

Responsible Use of Chemicals in Your Pond

Linda Montgomery, KHA

It is extremely important to understand before adding any chemicals to your pond that your fish's health depends on the relationship between the fish's environment, stressors and pathogens. Adding medications to your pond will increase the stress on your fish, so you certainly don't want to add chemicals unless absolutely necessary.

What can be complicated is determining when it is necessary. The first step in deciding this is to observe your fish regularly and watch their behavior, remember you can never watch your fish too closely. Are they eating and swimming properly? Are any fish hanging by themselves? Have you noticed them flashing or jumping? Is there any pink or red veining to the fins or skin? Are they hanging by the waterfall or near the surface of the pond? Any of these behavioral problems could be a sign of a problem either with the fish's environment (water quality) or possibly a parasite infestation (pathogen). So at the first sign of a behavioral problem the first step is to do your water checks. If your water parameters are within range, then there is a good chance that your koi could have a parasite or bacterial problem. However, remember that especially in springtime, before your biological filters are fully operational, your pond can have large fluctuations in pH. Koi do not handle large fluctuations in pH well, it causes them stress and they may flash and be generally unhappy (off their food, hanging, veining in skin, etc.). So even though the water parameters are within range you still cannot rule out a water quality issue until you check your pH in the early morning and in the evening to see if you are dealing with a large change in pH. Once you rule out a large change in pH then the next step is to do a scraping and look at it under the microscope. When you are able to identify what parasite you are dealing with, you will then be able to decide what medication and treatment protocol is necessary. If you do not have a microscope please call one of the KHAs (Koi Health Advisors) in your club to help you.

There are a few things to remember in order to be responsible when using any medications/chemicals in your pond:

- Think about the environment....where is this chemical going once you drain it from your pond. Hydrogen Peroxide is the least caustic to the environment of the chemicals that we use commonly in our ponds.
- Know the exact gallonage of your pond.
- Always use at the rates specified for the chemical.
- Never leave your home or koi when medicating your pond.
- Both your filters and UV lights have the ability to reduce the strength. Generally recommended to run most chemicals through filters for 30 minutes to one hour (dependant on chemical) and then bypass for remainder of treatment.

- Add aeration when medicating
- Always use protection when handling chemicals. Most chemicals are safe when handled correctly (surgical gloves, dust mask, eye protection).
- Store in cool dark place. Generally between 40 – 75 degrees.
- Chemicals can break down and either lose strength or become toxic over time. If unsure about the reliability of the chemical it is best to dispose of chemical rather than take a chance with it.
- Educate yourself about the chemical you are considering using in your pond. Some chemicals react differently in hard or soft water, or in acidic or alkaline water. Know the chemical you are using and consider water parameters when dosing