron of the event. For more information, check out the Web site www.worldshotgun2000.com or e-mail enquiries@worldshotgun2000.com.

Scanning the Web

hether you're nuts about weather or you're simply interested in interesting online weather resources, here is a dozen to choose from:

➤ • www.almanac.com — The Old Farmer's Almanac online has everything from long-range forecasts and weather trivia to words of wisdom.

- www.earthwatch.com Earth-Watch Weather on Demand features 3D weather information, forecasts, current conditions, radar and more.
- www.iwin.nws.noaa.gov The National Weather Service site averages 1 million hits a day, noting it has "served 1 billion" since 1997.



- www.weather24.com Short-term forecasts free direct to your e-mail inbox.
- www.usatoday.com/weather/wfront USA Today newspaper's online weather page with colorful graphics, radar, forecasts and headlines.
- http://cirrus.sprl.umich.edu/wxnet This University of Michigan site features thousands of forecasts, as well as many satellite images and links.
- www.landings.com Up-to-date conditions and satellite images help pilots navigate. The site boasts virtually "every weather link known."
- www.nssi.noaa.gov Severe weather preparedness guides from the National Oceanic and Atmospheric Administration, with sophisticated radar, climate archives and more.
- www.accuweather.com AccuWeather Inc. offers free and premium services, with five-day fore-casts, Doppler radar and dozens of other features.
- www.intellicast.com Check out Golfcast, a special feature that alerts golfers to the best and worst places to play based on weather conditions.
- http://weather.yahoo.com Enter a ZIP code for local forecasts or peruse the storm center, ski and travel information, records, averages and maps.
- http://grads.iges.org/cola The Weather & Climate site features options from the Center for Ocean-Land-Atmospheric Studies (COLA) and the Institute for Global Environment and Society (IGES).

Scanning the Web is compiled by Mike Perrault.

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Wanted: Tomorrow's Leaders

olfdom is looking for superintendents, assistants and other management professionals, ages 25 to 35, to spotlight in a special awards program that's focused on the next generation of industry leaders.

Golfdom's Young Leaders program will identify and profile those who will be the mentors, innovators and influencers of the next decade.

"We want to select the individuals who will be the trailblazers and teachers of tomorrow," said Pat Jones, publisher. "This is a chance to recognize the best and the brightest."

Any Golfdom reader can nominate himself or herself or a colleague for the program. Nominations should include name, contact information and a brief description of the person's outstanding leadership characteristics. Send nominations to: Golfdom, 7500 Old Oak Blvd, Cleveland, 44130 or submit by e-mail to patrick.jones@advanstar.com.



CLARIFICATION

The maker of the ballmark repair tool featured in our story on Pinehurst #2 ("Greens of Envy," May/June) was misidentified. The tool, called a Gash-B-Gone, was developed by Golf Agronomics, which can be reached at 800-626-1359.

Quotable

"If you have a disease, you should spray a fungicide. If you don't have a disease, you should spray a fungicide. Any questions?"

— Designer Brian Silva joking about his simple but effective philosophy of disease management.

"I don't know whether Donald Ross was just having a bad day or what, but he sure had some fun when he built these."

— Jerry Pate, designer and former U.S. Open champ, on the "inverted spoon" green construction at Pinehurst No. 2.

"During Open week, I guarantee there wasn't a single green out there that didn't get mowed 28 times."

— Paul Jett, CGCS at Pinehurst No. 2, on hosting the U.S. Open.

Pesticide Purge?

Continued from page 8 control methods — including herbicides, insecticides and fungicides — may be used on golf courses and other city property only as a last resort after all other strategies have failed. The city's proposed integrated plant health care program requires new tech-

"It might be acceptable for several years, but eventually the crabgrass and dandelions will take over unless you have the labor to weed by hand." – MIKE REWINSKI

niques and alternative maintenance practices to be implemented city-wide to reduce reliance on pesticides, said Claire Tucker-Reid, general manager of Toronto's Parks and Recreation Division.

Groups such as the Pesticide Action Network of North America have asked the Cali-

fornia EPA for dozens of preventive actions, including banning "the worst pesticides" and reducing use of the rest. They're asking the federal EPA to require pesticide manufacturers to conduct long-term studies to prove that pesticides don't have adverse affects and to prohibit use of pesticides in some areas.

San Francisco passed a new code to restrict use of pesticides on city property as part of its City Integrated Pest Management Policy. It bans certain categories of pesticides and requires notice of other pesticide use.

What does all this mean for superintendents? The obvious answer is that more superintendents may have to maintain turf using less pesticides — or without pesticides. But that's easier said than done.

Researchers are busy looking at no-pesticide options. Scientists such as Jack Bailey, Ndaona Chokani and Charles E. Hall Jr., all Ph.D.s at North Carolina State University, are working on a USGA-supported project to reduce the use of pesticides on

greens. They're focusing on disease management based on modifications of microclimates on individual greens.

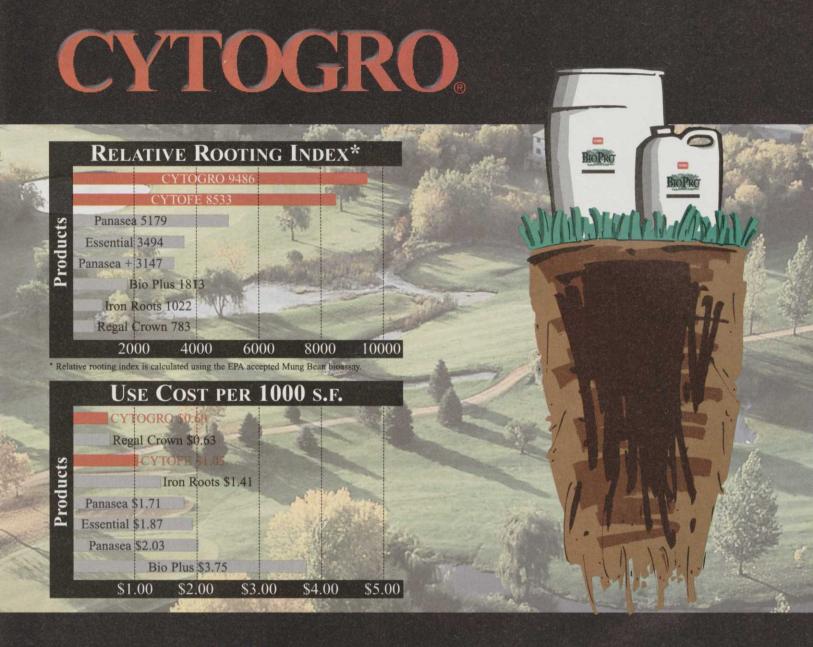
In Alameda and Contra Costa counties in California, the East Bay Regional Park District in Oakland instituted an IPM program that is researching pest management alternatives and includes an innovative customized mapping and record-keeping system for all major pests for its 50 parks covering 78,000 acres.

Superintendents like Rewinski are trying to reduce chemical usage anyway and say they remain open-minded about the possibility of one day managing turf without chemicals.

"It might be acceptable for several years, but eventually the crabgrass and dandelions will take over unless you have the labor to weed by hand," Rewinski says. "Maybe they can find a way to make it work. I don't like using pesticides. I wouldn't mind seeing the game of golf take a step back from the perfect conditioning required now."

- Mike Perrault

More roots... Less money



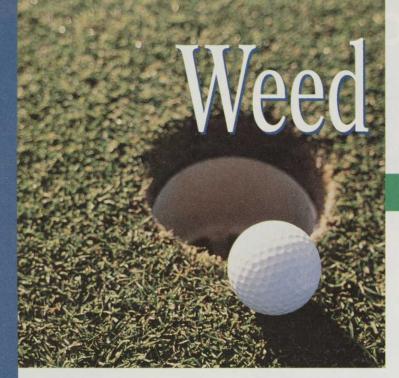
Why pay more for less? **CYTOGRO** offers more root building power per dollar than any other biostimulant on the market. It's packed with a blend of cytokinins, auxins, and natural synergists that increase root mass by stimulating new root growth, not just by fattening and elongating existing roots (important distinction).

Drought, disease, insect damage, and extreme temperatures can all take a toll on the health of your turf. **CYTOGRO** is designed to help you get through these tough times. As part of a regular turf maintenance program **CYTOGRO** will increase your turf's strength and resilience against all types of stress. It is EPA registered and contains a guaranteed cytokinin content, insuring product quality. The result will be a deeper, denser root system and canopy, ultimately improving the durability and beauty of your turf.

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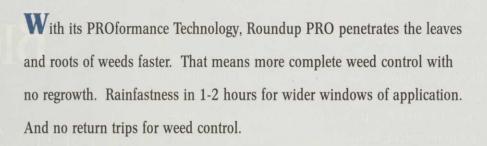


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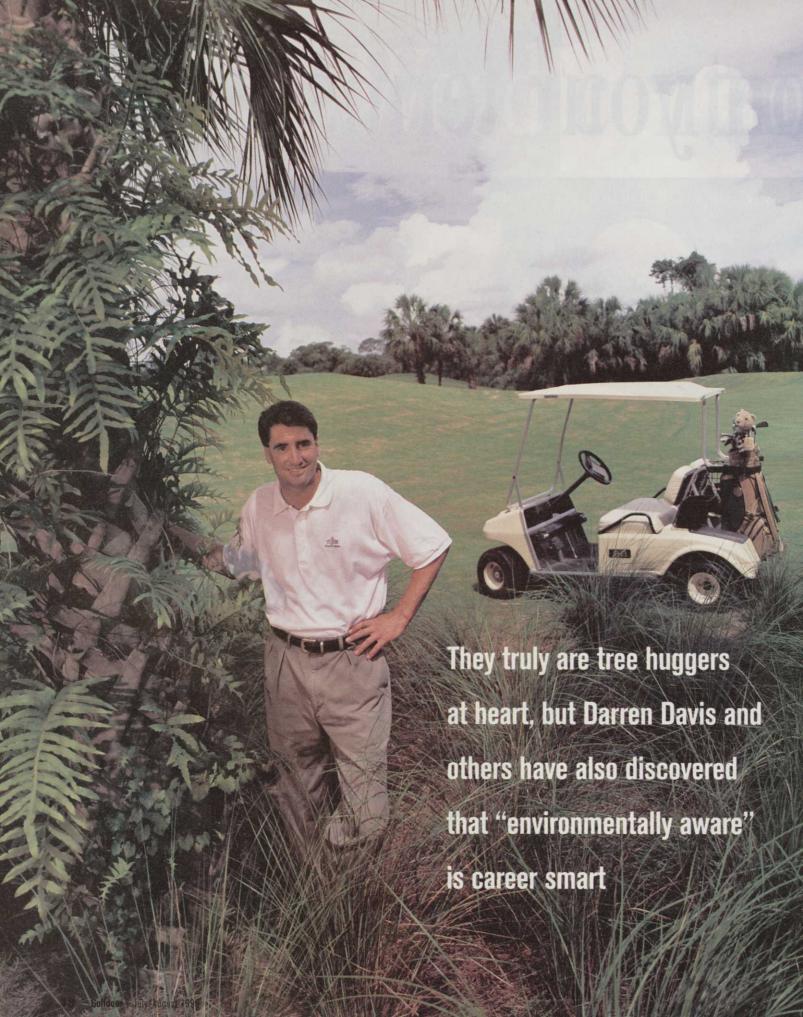


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Embracing the Environment for Fun and Profit

Darren Davis fondly recalls growing up in the rural Florida Panhandle, where he hiked the verdant woods, fished the bass-filled lakes and developed a deep respect for the environment.

Davis' sentiments for the environment haven't changed now that he's the golf course superintendent at Olde Florida GC in Naples, Fla. He is devoted to preserving wildlife in the woods and wetlands surrounding the course. And Davis has discovered that he and the environment are good for each other.

Davis says he is good to the environment on the golf course by limiting use of herbicides, allowing dead trees to stand and become nesting sites for birds, and growing wetland plants in lakes to filter runoff and absorb adulterants.

And Davis says the environment has been good to him by helping him build a positive image among his club's green-conscious members. They view Davis, who was awarded GCSAA's Environmental Steward Award for private courses in 1996, as a valuable employee who does much more than grow grass.

"They view me as a well-rounded person who cares about the environment," Davis says proudly. "A lot of them dedicate time and money to environmental groups, so they get excited when they hear that their superintendent cares about the environment."

Continued on page 20

BY LARRY AYLWARD, MANAGING EDITOR

Embracing the Environment

Continued from page 19

Who would have thought that a superintendent and the environment could have a give-and-take relationship? Especially when you consider that superintendents are regarded as villains by some extreme environmentalists.

But Davis and other superintendents, in their quest to prove to the Paul Harveys of the world that they regard nature as a friend and not a foe, have realized that "environmentally aware" is a worthy element to list on a resume. And they are using their knowledge as leverage to further enhance their careers by gaining promotions, pay hikes and other advancements.

That's smart thinking because these superintendents are in a healthy job market. Most all U.S. golf courses are realizing that it makes good business sense to cuddle up to the environment, according to Audubon International. And many courses are providing proof that they are environmentally sensitive. Of the nearly 16,000 U.S. golf courses, about 2,000 are members of the Audubon Cooperative Sanctuary

Program for Golf Courses, which stresses ecologically sound land management and the conservation of natural resources.

Are you experienced?

Michael Quimbey, corporate vice president of environmental affairs for Dallas-based ClubCorp, expects all of his company's superintendents to be well-versed in golf course environmentalism. But Quimbey believes that superintendents should promote the attribute publicly and among peers, especially if they've received awards for their practices.

"It's very important to market," Quimbey says, pointing out that about 80 of ClubCorp's more than 200 courses are members of the Audubon Cooperative Sanctuary Program for Golf Courses. "Many times, superintendents don't receive recognition for being environmentalists."

Despite being a sportsman, Davis says he knew little about golf's relationship with the environment be-Continued on page 23

The Green Resume

Human resource consultant Dave St. John offers tips to help environmentally aware superintendents enhance their careers and further their causes:

- Reinvent yourself as a writer and a speaker Look for opportunities to write articles and speak in front of groups about the environment. But don't make the mistake of assuming that either of these is easy to do and that you automatically have the natural ability to do both well. Get some public speaking training and become known as not only informative, but also entertaining in your presentations.
- Don't forget the Internet More and more people are developing their own Web sites. Linking your site to other golf and environmentally oriented sites gives you instant access to thousands of cyber surfers who may have similar interests.
- Become part of the package a member buys —
 Environmental issues face virtually every type of industry today, and these industries may be represented by many of your club members.

Enlightened industry leaders are always looking for solutions to problems they are facing even when they are playing golf. Look for ways to integrate the work you are doing into the club's communication processes.

- Don't forget the community surrounding your golf course Being a good environmental neighbor is valuable long-term insurance for any organization. Sometimes the resources and methods used by a golf course to more effectively deal with environmental issues are beyond the scope of the surrounding community. Opening lines of communication and information sharing with them can put both you and your club in a unique and positive light with your neighbors whether they play golf or not.
- Know your stuff, but stay objective Environmental issues are passion for some and pain for others. For every person who has statistics and tales on one side of the issue, there are people with contradictory information supporting their views as well. The result can be a shouting match in which little is accomplished. The environment is a subject that needs its case made by solid, supported and researched facts presented ably by a cool, objective and informed person.

- Understand the difference between conversions and careers From time to time, you are going to run into people who disagree with your views on the environment and what you are trying to achieve. These folks may hold your future and your career in their hands. The environmentally passionate superintendent may try to spend an inordinate amount of career-wasting efforts trying to convert these folks. The smart ones move on and go where they will be wanted, utilized and appreciated.
- Teach, don't preach If the environment is your passion, then accept the fact that you will know a great deal more about it than others. But remember that knowledge is power, and power can be used as an instrument of learning or it can be used to overwhelm people with your point of view. Guess which one works better?

Editor's note: Dave St. John and his partner, Larry Fish, own FSJ Services Inc., a human resource consulting firm, and GreenSearch, a staffing firm specializing in finding managers for the green industry. You may contact them at 770/392-1771, 888/375-7787 or e-mail fsjserv@mindspring.com.