How High Is Your Pond?

By Larry Lunsford

How high is your pond? In the Rockies, you may be thinking "mile high", others may be thinking "How high is the author of this article?" Well - read on.

Over the years, I've committed my share (and then some) of dumb mistakes and witnessed dumb mistakes by others that have resulted in Koi sickness or death. The point of this article is to share some ideas with you on how you can avoid common disasters or at least be better prepared to deal with a disaster when it happens (and sooner or later it will).

First, adopt a little of Mulder's (from "The X Files") attitude and trust nothing. Always be thinking of how something you may be about to put into your pond may be a danger to your Koi. Some examples of things we put into our ponds everyday are listed below along with ways they can be harmful.

- Water: chlorine, ammonia, too hot, too cold, insufficient buffers, other contaminants.

- New Koi: carrying parasites, carrying diseases.

- Koi Food: too much, too old, contaminated.

- Pond Liner: is it fish safe or has it been chemically treated?

- Plumbing: never use metal pipes, allow PVC to thoroughly dry and flush it out. Don't use rubber couplings or knife valves in areas with more than a few inches of water pressure.

- Pumps: is it electrically safe? Don't use oil filled submersible pumps - they can leak.

- Wiring: plugs and equipment protected from water, use GFI breakers.

- Nets: clean, no tears that could snare a Koi, no sharp poles exposed.

- Chemicals and Medications: are you sure of the dose? Have you diagnosed well enough that you're sure you're using an appropriate treatment?

- Your Own Hands: are they clean (no dirt or grease, no soap, no lotions, no sharp jewelry)?

I've found bad stuff in all the usual places (chlorine and ammonia in the tap water, sometimes in huge doses) but I've also found nasties in some unusual sources.

I must have a sign on my back "kick my fish". I just got bitten again. This time by some marine aquarium salt mix (I've recently started a marine aquarium). A bucket of salt mix I got is making about .5ppm ammonia.

A few years ago I bought some stuff from a local Koi supplies dealer that was supposed to be the latest miracle filter media. I don't recall the name now, but it was a light weight, highly porous, ceramic gravel kind of stuff. I was rinsing it out in a bucket. I happened to get my face close to the bucket as I was washing it and got a very strong ammonia smell. The rinse water tested off the chart for ammonia.

Many rinsings and soakings did not clear the ammonia. I went back to my local dealer. He contacted the manufacturer, but they were not any help. They acted like I was just trying to scam them. They refused to take back a sample to test or to take any steps to explain how their product that was intended as a bio-filter media for removing ammonia could be a major ammonia source.

Of all the places to find ammonia, products intended for ponds and aquariums would have been near the last on my list. This should make you wonder about what's in that bag of rock salt, or lava rock, or other stuff you got from the hardware store. If you're using materials not made specifically for fish, you should be doubly suspicious of what contaminates may be in them.

So, now we're all paranoid (remember: just because you're paranoid, doesn't mean that they're not out to get you) what do we do? Here's what: quarantine, test, clean, and prepare.

Quarantine: Before putting anything new into your pond, quarantine it. While in quarantine, you can take your time to thoroughly examine new additions. Quarantining new additions gives you an opportunity to discover and correct potential problems before they become pond disasters. With all the talk lately about killer diseases being transmitted by new fish, you should be well aware of the need to quarantine new fish. The second most important thing to quarantine is your water. By quarantining your new water, you can test it thoroughly for problems like chlorine, ammonia, pH, and KH. You can treat it with enough dechlor or whatever to fix it as necessary without having to over dose with chemicals. With a quarantine tank, you can also fix many more kinds of problems, like the temperature being too cold, than is possible without quarantine. A quarantine tank will also help you avoid some disasters. How many Koi have been hurt or killed from chlorine because the hose was left running? This problem can be entirely avoided with quarantine - keep the hose in the quarantine tank, no need to point that hose anywhere near the main pond.

Test: Never assume that things are ok. Maybe the last time (or last million times) you tested, everything was ok, but that doesn't prove that there isn't a problem today. If anything, you should be wondering "How many days in a row can my water company make perfect water? Sooner or later they're going to goof up. Is today the day?" There are two ways to check your water quality: wait for your Koi to get sick or die (a sure indication of bad water), or test. I consider testing to be an activity similar to wearing a seat belt or paying for insurance - I hope its a waste of time and money, but you never know when you'll need it. Frequent testing gives you time to discover and fix minor problems before they become big ones.

Clean: Clean anything new before putting it into your pond, just like Mom said "You don't know where its been." Clean things like nets and tubs before and after each use. Clean your hands before working in the pond including cleaning the soap off your hands. Clean your pond and filters - don't allow dirt and debris to accumulate, they're breeding grounds for parasites and unwanted types of bacteria.

Prepare: Have a backup plan. Have supplies on hand to deal with emergencies: dechlor, AmQuel, test kits, salt, sump pump, nets, tubs, baking soda, Koi club directory, etc. Look around your pond and think about all the things that could go wrong. Think about how you could deal with these problems. If the power goes out do you have a generator or a battery powered pump (and charged battery) that could keep things going. If a pump dies, can you improvise until you can replace it? What shape is your plumbing in? Any leaking joints, pipes that could freeze, pipes pulling away from filters, loose rubber couplings?

Design your pond with redundancy in mind - two small pumps are better than one large. Have a friend look at your pond and see what potential problems they see - you may have gotten so accustomed to an obvious problem that you don't even see it.

When using drugs or chemicals for the first time, double check doses and procedures. If your Koi don't take well to the procedure, what are you going to do? Can you stop the process? Can you move your Koi

some where else? Will you need help catching your Koi? Can you change enough water to save them? Here's where having a quarantine tank can be helpful. By keeping the quarantine tank full at all times, it now doubles as a life boat for your Koi if things should go horribly wrong in your main pond.

Keep ahead of problems. Over the years, your collection of Koi has probably grown in numbers and total weight. Along with this growth, you've probably been putting ever increasing amounts of food into your pond. Has your cleaning schedule kept up with this increased load? Have your water changes kept up? Has your testing kept up (especially testing KH)? How much more growth can your filters handle before they become overwhelmed? Do you have areas of your pond or filters that never get cleaned (gravel filters, trickle towers, pockets of debris, etc.)? If so, these are just time bombs waiting to explode and every handful of food puts you one tick closer to detonation.

I used to fly R/C airplanes (before I discovered that I could spend even more time and money on Koi). When learning, the instructor would get the plane "3 mistakes high" before handing over the controls. You don't want to be just 1 minor mistake away from crashing and burning. How many mistakes high is your Koi pond?