

electrolytes and helps fish replace their protective slime coating, as well as reducing fish stress levels caused by poor water quality conditions.

- **Aquascape's BioBalls™** – Supercharge your filter with BioBalls™. These provide maximum surface area for the ever-important beneficial microbes to develop. Replace your old lava rock with these and your fish will notice a difference.
- **Aquascape's AquaMats®** – Supercharge your entire pond's filtration system by adding these to your pond. These grass-like mats are precision engineered to improve water quality and fish health as well as providing a natural habitat for your fish. Used in reefs and wetlands around the world.
- **Aquascape's Pond Aerators** – Increase the amount of dissolved oxygen in your pond by adding Pond Aerators. The end result is healthier fish and plants.
- **Aquascape's UltraKlean™ Filters** – These filters are designed to improve on inadequate filtration in your pond by increasing surface area for beneficial bacteria to colonize and help maintain healthier water for your fish.
- **Aquascape's MicroFalls® BioFilter** – Does the same as the UltraKlean™ filters, but to a much larger degree. There is more surface area available, especially when supercharged with Aquascape BioBalls™. Also provides an easy way to build a beautiful, beneficial, waterfall in your pond.
- **Aquascape's EcoRx™ Pond Salt** – Designed to improve fish health, especially after being exposed to stress caused by poor water quality. It also improves your fish's gill efficiency, allowing for improved oxygen intake. Do not exceed 1 cup for every 100 gallons of pond water ... while fish may love it, certain plants may not.



Water Quality

Water Treatment Products Available:

- MicroFalls®
- UltraKlean™
- Seasonal Maintenance Kit
- Mini AquaMat®
- BioBalls™
- AquaClearer™ Extreme
- Pond Aerator
- EcoStarter™
- Ammonia Test Strips
- EcoSure™
- EcoLizer™
- Pond Thermometer

Additional Resources:

- The EcoSystem Pond book
- The Hobbyist's Guide to Pond Building book
- Aquascape Lifestyles magazine
- www.aquascapeinc.com
- www.aquascapelifestyles.com
- www.pondlifestyles.com



Educational material on improving the water quality in your pond.



A Balanced Ecosystem

If you're reading this brochure, you may be having some concerns about the quality of the water in your pond... the home to your many wonderful fish friends. Your water may be perfectly clear, but your fish may not be acting like you're used to seeing. They may seem lethargic and have stopped eating, or they may be pale in color, or swimming near the surface gasping for air, or their gills are turning brown, or they're rubbing up against rocks near the bottom of the pond. There's no need to panic but all of the above mentioned situations are probably occurring due to poor water quality. This may mean that your pH exceeds the recommended range of 6.5 – 9. It may mean that your ammonia levels exceed the recommended level of 0.5 ppm. It may mean that your nitrite levels exceed the recommended level of 0.25 ppm. It may mean that your oxygen levels are low. But, before you make any rash decisions, ask yourself the questions contained in this brochure.

Key Questions

- **How many fish should be in my pond?** If you have more than 10" of fish for every 100 gallons of water, you may have too many fish and should consider finding some of them a new home or building a second home for some of them.
- **How much should I feed my fish?** No more than once per day is recommended, and no more than they can eat in 2-3 minutes... then remove all excess, leftover food.
- **How many plants should I have?** At season's peak, you should have no more than 40%-60% of the surface area of your pond either covered or shaded

by plants. Too many plants can cause oxygen deficiencies at night due to the photosynthetic process, where the plants take in oxygen and give off carbon dioxide. Refer to our plant care product offering for more information on what plants are best and where to plant them. Also, check out the book *"The Hobbyist's Guide to Aquatic Plants."*

- **How do I know if my pump is the correct size for my pond?** You should be turning over, or circulating, the entire pond's volume a minimum of once every hour. Make sure your pump's flow isn't restricted by debris or trying to pump water higher than it was intended. Every pump has its flow limitations. See the side of the pump box for more details.
- **What does it mean if there is a lot of decaying debris on the bottom of my pond?** Decaying debris, combined with fish waste and leftover fish food, can cause ammonia levels to spike in your pond. Clean out your pond and add beneficial microbes such as Aquascape's AquaClearer™ Extreme Dry or Liquid to help keep it that way.
- **What type of filtration should I have?** Your filter has to match the size of your pond. Remember, most manufacturers rate their filters based on ideal circumstances, and if you exceed those, your filter will become less effective. Always up-size your filter so that it can filter more than the capacity of your pond.
- **How often should I clean my filter?** Some filters, like Aquascape's BIOFALLS® filter need to be cleaned no more than once per year. Other filters, usually external pressure filters like Aquascape's UltraKlean™ filters, need to be cleaned more often, but take care not to over-clean and wash away the beneficial bacteria the filter is designed to accumulate.
- **What should my pond's water temperature be?** Water exceeding 75° F has a more difficult time retaining

acceptable levels of dissolved oxygen. This is why it's important to have your pond shaded by aquatic plants, which should provide shade cover to 40%-60% of the surface area of your pond. It's also why you need adequate circulation in your pond. Additional aeration may be achieved by adding Pond Aerators.

Water Treatments

Once you've answered these critical questions, it's time to look at what water treatments or adjustments to your pond are needed. First, you need to test the water and find out what may be ailing your fish. We recommend the Aquascape EcoSure™ Test Strips and the Aquascape Ammonia Test Strips. Once you've tested the water, refer to the following products to help you get the water back to where it needs to be and make your fish happy again.

- **Aquascape's EcoLizer™, EcoLizer™ Up, EcoLizer™ Down** – Proper pH levels are vital to the performance of any water treatment, including beneficial bacteria, so we recommend that you test your pH levels before doing any other tests. For the most accurate readings, we recommend that you test your water the same time of the day each time you test, usually in the early morning or the late evening. Once you've stabilized the pH, testing can be done on an "as needed" basis.
- **Aquascape's AquaClearer™ Extreme Liquid** – Scientifically blended and tested, it contains specific beneficial microbes that are effective at reducing ammonia, nitrites and excess nutrients that would otherwise cause poor water quality and clarity. Think of this as your live-in pond clean-up crew.
- **Aquascape's EcoStarter™ Plus Liquid** – The ultimate pond treatment, it removes chlorine and destroys chloramines, but also removes and detoxifies ammonia quickly. Not only that, it adds essential