Welcome to PDI
The GCSAA's new membership standards—known as the Professional Development Initiative—officially took effect July 1. GCSAA members approved the new criteria at the association's annual meeting in Dallas in February 2001.

For grandfathered members of the GCSAA, the date signals the beginning of the renewal cycle. However, new members must now attain certain levels of education and experience to achieve Class A status.

Jeff Bollig, director of communications for the GCSAA, said the association has spent most of the past two years testing various processes and procedures to ensure effective and efficient data management.

RISE wants to prove point
Responsible Industry for a Sound Environment (RISE) wants to identify the sources of nutrients that may be contributing to surface water pollution.

So the national trade organization that represents producers and suppliers of specialty pesticides and fertilizers is teaming with its member companies to sponsor two university studies on the effects of specialty fertilizer to urban water quality. The total cost of the studies, each taking three years, will be about $310,000.

To determine the levels of phosphorus and nitrogen from natural sources vs. turf fertilizer, the University of Minnesota and Cornell University will conduct separate experiments in accordance with proper scientific methods.

RISE’s Jim Skillen, manager of formulators’ issues, said the group knows that turf fertilizers are not generally responsible for excess nutrients (phosphorus and nitrogen).

Briefs continue on page 14

Extreme Drought Leads to Extreme Measures

VEGAS COURSE RIPS OUT
IRRIGATED TURF TO COMPLY WITH WATER RESTRICTIONS

By Shane Sharp

That the southwestern U.S. is mired in one of the worst droughts in history is no longer front-page news. The extreme measures some golf courses are taking to cope with the worsening conditions and tighter water restrictions are worth noting, however.

Steve Swanson, superintendent at the Sienna GC in the golf-rich Las Vegas suburb of Summerlin, has removed 14.1 acres of irrigated turf from the upscale daily-fee course to comply with local water restrictions.

For its conservation efforts, Siena received a $300,000 rebate from the Southern Nevada Water Authority (SNWA). But the rebate may do little to offset the hard times that could remain ahead. If the drought continues at its current clip, Siena could remove a total of 60 acres of turf and spend close to a $1 million tearing apart a perfectly good golf course.

The question circulating among local superintendents is whether or not golf courses should be the primary target of heavy-handed water restrictions that have essentially left them no choice but to tear out significant portions of grass. To the voting public, the area's more than 50 golf courses appear to devour more than their share of water. In reality, the golf course industry is responsible for a mere 8 percent of regional water consumption, according to the SNWA.

Water use by the metro area's 1.6 million residents, by comparison, accounts for about 65 percent. Swanson says the politics of the situation are inevitable.

"Let's see, you can go after 50 golf courses or 1.6 million people," Swanson says. "It is not rocket science which one you go after. Let's be honest, a lot of this boils down to politics."

Clark County's two main water sources don't discriminate between homes and golf courses, however. Lake Mead, the source of 85 percent of Las Vegas' water, has dropped 74 feet in the past two years and is at 63 percent of its capacity, according to the SNWA. Lake Powell, further up the Colorado River, is down 95 feet and is at 50-percent capacity.

"Things could and probably will
get worse before they get better," Swan-
son says. "Right now we're restricted to
about 8 acre feet of water per acre, per
year. That could change to 6 feet in a
few weeks."

Swanson says most Siena residents
have been tolerant of the course's situ-
tion. "We sent out letters informing
them of the drought situation and that
we were removing turf."

While only 3 years old, Siena was
permitted in the mid-1990s shortly
before the existing restriction that limits
new courses to 5 acres of turf per hole.
The Brian Curley/Lee Schmidt-designed
course originally contained 150 acres of
turf and was conceived as a "parkland-
style course" in the desert. By this
month, it could be down to 136 acres of
turf. By late fall or early winter, it could
be down to 90 acres.

The long-term prognosis for Siena is
good, according to Swanson, despite
the imminent transition from park-
land- to desert-style course. Siena has
solid financial backing from its owners,
a supportive residential base and a gen-
erous maintenance budget. Swanson is
also convinced the integrity of the
course's design can be retained during
the entire process.

"Most of the turf that will be re-
moved will be in areas that aren't in
play," he says. "It will change the look
and feel of the course, but I don't think
it will be more difficult to play."

At least one local water official is
convinced that Las Vegas-area courses
will come out of the drought fine.

"We have some of the best superin-
tendents in the world, and they will
reinvent the way golf is played here,"
says Doug Bennett, conservation
manager for the SNWA.

Swanson appreciates the vote of
confidence, but feels it's optimistic.

"I'm worried about some courses," he
says. "They will not be able to afford to
do this. When it's all said and done, we
will spend $900,000 of our own money.
That and the cost of water going up will
force some clubs out of business."

Courses that survive the first few
years of tighter water restrictions should
eventually be able to recoup their up-
front turf removal costs through savings
on water. Swanson says he currently
pays $2.27 per thousand gallons. Come
Oct. 1, the rate will rise to $3.

"We are looking at about a four-year
payback for the turf removal when you
factor in water savings," Swanson says.

Siena is not the only course making a
pre-emptive strike on tighter water re-
strictions. Red Rock CC, a private
course in Summerlin, is replacing
14 acres of rough with drought-tolerant
plants and xeriscape. South of town, the
Boulder City GC is ripping out close to
30 acres of grass.

Sharp is a free-lance writer from Charlotte.
found in the nation’s water bodies as claimed by activists.

“Natural sources such as leaves, pollen, soil erosion, flower parts, and pet and waterfowl waste contribute significantly to high phosphorus levels in urban lakes, ponds and rivers,” he added.

Skillen said there has not been enough documented research to counter the unsubstantiated claims of activists.

Fisher follows Whitman

Linda Fisher, deputy administrator of the EPA, resigned in July. Her announcement came one day before EPA Administrator Christine Whitman stepped down from her position.

Novozymes takes Roots

Salem, Va-based Novozymes Biologicals says its recent acquisition of Roots Inc. in June will strengthen its position in the market for environmental microorganisms, which allow environmentally friendly growth enhancement and disease control for turf.

Industry loses top architect

The golf course industry lost one of its top architects when Robert Muir Graves died in June from cancer. Graves, 72, began his career in 1955 as a landscape architect before slowly transitioning into golf course architecture full-time in 1960. Graves’ design portfolio includes more than 75 new golf courses.

Protection Plants

TURF-SEED TAKES ACTION TO COMBAT CROSS-POLLINATION FEARS FROM SCOTT’S ROUNDUP READY BENTGRASS

By Frank H. Andorka Jr., Managing Editor

One Oregon turfgrass breeder has planted 250 of what he called “sentinel” plants in farmers’ fields that surround test plots of glyphosate-resistant bentgrass being grown by a competitor to see how far the pollen from those plots will travel under open-breeding conditions.

Bill Rose, chairman of Turf-Seed, told distributors at his company’s Field Day event that there were 400 acres of glyphosate-resistant turf being grown in Oregon, and he’s concerned about the possibility that it will cross-breed with non-glyphosate-resistant turf. So Rose approached farmers he knew in the Madras, Ore., region where the fields are located and asked them to let him plant his “sentinels” to monitor how far the pollen travels.

The guard plants will be tested periodically to see if they’ve become glyphosate resistant.

The genetically modified turf is called Roundup Ready bentgrass and has been developed in a joint effort between The Scotts Co. and Monsanto. The companies have mechanically inserted a gene to modify the plant’s DNA and make it resistant to Monsanto’s nonselective herbicide Roundup. They hope to someday make it easier for superintendents to control turf weeds, especially Poa annua.

Rose says he’s also researching how far the prevailing winds can carry pollen from genetically engineered plants at his research facility in Canby, Ore. So far, the trials have confirmed that the pollen will travel at least 1,000 yards, but some tests have indicated that it can travel further, he says. He added that he’s working with the Environmental Protection Agency on the tests.

The Scotts Co. disputed Rose’s claims.

“We’ve conducted extensive research regarding pollen flow and outcrossing,” the company said in a prepared statement.

“First, the only bentgrass being grown in the Madras area is within our Oregon Department of Agriculture-approved control area. There are no other bentgrass fields within 100 miles. That’s one of the reasons we chose to plant there.

“Second, bentgrass is not sexually compatible with other grass species, so there is no chance of outcrossing that would transfer the glyphosate-resistant trait to say, fescues or bluegrasses, for example,” the statement continued. “Additionally, the new variety is only resistant to glyphosate, so other herbicides can control bentgrass in seed production environments. Even if it does outcross to bentgrass plants growing on ditch banks, those hybrid plants can be controlled with other herbicides or by mechanical removal.”
A Monumental Achievement

BETWEEN THE WASHINGTON MONUMENT AND THE CAPITOL BUILDING, THE SMITHSONIAN PAID TRIBUTE TO THE BIRTHPLACE OF GOLF

By Frank H. Andorka Jr., Managing Editor

Frank Morse, construction superintendent for Landscapes Unlimited, could hardly believe his eyes when he went to scope out the firm’s latest project on Memorial Day — a 40-yard hole in Washington D.C.’s National Mall.

The hole was part of the Smithsonian Institution’s Folk-life Festival, held June 25-29 and July 2-6, and was part of a Scottish heritage exhibit.

“I walked down by the White House, the Vietnam Memorial and the Lincoln Memorial, and there was the site for the hole in the middle of it all,” Morse says. “On one end of the Mall was the Washington Monument and on the other was the Capitol. I knew I was working on sacred ground.”

Each year, the Smithsonian’s festival promotes an understanding of domestic and international folk customs, and the featured country in 2003 was Scotland. It originally planned only to feature Barry Kerr of Heritage Golf in St. Andrews, a fourth-generation golf club maker, making wood-shaft clubs. But Kerr called his friend Michael Hurdzan, a principal of the Columbus, Ohio, firm Hurdzan Fry Golf Design, with the idea of creating a hole as a backdrop for his demonstrations.

“It was fun to watch people come out of the Metro [Washington’s subway] station, and the first thing they saw was the hole,” Hurdzan says. “You saw them do a double take and scratch their heads as they wondered what the devil it was.”

Morse says the construction disturbed between 6,000 square feet to 7,000 square feet of dirt. The project took four times as long as expected to build because of the rain that inundated the East Coast this spring. Normally, Landscapes Unlimited could have finished the project in

Continued on page 19
seven to 10 days, but it took four weeks instead, he added.

"It was labor-intensive since we had to build the hole by hand," Morse says. "We couldn't bring heavy construction equipment on to the Mall."

Both Landscapes Unlimited and Hurdzan Fry donated their time and labor to making the project a reality, and other vendors donated materials and equipment to the hole.

So which lucky superintendent took care of this hallowed site? That honor fell to Dean Graves, certified superintendent at the Chevy Chase (Md.) Club and a Golfdom Advisory Staff member, who says he considered himself more of an advisor to the project. "It rained so much this spring that the last time I went down to look at it [in late June], it looked like Scotland," Graves says, laughing. "It was neat being a part of the project."

Graves says the grounds superintendent of the National Mall asked questions about how to handle washouts in the bunkers and how to mow the greens so they weren't scalped.

After the festival was over, the hole was plowed under, and the Mall was returned to its former state. But for one brief moment, golf held a place among America's greatest monuments.

"I think that it recognizes that golf is a mainstream pursuit in the United States, and its connection to Scotland proves that it's also universal," Hurdzan says. "For the Smithsonian to put golf front and center in this way was a tribute to the reputation the sport has throughout the world."

---

**Irrigation is a major investment... Be Sure.**

Professional members of the American Society of Irrigation Consultants have passed an extensive peer review and qualification process. Working with an ASIC member gives you the confidence that a highly-qualified irrigation consultant is on the job, helping to protect your interests and your investment.

Contact ASIC to find a consultant near you.