



## Crystal Clear Choices: Keeping Water Features Algae-Free

by Kathleen Conard, Aquatrols, Cherry Hill, NJ

**W**ater features are both loved and hated by golfers and superintendents. If properly maintained, they can be a beautiful addition to the course as well as necessary for irrigation. But if not managed properly can become a nightmare. There are several products available to help superintendents maintain attractive, clear and algae-free lakes, fountains and ponds. How difficult are these products to use, are they really effective, and what kind of impact do they have on the environment?

### Lake Dyes

Dyes are available in powder or liquid. The dark colors of these compounds filter out the sun's ultraviolet light, interrupting the photosynthesis of most aquatic plant life.

Dyes can be a useful tool to manage bottom-rooted weeds. When using dye products for algae control, keep in mind that this strategy is better at reducing algae at lower depths of the pond; algae can still thrive at or near the surface because light levels are still high in this zone. Some superintendents stray away from dyes, as they can be unnatural in color.

### Biologicals

Biologicals are a relatively new pond management tool. With this treatment, bacteria are added to the water feature to compete with the algae for nutrients,

effectively starving the algae out. It is important to make sure the bacteria strains are viable before introduction to the water, and the bacteria used must be specific to the type of algae causing the problem. In addition, biologicals should only be considered in water features with a neutral pH, a pH higher than 9 will kill the bacteria. Temperature is also important, as bacteria slows in cooler waters.

### Copper-Based Algaecides

Copper-based products have been used throughout history and are still used today for aquatic algae control. As copper ions fall through a body of water the ions kill any algae they come in contact with. The two common compounds used are copper sulfates and chelated coppers; while fairly inexpensive and readily available, these products tend to be labor intensive to apply and at times not very effective. Because the copper ions fall out of suspension relatively quickly, frequent applications may be necessary to combat algae growth. While chelated copper products last approximately 10% longer than sulfates, their effectiveness is still relatively short-lived. An additional concern with using these products is the build-up of copper sediments on the lake or pond bed, which could adversely affect the

balance of the aquatic environment.

### New Copper-Based Technology

A new generation of copper-based products is now available. This new technology eliminates many of the traditional problems associated with using copper for algae treatment or prevention. It holds copper in the ionic state, which is the most biologically active state. The charged ions repel one another and effectively hold the copper in suspension indefinitely until algae is encountered. Because the ions push as far away as possible from one another naturally, the product self-disperses evenly throughout lakes or ponds from a single application point. With this new generation of copper-based products, you can achieve mathematically predictable copper levels that allow for precise control of algae WITHOUT over treatment.

No matter what product you choose to keep your ponds, lakes and fountains algae-free and crystal clear, it is extremely important to use products that are approved by both local and national regulatory agencies. If fish are present, make sure you check the labels to make sure the product is safe to use in fish bearing ponds. Many products are not suitable for all fish species, check with the manufacturer if rates for your fish type are not specified. /

## Boardroom Briefs - April 2002

By Bob Costa, CGCS

- Education Co-Chair Vince Keats reported the 2003 GCSAA regional seminars have been selected. Turfgrass Management I is scheduled for January 7th, followed by Managing Localized Dry Spots and Managing Root Zones on January 8th.

- A letter from past-president Mike Clark, CGCS, which contained numerous suggestions to the Board was reviewed and many items will receive evaluation and consideration.

- Bob Costa, CGCS announced the member survey, distributed in the fall, resulted in an overwhelming response of 250 members. Costa stated that he is close to compiling all the data and hopes to publish the information in the April newsletter.

- Post annual meeting comments produced a

desire to encourage the Affiliate Board candidates declare themselves early enough to allow for a proxy vote. The Board hopes to increase the participation level in the affiliate voting.

- President Jeff Shafer presented a proposal he received from Bryant Fuel, which offers a .02-cent payback to the GCSANC per dollar of product purchased by GCSANC members. The ensuing discussion resulted in a recommendation that the company be allowed to purchase advertising in the newsletter to communicate their offer, however there would be no official Board endorsement of their products or services. A final decision will be made at a future Board meeting

- Until a final budget is formulated, the Board has decided to suspend their support

of the Palo Alto's annual Celebration of Jr. Golf event.

- A proposal to fund a research project spearheaded by the NCGA is being evaluated by research chairman Pat Finlen, CGCS. The project will examine the use of Trimit to suppress and control of Poa annua on bentgrass greens.

- A request by P.A.C.E. to purchase GCSANC mailing labels for an upcoming seminar was denied by the Board. The approved recommendation was to suggest they purchase an insert for distribution in the newsletter.

- After discussion, a request to supply partial funding for a NCGA summer intern was denied by the Board. The consensus was the financial contribution would not provide significant benefit to the membership.