



BRIEFS

CAROLINAS GOLF COURSE SUPERINTENDENTS ASSOCIATION APPOINTS BARTON

LIBERTY, S.C. — Julian S. Barton, CAE, has been appointed as the new executive director of the Carolinas Golf Course Superintendents Association. Barton spent the past decade with the South Carolina Farm Bureau Federation, which represents the interests of the agricultural community by providing education and representation in government affairs. Based in Columbia, he was assistant to the president for development, overseeing a \$4 million budget. He also served as their director of government relations. Barton joined the Carolinas GCSA this month replacing Chuck Borman, CAE, who is the new chief operating officer for the Golf Course Superintendents Association of America.



Julian S. Barton

HAMILTON JOINS THE DUNES GOLF AND BEACH CLUB

NORTH MYRTLE BEACH, S.C. — The Dunes Golf and Beach Club has named Stephen Hamilton as golf course superintendent. Hamilton's responsibilities will include maintaining the golf course, supervising maintenance staff and serving as a club liaison to the Dunes Golf and Beach Club's green committee. Hamilton joins the Dunes Club from The Country Club of North Carolina in Pinehurst, N.C., where he was golf course superintendent. There he supervised the recent reconstruction of the club's Dogwood course, a project that encompassed 18 green complexes, tees and fairway bunkers.

IGM SIGNS CRAIG RANCH GC

CHAMPIONSGATE, Fla. — International Golf Maintenance (IGM) has reached a maintenance agreement with Craig Ranch Golf Course, located in North Las Vegas, Nev. The 18-hole Craig Ranch Golf Course was designed by J.C. Stimson in 1962. Danny Smith, who was an assistant superintendent at Craig Ranch for 18 years, took over the superintendent position from his father in 1998. With the Craig Ranch agreement, IGM now maintains some 100 courses across the country.

Superintendents reshape state water restrictions

By ANDREW OVERBECK

HARRISBURG, Pa. — Following the drought of 1999 when sudden water restrictions forced golf courses in parts of Pennsylvania and New Jersey to cut irrigation use by as much as 90 percent, superintendents in both states teamed up with other green industry partners to retool drought emergency rules.

Working closely with each state's department of environmental protection, the industry has achieved or is close to achieving new water restrictions

lands Golf Club, the vague restrictions that the Pennsylvania DEP put forth in the summer of 1999 simply created confusion.

"The drought regulations opened the door to the people who were going to abuse them or ignore them altogether," said Wall. "Some guys got screwed for cutting back because their courses went brown while others who ignored it had green turf."

Spurred on by the late Dave Rafferty who was the superintendent at Chambersburg Coun-



Bill Wall's Dauphin Highlands Golf Club in Harrisburg, Pa.

that will not negatively impact golf courses. The three years of hard work is already paying off, as 26 counties in Pennsylvania and all of New Jersey have declared drought emergencies.

SUCCESS IN PENNSYLVANIA

According to superintendent Bill Wall here at Dauphin High-

lands Golf Club, Wall put together a group of superintendents from across the state and the DEP held meetings to discuss flaws in the regulations.

"They didn't have any golf course experts," Wall said. "This stuff is a different language to

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Editorial Focus: Safety and Accessories

Risk management plan can prevent accidents, litigation

By TED HORTON, CGCS

Golf can be a dangerous sport and the potential for danger from negligent design and maintenance exists on many courses. Golf car mishaps, environmental concerns, slips and falls throughout the property, maintenance equipment accidents and exposure to weather can all result in serious injury to golfers, guests and employees.

Considering our litigious society and the fact that insurance rates have escalated since Sept. 11, it has become even more important to implement a sound risk management program to help prevent injuries and property damage, as well as to protect against liability.

Courses should first inventory areas of potential liability. These include four basic areas: premises, operations, vehicles and natural causes. By no means is the following list all-encompassing. Examine your own operations and list every possibility for exposure to accident or injury and review the checklist quarterly.

PREMISES

Risks are abundant throughout a golf course property both on and off the course.

- Examine course design for defects. Are balls entering private properties, roads or adjacent holes? Are there blind tee shots, dangerous doglegs or other places of concern? Are waiting areas adjacent to tees safe? Remember that 85

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Moss hits Colorado hard, more research needed

By KEVIN ROSS, CGCS

DENVER — A recent symposium here brought superintendents from across Colorado together to discuss the sudden invasion of moss on greens. The problem is clearly widespread, as more than 140 superintendents attended the meeting to learn more about how to combat the rapidly spreading bryophyte. There are still, however, more questions than answers.

The symposium featured Dr. Tony Koski from Colorado State University; Matt Nelson from the United States Golf

Association's Green Section; Matt Giese from Syngenta; and John Wynne from Bio-Safe Systems. Rusty Oetker from Soil Solutions also held a roundtable discussion. The group presented information about the spread of moss, various research efforts, and possible control options.

According to Dr. Koski, controlling moss is difficult for three central reasons.

"Moss is a very resilient and tough plant and we don't really know that much about it because there has been little hardcore research done," said Koski. "It is also very difficult to selectively eradicate."

In Colorado, the moss plant on greens has been identified as Silvery Thread moss or *B. argenteum*

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Treated moss (left), and untreated moss (right)

Flowtronex study quantifies water quality concerns

DALLAS — Pump station manufacturer Flowtronex recently conducted a survey of 603 randomly selected golf course superintendents to determine their attitudes toward and awareness of water quality issues and solutions. The study purposely targeted areas of the United States known for having high pH, carbonates and bicarbonates, excessive algae growth, etc.

The study was overseen by Flowtronex's director of marketing Tom Levey.

The following results were collected:

- Overall, 63.3 percent stated they are concerned about water quality. Seventy-six point three percent said pH is critical to soil health and 64.5 percent said they are concerned about government regulations.

- When asked unaided about water treatment options, pH control topped the list at 36 percent, but 32 percent of respondents said they could not think of any water

quality treatments. Other options listed included: aeration, filtration, fertigation, ozone injection and biological treatments.

- One-quarter (26 percent) of superintendents do not test their water quality while another 47 percent test it less than once a month.

- Most (81.6 percent) use a lake or pond for irrigation water

on their course and the average number of pump stations used by a facility is 2.2 (although the majority, 59 percent, have only one).

- Eighty-eight percent of all respondents had some level of familiarity with liquid fertilizers.

- Seventy-two percent use both liquid and granular fertilizers on their courses. Although most don't feel strongly that either type is definitely better than the other, superintendents with an opinion prefer liquid fertilizers to granular (29.7 percent to 19.3 percent, respectively).



Moss symposium

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(although some still debate this). Moss is classified as a bryophyte, which have no roots, no vascular system, and reproduce vegetatively and/or by spores. Since moss is unable to translocate chemical products, this is a major problem for control measures. Moss also has the physiological ability to sustain drying out up to 80 percent for a period of two years and still not die. Each plant also has the ability to produce 50 million spores.

WHAT CAUSED THE INVASION?

Moss has become a big problem in Colorado and elsewhere in the United States for four reasons.

First, older snow mold fungicides such as PMAS and Calo-clor contained mercury that some think had a side effect control on moss. With those products now off the market, moss has taken root.

According to Matt Nelson, cultural practices have also aided moss development. Lower cutting heights, low nitrogen fertility, and the thatch/topdressing layer all contribute to moss.

"I've never had anyone tell me that they have a moss problem on collars, tees or fairways," Nelson said. "In reality, we can't cut our greens at 3/16 of an inch, but this might solve the problem."

While greens might have excellent internal drainage, the thatch/topdressing layer at the upper surface of greens is a perfect breeding ground for moss. The development of a perched water table can be attributed to thatch development and also from using a finer sand particle size than the original construction root zone mix.

Syngenta's Matt Giese raised a fourth possibility that algae is a precursor to the eventual development of moss. This has been indicated by some of the research done by Larry Stowell of Pace Consulting in California. That research was based on the use of chlorothalonil (Daconil) to control algae and to ultimately prevent moss development.

MORE RESEARCH NEEDED

While research on moss is not abundant, it is occurring. There are four sites of research at the moment: Dr. Rossi at Cornell University, Dr. Cook at Oregon State University, Dr. Yelverton at North Carolina State University and the work already mentioned at Pace Consulting.

The research data available from these sites, however, differs in its consistency. For example, Dawn dishwashing soap worked very well in the California studies, but ranked poorly in the Oregon studies. Since results vary significantly depending on site climatic conditions, this is a big stumbling block for Colorado (and other states), as there has been no work done in a climate with arid summer conditions.

Of all the control options, Dawn dishwashing soap (which is not registered) appears to be the product with the most consistent control results, and Daconil can be used as a preventive measure. New products with some promise for control are: Terracyte, Junction and a yet to be released product called No-Mas from Monterrey Chemical Company.

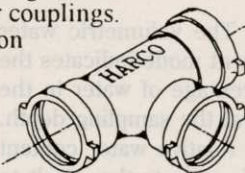
However, a larger research effort is needed to explore both cultural inputs and chemical controls before there will be a cure-all for moss eradication. ■

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