



BRIEFS

HAGUE JOINS THE TOURNAMENT PLAYERS CLUB AT DEERE RUN

SILVIS, Ill. — The Tournament Players Club at Deere Run has hired Chris Hague as its new golf course superintendent. Hague replaces Patrick Franklin, who recently took over as course superintendent at the Tournament Club of Iowa outside Des Moines. Hague will be returning to tournament golf as the point man for course conditioning for the PGA Tour's annual John Deere Classic set for July 22-28. Hague was the first golf course superintendent to host the nation's three major open championships — the U.S. Open, the U.S. Senior Open and the U.S. Women's Open. Previously, Hague was course superintendent at Baltimore Country Club at Five Farms.



Chris Hague

THE RESERVE AT LAKE KEOWEE NAMES MAXFIELD

SUNSET, S.C. — The Reserve at Lake Keowee has named Richard Maxfield as superintendent for the Jack Nicklaus Signature course. He will be responsible for growing in the course that is expected to open in fall 2002. Prior to joining the club, Maxfield worked as superintendent at the Palmetto Dunes Resort's Robert Trent Jones and George Fazio Golf Clubs in Hilton Head. The Reserve at Lake Keowee is being built by the Keowee River Club LLC, a partnership of the Keowee Toxaway Co. LLC and Greenwood Development Corp.



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PETERSON TO HEAD MCCULLOUGH'S EMERALD GOLF LINKS

VIENNA, Va. — Billy Casper Golf has hired Mark Peterson as superintendent of McCullough's Emerald Golf Links, a new public golf course near Atlantic City, N.J. Peterson is currently overseeing the grow-in of the Stephen Kay-designed layout that pays tribute to famous golf holes in France, Ireland and Scotland. The course will open in July.

GOLF COURSE NEWS

Water conservation plans require constant evaluation

By JAMES T. SNOW

FAR HILLS, N.J. — With drought conditions gripping the East Coast and parts of the western United States, water conservation issues have again been pushed to the forefront. While golf courses are often cited for misuse of water, the golf industry has recognized its responsibility to reduce water use and become less reliant on potable irrigation sources.

As research and technology progresses, superintendents should continue to evaluate, update and implement their water conservation programs. In recent years the turfgrass industry has developed varieties of turfgrass that use less water or can tolerate poor-quality water, introduced technologies that improve the efficiency of irrigation systems, and tapped alternative water sources that reduce or eliminate the use of potable water.

IMPROVED GRASSES REQUIRE LESS WATER

Since 1982 the United States Golf Association has distributed more than \$18 million through a university-grants program to investigate environmental issues related to the game of golf, with a special emphasis



James T. Snow

on the development of new grasses that use less water and require less pesticides.

For example, turfgrass breeders at the University of Nebraska have developed several improved cultivars of buffalograss, which is native to the American Great Plains. This grass can replace high water-use grasses on fairways and roughs in a large area of the Midwest, resulting in water savings of 50 percent or more.

At Oklahoma State University, turfgrass breeders also have developed improved cold-tolerant, seeded-type Bermudagrass cultivars, allowing for the establishment of this stress-tolerant, low water-use grass in the transition zone of the United States to replace high water-use cool-season grasses. Water savings of 30 percent to 50 percent or more can be realized.

Ruby Hill Golf Course in Pleasanton, Calif., features Bermudagrass fairways and roughs instead of the cool-season grasses used at nearly all other courses in northern California. As a result, the course estimates that it has reduced water use by about 40

Continued on page 12



IGM TO HANDLE MAINTENANCE FOR KISSIMMEE'S MYSTIC DUNES GOLF CLUB

CHAMPIONSGATE, Fla. — International Golf Maintenance has signed a maintenance agreement with Mystic Dunes Golf Club, located in Kissimmee, Fla. Mystic Dunes, an 18-hole course designed by Gary Koch, opened in August 2001. The course features dunes on the front nine and tree-lined fairways on the back nine. The second green, which is framed by two waterfalls, is pictured above.

Gypsum clears muddy water at The Club at Patriots Glen

By ANDREW OVERBECK

ELKTON, Md. — During the construction of The Club at Patriots Glen here, project superintendent Jim Kelley faced a potentially disastrous problem — his eight million-gallon irrigation pond was full of suspended clay and silt particles from construction runoff.

"We get all of our water from that pond, so we had to fix that problem before we could irrigate our new sand greens," said Kelley. "We

didn't spend all that money on greens just to plug them up with dirty, muddy irrigation water. As soon as we got the greens



Patriots Glen's irrigation pond before...



...and after gypsum application

seeded, we needed clean water." Kelley, whose company Evergreen Turf

is managing the new course, consulted with Wadsworth Golf Construction's Travis Barbee and decided to treat the six-acre pond with gypsum.

"We did some experiments in the shop first," said Kelley. "Hydrated lime worked really well but it was three times more expensive than gypsum. We also tried a polymer that is used to keep hot tubs from getting cloudy, but we weren't sure what that would do to bentgrass."

Kelley bought 10 tons of gypsum and used a hydroseeder to mix it into slurry and spread it out on the pond. It took a four-man crew 11

Continued on page 13

Sudden Oak Death spreads in California

By DOUG SAUNDERS

MARIN COUNTY, Calif. — Back in 1999, Dave Sexton, superintendent at the Meadow Club in Marin County, noticed that something odd was happening to a tree at his golf course. The leaves of a large oak tree that provided shade by the club pool started to turn brown, and in just a few weeks the tree was dead. Little did he know then that he was witnessing first hand the virulent effect of a recently discovered virus, commonly known in the coastal counties as "Sudden Oak Death."



Tens of thousands of oaks along California's coastal counties have been wiped out by Sudden Oak Death.

"It was startling to see a tree succumb so quickly after the symptoms were noticed. I hardly had time to react to whatever was affecting the tree. I started to look for help to find what was the cause and soon learned about this virus," Sexton said.

Sudden Oak Death (SOD) is a microbial fungus that was first reported in 1995. Over the past six years, it has become a serious threat to California's 11 million acres of oak

Continued on page 14

Oak death

Continued from page 9

trees. Tens of thousands of oaks along California's coastal counties have been wiped out by SOD and recent research has found that it also affects over a dozen other plants including madrones, manzanita, broad leaf maple, rhododendron, and bay laurel. The pathogen can thrive within a healthy tree, which it won't affect,

and then spread on to trees that succumb to its attack.

NO KNOWN CURE

To date there is no known cure for SOD and there is evidence that it may be spreading. Infected trees have been identified as far south at Monterey and as far north as Southern Oregon.

The SOD mystery has been slowly unraveled through the efforts of two forest pathologists: Matteo Garbelotto from the Uni-

versity of California at Berkeley and Dave Rizzo of the University of California at Davis. They discovered that SOD is caused in part by *Phytophthora ramorum*, a microbe that related to the fungus that caused the Irish potato famine in the 19th century.

Research is still in its infancy and discoveries about the pathogen's nature are slowly being made. The keys now are to determine how climate and ecol-

ogy affect the pathogen and understand completely how it spreads from one plant to another.

"We have determined the cause of the disease but are still learning more about it. We can't eradicate it but we need to learn how to control its spread," explained Rizzo.

Last year California Sen. Barbara Boxer secured \$3.5 million in federal funds and the state of California added \$3.6 million to fund the needed research to find

a way stop the advance of the disease. One forester fears the worst if the disease should move to the oak-laden foothills of the Sierra Nevada Range.

"If it spreads to the mountains what is to keep this disease from spreading across the country?" said U.S. Forest Service plant pathologist Susan Frankel.

NO IMMEDIATE SYMPTOMS

The fungus will infect a tree for a few years before symptoms are noticeable, such as brownish lesions on leaves and blackish ooze coming from the bark. The fungus destroys all the tissue the tree uses, cutting off the tree's ability to move sugars into the root system. This causes the root system to die and the top of the tree quickly follows.

"Throughout the hillsides here in Marin, you can see ashen gray tree tops within the forest that are the remnants of dead trees, and also spot browning leaves of trees that are dying. The signs of SOD are visible everywhere," Sexton said.

The disease has also impacted certain tree nurseries. One such supplier, Valley Crest Tree Co. in Sunol, has felt the pinch as science and government regulations collide. Valley Crest supplies trees for the landscape industry and trees for new course construction and ornamental trees for clubhouse and course renovations.

"The pathogen was identified in one tree here in our county and the decision was made to place a county wide quarantine on plants being shipped from here. To me it is a classic case of regulation preceding science in the reaction to the discovery. I don't have any infected trees in my nursery nor has there been any sign of it, yet every tree that I ship out of the county must be inspected by county inspectors before it is sent," said Robert Crudup, president of Valley Crest.

"New course construction has slowed recently but still there is quite a bit of renovation work in the industry that requires trees so we are feeling the effect from the disease," Crudup added.

Ongolf courses, superintendents are paying more attention to their trees. So far the pathogen seems to have a stronger effect in deep forests rather than attacking lone trees, such as ones surrounded by fairways. The use of best management practices to promote healthy trees continues to be the best preventive measure.

"Weaker trees are more susceptible to the pathogen. We have been in constant contact with an arborist and are willing to try whatever is suggested to try," said Peacock Gap superintendent Richard Lavine. "Our course is right next to ground zero, the China Camp Park where the disease first showed up but we have seen no effect on our course." ■

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