

# MAINTENANCE



## BRIEFS

### LATHAM WINS PIPER AND OAKLEY AWARD

FAR HILLS, N.J. — James M. Latham has been honored with the USGA Green Section's Piper and Oakley Award. Latham was actively involved on the USGA Turfgrass and Environmental Research Committee from 1995 to 2002. He attended numerous research-monitoring visits and offered advice on the research being considered by the committee. Latham worked as a USGA Green Section Agronomist from 1956 to 1960 and from 1984 to 1994. In the interim, Latham worked for 25 years with the Milwaukee Sewerage Commission, helping to promote one of the nation's first businesses designed to recycle waste products into landscape fertilizers. The Piper and Oakley award was established in 1998 to periodically recognize those who have contributed to the programs and activities of the USGA Green Section.

### NEGCSA HONORS KURPOSKA

DELMAR, N.Y. — The Northeastern Golf Course Superintendents Association (NEGCSA) has presented its Distinguished Service Award to James Kurposka, superintendent of Normanside Country Club here. Kurposka previously worked at Colonie Country Club, Albany Country Club and Noyack Golf & Country Club. The NEGCSA presented Kurposka with the award to recognize his involvement, interest and commitment to the association. The award has been presented annually by the NEGCSA since 2000.

### EPIC ADDS SPANISH TITLES

WEST BEND, Wis. — EPIC of Wisconsin has added two new Spanish titles to its Superintendent's Video Workshop series of golf course maintenance training programs. Both "The Fine Art of Hand Watering with Paul Latshaw" and "Sun Safety" are now available in English and Spanish. The company now has 12 Spanish titles in its 26-program series, which are supplied on both VHS tape and CD-ROM.

## Editorial Focus: Putting Green Management

# Technology permits lower, leaner and faster greens

By KEVIN J. ROSS, CGCS

There is no debating the fact that managing golf greens today has changed over the last 25 years. Today, greens management uses technology and years of experience to produce the finest conditioned greens surfaces ever. It wasn't too many years ago, the 1970s, that we were cutting greens at 3/16 inch and producing speeds of seven feet on the Stimp meter. Times have changed.

### CONSTRUCTION

The greens that superintendents produce today are, in large part, a result of greens construction techniques that have been refined through the years to offer the ultimate in soil physics. The USGA has done an excellent job in continually reviewing and improving their specifications for greens construction. Present specifications are based on scientific laboratory testing, which will ensure that, with proper construction, a green will

perform for many years.

With technology, we have also improved the ability to match the proper sand particle sizes of a USGA spec green. Golf course material suppliers now have very sophisticated sand screening and mixing machines. These machines ensure the proper material will be produced and mixed for greens rootzones.

### TURFGRASSES

Since the late 1950s, Penncross creeping bentgrass has dominated the bentgrass market. Even with the newer bentgrasses on the market, Penncross is still the world's top-selling bentgrass, with some 750,000 pounds sold



Quad-tine-type aerification units allow courses to aerify more often without interrupting play.

annually. While Penncross still dominates the market, the grass we now play on is one of the biggest changes in greens sur-

faces. The new "superbents" (As, Gs, L-93, SR1119, etc.) offer finer texture, greater density, upright

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## UMass study determines pesticide exposure figures

By ANDREW OVERBECK

PROVIDENCE, R.I. — A University of Massachusetts researcher has completed the first phase of a golf course pesticide study that provides, for the first time, accurate exposure estimates for golfers. The research is significant because it will give the U.S. Environmental Protection Agency realistic human exposure data to use when reregistering pesticides under the Food Quality and Protection Act (FQPA).

At a presentation delivered during the New England Regional Turfgrass Conference and Show here March 19, Dr. John Clark outlined the results of the three-year, \$250,000 study. The work was sponsored by the USGA, the New England Regional Turfgrass Foundation, the United States Department of Agriculture, Dow AgroSciences and Bayer.

"The EPA didn't ask us to do it [the study]," said Clark. "The driving issue is they are in the



Researchers had volunteer golfers wear special suits to absorb pesticide residues.

process of reregistering through FQPA and as the industry looks

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## Anthracnose proliferation continues

By ANDREW OVERBECK

As new chemicals to fight anthracnose proliferate, so does the disease. The combination of warm winters, hot summers, lower cutting heights and leaner greens has led to increased outbreaks of anthracnose over the last few years.

"It used to be a hot-weather phenomenon, but it has become a disease that starts up in the spring," said Dr. Gail Schumann from the University of Massachusetts. "I need to put a thing on my phone that says, 'If you are calling about anthracnose, press 2.'"

According to Schumann and other turfgrass pathologists, the disease that attacks *Poa annua* and has even been seen on bentgrass, is becoming more prevalent and more

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## SUPERideas

### System refills divot mix bottles with ease

At many clubs it is common practice to have divot mix bottles on golf cars and located on par-3 teeing areas. One of the biggest problems is efficiently filling these bottles. Some methods, such as the ice scoop, are more of a means of frustration than efficiency.

One way to ease the pain of filling divot bottles is to construct your own divot sand tube filler. There are many ways to make a filling device. The unit I made holds slightly more than three 150-pound bags of mix and can be mounted in



Ross' tube filler refills divot mix bottles efficiently many ways. In the photo, the tube sits in a welded square of two-inch angle iron that is

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## Fungicide rotation is key to anthracnose control

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difficult to control because of increasingly stressful cultural practices.

"Turf management has changed," she said. "The key things are lower mowing heights and more compaction from increased play and the sand topdressing that gets brushed in. I think it is a signal from the turf that they [courses] are going too far. You can throw every kind of chemical in the world at it, but if you don't modify those cultural practices you are going to still be dealing with it."

According to Rutgers University's Dr. Bruce Clarke, maintaining proper levels of fertilization, raising the height of cut and maintaining consistency are the keys to managing anthracnose culturally.

"Superintendents need to get off the mowing roller coaster," he said. "Going back and forth and raising it and lowering it again and again in the heat of the summer is difficult on turf. Greens can still be fast and have less disease but it is a compromise that needs to be made because you can't keep lowering the height of cut forever."

Weather, however, has also played a part in the severity of the disease pressure. Warmer winters in 2000 and 2001 allowed the pathogen to survive and hit earlier than before. Hot, drought-plagued summers served to worsen conditions.

### ROTATION IS KEY TO CONTROL

While anthracnose wreaked havoc on courses last year, it yielded valuable information to those studying the disease that will be helpful in future outbreaks.

"Last year was the best fungicide study I have had in the last 20 years because it was very easy to evaluate. We got a natural infection," said Clarke.

Clarke's research took place at three different sites and confirmed the importance of rotating fungicides to control the disease and reduce the chances of resistance.

"In the study, we had tolerance from strobilurins and benzimidazoles but at other courses they worked just fine," said Clark. "So you can't say they don't control anthracnose, that is not the point. Many courses have had success with those two chemistries. This is why we need to tank

mix and rotate. Where strobilurins and benzimidazoles are affected they should be alternated with other products."

Superintendents have taken the rotation suggestion seriously, and many have reported success.

Bob Mogel, superintendent at Galen Hall Country Club in Wernersville, Pa., got hit hard in 2001 and was ready for anthracnose in 2002. His arsenal included Signature, Zerotol, Daconil, Compass and Banner MAXX and he managed to make it through 2002 unscathed.

"It hit in the end of March a couple of years ago, so I started off early last year. I am about to put out Zerotol pretty soon here. It smokes the spores with hydrogen dioxide. Last year I sprayed every Friday throughout the summer. I used a lot of Signature and Daconil and threw in some triple 20 fertilizer to keep the fertility up," he said.

Mogel also tried not to stress out the turf. He started the season at 1/10 inch and eventually went up to 1/8 inch. He also used solid rollers and stayed away from aerifying or verticutting after the beginning of May.

At Doylestown Country Club in

Warrington, Pa., superintendent Paul Bevan has managed to stay anthracnose-free as well while also keeping the greens lean and mean.

"When I came here we had six greens that were riddled with it," said Bevan. "Right now we don't have any."

Bevan has reduced fungicide applications to twice a month by rotating applications between Zerotol every other week and a mixture of fungicides every other week. Last year he used Daconil, 3336, Compass, Alliette, Heritage, Banner MAXX, Bayleton and Endorse.

"I mow greens at 1/10 of an inch and I roll three times a week," said Bevan. "I push them and I have not had any problems with it. When I have had little bouts of it, five or six spots on each green, I hit it with Zerotol for three straight days and then come back with Endorse or Daconil and I seem to get some recovery out of it."

While superintendents continue to press the envelope, more research is planned. Clarke will focus future research on the impact of fertility, mowing practices, plant growth regulators, herbicides and improved fungicide application strategies on the development of anthracnose. ■

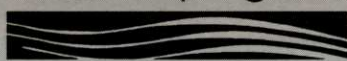
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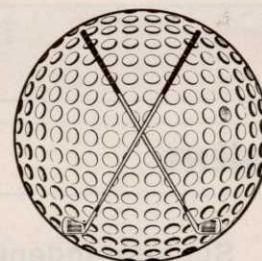


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