GOLF COURS

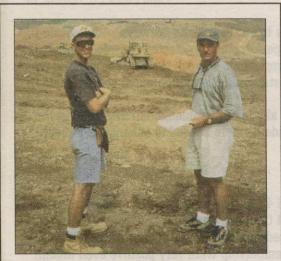
THE NEWSPAPER FOR THE GOLF COURSE INDUSTRY

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Debris Management

Superintendent John Farley has new and educational ways to work composting into your routine 25

Spotlight on Asia: Vietnam Vietnam has the best chance among its Asian neighbors to develop an industry that isn't overgrown 9



NICKELS GETS A JUMP START ON KOREA Doug Nickels (right), of Nickels Golf Group, and shaper Cliff Hamilton on the fairway at Club 200. See story page 33.

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Texas seeks shelter from the heat

DALLAS - A typical day in August: The heat climbs to 101 degrees at noon, reaches 104 around 4 p.m., drops back to 101 at 7 p.m., and slowly descends to 90 by midnight. The low for the day is 82, recorded at 3 a.m. Water levels on Falcon and Amistad lakes along the Rio Grande are 50 feet below normal; boat ramps look like they are sitting on a cliff.

to five hours above 100 degrees nearly every day from July deep into August, and with an inch or so of rain in more than two months, Texas cooked on a high simmer — to the point that lives were in danger when precautions weren't taken.

That's the human side.

Campus here that will

serve as a research, teach-

ing and extension facility.

signed course will be part

of a hotel conference cen-

ter complex that will be

developed and operated by

private enterprises, ac-

cording to Dr. Charles Pea-

The private companies

Continued on page 24

The Tom Fazio-de-

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N.C. State/Fazio next with research & teaching course

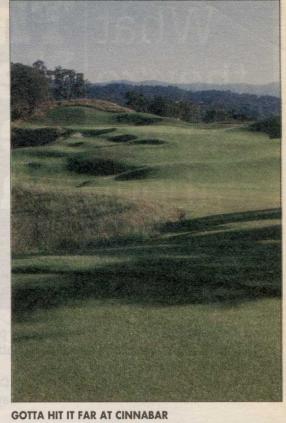
RALEIGH, N.C. North Carolina State University is on the verge of building an 18-hole golf course on its Centennial

Golden Bear Inc. hits hard times

NORTH PALM BEACH, Fla. - At the beginning of July, Donald Trump dismissed Jack Nicklaus' construction company, Paragon Construction, from the job of building just South of Palm Beach International Airport.

That was just the beginning of Golden Bear Inc.'s trouble.

Continued on page 37



SAN JOSE, Calif. — Cinnabar Hills Golf Club's #8 is a dramatic 222-yard par 3 perched atop the Canyon course. See story page 30.

Creative management ideas abound at PGF

The "Build It And They Will Come" philosophy may work in the Iowa ballfield business. But in golf, it takes efficient management and creative



marketing to get golfers past the bag drop area as the speakers at this year's Management/Marketing Track of the Public Golf Forum can attest.

Six management/marketing sessions are on the line-up card at this year's Golf Course News-sponsored business conference and expo for superintendents, owners, managers and developers of public-access golf facilities on October 26-27 at Rancho Las Palmas Marriott Resort in Palm Springs, Calif. The Management, Development

Continued on page 46

cock of the Department of Crop Sciences and NC State's point man on the project.

Trump's \$40 million resort

At the end of July, Golden Bear said that it would restate its 1997 results after discovering that former managers of Paragon deliberately falsified reports, misrepresented



GLOBAL GOLF: NEPAL'S 'NEW MONUMENT'

KATHMANDU, Nepal-Proof that golf is truly global can be found here in the King of Nepal's 800acre, walled hunting park which also contains the Royal Summer Palace. Astaff of women plant a green blade by blade on the King's new course (above). The organic matter consists of composted rice husks and fresh, local elephant manure, the latter being collected daily from the jungle by a team of 60 laborers.



Texans tough it out in heat, drought

Continued from page 1

That's the human side. ("We have to be very careful with the staff... There have been 20 to 25 deaths in the Houston area due to the heat," said Mike Sandburg, superintendent at Lakeside Country Club in Houston and vice president of the South Texas Golf Course Superintendents Association.)

The business side is that golfers are staying in cooler spots than golf courses. ("People are playing in the early morning, or at twilight, or not at all," was the word from throughout the South, and one private course in Houston was completely shut down.)

The maintenance side is that golf course roughs and fairways are showing cracks large enough to lose a golf ball; water lines are breaking in the parched earth; courses, in many cases, are under water restrictions, or must use effluent or poor-quality water that causes a range of agronomic problems of its own; and a strange outbreak of the rare Bermuda stunt mite has occurred, thinning the turf and fooling superintendents who don't recognize part of the problem is a pest.

After two months of drought, Brian Maloy, an agronomist for the U.S. Golf Association Green Section's Mid-Continent Region, softened the outlook a bit in mid-August, saying: "It's not as bleak as we painted the picture originally. From Louisiana to New Mexico and even to Oklahoma, there's a large difference."

Nevertheless, superintendents in the toughest weatherstruck areas fought an unrelenting battle.

In San Antonio: "It sounds odd, but we would love a hurricane or tropical storm right now," said Bruce Burger, superintendent at The Quarry Golf Club. "The aquifer needs that much rainfall to get back up to a level that is safe."

In Dallas: "Ft. Worth is having problems with water supply lines," said Keith Ihms of Bent Tree Country Club, president of the North Texas Golf Course Superintendents Association. "The ground is shifting, they are taxing the systems beyond what they are supposed to, and they are blowing out main lines. A 90-inch line went out last week and no watering was allowed at all."

In Houston: "I'm from Kansas and I haven't seen it this hot and dry anywhere," said Sandburg. "Even with the wet spring we had, we're 12 inches below normal. We have taken a dramatic swing. We would need a full week, if not 10 days, of rain to get back up. I have earth-cracks that are starting to move into the fairways. I water enough to keep

the grass alive, but there is no subsurface moisture."

"Superintendents here always look toward Sept. 1," said Ihms. "If you make it that far, it gets downhill after that. But the forecast is not calling for any major break in the weather through September. It won't necessarily be as hot, but dry..."

Burger explained that highpressure systems "camped out" over the Gulf of Mexico, forming a sort of meteorological dome. Fronts coming from Kansas-Oklahoma or from the Gulf merely bounced off that dome of pressure.

As the drought and heat

dragged on, water quality became more of an issue on Texas

"If they use well water, it's real high in sodium," said Ihms. "A lot of guys are getting effluent, or water from the city. [Dallas] mainly pumps out of the reservoir; but to conserve water, they're supplementing it with well water, which is not very good."

According to Ihms, some su-

perintendents were not aware the city was doing this and, before long, that bad water adversely affected the turf, especially bentgrass.

The USGA's Maloy said Oklahoma City courses had similar problems because well waters there are high in salts and sodium, especially causing problems in clay soils.

"With sodium, your option is Continued on next page

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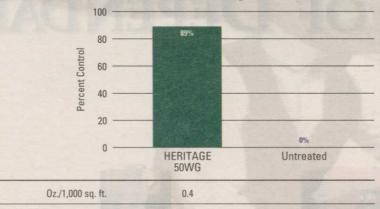
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Fusarium Patch (Microdochium nivale) on Bentgrass

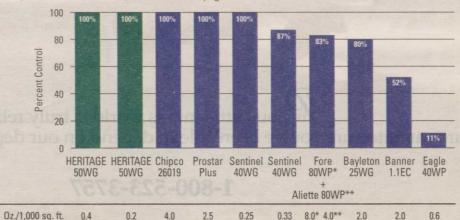


Application Interval (days) One application, treatment applied 3/7/96, final reading 3/18/96

Dr. Larry Stowell, PACE Turfgrass Research Institute, San Diego, CA, 1996

US 84-96-P10

Red Thread (Laetisaria fuciformis) on Perennial Ryegrass



Application Interval (days) Single applications, all treatments applied 3/21/97, final readings 5/2/97

Dr. Houston Couch, Virginia Tech, 1997



Texas heat

Continued from previous page

only as good as the water you have and your ability to leach the sodium through the soil," Malov said.

Some superintendents were using gypsum and other products to try to flush the offending sodium through the soil. "But you're using the same water to flush it," Ihms pointed out.

Many superintendents are injecting a type of sulfuric-based acid product at the pump station that is not corrosive and lowers the water's pH.

Meanwhile, insect pests are wreaking havoc. An invasion of grasshoppers was even reported in downtown Ft. Worth.

So many areas don't have foliage that pests like grub worms and cutworms have been concentrating in places that are

I think a lot of superintendents have these [Bermuda stunt] mites but don't know because they [make the grass] look like hot spots."

- Bruce Burger

green.

Burger said Bermuda stunt mites "have been a big problem throughout the mid-continent region, and Texas in particular.

"I think a lot of superintendents have these mites but don't know because they [make the grass] look like hot spots," he said. "I've never had it before in my 20 years. The mites tend to harbor themselves where the leaf and sheath meet and suck the juice out of the plant."

The plant "stunts" back into a tight rosette, so the area becomes thin and dry-looking. Spraying Scimitar GC and Mavrik in two applications 10 days apart kills the mite, he said.

Overseeding was another problem. While courses experienced a good season for overseeding, the heat arrived when the ryegrass was dying out and Bermudagrass didn't come in as quickly as normal.

'Bermuda doesn't like 105degree weather, either," said Ihms. "Bermuda can normally handle 98 or 99 degrees. But I've heard new Bermuda courses are having trouble."

Meanwhile, superintendents are using various cultural methods to keep their courses alive. For instance:

· Some courses limited play at certain times of the day and/or restricted golf cars to cart paths to relieve the stress on the turf.

· Many, like Sandburg at Lakeside CC, increased mowing heights and used more slow-release or organic-type fertilizers to build up the turf stamina.

· Many, like Burger at The Quarry, are trying to keep potassium levels up and allow the Bermuda to store carbohydrates for the fall and winter. "That's what Bermuda lives off in the wintertime," Burger said. "It also strengthens the cell walls of the plant so it creates a hardier plant that is more resistant to drought and disease."

· Many, like Ihms at Bent Tree, are cooling the green canopies with fans. "We have nine greens that have two to five portable fans from 7 a.m. to 7 p.m.," said Ihms, adding, "The low humidity and wind, as well as the fans, have saved our greens."

· Many water their courses during the day as well as at night. Those with state-of-the-art irrigation systems can adjust the water flow. Instead of running an irrigation head for 20 minutes, they might prefer running it three times at 6 minutes each.

"But if you have water restrictions you're in trouble," Ihms

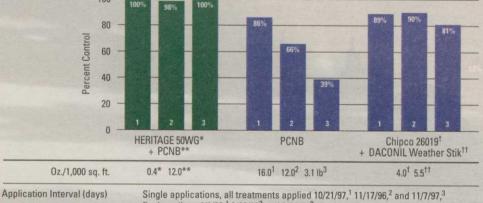
Maloy said golf courses with good water quality, electrical hookups at the green sites, and with excellent surface, subsurface and drainage characteristics and with good water quality are doing well.

"But now I'm concerned about this next year," Ihms said. "The Bermudagrass is not healthy and now we're going to go out and verticut it and do all the other things we do, then dump a bunch more seed on it in September. Next year we could have a cumulative effect of this [stress].'

September 1998 23



Snow Mold (Microdochium nivale and Typhula ishikariensis)1 on Annual Bluegrass (M. nivale only)2 on Turfgrass (T. incarnata, T. ishikariensis, T. phacorrhiza and M. nivale)3 on Annual Bluegrass

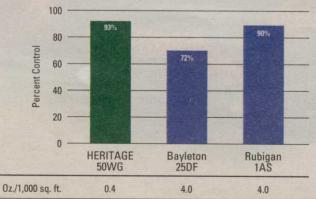


Single applications, all treatments applied 10/21/97, 1 11/17/96, 2 and 11/7/97, 3 final readings 4/1/98, 1 3/26/97 2 and 3/29/98 3

¹Bozman, MT ²Amherst, MA ³Sayner (Plum Lake), WI ¹Dr. Rob Golembiewski, Montana State University, 1998

US 20-98-P900 ²Dr. Gail Schumann, University of Massachusetts, 1997 ³Jeff Gregos, University of Wisconsin—Madison, 1998 US 63-98-P901 PCNB either Revere 4000, Scotts FFII or Turfcide 400; Chipco 26019 either Chipco FLO or Chipco 26GT

Take-all Patch (Gaeumannomyces graminis var. avenae) on Colonial Bentgrass



Application Interval (days) Two applications, all treatments applied at 28 day intervals

Dr. Pat Sanders, Penn State University, 1995

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