MAINTENANCE

The 100-year summer strikes

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"If you had bentgrass greens, you were basically fine. But if you had *poa annua* greens, it's been a real problem. And, in certain places, you were in trouble with ryegrass on the fairways because of a disease called Pyricularia grisea (gray leaf spot) found normally in Bermudagrass and centipede. This year ryegrass got it from the Mid-Atlantic to Kentucky. I've seen this disease twice on ryegrass in 24 years.

"Put these ingredients all together and you have some hurting golf courses. All have suffered... There weren't many umbrellas over the golf courses."

Bob Brame of the USGA North-Central Region agreed. "It was so bad… Greens, green embankments, fairways — there are scars everywhere," he said. "A number of courses are doing major renovations aggressive overseeding and some sodding — and using temporary putting surfaces while renovating their permanent greens."

Wet wilt, Brame said, has been a major problem because "there's no way to treat it. It happens when soil can't drain, and it kills the grass quicker than anything. Usually you see very little of it, never to the extent we've seen it this year."

"I've been here two years and we've had a 50-year ice storm and now a 50-year drought," lamented superintendent Dan Pierson of Wilmington (Del.) Country Club. "We're looking at more financial lossthis year than the ice, and that cost \$75,000 for restoration. I have no viable roughs now. Our fairways are 30 to 40 percent dead."

At Chester Valley Golf Club in Malvern, Pa., superintendent Kirby Putt closed the course from Aug. 28 to Sept. 16 "to try to re-establish some of the greens where the *poa annua* was left."

At Merion Golf Club in Ardmore, Pa., superintendent Paul B. Latshaw took advantage of the disaster to do a project he had planned for later in the year. Looking at three or four *poa annua*-dominated greens that had lost 30 to 40 percent of their turf, he closed the course to install a new irrigation system.

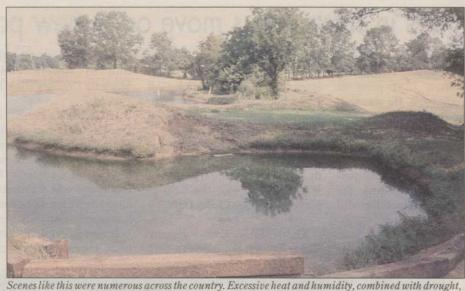
"This made the most sense," Latshaw said. "If we were ever going to do the fumigation, the timing was perfect."

Putt and Latshaw blamed heat and humidity rather than the drought for the turf loss at their clubs. Putt added another culprit: an untimely drenching (3-1/2 inches of rain that flooded most of the course on July 21) and the fact he could not get the moisture out of his greens.

Latshaw added the fact that "we got hit with every disease *poa annua* can get from anthracnose to summer patch, root Pythium, everything. We had soil temperatures at one point above 100 degrees. It was absolutely brutal."

Minnesota experienced the secondhighest dew point numbers on record, said Patty Knaggs of Hazeltine National Golf Club in Chaska. "There were large amounts of lots of diseases, including pythium that never went away and takeall patch," she said. "And a lot of people reported breakthroughs with their chemical controls. The labeled rates didn't last as long as they should have because disease pressure was extraordinary."

With 30 inches and more of rain being dumped on South Florida courses in 30 days, many closed down, said Grigg, who kept nine holes open at the 36-hole Royal GOLF COURSE NEWS



scenes the this were numerous across the country. Excessive near and numiaity, combined with aro made it unusually difficult to grow in this new course.

Poinciana Golf Club in Naples.

"The mole crickets, sod web worms and other insects really relish the moisture — as do nutsedge and other weeds," he said. "And we can't get out to spray for them. It's like a sponge."

The fairways at Worthington Golf Country Club in Bonita Springs, Fla., were under water for more than three weeks in mid-September, said superintendent Kevin Selsor. "We're losing 2 inches a water a day, vertically, and we're looking at two to three weeks before all the water is drained off. That is, if we don't get another storm.

"We have a lot of major problems. We still have live roots and green leaf tissue. But with another two to three weeks to go, we just don't know what we'll be facing. Temperatures are in the 90s and the water is warm. That depletes the oxygen from water and suffocates the grass."

Putt said that although he was able to syringe the greens to cool them off during the day, since he couldn't relieve the moisture inside the greens, the stage was set for fungus. In his case it was basil stem root rot, an offshoot of anthracnose for which there is no good chemical control.

"You can stop it by using higher rates of Cleary 3336. But if you stay in high heat and humidity as long as we did, we found that no chemical could help," he said.

In the case of gray leaf spot, Zontek said superintendents had a mere three-day window in which to apply Daconil. "If you did, you got good results. But if you didn't, it was pretty dramatic in how much you lost."

Exactly how are superintendents overcoming the problems?

Even Pierson's good intentions worked against him. Having begun a project to convert to bentgrass fairways, he had just aerified on July 28 and overseeded using some plant growth regulators. The drought — coupled with the fact Wilmington CC relies on runoff and a couple of small wells for water — meant terminal turf.

Putt double-verticut and aerified Chester Valley's greens and incorporated SR1020 and Penncross bentgrass.

"It's not a bentgrass conversion but a re-establishment," Putt said. "We wanted to take full advantage of when poa was at its weakest point."

Short of rebuilding, he plans to deep-drill to 10 inches and fill. "If we do that twice a year for two years it will help," he said.

Latshaw reseeded with a bentgrass blend of Providence, Crenshaw, L-93, Southshore and a little Pennlinks.

"It will be survival of the fittest," he said. "We have some greens shaded, some in full sun, some that don't drain well..."

Brutal conditions across the country

In many places across the country, the weather elements were savage. For instance, by mid-September:

• In Delaware, "water police" were checking neighborhoods ensuring that people held to water restrictions put in place beginning Sept. 13. "The state was very understanding and reasonable," said Dan Pierson of Wilmington (Del.) Country Club, who had feared the worst. "Courses are limited to watering between 5 and 8 a.m., greens and tees only. But we can use the automated irrigation systems for delivery."

Delaware surpassed the 50-year drought stage and may soon reach a 100year drought. "We were 7 inches above normal rainfall in mid-May," Pierson said, "and now we're 12-1/2 inches under."

• Philadelphia marked nearly 50 days exceeding 90 degrees, including a record 27 in a row. "We have broken every record in Philly," said Paul B. Latshaw of Merion Golf Club. "Of the last five years, four have been the hottest in the history of Philadelphia. This year was the hottest and the worst drought on the record books.

• August was the driest month on record in many parts of Pennsylvania.

• Data from 1985 to 1995 shows Minnesota had the hottest August in the last 10 years, the hottest July since 1989 and the hottest June since 1991.

• Just 7/10 of an inch of rain was measured from the first of June to mid-September at Waterville (Maine) Country Club. "Business is great. The golf course has had it," said superintendent Kyle Evans.

• "We had 15 consecutive days where we set record highs for heat and humidity," said Kirby Putt of Chester Valley Golf Club in Malvern, Pa. "It's the fourthworst drought in 101 years."

• Columbus, Ohio, is 12 inches over normal in rainfall — normal being 36 inches.

