

You can learn from those who endured the dreadful drought of 1999

BY BRUCE ALLAR

Try as you might to erase them, but memories of last year's drought blaze in the mind like the hot summer sun. Catch wind of any superintendent's "desert storm" war stories, and the travails of the summer of 1999 blast back to the surface — along with fears that the pain will be repeated this summer.

You certainly can't help but feel Trent Inman's pain. The second-year superintendent at Royce Brook GC in Somerville, N.J., says "we basically ran out of water July 8" when the course's wet well underwent an emergency shutdown because the water level in the reservoir dipped too low. Inman went waterless for nearly a month before some pumping capacity returned.

During that desiccated July, when less than one-tenth inch of rain fell in the region, 75 acres of bentgrass fairways at Royce Brook "pretty much got torched," Inman says. "It's something I don't ever want to see again — that much bentgrass going cardboard brown," he adds.

Inman closed 18 of the course's 36 holes and pleaded for understanding from his general manager and his golfers. Is there a happy ending to this torrid tragedy? Not really. While Inman saved his tees, greens and approaches with selective watering during the summer, he encountered another ironic misfortune on the fairways. After he reseeded the dead fairways in August, he watched his efforts wash away in torrents of runoff water during heavy September rains that accompanied Hurricane Floyd.

However, Inman triple-aerified and re-seeded in October and is finally on his way to recovery — if the weather cooperates. "The biggest thing I'm worried about is having this many seeds going in as far as having disease pressure later in the year," Inman says.

The climate has been a superintendent's tyrant in recent years. And those who believe

in global warming and human-induced climate change are saying that the cruelty will not end.

Many superintendents, whether they trust the global warming doomsayers or not, are bracing for another dry season this summer. In fact, the National Oceanic and Atmospheric Administration reports that the United States is currently experiencing a worsening drought after recording the warmest winter in 105 years.

This time around, however, superintendents can learn from the harsh lessons from drought '99 to improve their chances of keeping courses playable.

Survival skills

Few of us require reminders of the tinderbox conditions that settled over the Northeast and Middle Atlantic states during the past few years, the Dust Bowl-like siege in Texas, and the moisture deficit in Kentucky, Ohio and other areas of the Southeast and Midwest.

The good news, says Stan Zontek, mid-Atlantic director of the USGA's green section, is turf managers saw how resilient grass can be.

"Most superintendents learned that grass is a lot tougher than we give it credit for," Zontek says. "Grass has a very efficient dormancy cycle, and we forget that."

Those who survived the scorching, according to Zontek, took these basic steps to do so:

- restricted cart traffic to paths and off of dormant fairways;
- raised mowing heights;
- hand-watered fairways;
- moderated fertility; and
- aerated to control thatch.

"You need to aerate in anticipation of a dry period almost as preventive maintenance," Zontek adds. "That lets what rainfall you do get soak in."

Aerification also allows deeper roots to develop to pull moisture from a greater depth, Zontek notes. He also warns that too much fertilizer makes grass softer, lusher and there-

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High and Dry?

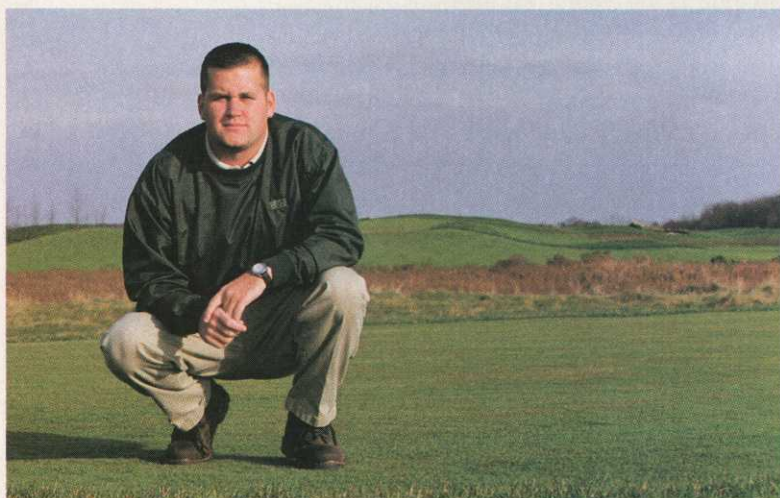
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fore thirstier. "You don't want lush turf going into a period when you can't water it," he says.

Tim Cunningham, superintendent at The Country Clubs of Fox Meadow in Medina, Ohio, plans to do more flushing of his turf during the next dry spell. With heavy and infrequent watering, rather than daily and light sprinklings, he hopes to keep the roots deeper.

"Light watering tends to bring root systems to the top and moisture dissipates before (the turf) gets the full effect," Cunningham says.

Tom Kastler, superintendent at the Club at Runaway Bay in northwestern Texas, survived



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— Trent Inman

last year's dry heat, but his water source, nearby Lake Bridgeport, was 16 feet below the normal level in the spring. Kastler received notice in April from local officials that a water restriction contingency plan will be implemented should the drought continue since Runaway Bay's water source is also a source for the city of Fort Worth.

With wall-to-wall irrigation, Runaway Bay hasn't lost any patches of its SR 10-20 bentgrass greens since they were seeded four years ago. But Kastler inspects them for trouble spots as carefully as a parent bathing an infant. He also checks them for morning dew.

"The greens have severe undulations," he says, explaining that if dew is uniform across the greens it means they were watered correctly the previous day. "If (the dew) is thin or nonexistent on the crests or undulations then I know not enough moisture was put down," he adds.

Kastler assigns two workers to the greens, one for each nine. They're armed daily with syringe hoses and pitchforks.

They also roll the greens every Monday

with spiker reels to open up the oxygen and water exchanges.

Water wisdom

Experts warn that overreacting to initial dry conditions with excess water can cause more problems down the road. But Kastler doesn't fear overwatering. "Never let anybody say you're putting too much water on unless your (greens) are just soupy," he explains.

Kastler was forced to commit another worker to a 500-gallon tanker truck to hand-spray older trees outside of irrigation boundaries. The 50-plus-year-old oaks, set in rocky soil, were suffering. The trees were supplemented with a biological product so they could feed themselves, but they were put on a diet during the hottest months with lightly granulated fertilizer and light rates of foliar.

"In spring, you fatten 'em up like a cow going to slaughter because that's what the poor devils are fixing to hit when it's 100 degrees in July," Kastler says. "I run 'em lean and mean in the summer."

Bill Spence, superintendent at The Country Club at Brookline, Mass., also has a drought mentality about summer course management. So much stress is placed on grass to accommodate golfers' demands (for faster greens) that crews already are "doing a sort of controlled drought" to keep greens hard and dry, he says. That mindset served Spence well going into last year's Ryder Cup at The Country Club. "As long as I can irrigate," he says, "I'd rather have dry."

It helped, of course, to have abundant resources. Spence faced no water restrictions (he was able to purchase water from the city when needed), and he had an extra half-dozen staff members to prepare the course. Even so, he pinpointed his efforts on the 18 competition holes, letting the club's other nine suffer, and he concentrated on the areas that would be inside the gallery ropes. There he remained in complete control of soil moisture.

Hand-watering fairways became a priority, particularly in the rocky-soiled Northeast, where the stones below the surface tend to heat ground temperatures and speed turf dormancy.

Interestingly, Spence's biggest problem near Ryder Cup time occurred because of a sudden burst of moisture — 9 1/2 inches of rain during the week before the tournament. Japanese

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grub beetles, which had burrowed deep into the soil beyond the reach of insecticides, surfaced after the cloudbursts. Crows and squirrels tore up tees and other areas while hunting the grubs, which called for emergency repairs. "We had one plan in place for lack of water and one for excess water," Spence says.

Less staffed but also successful at combating the lack of moisture was Joe Lyons, the superintendent at Kearney Hill Golf Links, a public course in Lexington, Ky. This Pete Dye-designed, links-style facility is owned by the city of Lexington, which supplied the course with backup water for a fee during the biggest crunch times.

"I dry out a lot more quickly than other courses," Lyons says of his links layout. Yet with a (seasonal) crew of only 20, he survived — in large part because of the excellent Dye superstructure. Two lakes, one 15 acres and the other 14, fed the irrigation system, and a super-efficient drainage design collected what replenishments were available. "If you get an inch of rain, whatever gets into the ground will get into the drain tiles and back into my lakes," Lyons says.

He also pumped from two wells on the course. Nonetheless, during last summer's drought, one well dried up and the other dropped from about 60 gallons per minute to 20. Water reservoir levels reached a nadir, with only two or three feet left in the second lake

at one point. The city restricted watering and allowed it only during certain times of night.

The Kearney Hill crew syringed greens during the day to cool them down and used wetting agents to maximize moisture. "As you go along with these droughts, you get more efficient with watering," Lyons notes.

He has learned, for instance, that when the wind blows over his treeless course, he can water an entire fairway from one side, letting the air handle dispersion. He also keeps mowing equipment out of grass bunkers to protect turf health.

This former stop on the senior's tour (the Bank One Senior Golf Classic left Lexington in 1997) is planted with Penncross bentgrass fairways and tees, Penn Links bentgrass greens and rye bluegrass, with some fescues in the rough.

The rough suffered badly, says Lyons, who has been substituting warm-season grasses in his deepest bentgrass bunkers for added durability.

Inman learned his own lessons the hard way last summer in New Jersey. Next time, he'll be more prepared because he has increased the capacity of his irrigation system. Inman offers advice to other superintendents.

"Really look at other courses with similar-size properties, climate and species," he says. "Make sure you've got at least as much water as they do." ■

Allar is a free-lance writer from Floyds Knobs, Ind.

The Kearney Hill crew syringed greens during the day to cool them down and used wetting agents to maximize moisture.

Thinking Globally

Is global warming fact or fantasy? Superintendents give varying degrees of credence to theories of human-induced climate change.

At one polar extreme, guys like Tom Kastler of the Club at Runaway Bay in northwestern Texas, pooh-pooh the thesis that we've altered our weather mainly through emissions of fossil fuels leading to a greenhouse effect.

"Absolute hogwash," Kastler says. "We're just going into a blip. Two hundred years in a hydrologic or geologic cycle isn't even a quarter of a blink of an eye."

Trent Inman, superintendent at Somerville, N.J.-based Royce Brook GC echoes Kastler's opinion. "Eventually, things are going to balance out," he says.

But others like Tim Cunningham of The Country Clubs of Fox Meadow in Medina, Ohio, observe changes in weather patterns,

explainable or not. He describes the current cycle as "intermittent drought seasons" and is frustrated by excessive wet followed by excessive dry. "I don't even know what normal is anymore," he says.

And Joe Lyons, superintendent at Kearney Hill in Lexington, Ky., confirms the climatological data with his own observation. "It's gotten a little warmer," the 20-plus-year turf veteran says. Incidentally, play at Kearney Hill was up 50 percent in March and put added stress on his grass.

Mike Kenna, director of green section research for USGA, says he's convinced by the data. "But when you talk to professional meteorologists and they can't tell you what it's going to mean, it's a little bit frustrating," he adds.

Those researchers predict more severe thunderstorms and hurricanes will accompany more frequent drought during the greenhouse era. But that type of weather

occurred in the 1920s as well, so how do you explain it, Kenna asks.

If you truly want something to worry about, Kenna notes, consider that the quantity of water available per person is already going down, climate change or no, because of population increases. Also declining is the quality of the water used to irrigate golf courses, which must rely more on recycled or waste sources. So the grasses of the future will likely be forced to survive on less plentiful, less clean water.

Bermudagrass requires less water than rye, and some course managers, particularly in the transition zone, may need to confront that during a future crisis, according to Kenna. But, don't believe the gloom and doom that golf is going to disappear, he says.

"We're going to have golf," Kennis says. "There might be bermuda greens, not bentgrass greens, but there's going to be golf."

I recently attended a media day for yet another pricey golf course currently under construction. They invited us so we could fawn over the architect and ask banal questions. We certainly weren't supposed to challenge anyone with tough questions about the course.

Somehow, a heretic found his way into our midst. One of the photographers looked at a map of the design and, in an alarmed tone, asked how a course could be a par 72 and only 6,935 yards long from the back tees — as if the course was suffering from a life-threatening disease.

"Oh, we've got it over 7,000 now," the marketing person reassured us.

I felt a migraine emerge and claw its way from the back of my head forward. That credibility only comes to a course with a back-tee yardage over 7,000 remains one of the most ridiculous notions in modern golf. Though some say there has been a return to classic styles in golf course architecture, this so-called renaissance still ignores the fact that courses are considered great because of their original design features, not their length.

But golf marketers perpetuate the "7,000-yard or bust" mentality. Americans have been duped into believing a new course is only worthwhile if it is a par 72, 7,000-yard behemoth.

The 7,000-yard plateau plagues golf the same way multipurpose sports fields bedeviled unsuspecting sports fans in the 1970s. Instead of being temples to professional athletics, stadiums in places like Pittsburgh, Cincinnati, San Diego and Philadelphia devolved into catch-all venues that could host a rock concert as easily as a no-hitter — and sucked the character out of the games played there.

Thankfully, baseball is enjoying a rebirth with its newest ballparks, while multipurpose stadiums are on their way out. Instead, quirkier, more intimate parks are in. Now virtually every major league team is looking to replace its current stadium because fans are flocking to these charming ballparks with distinct personalities.

For some reason, a genuine return to the

Banish the Blasted 7,000-Yard Norm

BY GEOFF SHACKELFORD



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THIS PLATEAU
IN PLACE,
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past evades golf. We have a greater understanding of the classic courses than ever, but there's still a myth that only courses that reach certain lengths deserve the sobriquet "championship quality." What hogwash.

The top five courses in America are the same in the three most popular Top 100 rankings. They are Pebble Beach, Cypress Point, Augusta National, Shinnecock Hills and Pine Valley. Incidentally, these courses have an average back-tee yardage of 6,768 yards.

It's true that the ball is going longer than ever. But a course can still reach championship levels by focusing on the thinking element of the game rather than yardage. Golf needs to follow baseball's lead and incorporate the irregularity and quirkiness of the old courses. The focus should be on a variety of holes with an emphasis on the return of at least two short, do-or-die par-4s per 18 holes.

C.B. Macdonald summed up the numbers obsession in 1928: "No real lover of golf with artistic understanding would undertake to measure the quality or fascination of a golf hole by a yardstick, any more than a critic of poetry would attempt to measure the supreme sentiment expressed in a poem by the same method. One can understand the meter, but one cannot measure the soul expressed. It is absolutely inconceivable."

C.B. had it right back then, and it still holds true today. A golf course should unfold like a good poem, revealing its beauty hole by hole instead of forcing itself to meet an imaginary yardage standard. If we keep this up, golf courses will gain in length, but the game will most certainly lose its soul.

Geoff Shackelford's next book is Alister MacKenzie's Cypress Point Club, to be published this fall. He can be reached at geoffshackelford@aol.com.

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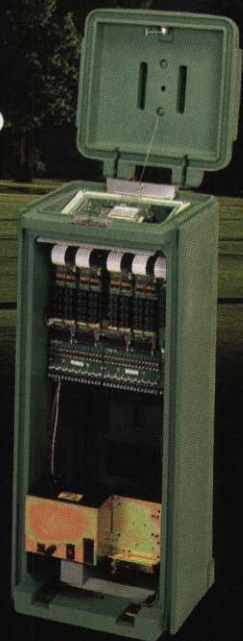
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Know Which Way the Wind Blows

Experts offer advice on how to choose a fee-based weather service

By Frank H. Andorka Jr., Associate Editor

You watch the evening news over dinner to check the weather for the next day. The weather geek predicts a 30 percent chance of rain throughout the day with high winds. You scan the Internet's free services such as The Weather Channel or AccuWeather, and they predict a 20 percent chance of rain in the morning. So who's giving you the right information, and what should you do to prepare your course for the coming day?

It's Maalox moments like these that make you happy you've paid for a weather service to provide you detailed information for your course's microclimate. Having professionals analyze the weather for you can help you finalize decisions about what to do to your course the next day. But as budgets increasingly constrain what superintendents can spend, they must decide what essential elements a service must provide.

Customized service

"Most superintendents could teach a Meteorology 101 class, so they don't need general information," says Sara Croke, president of Weather or Not (www.weatherornot.com), a Shawnee, Kan.-based weather service. "They need detailed information about the next few hours, not a five-day forecast from the National Weather Service."

But Croke says superintendents who de-

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pend solely on their own interpretation of maps could easily run into trouble.

"No one should be allowed to read weather radar until they can read a satellite image," Croke says. "If you misinterpret the data, you can damage your course."

Eric Johnson, former superintendent at Spyglass GC in Pebble Beach, Calif., says he purchased a satellite-based system that worked well — until the "storm that ate Spyglass" struck. In six hours on Feb. 2, 1998, Spyglass absorbed 4.5 inches of rain. The amount of rain surprised him, and Johnson believes his service should have alerted him about it before it hit.

"We knew there was going to be a storm, but we had no idea we were going to get that rain," Johnson says. "We got good general information, but when you're facing the kind of destructive storm that we faced that day, it would have been more helpful if we could have received detailed forecasts."

When storms hit in the future, Johnson says he'll find a service that can give him customized information. "If they can't help me during those situations, then they're no use to me," Johnson says of weather services.

One-on-one service

Croke says it's important for meteorologists to talk with superintendents whenever superintendents need to talk to them. If meteorologists can't work with a superintendent's schedule, the information may not arrive in time to help.

"Superintendents should expect one-on-

one conversations with a service meteorologist," Croke says. "After all, they are paying someone to help them. They should receive forecasts specific to their courses and should have someone at their service devoted to keeping those forecasts current."

Don Wilmes, turf industry manager of the Data Transmission Network (www.dtn.com), says his company's site is designed to allow superintendents to use only those sections they need, rather than force feeding them information they don't.

"We want our site to be as user-friendly as possible," he says. "We want superintendents to control what information they receive."

Don't be afraid to ask weather services for references and then check them, Croke says.

"Superintendents aren't shy about letting people know what they think," she adds. "If they don't feel like they're being well served by a service, they'll let you know."

More information, the better

Wilmes says services should offer more information than weather. DTN, supplied over a satellite-link system, also provides material-safety data sheets with its service, allowing superintendents to plan chemical applications more effectively. It also provides superintendents with a searchable chemical and pest database.

"Superintendents apply expensive chemicals to their courses, and if a service can provide information that will prevent the application of those chemicals at a time when they're

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Cost Containment

Sara Croke, president of Weather or Not, a Shawnee, Kan.-based weather service provider, knows most superintendents must watch costs in today's highly competitive golf market. So how does she expect a superintendent convince owners to pour money into a weather service? Point out that the information collected is useful to other members of the staff, not just superintendents.

"You're not the only one who can use this service," Croke says. "There are other members of a club's staff to whom this information will also be helpful."

Croke suggests superintendents dis-

cuss the possibility of sharing the costs with other departments to defray the overall price of the service. This serves the dual goal of getting superintendents the information they need without breaking their budgets.

"Don't forget that people like the pro and the banquet manager could also use this kind of information," Croke says. "How brilliant will the club look if it saves a bride from having her reception rained out because it's sharing detailed weather information? That kind of value-added service helps everyone."

Club professionals can maximize the number of rounds on the course if they

have accurate weather data. More rounds means more money, and a swelling bottom line is always a good way to convince owners to invest, Croke says.

If costs are spread over several departments, they are less likely to raise red flags for bookkeepers. But make sure that the weather service you choose can get everyone the information individually.

"Superintendents don't want to be responsible for getting the information to all the different departments," Croke says. "They want to make sure everyone is getting the proper information themselves so superintendents can do what they enjoy most — taking care of their courses."