



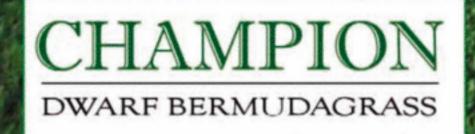
Cup-Cutter Profile from 4-1/2 Year Old Emerald Dwarf Green at Traditions Golf Club

The growth habit of Emerald, with its deep roots and lack of thatch production, allows Shawn to manage his greens with less water, even with a high-bicarbonate, high-sodium water source.

CONTROL SEASON FOR CONTROL OF THE PROPERTY OF THE SERVICE OF THE S

Emerald Dwarf Bermudagrass is now available as Greens-Ready Sod grown on USGA Specification sand:

- · Ready for play in as little as 2-3 weeks
- · Grown on washed sand meeting USGA specifications
- · Knits together readily seams disappear quickly
- · No thatch
- · Cut thin to eliminate layering
- · Roots very quickly
- · Requires no verticutting, no aerification, only topdress after installation
- · Affordable light weight minimizes shipping cost



Golf Industry Show Booth # 1210



From the Back Tees

OPINION

at the Lake Omigosh Golf Club in central Florida. An overly warm fall and early winter have played heck with superintendent Duffy McDuffy's attempted overseeding on the greens and fairways. To top it off, two record-setting freezes in January and February had every blade of bermudagrass turned the color of straw.

The snowbirds who escaped the frozen tundra of the Midwest and Northeast are playing fewer rounds, and some have resigned their memberships, thanks to the recession. As they cut spending on green fees, so must Duffy cut spending on maintenance. The trick is how, where, what and when?

I was in his office the other day and I saw a new sign on his office wall. It read: "Yea, as you walk through the valley of the shadow of recession, you shall spray no weevil. You shall monitor and scout and raise the threshold for damage before you spray."

How many worm holes and cricket tunnels can your members tolerate on the greens? Ask them and establish Course Conditioning Standards developed by zero-based budgeting so they can see the costs and help decide where cuts are to be made. Who knows, dish detergent may become your new insecticide of choice. You must feed the turf, but can you put it on a Nutrient Watchers diet to lose some dollars in the budget and still stay healthy?

The ripple effects of the recession will affect everyone in the industry. But it is a unique opportunity to rethink how we approach the design, construction, maintenance and operation of our golf courses. As Golf Course Superintendents Association of America Past President David Downing said at the 2009 Golf Industry Show, "It's time to get back and focus on the game of golf."

Playing the game has always been the common denominator among golfers. It's time to re-evaluate all the fluff and eye candy that have driven up maintenance costs and get back to basics. We certainly now have the monetary motivation to do so. And while we're at it, let's

McDuffy Just Keeps On Keeping On

BY JOEL JACKSON



SUPERINTENDENT OF

LAKE OMIGOSH GOLF

CLUB AIMS TO FIND

A WAY IN THESE

DIFFICULT TIMES

all pull together to bring more people to the game and make sure it's inclusive and not exclusive. Because, quite frankly, we can't afford not to.

Old habits are hard to break, but it's those clubs that get innovative with tee times and clinics for ladies, juniors and beginners who will reap the rewards when the economy gets moving again — and it will. And for the new golfers, the reward will be developing social and business networking, physical activity, enjoyment of the outdoors and learning the skills of a game they can play for a lifetime.

As Duffy was discussing some of his cost-cutting ideas, he also mentioned he noticed my column in *Golfdom* had changed from "Shades of Green" to "From the Back Tees." I said to him, "Well, what do you think of the new name?" Not missing a beat, Duffy, who has played more than a few rounds of golf with me said, "You have no business being on the back tees, Jackson. You can't hit the ball out of your shadow." I said, "Duffy, that's not true unless you're saying I cast a 180- to 200-yard shadow."

Friends, I may not be long, but when I'm on the back tees I can see the whole course. Usually, I can't reach those fairway bunkers and hazards, so I stay out of trouble and hopefully help the team in a scramble, sorta like the one we're in now.

However, I promise that if we ever really tee it up together, I will play from the white or gold tees so I won't hold you up. But I want strokes. By the way, my handicap is a 2 — woods and irons.

Certified Golf Course Superintendent Joel Jackson retired from Disney's golf division in 1997 and is director of communications for the Florida GCSA.



Turf M.D.

THE DOCTOR IS IN THE HOUSE

ollar spot is the most prevalent disease on high-quality turf in the northern temperate region of the United States. It is often active from mid-spring through late fall. The chronic occurrence of dollar spot makes it the centerpiece of any disease-control pro-

it the centerpiece of any disease-control program. Traditionally, dollar spot is one of the easiest diseases to control given the number of labeled fungicides and the availability of cultural practices that can reduce its severity.

Yet, achieving acceptable dollar spot control, like the disease itself, is a chronic yearly battle. Culturally, reducing dollar spot severity is associated with fertility, primarily nitrogen, and reducing the dew period. Maintaining optimum nitrogen levels in the plant can significantly reduce the amount of dollar spot. The tendency, however, is to maintain golf course turfgrass (primarily greens and fairways) with lower levels of nitrogen.

Research at The Ohio State University over a five-year period found that nitrogen applied weekly at 0.25 pounds actual nitrogen per 1,000 square feet significantly reduced the amount of dollar spot present compared to the lesser amount of nitrogen treatments. Interestingly, after five years of treatments, more *Poa annua* encroachment was found in the 0.25 pound treatment. There are always tradeoffs in golf course management.

Although levels of nitrogen will not likely rise to levels where control is achieved, appropriate adjustments can reduce the severity, and most likely make fungicide applications more effective.

The dollar spot fungus overwinters as dormant mycelium or sclerotial flakes. The amount present during the winter influences the arrival and severity of the disease in spring or summer.

Research (Mike Boehm, et al., 2005) has shown that a fungicide treatment at approximately the second true mowing of the season (not counting removal of winter growth) has been effective in delaying the initiation and severity of dollar spot during the growing season. A systemic fungicide that controls

The Best Bets to Control Dollar Spot

BY KARL DANNEBERGER



IF DOLLAR SPOT IS
A PROBLEM FROM
LATE SPRING
THROUGH SUMMER,
A PREVENTIVE
PROGRAM IS MORE
EFFECTIVE THAN A
CURATIVE ONE

dollar spot or a combination of a systemic and contact fungicide at this time would be recommended.

If dollar spot is traditionally a chronic problem from late spring through summer, a preventive program is more effective than a curative one. Again, this would be in the case where dollar spot pressure remains for months at a time. From both a cost and material applied perspective, it might be worth calculating out a preventive program based on rate and interval compared to a curative program based on rate and duration of control.

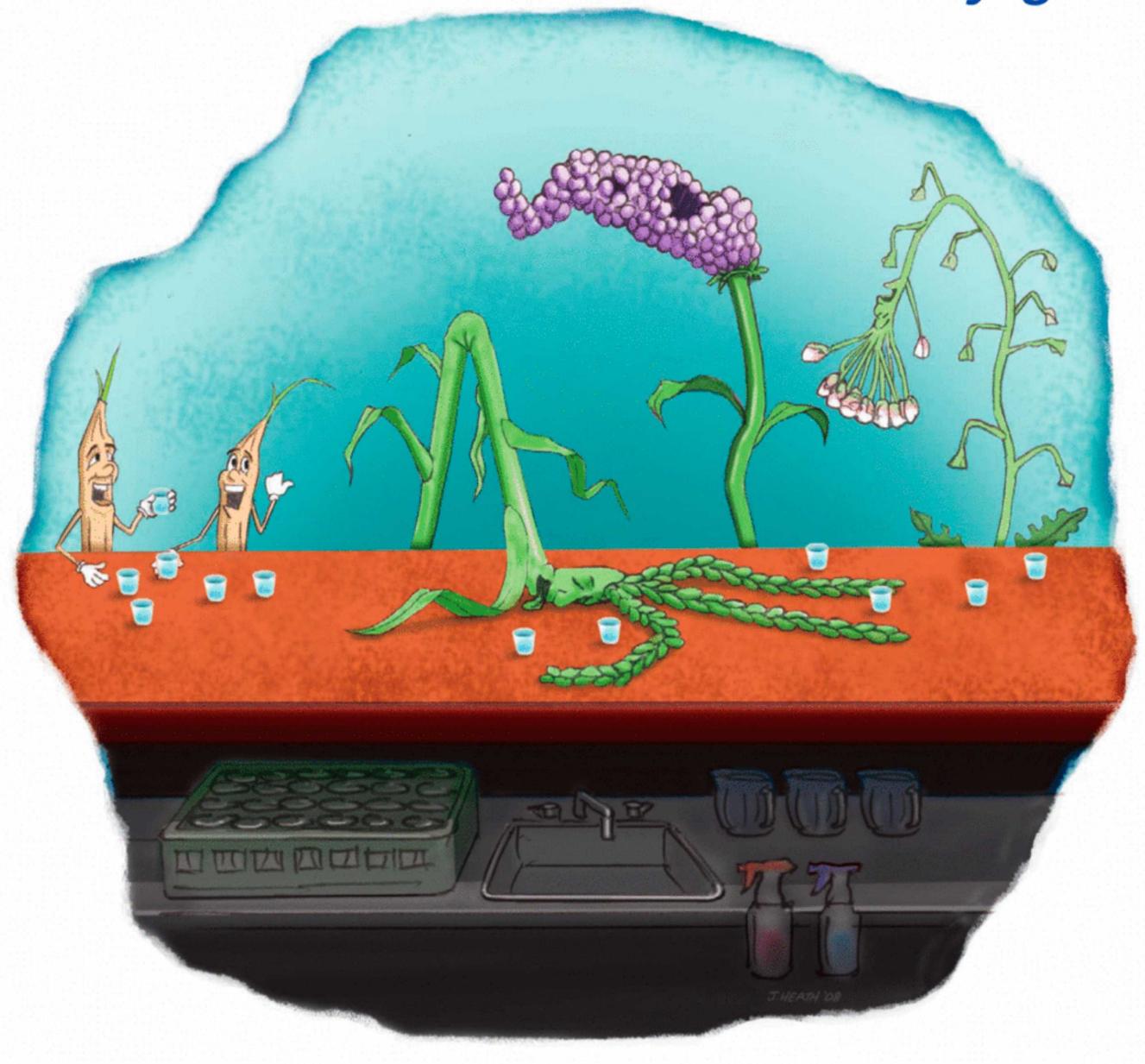
Finally, fungicides mixed at sub-label rates with the expectation of a synergistic control has been disappointing in field trials to control dollar spot. Fungicide or any pesticide synergism is defined as "the simultaneous action of two or more compounds in which the total response of an organism to the pesticide combination is greater than the sum of the individual components." (Nash, 1981)

A recently published study by Drs. Lee Burpee and Richard Latin (2008), who looked at various types of dollar spot fungicides (systemic and contact, differing modes of action) used in combination at low rates, found "there is a low probability for turfgrass managers to take advantage of fungicide synergism to control dollar spot with the products and rates tested."

My advice: Follow the label when developing your disease-control program for dollar spot.

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.





"Ha. Looks like those guys can't handle a little Tenacity."

Tenacity[™] herbicide. Safe for seeds. Not good for weeds.

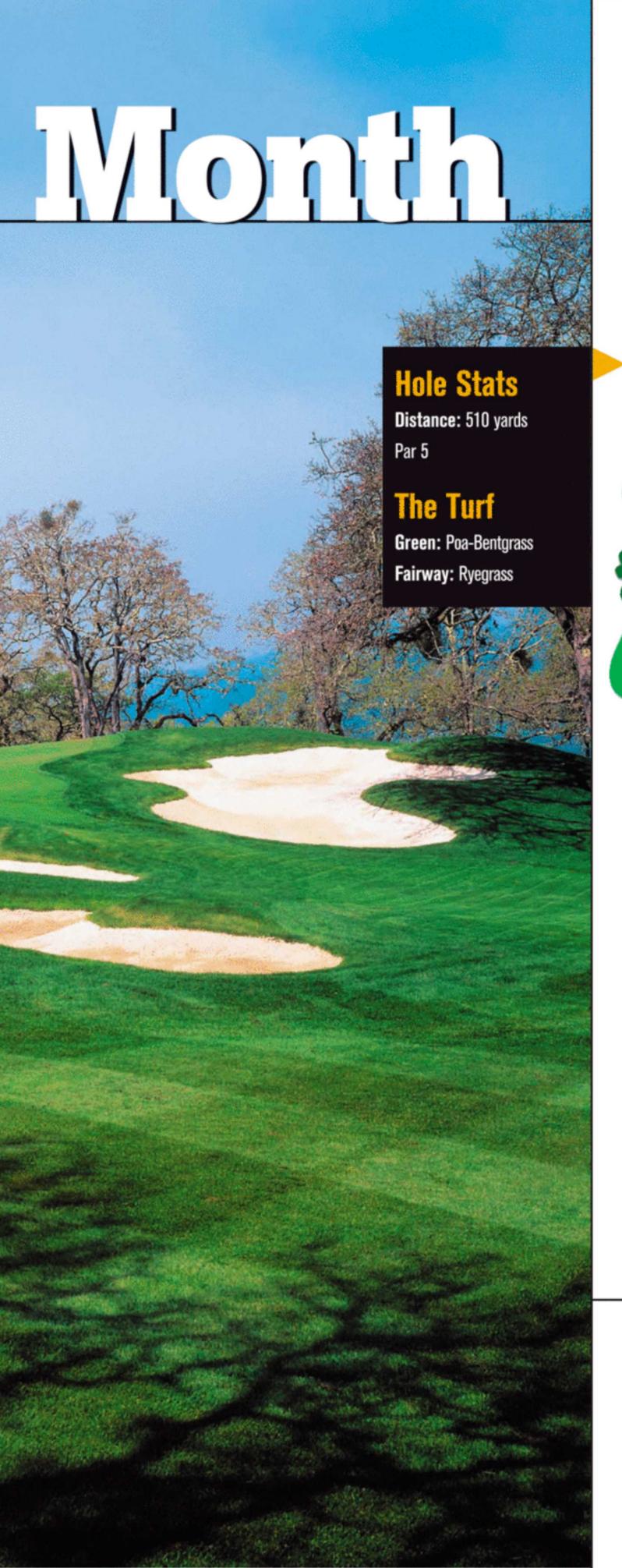
This revolutionary product works in a way where new turf seeds safely metabolize the active ingredient mesotrione but unwanted weeds and grasses fall victim. In fact, Tenacity™ selectively controls 46 types of weeds and grasses. Apply Tenacity during this year's overseeding and watch unwanted weeds and grasses wither away. Your grass seeds have never had a better ally.

For other uses visit TenacityHerbicide.com • 1-866-SYNGENTA

©2008 Syngenta. Syngenta Professional Products, Greensboro, NC 27419. Important: Always read and follow label instructions before buying or using this product. Tenacity™ is not currently registered for use in all states. Please check with your state or local extension service prior to buying or using this product. Tenacity™ and the Syngenta logo are trademarks of a Syngenta Group Company.







Like the vineyards rolling across Sonoma County's wine country, Fountaingrove Golf & Athletic Club is steeped in sophisticated landscapes and natural ambiance.

Stamped with heritage oak trees and towering redwoods, Fountaingrove has been a golfers escape to rustic luxury and award-winning turf since 1985. Designed by Ted Robinson Sr., the 18-hole private course hosts 35,000 rounds a year.

"We revel in grapes, wine and golf," said Fountaingrove Superintendent Andy Trinkino.

Hole 4 is no smooth shot.

But successfully maneuvering its sloping sand bunkers and branching oaks to the risky green – 225 yards from the tee – is definitely a finish worth savoring.

"Shotmaking is key if you're trying to get home in two swings," Trinkino warns.

When facing impending challenges, Trinkino and his maintenance crew of 18 appreciate strong performance. They also know the importance of minimizing risk.

For prevention of pests caused by coastal pressure, including extended moisture and temperature shifts, Trinkino relies on fungicide chemistries that stand up to disease.

"In spring, we get hit with fusarium and pink/grey snow mold," Trinkino said. "Mid-season we face anthracnose and brown patch."

Beginning in March, Trinkino applies Insignia[®] fungicide every three weeks at the rate of 0.9 ounces per 1,000 square feet on tees and greens.

"Insignia is the only product that offers the control I need to harness that insidious anthracnose disease," he said.

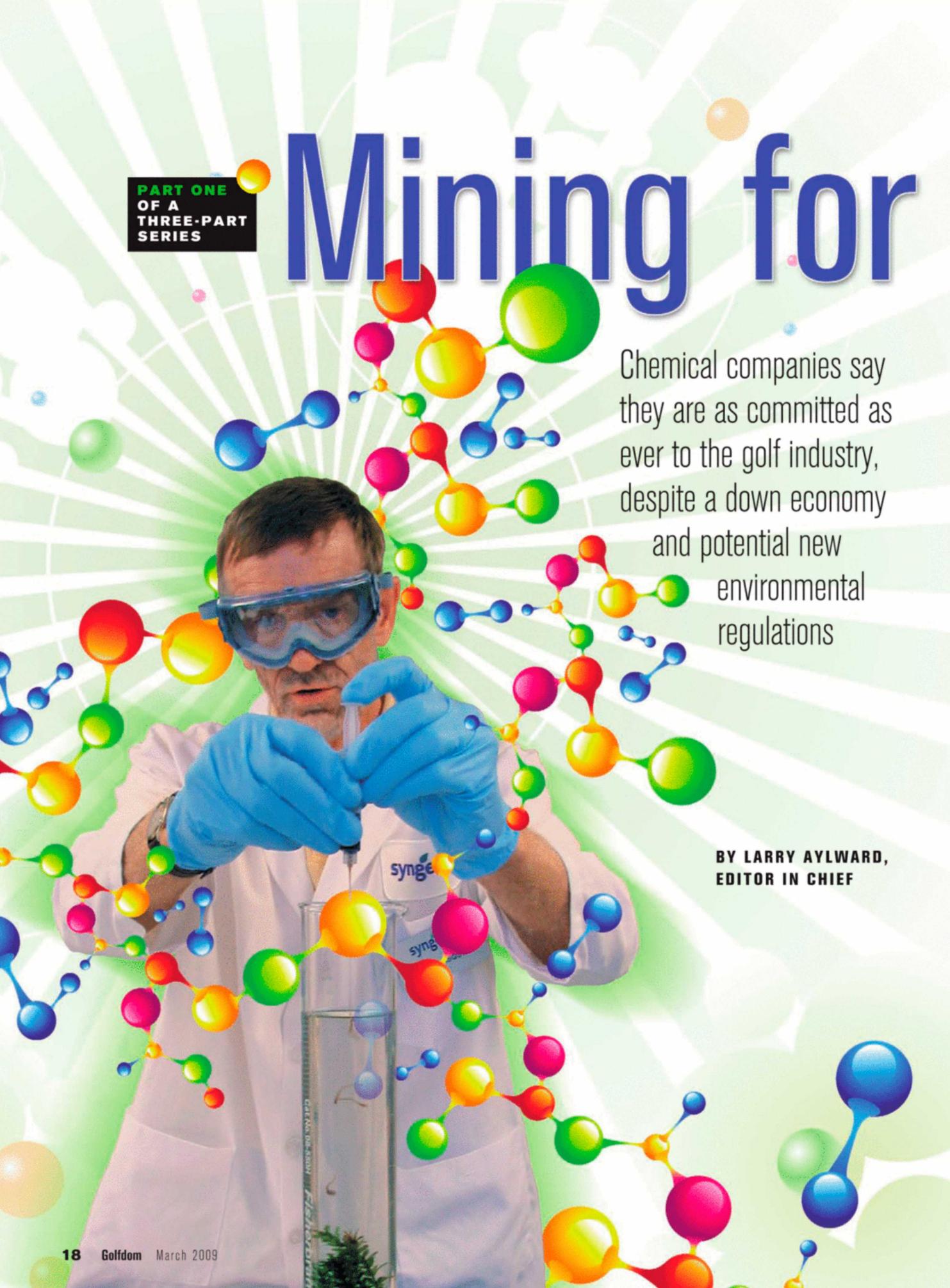
Insignia saves Trinkino and his crew time, allowing them to tend to other course needs. "We're relieved at the 21 days of control Insignia provides each time," he said.

To learn more about Insignia® fungicide and BASF visit www.betterturf.com and www.basfturftalk.com.



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





Molecules

you were a chemical company that manufactures pesticides for the golf course maintenance industry, how would you approach these tumultuous times?

The general economy continues to limp along, and the limp is getting worse. The golf economy is hobbling as well, with rounds and revenue down at golf courses across the nation.

And then there's the Democratic-led U.S. government, which controls the presidency and Congress. A lot of people believe the environmentalists in Congress, including Sen. Barbara Boxer (D-Calif.) and Sen. Harry Reid (D-Nev.), are anti-pesticide and aim to impose tough, new regulations.

Again, if you were a chemical company, how would you approach these tumultuous times?

"The only thing I'm certain of is that there's a lot of uncertainty facing us over the next five years," says Owen Towne, president of Phoenix Environmental Care in Valdosta, Ga.

But that's not stopping Towne and his chemical market peers/competitors from moving ahead with future business. According to several chemical companies, including the new and the old, they're doing anything but packing it in on the golf course maintenance industry. Chemical companies say they continue to invest in the industry because there's a future need for their pesticides.

"For the golf industry, I would contend we're putting more dollars into research and development now than we ever have in the past," says Toni Bucci, business manager for BASF Professional Turf & Ornamentals in Research Triangle Park, N.C. "We wouldn't be putting in the dollars that we're putting in today for the future if we didn't think there was a future."

"My research and development budget is as strong today as it has ever been," says Chuck Silcox, the global turf and ornamental product development manager for DuPont Professional Products in

Scott Welge, director of marketing of green professional products for Bayer Environmental Science in Research Triangle Park, says Bayer is dedicated "as far as the dollars we're going to invest."

Wilmington, Del.

"That's our livelihood ... new products and new revenue," Welge adds.

Dave Ravel, golf market manager for Syngenta Professional Products based in Greensboro, N.C., says the company is already committed to "10 years out" in the golf course maintenance industry through products it has in the pipeline.

"We're investing in R&D as much as we always have," Ravel says. "At the same time, we're looking at all of our cost structures. We need to make sure we make good business decisions."

Mark Urbanowski, senior marketing specialist for turf, ornamental and technical products for Dow AgroSciences in Indianapolis, says new pesticides may not be coming as fast to the market as they have in the past, but they're still coming.

"We definitely have goals of introducing new actives that will be beneficial to the golf industry in the next five to 10 years," Urbanowski says.

Newer companies to the industry such as Walnut Creek, Calif.-based Valent U.S.A. is committed "more than ever" to the golf course industry, says David Frye, Valent's vice president of market-Continued on page 20

About the Series

Throughout the past few months, Golfdom Editor in Chief Larry Aylward interviewed the top representatives from many of the golf course maintenance industry's chemical companies and pesticide manufacturers to report on their collective future in the industry. Aylward uncovered so much information that the story is running in three parts. Part one examines the chemical companies' commitment to the industry and what new pesticides are on the horizon. Part two, running in April, analyzes the challenges chemical companies are facing in this day and age. And part three, running in May, discusses the continued negative stereotype that chemical companies face within the golf industry regarding pesticides and what they need

to do about it.

19

Mining for Molecules

ing. "There's a clear research and development effort to bring new products to market."

Arysta Lifesciences, another new company to the golf industry that's based in Cary, N.C., is "fully committed to the golf course maintenance industry," says Mike Maravich, Arysta's marketing and product manager for turf and ornamentals.

So if there's a firm investment and commitment from chemical companies for continued research and new products, what does this mean for golf course superintendents? It means a few things, for sure, if not several.

First, it means a continued — and probably more intensive — focus on superintendents' needs, especially in a more competitive industry because of the decline in new golf courses. It also means new pesticides with new modes of action. And it means chemical companies will continue in their col-

lective quest to introduce environmentally friendly active ingredients that require low-use rates, including nontraditional products.

In terms of meeting superintendents' needs on their golf courses, chemical companies realize their business models begin with the customer service component. Never has the customer been more

important, especially in a specialized market with many suppliers and products, than they have now.

Superintendents appreciate it when

companies give back to the indus-

try, says Owen Towne, president

of Phoenix Environmental Care.

"The business is constantly changing," says Tom Hoffman, vice president of commercial sales and product development for Kansas City-based PBI/Gordon. "We're constantly trying to find out the problems superintendents are having."

"We know we have to continue to

build products that not only provide some solutions, but offer all the things customers are looking for," Arysta's Maravich adds.

Ravel says Syngenta will "do what we can to know what superintendents' needs are and try to anticipate what they need next." And it's not just about bringing new active ingredients to market, Ravel points out. It's also about improving everything from product formulations to product packaging, he says.

Bucci says it's BASF's job as a basic manufacturer to provide innovation to superintendents. "That's what our customers should expect from us," she adds.

Their customers might also expect chemical companies to give back to the golf maintenance industry, which many companies do.

"We give back a significant portion of our funds to the industry in terms of industry support and grants to trade shows and sponsorships," Towne

says. "That resonates with superintendents."

Bayer's Welge is not blind to the fact that superintendents have had to reduce their maintenance budgets. Hence, it's up to chemical companies to prove their products and services are "highly valued" in order to receive a piece of the maintenance budget pie, he notes.

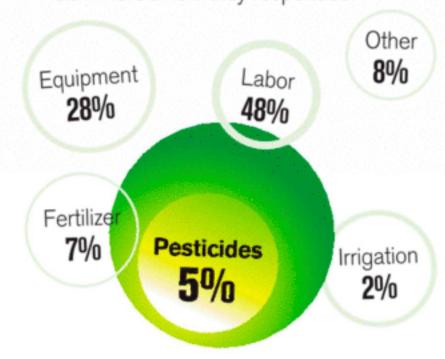
Along that line, Pedro Perdoma, director of research and regulatory affairs for Dayton, N.J.-based Cleary Chemical, says his company's No. 1 goal is to maintain a strong dedication to customer support. Its No. 2 goal is to broaden its portfolio with products that complement its existing line. Perdoma says Cleary plans to develop new active ingredients with new modes of action.

Of course, other chemical compa-

Pesticides NOT on the Chopping Block

The good news for chemical companies that manufacture pesticides is that most golf course superintendents plan to still use their products even if they must cut their maintenance budgets. We recently asked 650 superintendents: What is the area of your budget you're

most likely to cut if asked to do so? Here's how they responded:



nies aim to do the same. And when things get cooking in the R&D labs, there's no better time.

"It's a real exciting time at DuPont," Silcox says. "Our discovery team is just kicking these molecules out left and right."

A new mode of action is always viewed favorably in the marketplace, especially when there are pesticide resistance issues to solve, Silcox adds. Perdomo says Cleary Chemical is working to develop new pre-mixed products to reduce pesticide resistance problems.

Other manufacturers are honing in on developing a class of pesticides. For instance, Welge says Bayer is concentrating on herbicides in the short term. Bayer also wants to utilize its StressGard formulation technology, which helps turfgrass better withstand stress, to continue to build existing products "into something better," Welge says. "The term we use for that is 'proximity innovation.'"

Bucci expects future products will make turfgrass more healthy and tolerant to various pests such as bacteria, fungi and drought. Valent's Frye expands Bucci's list to include pesticides that can help save labor and water in addition to their duties of battling disease, insects and weeds.

Continued on page 22