

Every Serious Koi Keeper should have a Quarantine/Hospital Tank

We should all be good girl and boy scouts and “Be Prepared”. A recent reminder to us all with a koi sale in another state that had a confirmed outbreak of KHV. It has broken many hearts and in each case had the new fish been properly quarantined that impact would have been way less if not at all. It is always good practice to isolate/quarantine all new koi buys to ensure that they do not bring any problems or unwanted bugs into your pond. Quarantine is the only way to insure both your new and old fish stay healthy. With the increasing incidence of Koi Herpes Virus in the United States it is becoming essential that we use proper quarantine procedure. Here are some suggestions on how to set up a basic quarantine tank.

Use of a Q-tank allows us to have our new little fishies where they will be easy to watch for possible problems and if a problem does occur it is so much easier to treat. Your new fish should have also been quarantined by the dealer or breeder where you bought them. If they weren't, find another dealer. Regardless of how good the breeder or dealer where you buy fish you must quarantine all your new fish yourself. Do not get sucked into “Oh, they were a very reputable dealer” mentality. Murphy had the fish you just bought. And Murphy's Law states, “If it can go wrong it will”. Problems with new fish can happen and you need to be ready to deal with them. Also, we want to minimize the stress on these new arrivals. Give them the best opportunity for success. That means give them great water quality, low light and noise, (the first few days) and lots of aeration. Also, this same Q-tank set up will serve as a hospital tank when you need to treat one of your current critters that are not doing so well.

If you are buying goldfish a small 30 gallon aquarium would do just fine for 2-4 fish depending on their size. However, koi require a much larger tank – no less than 100 gallons and up to 300 gallons and larger if you are buying fish over 10 -12 inches long would be even better. You want the tank to be round or oval, smooth inside and without places for your fish to hurt themselves. You need to cover your tank with netting to prevent jumping. You will need to be able to heat your tank and regulate the heat for treatments. Finally you will need very strong aeration for your quarantine tank. Low oxygen levels will greatly increase the stress on your fish. The more oxygen the better.

Your quarantine facility should have a separate, fully conditioned filter. You should monitor water quality very closely and test often to be sure water is maintained in top condition without NO ammonia or nitrites present. You will need to have a couple of fish live in this tank all the time to keep the filter active. A “Canary Koi” if you would. Fish are social schooling creatures and will become highly stressed if kept alone. Setting up and tearing down a temporary system every so often is not usually very successful and it takes too long to cycle in the filter system. Serious koi keepers should have a tank ready to treat sick or injured fish. Perform routine water changes. Add about 1 teaspoon of non-iodized salt per gallon or 1 lb. per 100 gallons to maintain a 0.1% salt concentration. (Replace this salt as necessary with every water change) Maintain optimal water temperature is 76-78 degrees. Use dechlorinator for all water changes.

Do not feed your new fish for a few days to give them a chance to settle down. This will keep the ammonia down and the water cleaner. Watch for flashing (rubbing on the sides of the tank) or any sores or red spots appearing. When you do begin to feed, use a good quality basic fish food in very small amounts once day.

With Koi Herpes Virus (KHV) and other transmittable fish diseases today it is critical to catch any potential problems while in quarantine instead of introducing them to your pond. KHV is a very deadly disease that can lay dormant in fish that appear to be perfectly healthy. KHV triggered by temperature and it only replicates in a fairly narrow temperature range. Approximately 70F to 83F. It is critical to quarantine any new koi in the middle of this range about 76-78F for up to 21 to 30 days. If all goes well after three to four weeks you should introduce a koi from your pond to insure the new fish are not carriers of KHV. KHV carriers have been exposed to the disease and are survivors that have recovered but continue to harbor the virus and could infect other koi. After 3-4 additional weeks at 76-78F if both the new koi and your "canary koi" are healthy then they can be added to your pond. It is critical to maintain koi in the quarantine at the proper temperature range for long enough to allow KHV to break. If you buy koi in warmer months where the Quarantine water temperature is warmer than 78 F you would have to wait until cooler weather to start the clock running on your quarantine procedure.

Bio-security is a must. We want to keep bugs and disease from our Q-tank out of our main pond and visa versa. We must avoid any introduction of water or equipment used from your q-tank to your main pond while you are in a quarantine situation. This means do not use nets, bowls, or anything else in contact with your q-tank with your main pond. Think about any possible contamination from hoses, water test kits, gloves, etc. It is best to have completely different equipment for the Q-tank.

The success to introducing new fish to your pond is to plan ahead and start preparing weeks before the new fish arrive. Your Q-filter system will probably not be conditioned for a large increase in biomass. Try adding a few fish out of your pond and place them in your quarantine tank to get the filter bacteria load built up for the new arrivals. This will add to the Q-tank resident fish you have had living in your quarantine tank at all times. All of us have a couple ugly fish that we keep in our quarantine tanks just for this reason. They help keep the biological filter active and also act as a welcome committee for new arrivals or provide a sick fish some roomies to help them feel more secure.

Filtration for your Q-tank. If you are using an aquarium for goldfish or very small koi install a trickle type wet/dry outside filter. These types of filters work very well and can more quickly adapt to increased fish loads and ammonia levels than submerged in tank filters. Use an empty, clean, bare tank without gravel or rocks or anything that makes it harder to keep clean. The tank will need to be covered, have a small air pump and air stone, and an aquarium heater to keep the water temperature a constant 76-78F degrees.

With koi you will need a 100-300 gallon or larger tank. Round or oval are the best shapes. You can find these type tanks at feed stores fairly cheap. Utilize an external water pump and filter to minimize fish bumping into things in your tank. A filter can

easily be made by using a large bucket or similar container filled with filter material. It is best to have your filter sit above the tank and pump water up into the filter and then gravity flow filtered water back into your tank. Consider a trickle tower design or similar type filter system. These types of filters are much faster to respond to increased fish loads and ammonia levels. You can easily make a trickle filter from a 3-4 foot length of 6- 8 in. PVC. Water is sprayed into the top of the trickle tower filter and then it trickles down through the media (bioballs or similar type material) and flows out the bottom. Use a PVC type fittings to step down to 1-1/2 in PVC pipe and then use 1-1/2 in. tubing to return filtered water back to your tank. Remember you need good water circulation. Pump water out of the bottom on one side of the tank and return filtered water back to the surface on the opposite side of the tank for aeration. Because trickle tower filter material is suspended in air vs. submerged in water it “works” much better as a biofilter and aerator than submerged type filters. Your Q-tank will need to be able to be heated in the winter so use some type of insulation and you will need a cover the tank to retain the heat. Koi will jump and you will need a very secure top to prevent having them jump out of the tank and hurt themselves. Set your tank up inside the garage or a shed near a window for sunlight. This will give you access to electricity and moderates the changes experienced when placed in the open.

If all this seems like just too much trouble please consider the hassles of trying to treat your entire collection if you introduce a problem into your pond. Also, diseases like KHV have no cure and would be the end to your entire collection if it gets into your pond.

Joe