Pond and lake management offers superintendents myriad environmental challenges

By Peter Blais

A s concerns about water quality continue to grow, aeriation equipment is becoming increasingly important as a way to keep golf course ponds and lakes clean. "It amazes me developers will spend a half-million dollars on an irrigation system and then run crummy water through it," said Steve Brown, president of Airlake Aeriation Inc. "We're seeing more and more algae growth on tees and greens. It's nothing but golf course ponds and lakes clean. Aeration gear takes on an increasingly important role in pond management equipment. The Lakeville, Minn., firm's most recent innovation is a low-energy-use subsurface system. The 1-horsepower machine moves 4,000 gallons of water a minute. It can be oriented vertically in more than eight feet of water or horizontally in shallower locations. The unit is being tested in Florida, California and Minnesota and should be available later this year. "It could be especially useful at Northern courses," Brown said. "Most aerators have to be removed in the fall and reinstalled in the spring. This one can remain in the water 12 months a year."

Aquascape, a Toro partner, also markets various water-quality management equipment, including surface aspirating aerators, fountains, submersible aerators, diffused air systems and air stripping systems. The Minneapolis company has significantly modified the nozzle configuration and jetted the elbow-shaped outflow pipe in favor of a more linear one on its submersible aerator. The changes vastly improved the unit's mixing capabilities, according to Aquascape Division Manager Guy Hamilton.

AquaLab, a 2-year-old venture between Toro and Aquacare Inc., has also improved its fountains. All parts are now made of stainless steel rather than aluminum, Hamilton said. Other than the motor, the fountain has just one additional moving part. The unit requires no maintenance and first became available in 1993, Hamilton added.

Toro and former partner Aeration Industries dissolved their three-year partnership last August, according to Aeration Public Relations/Marketing Manager Peg Knapp. Aeration Industries, among the world's largest manufacturers of aeration equipment, has re-entered the golf market with its AIRE-02 subsurface aerator. The Minneapolis firm replaced its unit's stainless steel with a composite material that has reduced the price by 40 to 50 percent, Knapp said.

The new material stands up to poor water quality just as well as stainless steel and a redesigned motor makes the unit maintenance-free, she added. Aeration is re-establishing a distributor system for the AIRE-02 line and is also making the fully assembled product available directly from the factory.

Otterbine Barebo Inc. now uses stainless steel and thermoplastic on all its Triton subsurface aerators and 90 percent of its total water-quality management product line, according to Marketing Manager Carla Barebo. "They stand up much better to the harsh water conditions you find today, especially effluent and high-salt-content water," Barebo said.

Otterbine recently began offering ground-fault interruption as a standard feature. This safety device automatically shuts off the unit when a minimal amount of electricity leaks into the water. Rain Jet Fountains of Laguna Niguel, Calif., followed up last year's introduction of a 15-hp fountain aerator with the February unveiling of a 1/2-hp model designed for shallow ponds. The FA Series operates in as little as 18 inches of water. While primarily decorative, it also discourages thermal stratification (hot surface temperatures and cold bottom temperatures), according to senior designer Shawn Robertson.

The dye is certainly not permanently cast, as manufacturers add products

Pond and lake dye manufacturers are coming up with improvements and new uses for their products at golf courses. Becker-Underwood Inc. last summer introduced a new formulation of its Lake Colorant WSP. The improved product colors a pond from the top down rather than the bottom up. The result is a faster and more-even coloring effect, according to company President Roger Underwood. "You can color a pond in a matter of hours rather than the day or two it usually takes," Underwood said.

The Ames, Iowa-based firm is conducting a contest for superintendents who can wield a camera. Cash prizes will be awarded for the best before-and-after pictures of ponds using the company's dyes. First, second- and third-place prizes will pay $1,000, $500 and $250, respectively.

Applied Biochemist Inc. recently began marketing a 10-percent solution of AquaShade-OA, the product is especially attractive for small ponds and even large aquariums, according to Sales and Marketing Vice President Jim Schmidt.

Originally formulated in the 1960s and improved upon in the 1970s, AquaShade has an EPA registration number allowing it to be marketed as an algaecide. Most lake dyes simply color the water and make no claims regarding algae growth. "The price is still comparable to what you would pay for a regular dye," Schmidt said.

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