

TURF COUNCIL GETS NEW LOOK

The decades-old Southern California Turfgrass Council, with its 700 members, is enjoying a new look as well as an ambitious vision for the future, according to Council President Mark Hodnick. Central to the council's identity facelift is an undertaking by Uber Advertising & Public Relations, which has crafted a marketing and promotion package for the Turfgrass Council as well as for the organization's annual trade show in October.

ARIZONA SUPERS GIVE TO RESEARCH

A \$2,500 donation for research was made to Dr. David M. Kopec of the University of Arizona by Bill Walsh,



vice president of Cactus & Pine GCSA, at the U.S. Golf Association Green Section Seminar at Moon Valley Country Club on

April 3. Kopec accepted the gift to be used to further research at the UA turfgrass facility. It came from the proceeds of The Cactus & Pine GCSA tournaments.

GCSAA MEMBERSHIP RANKS SWELL

LAWRENCE, Kan. — The Golf Course Superintendents Association of America (GCSAA) has pushed its membership total over 18,000, according to its chapter/member services department. In the three-month period from March 1 to May 31, membership increased by 1,000, or 5.9 percent. The association last year passed regulations under which new members of chapters must join the national group, and chapters' officers must all be GCSAA members in order for the chapters to retain their affiliation.

VALDOSTA CC SIGNS IGM

VALDOSTA, Ga. — Valdosta Country Club has retained International Golf Management, Inc. of Lakeland, Fla., to provide maintenance services. This marks IGM's first major contract in Georgia, one of several states included under the umbrella of IGM's Atlantabased Southeast Atlantic region.

HORTWORLD ON INTERNET

On June 2, Betrock Information Systems began to market HortWorld, a



new horticultural site on the internet. HortWorld's site www.hortworld.com — explores a network of four dis-

tinct pathways:

products & supplies, services & information, research & education, and turfgrass industry. GOLF COURSE NEWS

Junk food for turfgrass? McCue serves up a batch

By MARK LESLIE

CASTLE ROCK, Colo. — The chef at the Country Club at Castle Pines may think superintendent Sean McCue is baking a batch of cookies with all the molasses he's buying but, in fact, he's heating up a meal that is producing healthy turfgrass and saving money.

For the past year McCue has been spraying his greens and fairways with a concoction of molasses and cane sugar, along with iron and a kelp product. "It's our own roots mix, if you will," McCue said. "It's a quick carbohydrate source — basically a junk food for grass. It heats it up and gives it a quick flush."



The effect is very noticeable and almost immediate. "You notice it on greens in particular," McCue said. "The day before you spray, you might get a third of a basket of grass clippings. The next morning, after you spray, you get a full basket."

Besides the quick flush, the application improves grass color and increases its rooting mass, he said.

Sean McCue "We use this mixture to help break the greens out of dormancy without using N [nitrogen]," McCue said. "We use TGR, a plant growth regulator, for poa annua control in the fall. With TGR, you get a straw-colored discoloration in the spring.

"It's a substitute for a roots product. You try to generate some growth without adding nitrogen."

In 1996 McCue applied the molasses mixture every two weeks from April through late-September on this course which pushes through 26,000 rounds in a seven-month season.

His crew generally adds nitrogen in a separate application. Sticking to a philosophy of keeping things lean, last year McCue applied 1.7 pounds of nitrogen the entire growing season.

"On the greens we put down .38 pounds of N last April 18," McCue said. "By supplementing with all these other sources of food, we were able to go without fertilizing again until July 29." He said his molasses mixture costs about one-half the price of over-the-counter roots products.

Where does McCue buy such large amounts of molasses and sugar cane?

"Our chef orders it for me," he said. "I buy it by the gallon — 20 gallons at a time. He thinks I'm making cookies down here."



VACUUMING FOR SUCCESS

Hoover, move over, say Colorado superintendents

By MARK LESLIE

ASTLE PINES, Colo. — Colorado superintendents are praising a new machine that removes sand from bunkers without damaging the subsurface and does it twice as fast as other methods.

"The great thing is, after you get done you haven't disturbed the subsurface of the bunker," said Marshall Fearing, superintendent at Castle Pines Golf Club here.

"It's not damaging any turf. It's pretty slick," said superintendent Alan Ogren, who was just finishing work on the first of 32 traps he intended to refurbish at Snowmass Golf Course in Snowmass Village.

Custom-made for Hall-Irwin by a company that manufactures a huge vacuum for cleaning up during water-line excavation, the machine includes a 4-inch suction hose fastened to the expulsion chute of a snowblower. As the operator walks the snowblower back and forth in the trap,

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Mole cricket challenge continues

By RICK BRANDENBURG

Although managing mole crickets on golf courses is a chore reserved primarily for superintendents in the Southeast, this pest has spread northward, with an occasional report in Virginia and moved west into Texas. Many of the lessons learned while trying to manage this pest in the South have implications that can improve control of other pests such as white grubs anywhere in the United States.

Like white grubs, mole crickets are a soil insect. They feed primarily on turfgrass roots and can be quite damaging. The fact that they are soil insects challenges us in two ways. First, it is difficult to get a good picture of exactly what the insect is doing below the soil surface. This keeps us guessing as to **Continued on page 18**

Rick L. Brandenburg is a turf entomologist at North Carolina State University.



Equipment to apply pesticides below the soil surface has been developed and has shown modest success in enhancing mole cricket control.

Research sheds light on control

Under certain conditions, higher rates of some products will actually perform poorly as compared to lower rates. Poor control is often associated with the behavior of the mole cricket and its ability to avoid pesticides.

Following proper rate recommendations, rechecking application equipment calibration, directing control efforts against the small crickets, and avoiding treatment under extreme weather conditions help avoid these failures. Irrigation also influences control and this area is still under study because the response to irrigation is somewhat dependent

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A look at turf: '60 to the future

Golf was just starting to boom around 1960, and turfgrass management was becoming a recognized curriculum at the Ohio State University. When I entered that program in 1961, there was one real turfgrass specialist — Dr. Bob Miller —

but most of what other pro-

fessors taught was based on pasture agriculture. Life was pretty simple, with only a few turfgrasses (Merion, Windsor and Penncross were the hightech cultivars). Automatic tee and green irrigation was in its infancy with electro-mechanical clocks, and fairways were watered using quick couplers. And the testing for sand-soil-peat for root zones was to mix some up in a bucket, look at it and run your Continued on page 26

Hurdzan comment

Continued from page 17 fingers through it.

The USGA construction method had just been introduced, but by far the majority of greens were pushed-up soil, or a concrete sand, soil and peat blended together with a rototiller on site. Greens had 4-percent slope and were mowed at 1/4 inch height; fairways were kept at 5/8 to 3/4 inch; and roughs were rough.

Hydraulic mowers were just introduced, triplex greens mowers were in the future, and the great new herbicide was 2(2, 4, 5-T)P originally called Silvex, and later Agent Orange in Vietnam.

We treated disease with mercury and cadmium, *poa annua* with lead and arsenic, and insects with chlorodane and DDT.

Aerification was by drilling with a 500-pound machine called a turfarator (I think), and when hollow-core aerification was introduced there were professors of turfgrass who argued it left too slick a hole so roots would not grow into the aerification hole.

We did all this just because we didn't know better.

Then in the mid- to late-1960s we realized some of what Rachel Carson said was true and science's improved ability to assay minute amounts of chemicals verified it.

Automatic and fairway irrigation were constantly improving, Dr. Reed Funk's Manhattan ryegrasslooked like miracle grass, and Al Radko and Marv Ferguson were making the USGA Green Section into turf's most respected information source.

Nothing substantially changed for the next 15 years except for a proliferation of chemicals, turfgrass cultivars, irrigation innovations, and the introduction of the heavily sculpted golf course led by Pete Dye, Jack Nicklaus and Desmond Muirhead.

Environmental zealots were thought to be well-meaning quacks who espoused tactics like using the snail darter to hold up government projects like Tellico Dam construction. Economy was more important than environment until the nation recovered from the 1974 Arab Oil Embargo. Reaganomics in the 1980s revived a depressed golf industry.

The late 1980s and early 1990s saw environmental movements gain popular support through gloom-and-doom arguments based on emotion, not scientific facts. The turfgrass industry became a symbol of environmental mistreatment, simply because we did not defend ourselves.

Today, scientific research is vindicating golf courses and we recognize how to better balance the delicate social, economic and environmental concerns. Golf courses and turfgrass managers are being proven to epitomize the true stewards of the earth.

The only problem that remains is getting golfers to accept a less-26 July 1997 impacting form of golf course maintenance. They must allow the superintendent to further reduce the amounts of water, fertilizer, pesticides and fossil fuels they use. Golfers and lawn owners must recognize that healthy grass is not always green and lush.

IN THE YEAR 2020

How long this will take is unknown, but when it happens, it will change the face of American golf and landscapes. Golf courses of 2020 will look and play more like those of 1920, the golden age of American golf, a wonderful blend of brown and green ribbons of grass, enjoyed as much by wildlife as golfers. Turf managers will better understand the dynamics of chemical, biological and physical interactions and how to manipulate them to minimize water, fertilizer and pesticide use.

Before applying treatments, superintendents of tomorrow will closely monitor the quality, quantity and duration of sunlight, measure soil temperature and moisture content, track water-quality indexes, and determine biological activity of host plant and invading organisms. Manipulation of soil air and temperature will be far more important than soil water. Irrigation will be limited and an inferior quality compared to today, so intelligent planning and construction will be of a great premium.

As time goes on, golf will continue to be played with increasingly advanced technological equipment, although the average golfer won't play much better. Courses will continue to become more environmentally friendly, with increasingly lessimpacting materials and methods, and be more fun to play. And the superintendent will be much more of an analytically based researcher, who will have the talent, tools and knowledge to understand and monitor the entire golf course environment.

Just as the equipment and golf courses have evolved, so will be the demands and the qualifications of future superintendents.

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