

Pond Maintenance

by Francie McGowan

Spring came late this year. The Sierra was coated with snow halfway through May. Now that the summer solstice is behind us, there is little time left to clean up the garden. It is also time to think about that pond again.

Once the pond is constructed, it is best to fill it with tap water. Just the garden hose will do. Rain water and stream water are unsuitable because of fertilizer and other contaminants. If fish are to be introduced, then the water needs to be as pure as possible. The water in the pond needs to have a pH balance between 6.8 and 7.4. There are pond test kits that are valuable for testing pH, ammonia, and nitrite levels. Most home and garden or pond stores have these kits.

After filling the pond, it is best to let it sit for a week or two so the chlorine and other drinking water additives can dissipate, and the plants have a chance to aerate and add nutrients to the water. A pump and filter system are essential in small ponds with fish. This circulates the water and keeps it clean. Be careful not to overstock the pond with fish as the water quality will be compromised by a build-up of ammonia from fish waste.

It is equally important not to over-feed the fish because they will produce more waste. Fish spend their days catching and eating low-flying insects and mosquito larvae on the surface of the water, as well as feeding on the algae in the water.

When adding aquatic plants to the pond, pay close attention to their labels. These will usually inform you if the plant is a shallow or deep-water plant. If you haven't incorporated a shallow "shelf" around the edge when the pond was constructed, cinder blocks may be placed strategically around the pond to raise the plants to a shallower level.



Whorled watermilfoil (*Myriophyllum verticillatum*) and western watermilfoil (*Myriophyllum hippuroides*) are native plants that can help aerate the pond without becoming invasive. Cattails can be kept from spreading by being confined in a pot in the pond. There are also native sedges and rushes that can add a dramatic effect to the edge of your pond.

Keeping the pond free of debris is essential for the health of the fish. In the fall, keeping the water clean and well-oxygenated will ensure that the fish can survive the winter. The

accumulated sludge at the bottom of the pond must be removed and some fresh water introduced to make sure the fish get enough oxygen during the winter months. Winterizing the pond is very important in the cold climate of the Sierra Nevada Mountains and Foothills.

When the water goes below 50 degrees Fahrenheit, you should stop feeding the fish. They need to go into a hibernation state. At this point you can turn off the pump and clean out the filter to be used again in the spring. A pond warmer will keep one spot in the pond free from ice, so there is an oxygen exchange. Gases from debris need to escape and oxygen needs to be available for the fish.

If these maintenance procedures seem complicated, they really aren't. The pleasure and beauty to be had from a garden pond is worth the labor. Once the pond is established, you don't need to fuss with it very much. It pretty much takes care of itself. The sound of water splashing in the landscape adds another layer of serenity to any garden. It attracts birds and wildlife and enhances any environment.

Francie McGowan is a 2009 graduate of the Master Gardener training program and is enjoying her new professionally-installed pond.