Tips

Pond Maintenance

Protecting the "Water" in Water Features

Part of the commitment you make when installing a water feature is maintenance. In many respects, the smaller a water feature, the more maintenance it requires. In today's environmentally sensitive atmosphere, you can forget about relying on chemicals and an occasional cleaning to do the job for you.

Filtration and aeration are important, particularly with smaller features. You want a minimum depth of 2 feet with constant circulation and filtration. Waterfalls or circulation pumps should force water through a properly sized sand-media filter, which should include two-thirds sand and one-third activated charcoal. The filter will remove organic contaminants and keep the water clean. Waterfalls can increase oxygen as well. If you don't have a waterfall, install an aerator to work with the circulation system.

A gravel bottom in your water feature can act as a bio-filter, an alternative to a man-made filter. The gravel filters the water as it circulates. Beneficial bacteria establish in the gravel and keep the water clean and fresh by degrading contaminants. If you decide to use a gravel filter, cover at least two-thirds of the bottom with gravel over perforated drain lines that return the water to the pump. Use river rock or granite and avoid limestone, which can have an adverse effect on the water's pH.

Water pH can be a problem, especially for some of the beneficial bacteria. Microbes prefer a slightly acidic 6.5 pH. (Water with a pH of 7 is considered neutral.) Water may also suffer from a salinity problem, particularly in areas where effluent water is used. Test the water source before treatment to make sure you're moving its composition in the right direction. Alkaline water can be adjusted with small quantities of acid, while salinity can be adjusted with gypsum because the calcium replaces the sodium in the water.

MIKE KLEMME

Dyes provide alternative

Dyes improve the appearance of shallow water features and slow establishment of aquatic weeds. They don't hurt surface plants such as water lilies.

Do not paint the bottom of water features a dark color that will absorb heat. You must keep water cool and avoid rough concrete surfaces in favor of smooth surfaces for the fish.

If you stock your water with fish, provide access for observers to watch the fish. Visible enjoyment should be balanced with audible input, so include waterfalls and fountains.

Like larger features, the safest bet is a natural balance among fish, beneficial microbes and nutrients. In the case of small water features, this weighs heavily on filtration and aeration. But an occasional clarifier or dye might spruce up your water feature. Depth and shade for at least part of the pond is helpful.

Water features provide enjoyment for golfers and environmentalists alike, and they are now available to a greater number of courses. Keeping them in proper working order will assure your success with them. ■

Editor's note: The author of this article, Patrick Simmsgeiger, owns Diversified Waterscapes of Laguna Niguel, Calif.

Test Before Treatment

Few superintendents test water before they treat a pond's algae problem, but water tests provide several advantages, including:

- establishing a baseline against which to measure improvement and demonstrate progress;
- indicating the severity of the nutrient loading;
- providing an accurate tool to determine appropriate use rates and other recommendations, which will provide faster results;
- identifying potential situations where biological controls won't work well; and
- adding a tool for aiding in building accurate budgets.

Using herbicides or algaecides to solve a problem is a Band-Aid approach because they often don't attack the core problem. If you test your water first, you can determine whether biological aids can solve your problem.

For example, with an algae problem, there is a high level of nutrients in the sludge zone or the water column. Although algaecides can kill the algae, the algae release more nutrients as they decay, causing the problem to start again.

Biological aids offer a long-term solution, which brings ponds to a more natural state. The best approach to pond rehabilitation integrates biological products and algaecides.

Remember, the problem didn't happen overnight. The solution won't happen overnight either.

Editor's note: The author of this article, Marlena Cannon, represents Northbrook, Ill.–based Precision Laboratories, a manufacturer of pond management products.