

Bermudagrass has tough time recovering from blue-green algae

*Prevention with cultural practices
and fungicides is a lot easier than
elimination and reclamation*

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Blue-green algae can be a problem on putting greens in Florida all year when excess water, either in the form of irrigation or rainfall, is prevalent.

These algae seem to readily occupy any soil area that is not covered by bermudagrass. Once the blue-green algae become established, the area can become crusty, which prevents the bermudagrass from growing back into that soil area. It is also possible that toxins produced by these algae may prevent bermudagrass recovery.

Many golf course superintendents use dilute sodium hypochlorite (e.g., Clorox) and feel they obtain effective control.

However, to my knowledge, this is not a legal use of the product since sodium hypochlorite is not registered for use on turfgrass and, as such, cannot be recommended by the University of Florida for use as a pesticide.

Mancozeb and maneb products (EBDC fungicides) are currently labeled for algae control. When EBDC fungicides were under review by EPA for re-registration, there was the possibility that these fungicides would not be re-registered. It would also be useful to be able to rotate between fungicide classes to prevent fungicide resistance from developing.

Therefore, studies were begun to determine if other fungicides would be effective for algae control. The turfgrass area used for the experiments were Tifdwarf bermudagrass located on the FGCSA research putting green.

Fungicides such as chlorothalonil (Daconil 2787) and anilazine (Dyrene) are currently or have been used in paints for control of algae. Thus they were considered as the most likely candidates for algae control on turfgrass, especially since they already have turfgrass labels.

However, anilazine was not included in the study since it will no longer be manufactured and, as such eventually will not be available for use.

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However, I would hope that superintendents would initiate cultural and chemical control methods before the crust develops, as it is extremely difficult to eliminate algae and regrow grass once a crust has developed.

The fungicides were applied preventively. In other words, they were applied as soon as the environmental conditions were conducive for disease development.

For research purposes, this meant that we irrigated heavily twice a day in addition to any rainfall received.

Similar results were observed in 1991 and 1992. Both mancozeb (Dithane DF) and chlorothalonil (Daconil 2787) fungicides, when applied at labeled rates and intervals, were effective in control-

ling algae development.

A new product on the market that has been effective for algae control in studies conducted in Texas is quaternary ammonium salts (Consan Triple Action 20 and Algaen-X).

One note of caution with these products: They should not be mixed with iron-based products or with dye indicators.

Theses will be included in the algae studies this summer here in Florida as

well as studies on timing intervals of fungicide applications.

We also plan to look at curative control of blue-green algae. In other words, what to do after the crust has developed.

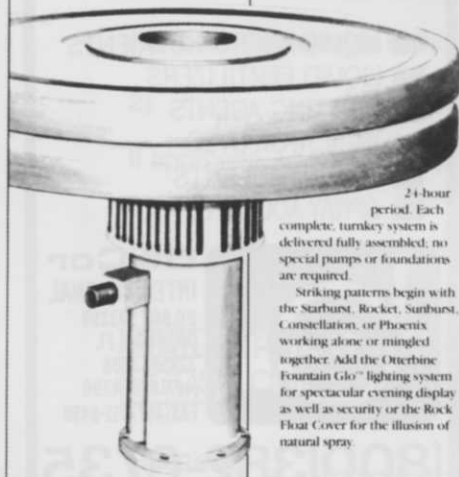
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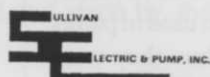
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