



Y2K AND THE EVERYDAY

President Clinton may have been telling the populace that all was hunky-dory in regards to Y2K scares, but golf course superintendents generally took matters into their own hands early in 1999 in order to be prepared for the turning of the millennial clock. From upgrading computers and software programs to stocking inventory, superintendents were preparing, late into the year, for the moment the clock ticks from 12:00 midnight to 12:01 a.m. Jan. 1, 2000.

Meanwhile, they continued to wrestle with hurricanes, droughts and diseases; invent some interesting devices for operating their maintenance shops and keeping their turf alive and well; contribute in a major way to new research efforts by the U.S. Golf Association and the National Turfgrass Evaluation Program; and even handle day-to-day business.

Turfgrass scientists continued their drive to breed bentgrasses that reach into the deep South and Bermudagrasses that will thrive in the Transition Zone.

And as time seemed to race on for most, some superintendents took the lead of Gordon Witteveen of the Toronto Board of Trade Golf Courses — and slowed down by retiring.

Quotable Quotes



Bob Heron

'Southern superintendents like to tease us about working six months a year. We tease them that it's a tough job to kill Bermudagrass.'

— **Bob Heron**
Canadian Superintendent of the Year

'We could have had 100 volunteers, without question, which shows the industrywide dedication to Pinehurst and the U.S. Open.'

— **Paul Jett, superintendent of Pinehurst #2 course**



George Frye

'Water is getting as expensive, if not more, than providing electricity. It's our biggest challenge of the future.'

— **George Frye, Kiawah Island Resort's Ocean**

Course superintendent

Superintendent, thy middle name is Invention

AUGUST



A leaf and debris blower can operate for hours with an auxiliary fuel tank.

Bunker rake blower aerates root zone

By TERRY BUCHEN

NAPLES, Fla. — A new portable turf aeration blower system can supply oxygen to the root zone of putting greens, suck water out of a green's drainage pipes, and even blow away surface debris in sand bunkers.

Superintendent Darren Davis of Olde Florida Golf Club here reports the versatile blower is "another great tool in our golf course maintenance equipment arsenal."

Davis has two of the self-contained blower units, which can be mounted easily onto a turf truckster bed, trailer, tractor three-point hitch, or on the back of a riding bunker rake.

The blower, he said, can move a significant amount of air through the perforated drainage piping of a U.S. Golf Association

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FEBRUARY



Flagstick storage within easy sight and reach.

Flagstick storage using unused ceiling space

By TERRY BUCHEN

PARAMUS, N.J. — Irrigation technician Dave Zollinger turned wasted space into valuable at The Ridgewood Country Club here, at the same time solving where to store flagsticks for the 27-hole facility.

Zollinger's "brilliant idea," said superintendent Todd W. Raisch, "was to store all of our spare flagsticks on the horizontal and sloping ceilings, which is totally out of the way from any of our activities."

Zollinger bought enough fishing pole holders at a local store to handle all the flagsticks. Each unit can hold six flagsticks. The holders have a foam-type slit so when the circular part of the flagstick is pushed all the way in it snaps into place.

Not only do the fishing pole holders were well, they are inexpensive, Raisch said.

"Storage space is always of para-

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APRIL



Crew member Daniel Fassina nails down the cover over one of the greens at Islesmere Golf & Country Club.

From Canada with love: Bubble covers for greens

By MARK LESLIE

TORONTO — Be it laser shooting, Global Positioning Satellite technology or soil sensors, some of the greatest advances in the world of golf have been borrowed from other industries. Enter the latest: Bubble Covers, originally designed to lay over swimming pools to keep them warm.

Quebec superintendents have been experimenting with Bubble Covers to protect their greens from winter injury, and, according to Serge Gauthier, they have found success while saving money.

Speaking at the Canadian International Turfgrass Conference here, the superintendent at Islesmere Golf and Country Club in Laval, Quebec, said his

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JANUARY

Y2K: Two little numbers, one big problem

By MARK LESLIE

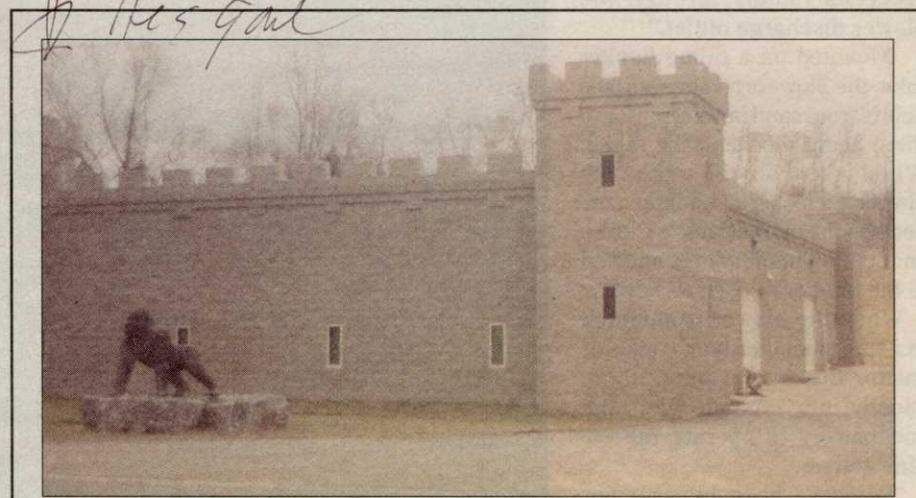
"On New Years Day I wouldn't want to be on a golf course because the sprinkler systems will probably be going nuts," said Pebble Beach Co.'s Dominic Van Ness.

Van Ness, director of the Information Services Department, foresees major problems beginning — and then perhaps snowballing — when the world's clocks tick from midnight Dec. 31 to 12:01 a.m. Jan. 1.

The situation has been dubbed "The Year 2000 Crisis," or Y2K, and the scenarios of its effects are endless — from hospitals where lives may hang in the balance to golf courses where the effects will be more mundane, but perhaps far more far-reaching than at first glance.

The whole thing seems so simple. Many computers are programmed to recognize only the last two digits of a year. So when "00" appears at 12:01 a.m., Jan. 1, 2000, it could be interpreted as 1900; or, on some computers, 1980, 1984 or even 1999. This could cause turmoil in how data is analyzed or result in freeze-ups or massive

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A MAN'S MAINTENANCE BUILDING IS HIS CASTLE

Superintendent Andy Mottel's maintenance building at Fieldstone Golf Club in Greenville, Del., is unlike any we have seen. So, when we wrote about the new Hurdzan/Fry-designed golf course in February we held onto this photo for a special occasion: our end-of-the-millennium edition.

FEBRUARY

New turf care takes bent toward Deep South

By MARK LESLIE

PALM BEACH GARDENS, Fla. — With his sights keen on growing the cool-season bentgrass into the Deep South, Dr. Milt Engelke has broken the mold of turfgrass care and developed a regimen he feels will, once and for all, make his dream come true.

He already points to success here.

Working with Old Marsh Golf Club superintendent Steve Ehrbar, the Texas A&M professor said, "We feel strongly that we will be okay [with the regimen]."

What does it entail?

- Lean water management, irrigating every fourth day.
- Frequent flushing.

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Bentgrass care

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- Watering, not syringing.
- Keeping the nutrition level up in the summer time.
- Top dressing every three weeks.
- Light grooming and brushing every third week.
- Core aerifying twice a year, in early May and late September, removing the cores and top

dressing with pure sand.

• Aerifying with solid tines every two to three weeks during the summer.

But the primary key is water, said Engelke, well known for his bentgrass and zoysia breeding programs and as the developer of Crenshaw and Cato bentgrasses.

"There is a misconception that bentgrass needs to be watered continuously," he said. "Water actually develops an excellent

environment for diseases. It causes poor microbial development; and attracts nematodes, which are aquatic animals.

"If we can manage the water, we can manage the root zone so that the grass will take care of itself," Engelke added. "With good root development, the plant will air-condition itself... Water moving through the plant will dissipate heat. Internally, the plant does this through evapotranspiration."

Indeed, in late December, three months after planting G-2 bentgrass over an existing sod layer, Ehrbar reported roots 6 to 7 inches deep. And, he said, he made only one fungicide application during the summer that he tested G-2, L-93 and Crenshaw bentgrasses before his final decision to plant.

"We found that a drier soil profile is much less prone to disease than water-soaked," Ehrbar said.

The four-day watering cycle was proven effective during research at College Station, Texas, where Iowa State graduate student John Jordan worked under Texas A&M Associate Professor Dr. Richard White.

During 1997 and 1998 (the hottest summer on record in Texas), Jordan tested nine varieties of bentgrass, watering some plots every day, some every second day and others every fourth day.

"The best overall quality on all the varieties always occurred when we irrigated every fourth day," said White. "Irrigation frequency had a dramatic effect, particularly in '98 because John operated the system for a much longer period, starting in late May through early September. He found that between the first week in June and the end of August the root systems in the frequently watered plots actually decreased. But in the four-day treatment, the root system actually tripled and had five times more roots than frequently watered plots."

Few roots in the frequently watered plots reached 6 inches, while some in the four-day cycle reached 12 inches.

Does the turf appear less lush under his new regimen?

"For top growth, yes," Ehrbar said. "If we were applying more water than we needed, it would appear to look better. But you're only as good as your roots."

But White saw no reason these practices would not work elsewhere, so long as the greens are sand-based or U.S. Golf Association-type, not "push-up" greens.

Ehrbar is still determining exactly what he must do to maintain his bentgrass, saying his plan "is not black and white. Every course is unique and different and we're building [the program] as we go. It's day to day. We monitor the grass."

"But our feeling is, if we can get through the day without watering, we do it. By the same token, if it needs water we will water it. In the wintertime there are times we can go over three weeks without giving it any water. But when summer comes we're lucky to go three to four days because the heat is up, evapotranspiration is up and the plant is pumping more water."

Engelke attributes the success of this Deep South experiment partially to the grasses.

"The new genetics give you the edge," he said. "Those three [L92, Crenshaw and G2] are the most heat-tolerant bents of which we had sufficient seed. But these new varieties will grow at higher soil temperatures, and especially at soil temps that are at proper gas balance. You have to keep oxygen and CO₂ in balance. If they get out of balance, that will impact the development of the plant. And that is influenced more by irrigation scheduling than anything." ▶

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