## KARE OF KOI & GOLDFISH

When you are planning and building your garden pond, there is no magical depth of water in which fish will magically survive. A simple fact however is that a 6" fish will pollute one cubic foot of water much faster than it can pollute two or three cubic feet of water. While water lilies require surface area, your pond fish require total water volume.

Naturally, you've kept the pond water clean and healthy and now it's August. Feed your fish well so that they will build up strength for the long, cold winter. We suggest feeding them twice a day, and as much food as they will eat in 5 minutes. You'll need to stop feeding the koi when water temperatures fall below 55 and Comets very soon thereafter - they can't digest the food at lower temps! If they seem hungry during "Indian Summer", you can feed them a little duckweed, cooked spinach, Cheerios, cooked pieces of spaghetti, or a special fall/ winter fish food.

Water lettuce, excess oxygenating plants, any old leaves and water hyacinths should be removed in autumn. Pond-zyme might be used at this time also. Tree leaves should be kept or skimmed out regularly. Your filter should be cleaned and operating at peak efficiency.

It is a great idea to run the filter as long as possible. Some people even run a pump all winter to keep an air exchange going. Without human and/or mechanical intervention, the pond will soon ice over. Ice floats and water is heaviest at 39 degree's, so your water temperature is in this range anytime you see ice. But if you "mess with Mother Nature" by circulating the water, you eliminate that nice 39 degree layer at the bottom of the pool. Elevate the pump on a pedestal at least half way to the surface.

Assuming you have a clean pond and healthy water, you should keep some open surface area to allow toxic gases to escape. This is best achieved by using a pump to aerate the water and using a pond "De-Icer" to help to maintain that bottom layer of warm water. The De-Icer should be unplugged before all the ice is melted to prevent the stress of the fish further with a false spring.

Fish come out of the winter "run down" and "stressed out" - easy prey for disease and parasites. Feed carefully as noted above at appropriate water temps, but keep an eye out for sickness. Any infected fish should be removed for a salt bath. Medical intervention should only be taken in isolation tanks and/or with the advice of a Veterinarian.

In nature, fish will survive at low stocking densities "naturally". When fish grow to the extent that they pollute their winter quarters, nature "thins them out". In either case, a little care and fore-thought go a long way in maintaining a healthy and enjoyable fish population.