Winterizing Your Pond

By Larry Lunsford

As winter approaches, you should get your pond ready for the cold weather that lies ahead. Doing your fall clean-up and winter preparations will be much more pleasant early in the fall than it will be later when the water's colder and the cold winds are blowing.

Start with a good cleaning. Get all the debris out of your pond and filters. Clean all the gunk out of your filter media. If leaves are a problem around your pond, get netting over it before the leaves start to fall. You don't want a layer of muck on the bottom of your pond to be growing bacteria and parasites all winter - they'll overwhelm your Koi in the spring.

Decide whether you will continue to operate your filter over the winter. If you can, its best to run your filter and pumps year round. If you want to run your filter over the winter, it needs to be winter proof. There should be no pipes with still water (such as filter drain pipes with the drain valve located away from the filter). All pipes should be buried or insulated so they won't freeze and burst in the event of a short power outage. In the event of a long power outage, you need to be able to drain anything that may freeze. Remove UV filters - you don't need UV in the winter and they can suffer expensive damage if they freeze.

If you do run your pumps in the winter, be sure to bypass your waterfall. A waterfall in winter poses three major problems. First, all the air exposure allows much of your ponds heat to escape. Second, if the weather gets cold enough to form ice on the top of your pond, the waterfall will just pour more water on top of the ice causing more ice to be formed. Third, if you get ice in your waterfall, it can cause water to be redirected, possibly causing you to pump your pond empty (1st rule of Koi keeping - keep 'em wet).

Cover your pond. Most of the heat loss in your pond is caused by wind and evaporation. Simply keeping the wind off will help significantly. There are many ways you can build a frame over your pond which can then be covered with fiberglass panels, acrylic plastic panels, plastic sheeting, bubble wrap, etc.

The simplest and cheapest frames are made from plastic pipe. This is also the weakest material and it gets brittle in cold weather. The best cover is framed just like the roof of your house. To help determine what size beams and joists to use, you can refer to a deck building book (available at most home improvement stores) - snow and wind loads on a roof are roughly the same as the loads on a deck. You can also buy ready made roof trusses for sheds and garages that can be used for a pond cover frame.

Consider the pitch of your cover. In areas with lots of snow and little sun, you may be better off allowing a nice thick insulating layer of snow to accumulate on a low pitch cover (Igloo mode). In areas with sunny winter days, try to take advantage of the solar gain with a steep pitch that

stays clear of snow (greenhouse mode). Frame strength needs to be about the same either way - high wind loads on a steep pitch are similar to heavy snow loads on a low pitch.

The worst frame design is one that's just a little too weak to support the maximum load that will be put on it. This design will fail at the worst time and will dump the most snow and debris in your pond (you probably don't want to be retrieving tattered pieces of plastic and bits of pipe and lumber from your pond in the middle of a snow storm).

Heat your pond. This is another subject that could fill a book, so I won't try to go into detail. If you're interested, ask your fellow Koi keepers how they do it.

Design your cover so you can easily check up on the pond. Do not lay plastic directly on the surface of the water. Keep at least a small area of open water to allow gasses to exchange. You can use an electric watering troft heater (floating heater) to keep an open space. You can also use an airstone to keep an open area. Never pound on the ice. Salt in doses suitable for Koi won't keep the water from freezing or protect your Koi from the cold.

Someone always asks "How cold can I let my pond get?" and they want an answer like 32.0001. Good Koi keeping is not about keeping your Koi at the brink of death. You wouldn't ever think of subjecting your $2 hamster to cold weather. Most pond keepers don't mind bringing their plants inside for the winter. Yet somehow, many Koi keepers think that if their Koi haven't frozen solid they should be ok (maybe it's from too many tellings of stories about goldfish being frozen, thawed, and living). Your Koi are your wet pets and living jewels (some with jewel like prices), treat them with care and respect. I've read (sorry, I don't remember the source) that temperatures in the upper 30's can cause permanent internal organ damage, even though it may not cause immediate death. Here's Peter Waddington's advice (from the Nishikigoi International web discussion board): "NEVER EVER LET YOUR POND WATER DROP BELOW 55F. - EVER!!!!!