Monitoring The pH Balance In Your Pond
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If you are anything like me you will consider the water quality in your pond once the fish are affected. Last spring my fish came out of the winter season beautifully, but after a few days they started to die. I felt like a bad mom. Stanley Kong explained that they are dormant at first but as they begin to be more active they need better water quality to exist.

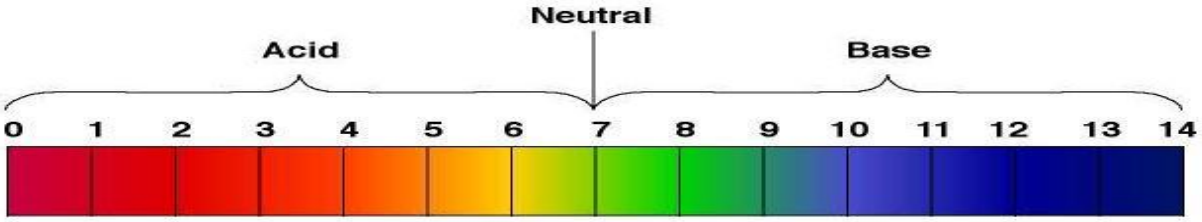
Many variables influence the water quality such as temperature, phytoplankton (algae) photosynthesis, pH, carbon dioxide, alkalinity and hardness. I'd like to address the issue of pH balance in the water. Basically it functions on a scale from 0 -14 and measures how acidic/basic the water is. A ph of 7 is neutral with numbers greater on the scale being alkaline and a lower reading being acidic. A reading somewhere in the middle is desired as fish have an average blood pH of 7.4. An acceptable range would be 6.5 to 9.0. Fish can be stressed in water with a pH ranging from 4.0 to 6.5 and 9.0 to 11.0.

Water coming from the tap has a fairly high content of chlorine which is acidic. To remove the cholorine from the water let it sit in barrels in the open air for 24 hours. This dissapates the chlorine. Alternatively you can use a fine spray into the pond which will also release the chlorine. Fish and
plants in the pond release carbon dioxide which also increases the acidity. In the day time plants absorb carbon dioxide and release oxygen. Another form of releasing carbon dioxde is to have a waterfall that splashs on the rocks or a fountain spraying water into the pond. This in turn raises the ph level.

If you measured the pH during the day when the algae was busily absorbing the carbon dioxide from the water, you will get a high reading. Had you measured the pH about 4 a.m. before the sun rose, you would notice the pH was around 7.5. The reason for the change is because at night the algae switch to respiration and dump carbon dioxide back in the water acidifying it. So your backyard pond fluctuates during the course of a day.

It's a good idea to put a waterfall and/or fountain in your pond to aerate the water and keep it running 24 hrs. a day. The fish are pretty adaptable to gradual swings in the ph levels but be careful not to make a severe adjustment as it's likely to kill the fish. It is suggested that in order to alter the level you could change the water volume up to one third. It is preferable to do more frequent water changes of 10% at a time. The use of chemicals and acid to change ph levels is not recommended as it could crash the levels too drastically putting your fish inro stress.

I've taken my pond water to an aquarium store and had the water tested and paid nothing. I've also taken it to a koi retail store and paid $9. If you are concerned about it there are products on the market for testing the pond water yourself.



The pH Scale