EASY GREAT VALUE EASY DEPENDABLE SERVICEABLE GREAT VALUE GREAT VALUE SERVICEABLE GREAT VALUE SERVICEABLE GREAT VALUE SERVICEABLE GREAT VALUE SERVICEABLE

One less thing you'll have to worry about.

HUSTLER



800-395-4757 • www.hustlerturf.com



YOU'LL HAVE TOTAL CONTROL OVER PYTHIUM. GOLFERS NOT SO MUCH.

WITH THE NEW CHEMISTRY OF FLUOPICOLIDE AND THE PROVEN POWER OF PROPAMOCARB COMBINED IN ONE PREMIX, STELLAR® FUNGICIDE PROTECTS YOUR COURSE WITH POWERFUL PYTHIUM CONTROL. AFTER ALL, YOUR TURF IS ALREADY UNDER ENOUGH ATTACK, ISN'T IT?

Stellar FUNGICIDE PROTECT YOUR TURE



Products That Work, From People Who Care[#] | www.valentpro.com | 800-89-VALENT (898-2536) Read and follow the label instructions before using. Protect Your Turf. is a trademark and Stellar and Products That Work, From People Who Care are registered trademarks of Valent U.S.A. Corporation. @2009 Valent U.S.A. Corporation. All rights reserved. 09P-1037



By Bill Bryant

ary Player is an unabashed animal lover. The globetrotting South African has all manner of animals roaming his ranch and golf GARY PLAYER PROVES HILARIOUS IN SHORT PROMOTIONAL FILM. BUT ABOUT THAT DOG ...

course in South Africa. He's also a devout environmentalist. So when Advanced Sensor Technology (AST), a company that says its soil sensor system helps golf courses conserve water, came to him with the idea of starring in a video short alongside a lovable tan-and-white bulldog named UgMo, it all seemed a perfect fit.

Player likes what AST is doing in regard to water conservation. And during the promotional video, he professes his affection for the dog UgMo, also the name of an AST company. "I cannot tell you how I love this dog," Player says as he and UgMo romp around on a golf green. "I looked into this dog's eyes and I just saw something. He's something special."

Now, as the late Paul Harvey used to say, for the rest of the story. "I hate that damn dog," Player told a crowd of golf course owners, operators, designers and developers at the Golf Inc. Conference in St. Augustine, Fla., recently. "I was sitting in the car with him, and he pooped in my hand. I was wearing a black shirt and he snotted all over it."

Player was nearly in tears as he told the story, as was his audience. The nearly eight-minute video seems destined to gain cult status for at least a dozen great lines delivered by a wry cast. But the topper is reserved for O'Brien, the superintendent, whose reaction to Player driving away in a black Escalade with O'Brien's dog in the back seat is fall-out-of-your-seat funny.

Until it gets to YouTube, "The Inheritance" can be found at www.ugmo.com. ■

Some Heads You Want...



Bryant is a golf writer from Alpharetta, Ga.





Advanced chemistry that leaves caterpillars speechless.

DuPont[™] Provaunt[™] insecticide has earned high praise for its outstanding performance against turf and ornamental pests, including caterpillars and annual bluegrass weevils. Even with its low application rates, Provaunt[™] performs extremely well. What's more, its active ingredient has an excellent environmental profile and was classified as reduced-risk by the EPA. Learn more by calling 1-888-6DuPont (1-888-638-7668) or by visiting us at proproducts.dupont.com. DuPont[™] Provaunt[™]. Advanced chemistry. Outstanding performance.

DuPont Professional Products



Always read and follow all label directions and precautions for use. The DuPont Oval Logo, DuPont[®], The miracles of science[®] and Provaunt[®] are trademarks or registered trademarks of DuPont or its affiliates. Copyright © 2008 E.I. du Pont de Nemours and Company. All rights reserved.

Off The Fringe

Rain Bird Looking for Filmmakers Who Use Water Wisely

Are you a golf course superintendent who dabbles in filmmaking? If so, check this out. Rain Bird is giving both amateur and experienced filmmakers an opportunity to showcase their creative talents in the 2009 Intelligent Use of Water Film Competition. Now accepting entries, the competition uses the power of film to increase awareness of the need for effective, efficient and responsible water use.

The Intelligent Use of Water Film Competition is open to all narrative, documentary, animated or experimental short films (one to 10 minutes in actual or excerpted run time) that explore methods and ideas to responsibly manage and use the earth's most precious resource. From the general field of entries, two winners will be announced, with a \$6,000 prize for the Jury Award and \$3,000 for the Audience Choice Award.

The competition has also added a new awards category to the mix. Co-sponsored by Questex Media Group, including *Golfdom* magazine, the new Green Industry Award gives golf course superintendents, landscape contractors, landscape architects, specifiers and all professionals who design, install or maintain green spaces an opportunity to showcase their film-making abilities. Entries in this category should also focus on creative ways to use water wisely, with the winner receiving a \$6,000 prize.

"With the Intelligent Use of Water Film Competition's new Green Industry Award, we hope to spotlight their unique perspectives on how to ensure that enough water is available both now and for future generations," said Jennifer Riley-Chetwynd, Rain Bird's corporate brand manager.

Entries must be received by 11:59 p.m. (PDT) on Aug. 15. For more information, contact www.IUOWFilm.com.

Quotable

"I'm really disappointed by the GCSAA's decision not to fund any new research for 2009. This is like making a bogey in a round of golf. No matter how well you play after the bogey, you can never make up that lost shot."

— Paul Jett, certified superintendent of Pinehurst No. 2 and president of the Carolinas GCSA, writing in his column in the March-April issue of Carolinas Green.

Some Heads You Don't.



The golfers on your course don't want *Poa* seedheads. Embark[®] is proven to be the best – and the most economical – *Poa annua* seedhead suppression available. Get Embark and prevent unsightly *Poa* seedheads on your course!



Hole of the

Hole No. 18 | Marshfield Country Club | Marshfield, MA

Month

BY:

PHOTO

Hole Stats Distance: 406 yards Par 4

The Turf

Fairways: Poa Bentgrass Greens: South German Bentgrass & Poa Annua Tees: Poa Bentgrass Roughs: Bluegrass Designed by architect Wayne Stiles during American golf's Golden Age in the 1920s and 1930s, Marshfield Country Club is as challenging now as it was during the days of Bobby Jones. Despite total yardage of only 6,295 from the back tees, the club's subtle slopes and superb turf conditions demand a solid, no-frills golf strategy.

"Our private members are here to play serious golf," said superintendent Tom Harrington, who's worked at the club for five years. "With 17 original greens, our crew of 20 works diligently to preserve Marshfield's heritage landscape."

Steep slopes, scenic tree lines and manicured turf comprise hole 18's signature finish. Players aim high during the approach to land on the elevated green. The true test is making the shot stick instead of rolling out of par on the severe, front-to-back sloped green.

"Our members are particular about how we maintain the level of play," Harrington said. "They even dictate when major maintenance can be done. We're very serious about preventing disease from interfering with play and aesthetics."

Harrington began using Trinity[®] fungicide last year to prevent summer patch's straw-like dead spots from tainting turf. "To select the best fungicide for our fairways, I conducted side-by-side tests using several different chemical combinations," he said. "Trinity definitely provided the best control and was the least expensive."

Harrington sprays preventive applications of Trinity at a rate of 0.1 ounces per 1,000 square feet three times a year. "I'm getting 20

days of control with Trinity on my 23 fairway acres," he said. "We're saving time and spending less than half of what we used to."

To learn more about Trinity[®] fungicide and BASF, visit www.betterturf.com and www.basfturftalk.com.

GOLFDOM'S HOLE OF THE MONTH IS MADE POSSIBLE BY:

The Chemical Company

BASE

From the Back Tees

OPINION

e're learning quickly that alternative water sources developed for irrigation purposes to spare the freshwater reserves for public

consumption also have finite limits.

Two years ago, I wrote about four courses on the southeast coast of Florida that had installed reverse osmosis plants to convert the salty brackish water in the coastal aquifers to usable irrigation water. That number has expanded to eight courses.

This process, whose permitting and oversight is regulated by the water-management district and the state's Department of Environmental Protection, remains a very site-specific and expensive alternative. Initial investment costs are high, but the payback is real compared to paying \$3.15 per thousand gallons for potable water versus \$1.05 per thousand for reverse osmosis water.

One superintendent told me he has made improvements to his system in the past 12 years to increase its daily production from 200,000 to 600,000 gallons. The reverse osmosis water is pumped into the irrigation pond, which also is the collection point for an extensive drainage system installed to capture runoff to mix with the water and improve its quality. The course also spent money to upgrade to stainless-steel pumps and heads designed for salt water.

But even using this unique water reclamation process to produce usable irrigation water is facing limits. The regional Water Management District (WMD) plans on capping withdrawal amounts from the coastal Florida aquifer in the next three to five years amid fears of increased saltwater intrusion in previously unaffected areas, according to a permit holder.

Meanwhile, it is the turfgrass industry, often portrayed as nonessential by activists, who leads the research and development of drought-tolerant grasses and ways to conserve water through the use of moisture sensors, sound cultural practices, soil amendments, surfactants, computers and weather stations, and irrigation system repairs and upgrades.

That brings us back to those alternative sources of irrigation water that we've been

Water, Water Woes Everywhere

BY JOEL JACKSON



THAT'S JUST WHAT We need – Another Brand of Bottled Water in our 'Critical' Water

CRISIS

cultivating for the past few decades. We're familiar with reclaimed water and know its limitations. However, it still remains a new source in many parts of the country and growth in its use is still possible.

So it frustrates those who practice diligent resource stewardship to read about municipal governments pumping hundreds of millions of gallons of reclaimed water into the ocean with one hand and imposing watering restrictions on all users with the other. Add in the millions of gallons of expensive potable water lost through leaks in the aging pipelines and uncapped artesian wells, and you wonder who's running the show.

Another Bozo moment came recently in my neck of the woods when the regional water authority, in the midst of a major media water conservation campaign and the imposition of tighter restrictions on outside watering, turned around and granted a water-bottling company a permit to pump 500 million gallons a month out of the aquifer. That's just what we need another brand of bottled water in our "critical" water crisis.

But installing purple pipe and fixing the leaky infrastructure takes a lot of money, and it's much easier to just write an ordinance mandating restrictions on use. Even a fool can see that's a "law" of diminishing returns.

The conundrum is the more water we save, the less money the utilities make and the more expensive it becomes to use less water.

Only when it comes to irresponsible governance and management of water supplies does it seem there are no limits.

Certified Golf Course Superintendent Joel Jackson is executive director for the Florida Golf Course Superintendents Association.

NON-STABILIZED NITROGEN.

STABILIZED NITROGEN.

WAIT NO LONGER FOR A BETTER NITROGEN SOURCE.

Slow release nitrogen fertilizers can starve your turf while waiting for soil temperatures high enough for soil microbes to release the nitrogen. Not UMAXX® Stabilized Nitrogen. In any season UMAXX provides a steady, dependable supply of nitrogen to your fairways and greens. Apply as a granule or melt and spray. Either way, it is the most efficient source of nitrogen you can find. Why wait? And ask your distributor for UMAXX in all seasons.





ythium blight is favored by warm, humid conditions. The disease initially starts as small spots (foci), but rapidly spreads to kill large turfgrass areas in a short period. The fungal species that cause pythium blight — and there are several — are primitive in nature to the point where they're not considered "true fungi," but are classified into a different kingdom known as protists.

A characteristic of protists, and specifically for *Pythium spp.*, is the production of zoospores, which are produced within the asexual structure known as sporangia. Sporangia are filamentous globose structures that are simple in nature and often hard to distinguish from regular hyphae.

Upon discharge, the entire content of the sporangia in the form of zoospores is released. The zoospores swim forward in a characteristic helical fashion. Zoospores can swim for several hours. And since they swim, the availability of free moisture enhances the spread of these spores.

Once the zoospore comes into contact with a suitable host's tissue, it encases itself as a cyst (encysted). The cyst has the potential to germinate immediately, producing a germ tube that can lead to plant penetration. The process from cyst to penetration can occur in less than 30 minutes. When conditions are favorable, the ability to infect quickly is one reason why plant death occurs rapidly.

The sexual structures that arise from zoospores known as oogonium and antheridium can produce an oospore. In some instances, it may take several weeks before an oospore will germinate. Oospores are often associated as a diagnostic key on pythium-blighted turfgrass samples.

The ability of *pythium spp.* to live saphrophytically, along with the ability to produce oospores that allow it to survive in dry soils for years, makes control difficult. Cultural practices to reduce the severity of pythium blight are related to the biology of the pathogen.

Although favorable temperatures for dis-

Pythium Biology Explains Plenty

BY KARL DANNEBERGER



CULTURAL PRACTICES TO REDUCE ITS SEVERITY ARE RELATED TO ITS SCIENCE ease are not easy to manipulate, the presence of moisture can be minimized. Irrigation practices that cause overwatering enhance disease. The key is to water judicially and minimize periods where the turfgrass will remain wet, especially overnight. The best time to water is in the morning, which gives the turfgrass a chance to dry. Late-afternoon watering should be avoided.

Providing good surface and subsurface drainage can reduce the presence of free moisture, which is conducive for zoospore movement. Also, avoid mowing wet areas when temperatures are favorable for disease. This will help minimize the spread of the infective spores. If infected turfgrass is mowed during favorable conditions, take the time to wash off the equipment prior to proceeding to unaffected sites.

In restricted air-flow areas, take the necessary actions to increase air flow across the turfgrass. In low-lying or shaded areas, the lack of air movement reduces evapotranspiration, resulting in slower moisture loss from the turfgrass. Removing trees and/or underbrush from around greens helps increase air movement across the turf. Where trees or underbrush can't be removed or thinned, the installation of fans can help.

Removing or reducing an excessive thatch layer can help improve water movement by avoiding a perched-water effect. Thatch can harbor pythium spore population as high or higher than the underlying soil. The combination of inoculums with a saturated thatch layer is conducive for disease.

Karl Danneberger, Ph.D., Golfdom's science editor and a turfgrass professor from The Ohio State University, can be reached at danneberger. 1@osu.edu.