

by Katie Tuttle

# It's not easy being GREEN

So your pond is overrun with algae. Don't fret. Here are three diverse treatments to bring your water back into shape.

**W**hen people think of golf courses, the first thing that probably comes to mind is the idea of lush, green, well-manicured greens. However, ponds, reservoirs and hazards on your course are just as important to keep looking good and healthy.

If you are looking for a product to help keep algae off your ponds and water hazards, Colleen Clifford, marketing manager at Aquatrols, suggests using their product Radiance, which is different from most algaecides.

"You have to spray [other products] across the surface," she says. "As it falls through the water column, it kills the algae on the way down. And then it [lands]

on the bottom of the pond, or the water area, and sits there. After years of treating the water area, you end up getting copper landing and building up on the bottom, which really you don't want there."

Radiance, however, is different. "Instead of having to spray it across the top, you swish it up in a bucket of water and chuck it out into the water on top of the surface, and it will automatically disperse itself. It disperses vertically and horizontally, so it's everywhere in the water column," Clifford says. "As the copper attaches to the algae and kills it, all the free copper that's left then spreads out further until all of it is used up. It works a little better

from a long term maintenance standpoint because you don't have that recurring bloom."

Although Clifford suggests using Radiance over other copper products when controlling algae long term, she doesn't suggest it for a large infestation of algae. Instead, she recommends a standard-based copper product.

"It works better maintaining against low levels and continuous, it's not a knock-down product," she says.

No matter what you choose to do to help maintain your water, it's best to always start as early in the season as possible. This is because there will be less algae to kill, so you're more likely to kill a majority of it. Any algae not

killed will rebloom and continue the problem.

Another reason to kill it early in the season is that the lower the algae count is at the initial kill, the less likely it is to damage the pond life around it. As the algae dies and decays, it causes a crash in the oxygen level, and a large enough crash could kill the fish in the pond.

If you're in the process of creating or renovating the ponds on your course, there are ways to proactively prevent algae from taking over the water. Kyle Kanny, superintendent at River Ridge Golf Course in Oxnard, Calif., says a lot of their algae control is managed by the pond structure.

"Our first course has eight acres of lakes but they are only six feet deep at the deepest point," says Kanny. "This allows the water to heat up and water temperature is a key component of algae development." Because of this, algae was able to grow and spread across the pond.

On the second course, the lakes were built at a minimum of 15 feet, which allows the temperatures to stay cooler. However, the water can't be allowed to just stay still.



A golf course pond before and after treatment with Aqua-T



Before treatment, this lake at River Ridge Golf Course was wall-to-wall algae.

“It’s important to mix the water so there isn’t a layering of temps,” says Kanny. “This can be accomplished with fountains and aeration bubblers.”

Another tip Kanny has is to avoid as much fertilizer runoff as possible.

“Avoiding fertilizer runoff into lakes is critical, as dissolved nutrients that stimulate aquatic plant growth can result in the depletion of dissolved oxygen, or eutrophication,” he says. A downside to the ponds on the first course, on top of being shallow, was that the course was located near an operating landfill. Because of this, they were inundated with seagulls.

“[They] provided a layer of guano that provided the nutrients necessary to grow an algae layer that, when we killed it with chemicals would sink and add to that ‘organic’ layer,” Kanny says. It became a vicious cycle.

When this happened, Kanny realized they had to remove the organic layer at the bottom of the lake, which they did by having US AquaVac vacuum the lake bed and collect the sediment into a geotextile bag.

“This process reestablished our depth and removed the nutrient source.”

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– Kyle Kanny, River Ridge Golf Course

US AquaVac doesn’t just specialize in algae. They advertise their services to provide “muck, sludge, silt, and sediment removal services to re-establish your pond’s bottom and greatly reduce the amount of bacteria, toxic gases, ammonias, bad odors, and algae that accumulate over time.”

If you are looking for an eco-friendly way to keep your pond maintained, you might want to try Aqua-T, a product by Ecologel Solutions. Unlike most algacides, Aqua-T is completely biological. According to Jim Spindler, agronomist for Ecologel Solutions, the product is made up of thousands of naturally occurring bacteria, which are already found in ponds. When put in the water, the bacteria eat the nutrients that cause algae bloom.

“It takes the organic material that’s in the water solution and starts digesting it,” says Spindler.

If you deny the algae the nutrients it needs, you will prevent it

from having the ability to bloom.

“By denying a food source, you not only will kill off existing blooms, you also help prevent future blooms from occurring,” says Sarah Spatola, marketing coordinator for Ecologel. “[However] you’re not going to see a knock out right away. It’s going to take some time.”

Since Aqua-T is not meant to be a curative, it can be put down at any time, although spring (when the water temperatures start to rise) is best. It’s also important for people to note that it will not give immediate results. Instead it should be used as more of a preventative and a program product.

“Some people will use it in conjunction with another algacide,” says Spindler. “They kill algae and then start an Aqua-T program to start taking away the nutrients that the algae would normally use. It’s a program where you’ve got to regularly apply the bacteria. We keep

the population numbers of the bacteria up so we recommend to go out with an initial dose that gets the numbers high, and then every two weeks add some more bacteria to keep the numbers high and continually working on those nutrients in that water.”

Spindler says others have used a dye to keep sunlight from reaching the algae.

“The algae is a simple plant that needs sunlight as well as nutrients, so using a dye with Aqua-T will also help. If it doesn’t have sunlight and it doesn’t have food, it’s not going to go very far.” **GCI**

*Katie Tuttle is GCI’s assistant editor.*

For some interesting insight into how superintendents dealt with pond algae nearly 75 years ago, check out Blast From The Past in the iPad or iPhone app version of this story.