# **Cleaner ponds now** advice from the experts



PORTSTURF asked several nationally known vendors to share their advice on how you can make your ponds cleaner. Respondents include: Terry

Loucks, chief operating officer at Anderson BioSystems LLC; Bud Laidlaw, Western regional manager, and Steve Blackshire, Southeast regional manager, from Otterbine Barebo, Inc.

#### Say I'm a turf manager taking over responsibility for a dirty pond; what can I do immediately to begin cleaning it up?

Loucks: That is a complex question, but I will try to make the answer short and concise. The first issue is aquatic management is no different than turf management in that it took time to get this problem and it will take time to correct it. The reason ponds get hard to manage is due to the nutrient loading from fertilizer runoff.

The correct solution can be to approach the problem in two potential ways. The first is to not address the root problem and use a chemical like alum that will clear the pond but will not address aquatic weeds. You then can kill the aquatic weeds with aquatic herbicide, but this is short term; the problem will be back within a month or so. The other solution is to use an all-natural microbial product that will clarify the pond as well as control the nutrient loading. Microbial products take time to correct the problem; the amount of time is dependent on the severity of the problem.

Laidlaw: Poor conditions are symptoms of a problem that did not happen overnight, and understanding the cause of the symptoms is important and should guide you as you go forward. Certainly chemicals can be used to kill existing aquatic growth, but it's important to know that aquatic plants and algae thrive in ponds and lakes rich in nutrients, and when you kill the targeted plant life it goes to the bottom and becomes a nutrient source



for future aquatic growth.

Manual or mechanical removal of as much of the plant life as possible from the pond would be preferable, although budget constraints may limit this option, and chemical applications may be your only alternative. Lake dye may provide some immediate aesthetic relief, in addition to helping block the sun's rays from reaching the bottom of the pond. But once this is done, developing a comprehensive plan to minimize future nutrient availability in your pond by way of aeration, nutrient barriers, or microbial enhancement can all help minimize future plant growth.

Blackshire: In a dirty pond situation, assuming "dirty" to mean silty or turbid water, I would immediately "color" the water with an environmentally approved dye. The dye will mask the turbidity or cloudiness almost immediately as well as give a fresh look to the pond.

#### Maintenance budgets are tight. What's your recommendation for achieving a cleaner pond economically?

Laidlaw: The best way is to understand the requirements for a healthy pond ecosystem, and to begin with a well planned pond design, making sure that the depth, shape, and configuration of the pond is conducive to minimum maintenance and expense. Where budgets allow, hiring a good water feature design company can make all the difference in saving you money in the long run.

Ponds should be deep enough to keep the sun's rays from reaching the bottom of the pond. A minimum of twelve to fifteen feet is most desirable. This will also allow you the option of using a diffused air system for aeration, which is the least expensive type. Small coves and protrusions of land out into the pond can limit natural circulation and provide water management challenges. A littoral shelf can help limit the amount of nutrients that make their way into the main body of your pond. And it's



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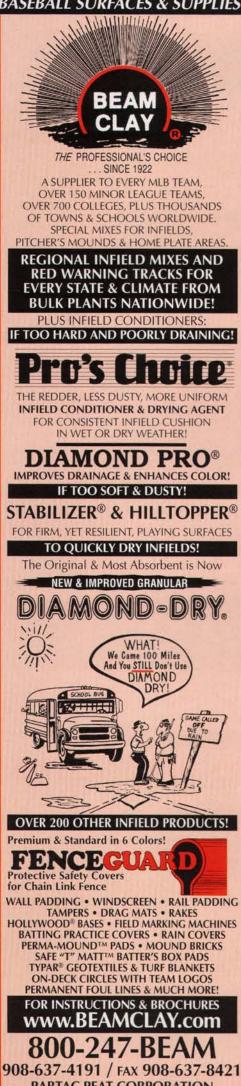
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#### around the grounds

important during fertilization to try to keep fertilizers from reaching your pond. Run-off is one of the main sources of nutrients in a pond. Minimizing this possibility where you can could also help reduce pond maintenance costs. In a man-made pond, natural processes need to be supplemented, and aeration is key to providing an oxygen rich environment, which will allow the aerobic bacteria to compete effectively for the nutrients in the pond.

Loucks: The most economical approach is to address the issue before the problem appears. Start first thing in the spring using a natural microbial product and the cost is reasonable. If you wait until a severe problem develops then the first-year cost will be much higher.

Blackshire: Economical pond management is a commitment to a daily routine and awareness of what's happening with the pond. Too many times the pond is left with no regard until it becomes an eyesore instead of an asset to the property. Once the pond loses it's "eco-balance" or appeal it may be too late for a "tight budget" to turn it around. An awareness of what "feeds" the pond, like culvert drains, sewers and even runoff from surrounding areas all play a major role in your ponds health. That's why maintaining buffer zones is a must. A fertilization buffer zone say 30 feet or more from the pond's edge will help keep extra nutrients from entering the pond. Keeping mowing and weed eating to a minimum around the pond will help eliminate grass clippings, another source of nutrients, from entering

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the pond's ecosystem. Keeping the water shaded or colored as a "sun block" will help keep the water temperature down as well as keep the sun light off the bottom minimizing any bottom rooted weeds. And of course some type of aeration system to help balance the pond's water chemistry is a must. A Lease-Purchase is a way when there is a tight budget to obtain the necessary equipment and service to maintain your pond. The cost in a lease becomes operational instead of a capital expense.

#### How much time and manpower should a turf manager budget for successfully maintaining clean ponds?

Loucks: This is dependent on the severity of the problem. In most cases during the warm weather months 6 hours per week should be scheduled.

Blackshire: Time and manpower to maintain a clean pond is minimal when the practices become routine as it is for the turf care. Pretty much running an aerator around the clock will provide much of what the pond needs to help itself maintain an ecological balance. Keeping the water shaded and colored is another way to support the pond and help keep the water temperature down. Maybe a monthly practice of minimal chemical applications to help address some of the algae and weed issues that may happen during the hotter times of the year. Minimizing runoff and nutrient loading in the pond will also help in maintaining a clean and healthy pond. ST



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