

It was a slow procedure, taking two days to move the tree about 1.25 miles to its new location. The tree traveled about 1 mph to 2 mph across fairways on holes one, two, 17 and 18. The wooden road was created as the vehicles traveled. Nearly 100 people helped with the project.

A 100-foot hole in diameter awaited the cypress at the 18th hole. Cranes and cables were used to carefully lift the tree into its new home. Soil from the tree's original spot was used in the replanting to ease the shock of the switch, Harper says.

Huesgen, Pebble Beach's arborist and Environmental Design officials will keep close tabs on the tree for about year to ensure a healthy transition, Harper adds.

The outlook

Meet the new tree, which is nearly the same as the old tree. The cypress is as big and bad as the pine, Harper and Huesgen agree. "The tree looks like it's been here forever," Harper says. "There's no visible shock to it."

It also fits in well. Groves of cy-

press trees sit behind the green and near the lodge. "They are indigenous to the area," Harper adds.

The project wasn't cheap — costing about \$300,000 — but Harper says replacing the tree with a similar hardwood was the right decision. He says the "new" tree will play the way the old tree did 30 years ago.

Back then, the old pine was in its prime as a hazard. It featured a full canopy with lower limbs hanging close the ground. Most golfers didn't want to mess with it.

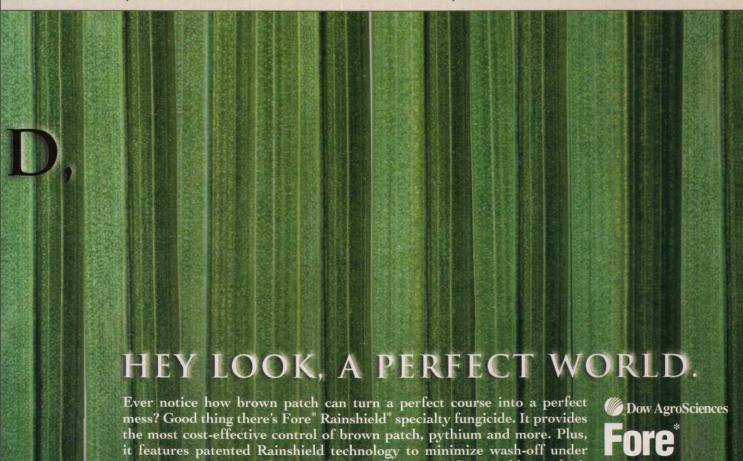
Well, it's back to the old days on the 18th at Pebble. ■

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Prudent Poa Management

It's summertime, and that most mercurial of grasses

will take some extra TLC to help it beat the seasonal stress

BY FRANK H. ANDORKA JR. Managing Editor

ood luck. That's the best advice Larry Gilhuly, director of the USGA's Northwest Green Section office, can offer superintendents charged with caring for *Poa annua* during the hot summer months. The turf is susceptible to almost every disease imaginable and doesn't handle heat well. Though Gilhuly isn't a proponent of the species, he says he has no choice but to work with it in his area.

"I'm a self-avowed bentgrass guy, but I'm a *Poa annua* realist," Gilhuly says. "I can only think of one golf course in the Northwest that still has pure bentgrass greens [*Editor's note: For those interested, that's Pumpkin Ridge GC in Portland, Ore.]*, but pretty much everyone else up here grows *Poa*, either by itself or in combination with another grass."

If you're stuck with managing *Poa* in less than ideal conditions (or are one of those masochistic individuals who grows *Poa* by choice), you have to find a way to shepherd the fragile grass through the summer. Experts who successfully grow the grass say seedhead suppression, disease control, water management and adequate fertility are key factors in keeping *Poa* alive during this hottest of seasons.

Suppress the seedheads

Mike Giuffre, superintendent at Congressional CC in Bethesda, Md., says he

starts his summer *Poa* management strategy in early February with an application of a plant growth regulator (PGR). Suppressing seedhead production allows the plant to put more energy into growing roots and leaves.

"Poa annua is a shallow-rooted plant by nature," Giuffre says. "That's why heat and humidity are so brutal on it. If you can encourage the turf to put down deeper roots, it will withstand summer stresses more easily."

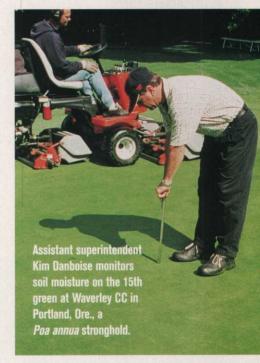
Seedhead suppression also serves another purpose — keeping golfers from complaining about putting conditions early in the season, says Charlie Carr, superintendent at Radley Run CC in Media, Pa. "You're much better off applying a PGR to avoid those problems all together," Carr adds.

The other often overlooked problem with seedheads is that they burrow into the soil when they shatter and are ready to sprout the moment an injury to the turf allows them, Giuffre says. In his experience, younger ecotypes don't adapt well to the blistering, humid summers in the transition zone.

"Mature greens are made up of ecotypes selected naturally over the years for hardiness," he says. "The younger types haven't been tested yet, and they tend to die quickly when you stress them out."

Treat disease preventatively

For a grass that reproduces so aggressively, its constitution is far more fragile in the face of disease pressures. Though it can fall



prey to different diseases in different regions, the most common disease threat is anthracnose, says Darin Bevard, an agronomist in the USGA's Mid-Atlantic office.

"I've found that you have to start spraying fungicides preventatively in April," Bevard says. "You want to kill off any fungus before it has a chance to reproduce."

Scott Young, superintendent at Canterwood Golf & CC in Gig Harbor, Wash., says he puts down preventative fungicides down every 30 days and watches closely to detect any signs of disease.

"You have to watch dew on the greens so you don't leave it on there too long," Young says. "Overly moist *Poa annua* is a breeding ground for disease."

But not everyone feels it's necessary to treat disease preventatively. Randy White, superintendent at Everett Golf & CC in Mukilteo, Wash., says he treats disease on a curative basis, although he monitors his greens constantly during the summer. "We have at least three people looking at each green every day to prevent diseases from gaining a foothold," he says.

Manage water wisely

Water management is the most important aspect of Poa annua's care, says John Alexander, superintendent of Waverley CC in Portland, Ore. If it receives too much water, it succumbs to disease. If it receives too little, it scorches and dies. It's a balancing act that takes experience to master.

"We keep the nighttime watering to a minimum because you risk putting down too much water," Alexander says. "We'd much rather syringe during the day to keep the profile moist."

For the best performance of Poa, Alexander says superintendents should water at levels slightly lower than what they believe the plant needs to survive. That way, they'll keep the soils moist enough to keep the turf alive without overwatering.

Even with careful watering practices, however, the importance of monitoring the soil moisture levels can't be overestimated, White says.

"We're out there every day with a soil probe because we certainly don't want to overdo it," White says. "You need to keep the ground damp enough so the grass can drink, but not so much that the greens get waterlogged."

Don't starve the turf

In addition to getting Poa annua proper amounts of water, superintendents must fertilize the grass adequately, Bevard says. He understands superintendents want to keep fertilizer applications to a minimum, but if they don't give Poa annua enough nutrients, they're asking for trouble.

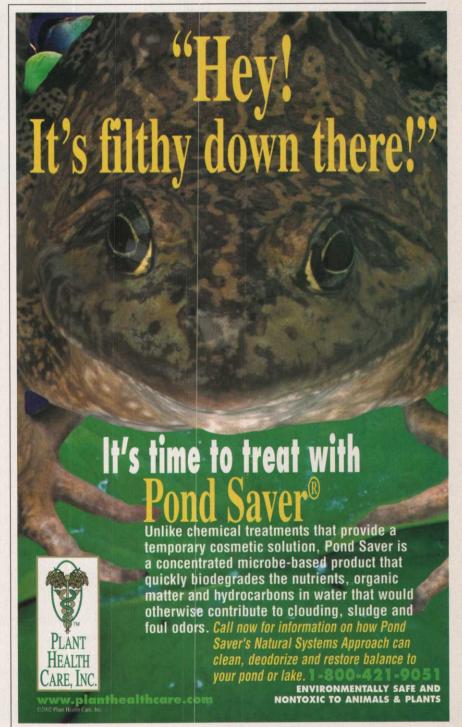
"Poa annua is not a turf that will respond well to a lean-and-mean fertility program," Bevard says. "It's like withholding food from runners and then asking them to compete in a marathon. It's not going to work."

Radley Run's Carr says his fertility program focuses on spoonfeeding the turf continually, putting down .1 pound of nitrogen per week. White adds that spoonfeeding also prevents a sudden explosion of growth. "You want Poa to grow steadily and not go through periods of heavy growth alternating with periods of low growth," White says. "That's a recipe for disaster."

Given the potential catastrophe that lurks around every corner when growing this mercurial grass, why would anyone voluntarily choose to grow it? Carr provides an answer.

"I love the challenge of trying to maximize the playing conditions on Poa," Carr says. "It's what makes this job such a joy to do."

You can reach Frank Andorka, the author of this story, at fandorka@advanstar.com



Can Cutless Make a Comeback?

By Frank H. Andorka Jr., Managing Editor

en Mangum misses Cutless. The director of golf courses and grounds and certified superintendent of the Atlanta Athletic Club first used the plant growth regulator (PGR) in the early 1980s under an experimental use permit, which allowed its original producer, Elanco, to test the product on golf courses. He loved its growth control. He loved the richly colored turf it created. He loved the denser, healthier turf it provided.

The only problem was price. Mangum says the high rates necessary for adequate control cost him a bundle, and it became hard to justify that cost to his members.

"I told my sales representative at the time that I loved his product, but I had to stop using it because of the cost," Mangum says. "I told him that the company that came out with an affordable regulator would corner the market."

His prediction became reality in the early 1990s. That was when Ciba (now Syngenta) introduced Primo to the market, and it quickly became the gold standard of PGRs. But there are still days when Mangum longs for Cutless.

"If someone could figure out a way to lower the cost, I'd start using it again," Mangum says. "I don't think it would ever replace Primo, but it would be nice to have it back in the market as an alternative."

Well, Mangum's wish came true. In January, Indianapolis-based SePRO finished the transaction to purchase the product from its owner, Dow AgroSciences, which marketed the product after a merger with Elanco. SePRO now plans to start an aggressive marketing campaign to reintroduce it to superintendents. But with Primo dominating the market, can Cutless make a significant comeback?

Why it left

Roger Storey, vice president of business development for SePRO, says most of the



company's executives know Cutless well because they have worked with the compound before at either Elanco or Dow AgroSciences. When it was first introduced in the late 1980s, Cutless was primarily used to reduce clippings on fairways.

"It was one of the higher-profile rollouts we did at the time," Storey says. "We kept hearing from superintendents about the added benefits they found from using it, particularly in the area of turf color, density and overall quality. We made a serious push for it."

When Elanco and Dow AgroSciences merged, Cutless' marketing efforts lost steam, Storey says. "Dow had other priorities at the time," Storey says.

Ray Cooper, former head of Elanco's turf and ornamental research-and-development division, admits he hated to see the product leave the market when Dow scaled back its emphasis on the product in the early 1990s.

"I thought it had potential that had never been realized," Cooper says. "It was certainly never maximized."

Cooper, who now heads his own company called Total Turf Consulting in Hilton Head, S.C., says the limited focus of product uses exacerbated the problem.

"It was never a front-line product, either for Elanco or Dow," Cooper says. "It was a solid, niche-market performer, but the companies limited its use primarily to golf course fairways. If you think about it, that's not a big market."

Cooper also says the labeling required end-users to apply Cutless at high rates, which increased the overall cost of the product. In his mind, the cost objection was a key reason that Cutless didn't gain greater market share.

Superintendents found they could receive similar benefits from Primo that they received from Cutless at a lower price, Cooper says. "That's when Dow reduced its marketing and sales effort until it was virtually nonexistent by the mid-1990s," he adds.

Why it's back

Storey says SePRO believes that by expanding the market beyond superintendents into other applications and combining it in rotation with other PGRs, Cutless will make a successful comeback.

"We want to expand it into the greenhouse and landscape markets in addition to the golf market," Storey says. "But

Continued on page 46

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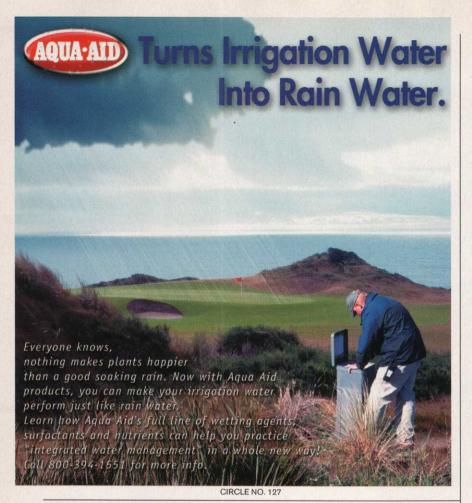
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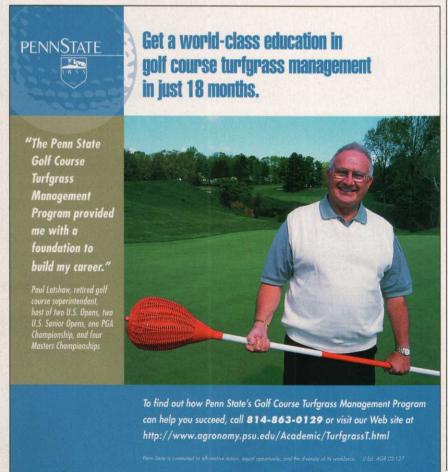
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Cutless

Continued from page 44 we also think we can expand its reach in the golf market with specific uses that will help superintendents."

Storey says early feedback from superintendents during the most recent research efforts shows Cutless is an effective *Poa annua* suppression tool, according to Storey. He believes superintendents who want to convert their *Poa annua*-infested greens and fairways to cool-season perennial turfgrasses will find Cutless a great aid.

Perhaps the most important application of Cutless, however, would be in a rotation or tank mix with Primo to combat the rebound effect some superintendents are experiencing, Storey says. The rebound effect is when turf grows quickly at the end of a PGR cycle, causing flush top growth. Storey says he believes a rotation of Primo and Cutless could help control the problem, while providing a darker green, denser turf for a longer period of time than other PGRs.

"We're not looking to displace Primo," Storey says. "The two chemistries complement each other well, and we're hoping superintendents can use them in tandem."

Cooper says the treatment protocol he's currently testing would involve a rotation of four to five applications of Primo and Cutless, with three applications of Primo and two of Cutless. The rotation, using lower rates, will reduce the per-application price of Cutless, which will address the price concerns its old customers faced.

SePRO is also looking to expand Cutless' use as a tree growth regulator. During its original release, its use on trees wasn't well-publicized, but it works well in limiting the number of prunings, Cooper says. "While it will help landscapers more by reducing pruning frequency and volume, it will certainly help superintendents tame unruly trees," Cooper adds.

Mangum says he can't wait to see what the new Cutless will look like — and what the cost will be when he uses the new application program. ■

You can reach Frank Andorka, the author of this story, at fandorka@advanstar.com.



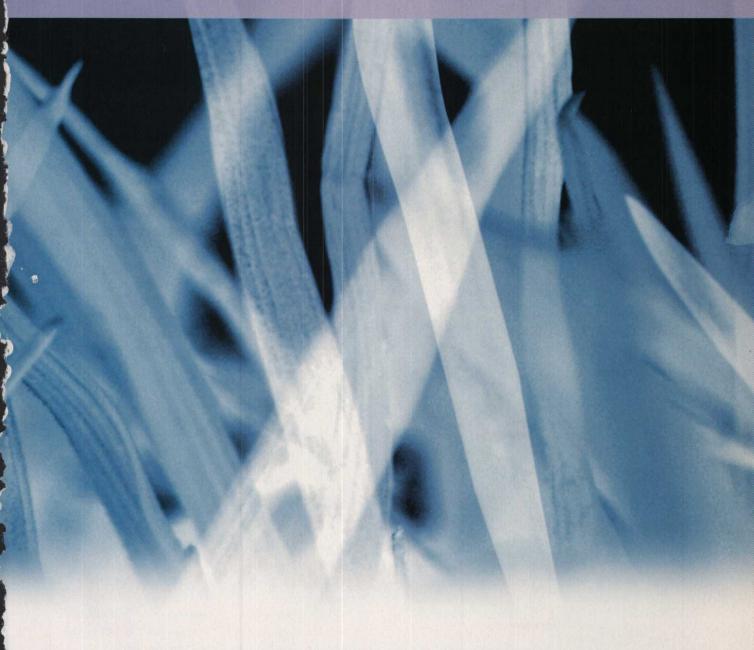
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Wetting agent, fertilizer combination helps solve localized dry spot woes

BY LARRY AYLWARD EDITOR

ick Wohlner, president of Precision Laboratories, consulted people like Jim Campion III, superintendent of the NCR CC in Kettering, Ohio, to create Cascade Plus Fertilizer, a new product that combines the wetting agent technology of the established Cascade Plus brand with fertilizer in a coated blend.

"We came up with the idea for the wetting agentcoated fertilizer by interviewing superintendents to discover their needs," Wohlner says, adding that the product is available in organic fertilizer,

Problem

Got isolated dry spots? If your course experiences water-repellency problems in the summer combined with little rainfall, there's a good chance it has the problem.

Solution

A new product, which combines a wetting agent technology with fertilizer in a coated blend, can help superintendents battle localized dry spots.



The test area before Jim Campion applied Cascade Plus Fertilizer.



synthetic fertilizer and a mixture of both. "They told us, 'A product would be very desirable if it allowed us to use a fertilizer and wetting agent in the same application.'"

Campion, who has used Cascade Plus on his course, tested Cascade Plus Fertilizer last summer on fairways. He says the product, which was rolled out in the spring, performed well.

NCR CC has experienced problems with hydrophobicity (water repellency) over the years. The course features a gravelly, clay-based soil with excellent percolation. "So during times without significant

rainfall, we'll see localized dry spots no matter how much we water or irrigate," Campion says.

The two components that comprise Cascade Plus Fertilizer performed well together to combat the problem, says Campion, who saw results within two weeks.

"As the wetting agent set in and allowed the hydrophobic areas to recover, the spoonfeeding from the organic fertilizer helped the grass recover faster," Campion says. "The formulation we tested is a good source of fertilization that added micronutrients to the soil and provided a

bit of a kick to help the struggling grass to recover."

The treated and nontreated areas differed greatly. The soil was evenly moist and deeply rooted on the treated areas, but powdery and less thickly rooted on the untreated areas.

Mark Heater, superintendent of The Loxahatchee Club in Jupiter, Fla., experienced similar results at his course. He applied the product in May on 7,000 square feet of a "perennial, problematic sandy range tee that's extremely hydrophobic" during the nonrainy season. The tee's color was a mixture of tan and green, Heater says.

"I used the organic blend of the product, applied it at the recommended rate, hand-watered it one time and then irrigated it normally," he says. "A week later, the tee was perfect green."

Usually, it takes much rain to green up the tee, Heater notes. He attributes the tee's quick revival to the soil retaining more water (because of the wetting agent) combined with the product providing a bump of fertility.

Campion also likes the product because it allows him to make timely applications to control localized dry spots in certain areas. He can apply Cascade Plus Fertilizer in July to combat localized dry spots without having to worry about increased disease pres-

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