



"How To" Series: Water Treatment Basics for Backyard Ponds

By Rick Smith, EasyPro® Pond Products



Having a pond with "Gin Clear" water, is the result of an ecologically balanced system. This balance is achieved with proper filtration, a balance of plants, aeration and an easy to follow water treatment program.

The result is increased enjoyment, healthier fish, and a significant reduction in costly maintenance.

There is a big difference between treatments and chemicals

The EasyPro® eco-friendly water treatments work using what mother nature already supplies to assist in maintaining the pond's water quality and balance.

It is helpful to understand how mother nature works and then how water treatments support this ecological process.

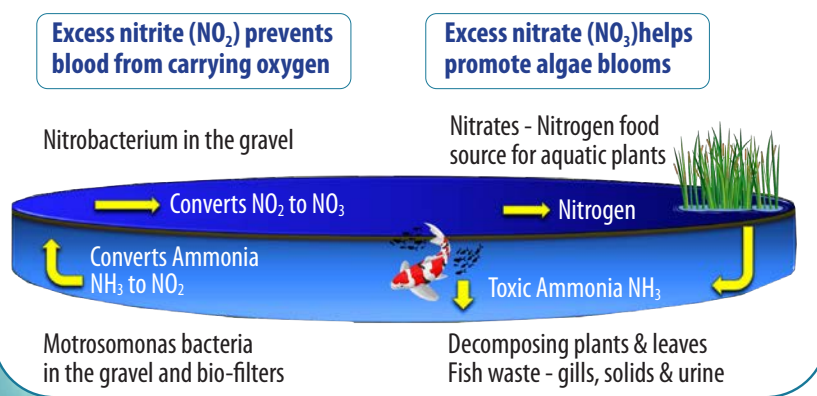
Decomposing plants and leaves, fish waste from solids and urine settle to the bottom of a pond. As they decompose, they create toxins like ammonia.

Natural bacteria in the gravel and bio-filtration converts ammonia to nitrites. This process lowers the oxygen levels in the pond water and Nitrites are still harmful to the fish because they prevent their blood from carrying sufficient levels of oxygen. This is another good reason to utilize good aeration. If you see fish at the top of the water gasping for air, this could be one of the contributing factors.

Other natural bacteria convert the nitrites to nitrates. An elevated level of nitrates, as well as high levels of phosphates, which can come from uneaten fish food, can contribute to algae blooms.

Plants can now utilize the nitrogen as a food source and the cycle continues.

Maintaining a Natural Nitrogen Cycle



The Four Basic Pond Treatments

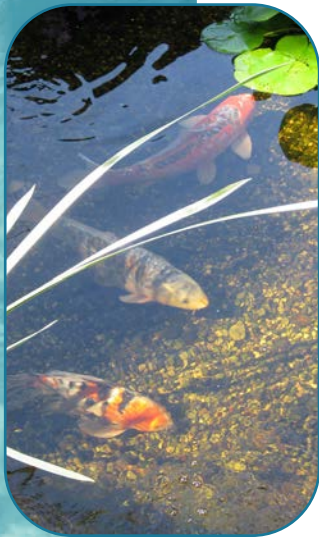
Achieving and maintaining healthy water, that is ecologically balanced, relies on the teamwork of oxygen rich water, proper application of natural water treatments, and proper filtration basics.

The proper application of beneficial bacteria should be applied on a regular schedule to reduce ammonia, nitrite, nitrate, and phosphate.

Water Treatment Products: How they Work

TIP: Algae and beneficial bacteria utilize the same food source to multiply. In the spring's cooler water, some algae become more active sooner than the beneficial bacteria. To minimize the algae, increase the bacteria count, with bacteria that functions in water temps as low as 38 degrees.

TIP: If you use a UV clarifier, turn it off for 24 hours to allow the beneficial bacteria to find a home on the rocks and bio-filtration system.



All Season Bacteria



This blend works in water temperatures 45 degrees or warmer, allowing one product to work spring, summer and fall.

For new ponds, apply 2 oz. per 1,000 gallons of pond water, every week.

For dirty water, apply 4 oz. per 1,000 gallons until water is clear.

Removes ammonia, nitrites, phosphates and sludge.

Water Conditioner



This blend protects fish by instantly neutralizing chlorine and destroying chloramines found in city water. It also detoxifies heavy metals found in both city and well water.

One (1) oz. treats 1,000 gallons. Use for new pond start up, water changes or

when "topping off" water levels.

One of the most concentrated water conditioners available.

Water Clarifier



This food-grade formulation is one of the most concentrated water clarifiers (floculant) available. It is also one of the safest to achieving water clarity.

It attracts suspended particles together, allowing them to settle to the bottom of the pond to be

removed by a filtration system.

Apply 1 oz. per 1,000 gallons of pond water.

Barley Straw Extract



This liquid treatment product is one that algae just doesn't like. The all-natural formula helps keep the water clean and clear. It works faster than Barley Straw and is much easier to use than pellets or bale.

Apply 2 oz. per 1,000 gallons of pond water.

Safe for use with aquatic life and pets.

Seasonal Boost



The Seasonal Boost is a cold water bacteria. It is active when the water temperatures are as low as 38 degrees.

Use this in the first month of Spring and in the Fall to ensure a high count of beneficial bacteria.

Allow for a quicker

Spring startup and longer late season (Fall) action.

Defoamer



Floating white foam is created due to high levels of dissolved organic matter.

Hormones that koi produce during spawning also contribute to foam problems.

This formulation quickly eliminates problem causing foam.

Apply 1 oz. per 1,000 gallon of pond water as needed.

Rock & Waterfall Cleaner



This is a commercial strength Oxy-based cleaner. It will quickly and effectively clean rocks, waterfalls, water features, fountains, statues and more. It lifts debris to the surface to be removed by a net or skimmer.

Simply pour 1 oz. per 300 gallons of water into the area with the most water movement for best mixing.

(Also available in powdered formula.)

Sludge Remover



This unique formula uses a no-mess powder in water soluble packets or blocks, which begin to dissolve upon contact with the water.

It reduces bottom sludge, toxic ammonia, nitrites, phosphate and odors caused by decomposing organic matter. It works in water temperatures as low as 45 degrees.

Phosphate Binder



This all-natural, plant-based powder formulation provides a non-chemical alternative to aluminum sulfate (ALUM) in koi ponds and water gardens.

In addition to buffering pH, it also binds problem causing phosphate and provides 70 beneficial trace minerals.

Apply a 1 oz. scoop per 500 gallons of water.

Water Treatment Products: How they Work

Testing the Water Quality



Using a water test kit on a regular basis is the only way to know if problem areas exist with an imbalance in ammonia, nitrites, nitrates, pH and salt levels.

If we identify one or more areas out of balance, the solution(s) are quick and simple. However, if left unchecked it can lead to a constant struggle with algae and water clarity. Poor water quality has a negative impact on fish health and over a prolonged period of time may lead to loss of fish.

Ammonia should test zero. Ammonia build up is fatal to fish. A 25% water change is required as soon as possible. And then retest and repeat if necessary.

Nitrites should ideally test zero, although levels may vary slightly. A 25% water change will temporarily reduce the levels. Clean filtration and add EasyPro® All Season Bacteria to improve bio filtration process.

The pH levels for a healthy pond should read 6.5 to 8 although a reading in the 7.2 (neutral) to 7.8 is ideal. pH can fluctuate from morning to night in addition day to day, or even after a rain fall. So, taking a reading morning and night for two days will provide you the best average.

pH Up and pH Down

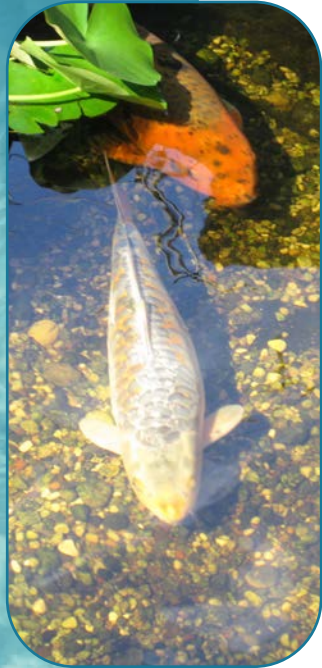


This is a safe, effective way to control pH. It will treat either fresh or salt water and is phosphate free. Safe to use with plants and fish.

The pH readings can vary through out the day. Fish can tolerate a wide range of pH, but do struggle with rapid changes that may occur during or after a rain.

Apply 1 oz. per 600 gallons of water.

TIP: If the water source is from a well that draws from a limestone aquifer, your pH may consistently read high.



pH and nitrites have a relationship to toxicity levels and how it impacts fish health! Here's how it works.

Let's say we have an elevated level of nitrites and the pH goes up just one integer (say from pH of 7.2 to 8.2) the toxicity level (to the fish) just went up times 10. If you have a high level of nitrites and the pH goes up to nine (9), you

will start losing fish. The quickest answer is a 25% water change and apply pH Down from EasyPro®. Then, clean pond filtration pads, and work at improving the overall filtration of the pond with EasyPro's All Season Bacteria.

Salt is Essential for Fish Health

Pond Salt

This is one of the most misunderstood/neglected treatments. It is important that we only use non-iodized salt. **Never ever use table salt. Only use pure Sodium Chloride** which may say evaporated or pure salt with no additives.

It is important to use only the recommend amount to ease stress and rebuild slime coat for fish health and some parasite protection.

The only way to truly know the pond's salt level is to use a salinity meter. However, since salt never evaporates, best practices are 1 lb. of salt for every 100 gallons of pond water. This will provide a mild .12% salt content. This should be applied over a couple of days, not all at once.



Create a Colorful Pond

Water Feature Dyes



To create an eye-catching color for your pond, choose from industry original blue, the increasingly popular black or "Serenity" a combination of the blue and black.

Pond Dyes help filter out the UV rays from the sun that help promote algae growth. Follow direction – a little bit goes a long way. Do not get it on your hands or clothes. However, it does not stain, or harm fish, plants or other wildlife once dispersed in the water.

Apply 1 oz. per 1,000 gallons of pond water.

Blue dye gives the water a "Caribbean blue" look.
Black dye gives a more "reflective" look.
Serenity dye creates a blackish-blue combo look.

