

Superintendents
must manage
the agronomics
and politics
that come
with drought
restrictions

few times last summer, superintendent Stuart Sharples thought his golf course was cooked — literally.

"A couple of times I went home thinking the course had had it," says Sharples, superintendent of the 27-hole Blue Hill GC in Nanuet, N.Y. "A couple of the fairways were turning blue."

It was an intensely hot summer in Nanuet, about 20 miles north of New York. Rockland County, where Nanuet is located, instituted a Stage Three water restriction in the spring that lasted several months.

Sharples was under pressure to tend turf using 20 percent less water for almost the entire golf season. "We had to come up with a water conservation plan," he says.

It was more than that, though. Sharples had to come up with a turf survival plan, especially on fairways and tees where he wasn't allowed to water during the day.

Sharples wasn't the only superintendent whose golf course had to function under a water restriction last year. He had a lot of company nationwide. About half the country was affected by drought in 2002, and nearly 30 states experienced below-average rainfall, according to the National Oceanic and Atmospheric Administration. Jim Barrett, president of the American Society of Irrigation Consultants, says water regulation activity increased throughout the country in 2002 because of widespread drought conditions. Regulations increased at all levels, including federal, state and especially local, Barrett says.

When things got bad, they were really bad. In Denver, the city's parks department opted to close five municipal courses in January for two months because of Colorado's terrible drought. City leaders decided to bite the bullet and lose more than possibly \$500,000 in round revenue to preserve the courses whose ground is cracking and turf is dying.

The drought doesn't just hurt turf, either. Brian Vinchesi, an irrigation consultant in Pepperell, Mass., says the 2002 drought hindered the images of the irrigation and golf industries.

"Outdoor water users are under increased pressure," Vinchesi told attendees of the International Irrigation Show last October in New Orleans. "The drought certainly increased the awareness of how much water the irrigation

## **Dry Measures**

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industry uses. The drought highlighted irrigation as the bad guy in outdoor water use."

That means golf courses. But as Sharples proved at Blue Hill, the golf industry can do its part to abide by water restrictions, conserve water and keep courses in good condition during dry times.

Carol Silverstein, a member of Blue Hill GC's Advisory Committee, says Sharples managed to keep the public track in "pristine condition" despite the water restriction, which made his job almost impossible, she notes. The modest Sharples took the water restriction in stride, and says he did what he had to do to keep the course in good shape at 80 percent of its normal water use.

The county told Sharples and other area superintendents that they could only irrigate their courses from 9 p.m. to 6 a.m. Basically, the water restriction barred Sharples from syringing fairways, tees and greens — although Sharples and his crew were allowed to syringe greens once a day.

"Normally, and depending on how hot it is, we turn the sprinklers on one to three times a day for three to four minutes to water the greens," Sharples says.

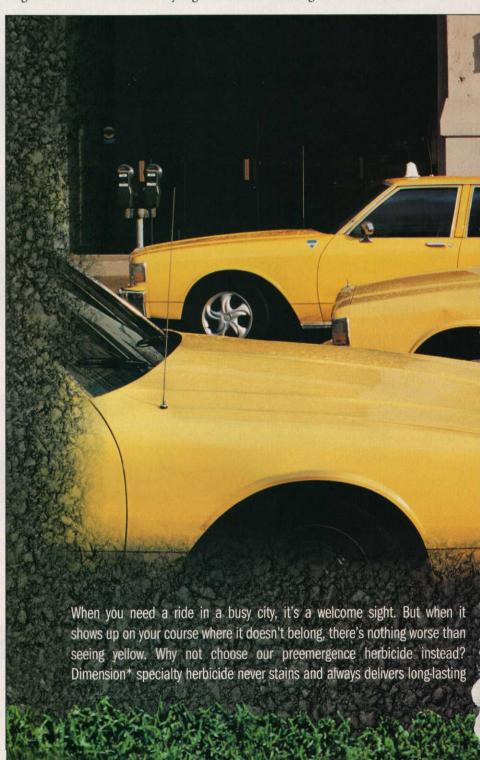
With full-fledged syringing no longer part of the irrigation plan, Sharples needed to do something to protect the turf during the day since he knew it would be weakened because of lack of water. He instituted two simple and effective rules of his own. First, he decided to raise the height of cut on fairways and tees from five-eighths of an inch to three-fourths of an inch. Second, he decided to restrict golf cars to cart paths only, except for handicapped golfers. Both rules made for less stress on the turf.

Some golfers grumbled about the golf car rule and play slowed a bit, Sharples says. But overall, most golfers understood why the rule was implemented.

To combat the drought and abide by the no-watering rule during the day, Sharples also made sure to water the course's drier areas more heavily at night. In addition, he turned some sprinkler heads off in the rough. Some of the adjustments were a bit of a pain in the neck, Sharples admits. For instance, Sharples and other crew members had become well-adjusted to the ease of syringing greens by using a hand-held radio to command the course's automated irrigation system. But with the restriction in place, a few workers had to drag a hose around the course to syringe.

"It was more labor-intensive," Sharples says. "But we had to adjust."

While water restrictions are no fun, sometimes superintendents learn a few lessons from them. While Sharples admits syringing is a vital component of his irrigation program, he learned that maybe he doesn't need to syringe the course as much as he thought. "The course came



through better than I thought it would," says Sharples, who says he expected some fairways to burn.

Sharples had a good plan and therefore dealt with the water restriction well. Barrett says many golf courses dealt well with drought and water restrictions last year because of good planning and innovative thinking. But for those superintendents who need a plan, Barrett advises them to start with the obvious —make sure the course's irrigation system is running efficiently and not leaking.

Barrett also says superintendents need to be more communicative to golfers about water restrictions and why courses are implementing certain plans to abide by them.



## What You Can Do to Better Manage Your Course's Irrigation System

- Understand the capacities and capabilities of the irrigation system.
- Identify the soil texture and soil infiltration rate for the purpose of estimating the water-holding capacity of the soil.
- Prepare the system for effective water management. Install a dedicated irrigation water meter for measuring both the irrigation water flow rate and the volume applied.
- If necessary, perform an irrigation audit to obtain data in order to create the irrigation schedule.

Source: American Society of Irrigation Consultants

"It's critical that those who play the courses know why certain maintenance procedures are being implemented," Barrett says. "Players are much more understanding if they know water restrictions prevent watering the rough. If conditions worsen, they can be told in advance that only landing areas will be watered in the fairways. Information definitely promotes understanding."

If droughts continue in certain areas, superintendents can bet outdoor irrigation will continue to be under scrutiny by government officials in those areas. Last year's drought caused municipalities and water purveyors to be much more focused on how much water was being used in their respective areas, Vinchesi says. "It forced more states to adopt restrictive water-use policies and ordinances," he adds.

Vinchesi says states are getting more serious about tracking water use and using alternative sources. "The good news is that better irrigation systems with new technologies provide better efficiencies to use less water," he says.

The good news for Blue Hill GC and other courses in the Northeast is that the drought may be over. In late February, Sharples was staring at about 20 inches of snow on his course. He never realized how happy he'd be to see so much of the white stuff.