

## Koi Joy – The pleasures of water gardening

Establishing a healthy balanced environment for your Koi requires a little effort and knowledge. You need it to not be overstocked, and include a biological filter, a mechanical filter, a UV filter, a circulation pump and a source of aeration. The three types of filters are necessary for the koi pond and serve to purify the water of waste and toxins.

Aeration isn't a filtration system but is essential to achieving a good balance to your water garden. Koi breathe oxygen that is dissolved in the water, and with our Jacksonville heat, additional aeration is a must. Low dissolved oxygen is the number one Koi killer. Waterfalls and trickle towers are more than a decorative addition to your pond. The splashing and agitation of water allows oxygen to be absorbed. However, if it is a small fall with minimal splash, or if excess algae combined with an overstock situation exists, it may not provide enough dissolved oxygen for the hot Florida summers. At that time, additional aeration in the form of an air pump may become necessary. Bubbling devices are an easy way of adding aeration to your pond. Air stones and ceramic rings are attached to an air pump and placed in the pond. Our air stones are placed in each corner of the pond, but the bottom center is usually the best place for the bubblers.

My husband and I have a 2500-gallon pond. We have a small waterfall and a small fountain in the pond. The splash and trickle allow oxygen to dissolve into the water, and although neither provides a lot of splash, we did consider it adequate because we were pumping the entire water supply through the filtration system twice per hour. Last summer, after spending the day down town, we returned home to find our main pump had shut off and all of our fish were gasping at the surface. We knew immediately it was a lack of dissolved oxygen. Using some spare pumps, we quickly started agitating the water to bring the oxygen level up until we could get the main pump restarted. We were lucky enough to have identified the problem and had spare equipment on hand to prevent a loss of fish.

We have since added an air pump with air stones that are on a different circuit in case of a blown fuse, or in this case a power surge, that may cause the main pump to malfunction.

Regardless of your chosen method of aeration, be sure to keep all aeration going day and night. Dissolved oxygen is at its lowest point during the night time hours.

May 30 and 31 is the First Coast Koi Clubs' annual pond and garden tour. This is a great way to get ideas and ask questions of knowledgeable club members.