


# When to Water



Superintendents must be cautious with their irrigation practices to avoid turf disease breakouts

By Larry Aylward, Editor in Chief

**T**hanks to modern irrigation, Joe Hubbard doesn't have to sleep on his desk anymore. Hubbard recalls the days when his desk sometimes doubled as his bed when he was the superintendent of Goose Creek Golf Club in Leesburg, Va., from 1988 through 1992. The course featured a manual irrigation system with 38-year-old galvanized pipe for the irrigation lines. So on those summer nights of heat and high humidity, Hubbard would sleep on his desk for a few hours, get up in the middle of the night and water the dew off the course to prevent it from causing any turf disease.

Hubbard, now the certified superintendent of Broken Sound Golf Course in Boca Raton, Fla., says his college professors taught him to irrigate in the morning to wash away the inoculum and mycelia on turf, which forms from dew.

"But the problem was . . . when you have manual irrigation like my course had, you couldn't wait to do it until the morning," Hubbard says. "I had to start doing it during the night because our tee times started at 5:30 a.m. and one sprinkler setting was usually 45 minutes to an hour."

While technology has made it easier for superintendents to control turf disease as it relates to irrigation, superintendents still face myriad challenges in this area. They must know when and when not to irrigate turf with regard to the amount of moisture present from rain, dew, fog and humidity to avoid any turf disease breakouts.

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David Davis, a Crestline, Calif.-based irrigation consultant and president of David D. Davis and Associates, stresses that monitoring frequency and depth of irrigation as well as moisture retention are the keys to ground-level pest control.

"And that feeds right back into the question of over-irrigating vs. irrigating to a proper level in order to cut down on [turf disease]," Davis adds.

John Gurke, certified golf course superintendent of Aurora (Ill.) Country Club, says he's extra careful about irrigation because of Aurora's location.

"[The course] is in a very enclosed area," he adds, noting the turf is susceptible to turf disease, especially brown patch and pythium.

Weather dictates when Gurke irrigates. If it's a hot, humid night — about 72 degrees with 90 percent humidity — Gurke won't water a drop in fear of inducing turf disease.

"I'll look at the forecast for the night and the next day and decide whether I'm going to be sprinkling or whether I'm just going to send seven guys out with hoses so they can syringe

the hot spots," Gurke says.

More than anything, Gurke keeps a constant watch on soil moisture. "All my assistant and I do all day is wear out a couple of soil probes," he says.

Davis says he recently attended a conference where ground temperature in regard to irrigation frequency was a major topic of discussion. Hence, Davis notes that monitoring of soil, especially its temperature and moisture content, has become a major criteria of turfgrass management. That's why superintendents see more soil monitoring equipment on the market, he says.

Hubbard says turf disease isn't a huge problem in south Florida, but it's not an issue that can be overlooked. Many Florida golf courses

have switched to ultradwarf greens the past few years, Hubbard notes, and varieties such as Tifeagle are more susceptible to fairy ring. So superintendents and their crews must be careful when irrigating greens with fairy ring because the disease makes turf anaerobic. If they keep watering the fairy ring-diseased turf to try to get it to take water, they'll saturate the turf around it, which could cause more turf disease.

Leaf spot is another disease threat in Florida, but one that can be predicted easily, Hubbard says. If it's cloudy for three days, humidity is about 70 percent and temperatures are in the 70s and low 80s, irrigation should be limited to prevent a leaf spot breakout and a preventative fungicide should be applied.

Speaking of making predictions, experience is the best tool when it comes to managing irrigation and pest control, Hubbard and Gurke say. A superintendent who has been at a course for 10 years knows its tendencies better than a superintendent who has been at a course for two years.

"Every course is different and every environment is different," says Hubbard, who has been a superintendent for 35 years, the past 14 at Broken Sound. "So learning things in the field is priceless."

It's about knowing your golf course, especially areas more susceptible to disease. "When the wind is blowing out of the southwest, I know which mounds will get too dry," Hubbard says. "And I know which mounds will collect water from sprinkler heads. So I know brown patch might form in an area because it's getting too much water."

Gurke, who has been a superintendent for 18 years, knows what Hubbard is talking about. He calls it a sixth sense. "Every day is different, and it's all based on the look of the course, the feel of the course and the feeling in my gut," Gurke says.

The feeling in Hubbard's head is to consistently maintain a dry golf course — if you can. "I like a dry golf course because I can cure disease easier then, and the golfers enjoy the course more," Hubbard concludes. ■

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**JOE HUBBARD,**

SUPERINTENDENT, BROKEN SOUND  
GOLF COURSE

