

## BABY, IT'S GONNA GET COLD OUTSIDE!

### Fall Pond Cleanout

Depending on your maintenance practices, you may need a fall clean out as well as a spring cleanout. Removing the leaves and debris that have accumulated over the summer may be very beneficial to the health of your fish and pond. Set up a tank or pool that will accommodate your fish for a short period of time. Adding aeration during this process would be a good idea. Use water from your pond to fill the tank, then add your fish. This is a good time to inspect them. After cleaning the pond (NEVER power wash), fill with fresh water and use a chlorine and/or a chloramine remover to condition water. Allow the water to come to the same temperature as the tank. Then replace fish into pond. There are sources on-line to help instruct on this procedure or contact a pond maintenance/installer company.

### Prepare Your Fish

It is a good idea to inspect your fish for any damage, infections or parasites. These problems can be addressed easier before netting, hooping or caging. Always sanitize your equipment, such as your net and bowl, as well as your hands before handling the fish. Then sanitize everything again after the procedure. Keeping a spray bottle of 90% alcohol on hand will do the job. If you have set up a quarantine or hospital tank, then it could be used for a sick or damaged fish.

### Water Quality

The good bacteria will be slowing down with the falling temperatures.

As the water temperature changes, you could switch to a cool-weather, high-quality fish food.

A pond thermometer is a necessary tool to have. When the water temperature falls below 65 degrees, You can switch to the wheatgerm-based formulas. This food is easier to digest than the higher protein foods, due to a slower metabolism this time of year. When the water temperature falls below 55 degrees, STOP feeding your fish. This applies even if we have a warm-up after a cold snap. Hopefully, you have been feeding a high-quality, protein-rich food on a regular basis to help them stay healthy through the winter. You will still need to do water changes!

## Protect Your Fish

Your fish will need some extra attention to help prepare them for fall and winter.

A koi cave, like the ones recommended in the “Baby It’s Hot Outside” presentation, is a great place for your fish to hide when all the plants have been cut back or go dormant.

If you have a predator problem from birds, the fish will be safer in the deepest part of the pond under their cave. If you have aquatic predators, like mink and sometimes racoons, you will want to consider caging. This is a fairly affordable option that can be DIY-constructed or contracted through a pond installer or pond maintenance company, such as ones listed in our newsletters. The cage should be fit to your pond. Fish will remain in the cage until spring arrives.

## Prepare Your Pond

You will need to keep a hole in the ice so that gases can exchange between your pond and the air. These gases form due to plant decomposition and fish waste. This can be accomplished in several different ways. You can install an air pump outside the pond with an air stone or air ring. The moving air and water will not freeze in the immediate area. Another option is to add a deicer. Most are equipped with a thermostat that will cycle on and off with the water temperature. This will only keep ice from forming near the unit. This is good to place in front of the skimmer, if you run your waterfall year-round. Another choice is to continue running your waterfall pump. The moving water cannot freeze, but you need to keep close watch during freezing temperatures, as ice dams can form in streams causing water levels to drop. You will need to make sure your pond is full before the pond freezes and during the freeze. Keep your hose drained and inside so that it will be easier to use. Make sure your water source will not freeze. If you don’t run your pump, it might be wise to bring the pump and any valves into the basement or heated garage. Put the pump in a bucket of water to keep the seals from drying out.

### Trim your Plants Back

It's time to cut back your perennial water plants after the first heavy frost.

You should trim just above the water level. Remove all annual plantings.

Tropical plantings could be brought indoors before the night-time temperature is 55 degrees.

Hardy water lilies should be left in the pond. Drop the pot to the lowest depth after a heavy frost and after removing the leaves. Tropical water lilies can be kept if you save the tubers indoors. There are several methods to do this. Directions can be found on the internet.

### Netting

Keeping leaves out of your pond should be a main concern this time of year.

Excessive leaf debris in the water can turn the water toxic to your fish.

Netting can help keep leaves and other debris from entering your pond.

It can also help with many predator concerns from hawks, owls and herons.

Pond netting is available in different sizes and lengths. It is an economical option.

### Hoop Houses

Installing a more protective covering over your pond may prove beneficial to the health of your fish through the colder months. It can prevent the temperature swings the St. Louis area has been experiencing the last several years. This will help your fish "weather" through this time when you are not feeding. It can also offer protection against predators, with proper installation. This is a more expensive option versus netting. One plus is that it can be constructed so that you can walk inside to enjoy your koi during the colder season!