

BY MARGARET HEPP

## In limbo on the lakes

Two superintendents at Purgatory Golf Course suffer through scorching heat to keep on-course lakes under control

During the past year, golf course superintendent James Brown and his assistant Larry Wilk have been through hell at Purgatory Golf Course.

Opened in 2000 on 218 acres of land in Noblesville, Ind., the 18-hole facility has 16 total acres of water divided into five lakes. Last July, pond management jumped to the top of their priority list during a serious drought when one of the four major lakes on the course dried up. The trouble wasn't only the lack of water. As the lake depth plummeted, the algae population, thriving in the summer heat and shallow water, multiplied.

"The algae got to be about 8 inches thick," Brown says. "It wasn't pretty, and it smelled like a dead animal."

Fortunately, the lake was built on top of a pipe system. A pump was installed, and Brown

and Wilk were able to pump fresh water into the lake at several hundred gallons a minute.

"Without that fresh water supply, it was just a festering wound," Brown says. "But once we put another well in, the lake took care of itself."

This past spring, though, the lake couldn't manage itself. Brown and his crew usually take the month of January off, and when they returned to the course this February, they found one of their lakes entirely overgrown with aquatic weeds, mostly free-floating duckweed and watermilfoil.

"It was just a mess," Brown says. "We were unaware you could even get growth in the winter, but I guess it never stops."

Brown and Wilk consulted with local SePro representatives for crisis management. The course opens around St. Patrick's Day every



This winter, James Brown, left, and his assistant Larry Wilk, dealt with a lake overgrown with aquatic weeds, mostly free-floating duckweed and watermilfoil. Photo: Purgatory Golf Course



year, so with no way of knowing how long it would take to get the weeds under control, there was no time to lose. They purchased aquatic herbicide K-Tea from Advanced Turf Solutions and sprayed it right away.

"We put 5 gallons of K-Tea down, and it knocked the plants down immediately," Brown says. "Two days later, everything was gone. It was impressive."

Luckily for Brown and his crew, this past spring was a wet one, which kept plant growth at bay – but Brown and Wilk feel confident K-Tea will handle any aquatic plant growth. To apply the K-Tea, a two-person crew – one sprayer, one driver – uses a 13-gallon sprayer, which shoots about 8 feet, to target growth spots.

"I'd like to get a boat to be more deliberate," he says. "When you just go around the edges, you don't quite get everything."

Nonetheless, he says, his method of applying the herbicide is more effective than his prior technique.

"We used to get straight copper sulfate in bags and drive around on a Jet Ski to spread it in the water," he says. "There are all kinds of things

on the market for lakes, but the K-Tea works best for me."

The crew applies K-Tea as needed, and last summer's drought-afflicted lake – Brown calls it his problem child – is the most frequent recipient, with 2 gallons of herbicide per treatment.

Brown hopes to be able to devote more time and money to his pond management regimen. Purgatory's lakes cost about as much as one fairway to maintain.

"I like the idea of biological chemicals to control water," he says. "It's just a little pricey. I thought it was doable with our budget, but we spent about \$20,000 on the pump last summer."

So, for now, the crew applies Pond Champs black onyx dye every few weeks. Brown prefers the natural look of black water to bright blue, he says – plus, it's an effective way to control plant growth.

"If you can see a golf ball in the water, there's not enough dye," he says.

Aside from regular dye and as-needed herbicide applications, the crew's only other water treatment is an annual early spring application

of Sonar (fluridone) to the main and irrigation lakes. The crew applies slightly less of the systemic herbicide to the irrigation pond because of its "Caution" label, which is the lowest toxicity category from the U.S. Environmental Protection Agency. It's safe to irrigate with the herbicide in the water, but Brown and Wilk prefer not to.

Thanks to the wet weather, Brown anticipates they'll finish the season without any significant water management issues. The drought last summer was his biggest challenge in his 10 years at Purgatory.

"It was stressful for a lot of people in the area," he says. "Water was in short supply. I wasn't watering the driving range at all, and I had to let the greens on the driving range go."

This year, rounds are fewer than average, not just at Purgatory but throughout the Midwest. It's hard to catch up on what you lose in the spring, Brown says, but he strives to maintain the entire course under budget. With pond management, that means he has to forego some of the methods and applications he'd like to try.

"We're a high-end course with a relatively small budget," he says. "But there's lots of ways to skin the cat." **GCI**

Striving to maintain an entire course under budget, superintendents sometimes have to forego certain pond management applications, such as an herbicide or dye.

