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than the others did with the liquid fertilizer," he says. "When you go out and you see your greens and grass day after day, it looks good, it looks healthy. And it was a constant the whole summer, even through the heat stress, the water, all the rain we had, they just kind of maintained that green color.

"Then when it got really hot and tough last year," he continues, "we didn't have the localized dry spots show up that we anticipated. Whatever disease issues weren't as intense, the disease pressure was not as heavy as the ones with liquid fertilizer."

The results were sufficient enough for Wall to change his fertilization program for 2011. He says, "I'm planning on using the Bio-Min on both golf courses this year and on my bentgrass fairways."

Frank Tichenor, superintendent at Forest Hill Field Club in Bloomfield, N.J., has been using Lebanon Turf's Emerald Isle CPR for the past 12 years. Lebanon Turf is a company that promotes using a combination of synthetics and bionutritionals as a complement to each other.

Tichenor says he started using Emerald Isle CPR, which contains seaplant extract, when a trusted colleague recommended it.

"You have to stick with it, that's the biggest thing — you have to give it more than a year," he says. "I think it's synergistic. It's a good stress fighter, and it provides plant health. Knock on wood, it's made my greens really good the last several years."

Dick Duggan, superintendent at Meadow at Peabody Golf Course in Peabody, Mass., uses Lebanon Turf's Turf Vigor on his greens. He's been using it for ten years now. He also uses a product called Nitrozymes from Growth Technology. He calls them "complementary products" because they complement his regular fertilization plan.

"There are a lot of good products out there," Duggan says. "If you don't try something new you'll never know. And it benefits everybody the superintendents, the golfers and the salespeople." ■

*Contributing editor Stacie Zinn lives in northern Washington State.* 

## Cherokee Nation

## NATIVE AMERICAN HISTORY IS DEEPLY ROOTED ON THE GROUNDS OF SEQUOYAH NATIONAL GOLF CLUB — AND IN ITS SUPERINTENDENT.

Jeremy Boone, CGCS, isn't known for his big smile, but he is known for the pride he takes in his course and his Cherokee heritage.



## **BY STEVEN TINGLE**

eremy Boone, CGCS, guns the accelerator of his John Deere Gator and ascends a steep cart path at a speed quickly approaching ludicrous. He is stone faced, wearing a cap, wraparound sunglasses and a light blue shirt that has a Cherokee syllabary on the chest and "Troon Golf" on the sleeve.

"We've got six and a half miles of paths here with so much elevation change I run through two sets of tires a year," Boone shouts over the engine. "A thousand dollars a year for brakes and tires on this machine alone."

The Gator twists through the woods and continues to climb at an angle usually accompanied by a shoulder harness. "We moved one million cubic yards of dirt on this project, hit no rock and did no blasting. All the rock you see was trucked in."

One last push and the Gator reaches the summit and the final tee. Boone, golf course superintendent at Sequoyah National Golf Club in Whittier, N.C., cuts the engine and takes in the view. He pauses. "Welcome to my office," he says.

## **Cherokee roots**

The 18th tee at Sequoyah National Golf Club is the perfect place for a fire tower. It has an unhindered multistate view of the forests and mountains of western North Carolina and eastern Tennessee and a long-range vista. The course is designed by Robert Trent Jones II, managed by Troon Golf and owned by the Eastern Band of the Cherokee Nation.

Boone is an enrolled member of the Eastern Band. "The Tribal Council approved this project in October of '06," he says. "I started in January of '08 as the tribe's project manager." With a construction budget of \$9 million, Boone worked closely with the architects and with builders Notah Begay III and Landscapes Unlimited.

"When we started this project, diesel

was about \$1.50 a gallon. In March of '08 it was \$4 a gallon," he says. As costs skyrocketed, the course was forced to make cuts. Cart paths shrunk from eight feet to seven feet and a \$2 million clubhouse was scrapped for a smaller, more modest building. "I learned a new term on this project, 'value engineering'," Boone says.

As a teenager, Boone wanted to be a bellhop at a local golf resort. "My friends were making \$80 a day in tips," he recalls, "but when I applied I got handed a weed eater."

After a couple of seasons, Boone convinced the course pro to let him work in the golf shop. "At least I was inside with air conditioning," he says. He was cool but bored, and soon found himself longing to be on the course again. His dedication to golf course maintenance has not wavered since. The pride he takes in his work and heritage is evident in a slideshow Boone presents to clubs and organizations across the region.

## Signs and symbols

The Gator follows the dogleg and Boone points to an oddly shaped hazard on the left side of the fairway. "That's our bear

paw bunker," he says. "It's part of the Cherokee symbolism we worked into the property."

It's not the only nod to Cherokee lore on the course, either. Signs on each tee tell stories of Cherokee legends and history, including Sequoyah, the Cherokee silversmith and course's namesake who created the tribe's written language. "We wanted guests to learn our history, to know about the Cherokee," Boone says.

Seventy-five percent of Boone's crew is enrolled in the Eastern Tribe. His oldest worker's native tongue is Cherokee, a language most people don't know exists.

"This course has introduced golf to the Cherokee," Boone says. "About 20 percent of our play comes from enrolled tribal members, and for the first time ever the high school has a golf team." The course also has provided jobs and recreation for people in the community.

## All in a day's work

The Gator passes a green and starts to climb again. "Fourteen of the 18 holes play level or downhill," Boone says. "Most of the elevation change is between green and tee, not tee and green. It's a long 6,600 yards, with its share of challenges. We've got 76 bunkers and 18 microclimates here."

The course also has an eight-inch, mile and a half transfer line pulling irrigation water from the Tuckasegee River. It uses a special vacuum pump that often loses prime. Boone loathes the days he has to break out his wetsuit. "It's freakin' cold in April when I have to jump in the Tuck' and clean out that intake."

The Gator approaches a tee. Boone courteously kills the engine as four men prepare to hit. After watching them tee off Boone asks if they're enjoying the day. They say they are from Tennessee and Georgia, visiting for a little business and a lot of golf.

One player, defying physics with a size 42 waist and size 32 shorts, says he's having a blast. "This is a helluva fun course," he says. "You guys are doing a great job."

Boone thanks him. A smile slowly creeps across his face as he cranks the Gator. "That's what it's all about," he says, and floors it.

Steven Tingle is a writer, speaker and consultant based in Asheville, N.C. Contact him at tingle@steventingle.com.



Sequoyah National Golf Club plays a long 6,600 yards, Boone says, but most of the elevation changes are from green to tee.

## for You and Me?

American Vanguard Corp. says that PCNB will be back on the market to help superintendents battle snow mold soon.

## Inexpensive snow mold control product returns, but will superintendents really be able to get a hold of it this winter?

BY SETH JONES, EDITOR IN CHIEF

ust in time for the cold winter months, the stop-sale on PCNB has been lifted.

But the availability of the product for this year is unclear. "The court ruled that the

stop-sale order by the EPA was inappropriate. It was basically overturned, legally," Bill Kuser, director of investor relations for American Vanguard Corp., manufacturer of PCNB, told *Golfdom.* "That being said," he added, the roughly 12 or 13 months PCNB was off-line, it was due for re-registration and relabeling. The EPA put that on hold while the product was on hold. Even though we have a legal right to market PCNB, the reality is we have to have these registrations and the proper labels on the containers before we can go out."

Rob Golembiewski, Ph.D., Oregon State University turfgrass specialist, said that the lifting of the stop-sale was good news for superintendents. "I think (PCNB) is pretty darn popular. I think there are a lot of good products to control pink and gray snow mold, but for the cost — and in this economy — it's one of the most effective," Golembiewski said. "Last year when we lost PCNB, a lot of superintendents had to look for alternatives, and they also had to worry about balancing their budgets. Is it the only product? No. But I guarantee people will integrate it right back into their programs once it becomes available."

Bruce Cline, superintendent at Gladstone (Mich.) Golf Club, said he did pretty well for himself last year without the use of PCNB, and will probably continue the same program this year.

"I imagine people will go back to it once it's available because it's cheap and it's effective," he said. "I don't know if it'll be available to me this season."

Jesse Goodling, superintendent of the two 18-hole courses at Herron Lakes Golf Course in Portland, Ore., says the lifting of the stop-sale didn't matter much to him, as he hasn't used the product in 15 years.

"It was good as a preventative, not very good as a control," Goodling said. "It used to be the old standby... but it had a bad odor, which made everyone paranoid. Plus, if you used it too much, it stunted *Poa.*"

Kuser said that the process to bring PCNB back to market was "virtually complete."

"We are simply waiting for the EPA to issue our new amended labels," Kuser said. "PCNB will be back in the marketplace very shortly for all its major applications. It's a safe and effective product always has been — and it's unfortunate that it wasn't available to users over the last 12 to 13 months." ■

**EDITOR'S NOTE:** Parts of this story originally appeared on the *Golfdom Daily* at www.golfdom. blogspot.com.

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**Speed and precision** – that is what the ancient Samurai expected from their katana swords. Katana cuts through weeds fast. And *Poa annua*, the bane of the superintendent's existence, is no exception.

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## ACCESSORIES

## **The Evolution**

The Evolution is a three-function tool that cores out dead turf spots, fills the holes with sand or seed, and mends the surfaces together instantly with a push. **GreenFix** says that by incorporating the three steps required to repair pitch marks, the tool enables an operator to repair the turf perfectly in seconds while standing up.

THE

"Our unique mending process makes no additional turf tears or punctures. We simply grab the turf and slide it," says Mark Brown, GreenFix Sport president. "By simplifying and automating the repair processes a less experienced maintenance person, ranger, or player advisor can now achieve the same result as a seasoned staffer."

The Evolution cuts core holes from 3/8" to 1" in diameter, collects the plugs and delivers sand or seed with the push of a button. Footplates that mend the hole engage with a downward push while the operator is still standing over the mark. *Contact www.greenfixsport.com.* 



## **E-ZEE White**

**Standard Golf** is making it quick and easy to have clean, crisp white holes with its new E-ZEE White hole whitening

system. The system features a patented applicator designed to promote easy application and eliminate paint on the cup. It also features a specially formulated water-based paint that the company says provides the best coverage of any hole-whitening paint on the market while maximizing whiteness on dirt.

To use the system, simply drop the tool into the cup, insert a paint can and rotate. A built-in shield protects both the cup and green from overspray. No purging is required between uses. The starter kit includes a tool and six cans of paint.

Contact www.standardgolf.com.

## BY KEN MOUM, CONTRIBUTING EDITOR

and and a

# You've seen them, products that fill a need you didn't know you had. We're calling them cool accessories for the golf course, and several manufacturers have offered up their latest products for your consideration. Every golf course struggles with unrepaired ball marks, and there have been plenty of "solutions" to the problem over the years. Many courses have developed their own strategies, all of which take time and cost money. Now GreenFix Sport says its Evolution tool will help maintenance personnel manage and repair ball marks

in a fraction of the time and cost (see The Evolution, page 26).

## **Turf Boxes**

According to **TurfEx**, its line of Turf Boxes is a perfect storage solution for Green Industry professionals. Designed to be durable and completely weather resistant, the Turf Boxes feature the same high density UV-protected polyethylene construction as the company's spreader hoppers.

Four models are available with capacities from 5 to 18 cubic feet. In addition to turf care supplies such as fertilizer, topsoil and compost, other materials such as ice melters, tools and sports equipment can be stored securely while being protected from weather elements.

The Turf Boxes come equipped with a heavyduty lockable lid and fork pockets for easy maneuverability. *Contact www.trynexfactory.com.* 





## Superintendent Whiteboard System

Superintendents have been using blackboards and whiteboards to communicate with their crews for years. Now **Par Aide** says it has a Superintendent Whiteboard System,

designed with input directly from superintendents to save time, provide better flexibility and make daily communication with crews more efficient than with homemade boards.

The system features two-foot by four-foot individually framed, preprinted panels made of high quality whiteboard material. Golf course maintenance-specific artwork is printed on panels then covered with a dry-erase material so it won't rub off.

There are 12 different panels to choose from, allowing you to mix and match the designs to create the best whiteboard for you. Both magnetized and non-magnetized panels are included in the system. The panels are simply placed next to each other and attached to the wall with the accompanying mounting hardware. Panels include three versions of a daily job panel, one- and two-month calendars, tee times, a mechanic's board, two mowing pattern boards, notes, and lined and blank white panels. *Contact www.Paraide.com*.

Continued on page 28

## **Cool Gadgets**

## Continued from page 27

## **Pro-Master 260**

If you are tired of blowing clippings off cart paths, sidewalks around the clubhouse and the parking lot, **Gravely** says its Pro-Master 260 is now available with a new rear discharge deck, making it ideal for mowing near obstacles, as clippings





are diverted behind the machine instead of out the side.

The mower features a 60-inch cutting width, 13.4-gallon fuel capacity and 13 mph ground speed. The Pro-Master is powered by a 27 HP Briggs & Stratton Daihatsu Diesel engine. The 60-inch deck is based on the seven-gauge X-Factor<sup>®</sup> deck currently found on Gravely's side discharge model.

There are numerous benefits to mowing with a rear discharge deck, according to Bill Engler, director of contractor sales for Gravely. "This type of deck reduces the risks of mowing near people,

## **TerraRoller**

From **Broyhill**, the TerraRoller is a unique integration of a roller and a spiker. The design employs a two-section star-bladed spiker followed by a three-gang roller to fold the foliage back over the perforations in the turf without closing them. The result is an immediately playable green with a smooth, fast surface.

The company says there is no noticeable disruption of the turf's surface, yet the TerraRoller does deliver a reduction in turfgrass dehydration and weed development due to the immediate restoration of the foliage canopy.

The spiker units can be raised independently to make the unit a roller only. The TerraRoller is 66 inches wide and the company says that the spiker/roller can be changed to do either function without tools.

Contact www.broyhill.com.



vehicles and windows. Any projectiles picked up by the mower are directed down and backwards, creating a safer environment."

Because grass is discharged from the back of the machine, clippings remain on the turf instead of on roadways and sidewalks, according to Engler. This minimizes additional cleanup work and keeps property looking manicured. In addition, the trim edge on both sides of the deck improves productivity, grain management and heavy top dressing incorporation after core aeration. *Contact www.gravely.com.* 



## **GreensKeeper Brush Trailer**

**Broyhill** says its gas-powered Greens-Keeper Brush Trailer is the solution for fast incorporation of heavy top dressing and turf grain management after core aeration. Soft, pliable bristles are firm enough to do the job without damaging grass plants. Rapid brush rotation contacts grass from all directions, causing turf to stand up.

A 3.75 hp Briggs gas engine (5.5 hp Honda optional) drives rotating brushes, while an electric lift cylinder raises and lowers the brush pan. It can be towed by most vehicles because no hydraulics are required. And since the trailer wheels are in front of the brushes, tire tracks on brushed greens are eliminated. *Contact www.broyhill.com.* 

## **ROBO-MOWER**

A superintendent gets the full demonstration on the RG3 robotic greens mower and reports back to *Golfdom*.

By Matt Hendren

Last month I had the opportunity to take a trip to Orlando, Fla., to Hawk's Landing Golf Club as the guest of Precise Path Robotics to check out the RG3 robotic greens mower. The RG3 is the industry's only autonomous, robotic greens mower and features what the company describes as the industry's best warranty on any greens mower.

The RG3 is powered by four sealed lead

acid batteries that give the mower up to four hours of continuous run time. The cutting unit is a standard 22-inch John Deere unit with three options of bed knives that allow your greens height to be anywhere from a minimum of .078 to .125. The pivoting frame and floating cutting unit permit a full range of motion that allows the cutting unit to follow contours and slopes.

Precise Path robotics has thought of just about everything regarding the RG3 and greens maintenance. Each RG3 is guided by a local positioning system making sure every green will get the same treatment every day, making all your greens consistent day in and day out. The RG3 is also capable of becoming a greens grooming and maintenance tool. Interchangeable cassettes for the mower include an ultra groomer, vibration roller, rotary brush, vibration brush, scarifier, thatchmaster, static brush and star spiker.

The best benefit about the RG3 is the increase in labor efficiency it allows. In today's economy anything a superintendent can do to increase labor efficiency is a huge benefit. Every superintendent knows the feeling of being rushed to complete course set-up jobs in the first hours of the day. Using the RG3 allows an employee who would traditionally be mowing greens to perform other tasks while the green is being mowed, such as cup cutting, green side bunker raking and tee prep. One employee is now able to complete the tasks of several employees.

"The RG3 is a good technology for us. It's a technology that, going forward, it's definitely the direction the industry is going," Sean O'Brien, director of grounds at Hawk's Landing, told me. "It allows us to be more efficient in our daily operation and get a lot of things finished that, truthfully we wouldn't be able to do unless we had the RG3 here." (Visit www.golfdom.com/golfdom-tv to see the complete interview with O'Brien.)

To learn more about the RG3, visit www.precisepath.com.

Matt Hendren, a contributing editor for Golfdom, is superintendent for the city of Kansas City, Kan. You can read his weekly blog, "Hendren's Hyperbole," at the Golfdom Daily, www.golfdom. blogspot.com.



## It's Time for Snow Mold Control

Clark

## BY CLARK THROSSELL, PH.D.

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Jim Kerns, Ph.D., is an assistant professor of turfgrass pathology at the University of Wisconsin-Madison. A major portion of Jim's research effort is devoted to snow mold control. Jim can be reached at *jpk@plantpath. wisc.edu*.

## Q What cultural practices can superintendents implement in fall to reduce snow mold damage?

Make sure the turfgrass plants are healthy and have recovered from any stress incurred over summer. There is no secret recipe for this. In extreme northern locations we recommend the last nitrogen fertilizer application be no later than October 31. In northern locations we have seen breakthrough on fungicide applications where the turf was fertilized later than October 31. Based on Frank Rossi's data on late season potassium applications, we advise superintendents to not go overboard on potassium fertilizer late in the season.

## When is the ideal time to apply fungicides to control snow mold?

Our research and experience have shown that applying fungicides to control snow mold should be done a few days after the last mowing of the year. Our research has shown fungicides applied to control snow mold are removed when the grass is mowed.

We are in the middle of a research project that is investigating different timings of fungicide application to control snow mold and so far we have found timings from late October to early December have all performed well provided they were applied after the last mowing of the year. It is very helpful to make sure all the leaves have dropped and been cleaned up before making the fungicide application.

Talks Turf

TIMELY TURF ADVICE

\*\* Research and experience have shown that applying fungicides to control snow mold should be done a few days after the last mowing of the year.\*\*

## Q What is your recommendation for one versus two applications of fungicide for snow mold control?

I recommend one application as long as the soil stays frozen all winter. If there is a mid-winter warm spell and the surface of the soil thaws, is the only time a second application is a good idea. For the second application we recommend using a granular fungicide application on greens to prevent surface damage caused by a heavy sprayer driving over turf that is only thawed at the surface. Q Last year there was a stop sale put on PCNB that left a lot of superintendents looking for alternative products. The stop sale was recently lifted. Do you have insight on the status of PCNB for this winter? The stop sale order was lifted but it is my understanding that there is not an approved label for PCNB use on golf courses. It is my understanding that superintendents will not be able to buy PCNB in 2011. (*Editor's note:* For more on PCNB's status in 2011, see "PCNB for You and Me?" on Page 24.)

**Q** What is your advice on selecting fungicides for snow mold control? The place to start is to determine how many days of continuous snow cover you expect on your golf course. Our recommendation is that if you expect less than 60 days of continuous snow cover, use one active ingredient; if you expect 60 to 90 days of continuous snow cover, use a combination of 2 or 3 different active ingredients; and if you expect more than 90 days of continuous snow cover, use a combination of 3 or 4 different active ingredients.

You can find more complete information and suggestions on fungicide combinations for snow mold control at: www.tdl.wisc.edu.

**Q** Anything else you'd like to share with readers before we close? Snow mold control fungicides have pretty much all degraded by March. Be sure to scout the golf course in March and April for pink snow mold. If you see active pink snow mold, apply a fungicide before things get out of hand.

Clark Throssell, Ph.D., loves to talk turf. He can be reached at clarkthrossell@bresnan.net.