



410 E. Scott Avenue, Woodland, WA 98674
On the Web: www.tsugawanursery.com

(360) 225-8750 Fax: (360) 225-5086
E-mail: sales@tsugawanursery.com

SEASONAL CARE FOR YOUR WATERGARDEN

FALL:

Plants:

Hardy Water Lilies:

Prune leaves and flowers as they yellow and drop below your water surface. After the first hard frost, prune off all the larger foliage so it doesn't drop to the bottom of the pond and decay. Don't prune off the short leaves near the crown; they help protect your lily tubers from frost. After you have pruned off the larger foliage, make sure the lily container is on the bottom of your pond or covered with at least 18" of water.

Tropical Water Lilies:

You can over winter your tropical water lily as an actively growing plant if you have a heated greenhouse. Because they need so much sunlight, it is very hard to over winter actively growing lilies in the house; however, you can store the dormant lily tubers in the house over the winter. Wait until the first or second frost, then cut all the leaf stems and roots from the tuber and rinse it well. Soak your tuber briefly in a mild fungicide solution then store in the middle of a jar of clean, damp sand. Place each tuber in a separate container and keep them in a cool, dark place. Forty to fifty degrees is the optimal temperature range for your stored lily tubers.

Hardy Marginal and Bog Plants:

Prune back leaves as they yellow. Marginal and bog plants should be pruned to one third of their height, although you may want to leave some upright leaves for winter interest. Any leaves you don't prune in fall, you will need to prune in the spring before new growth starts. Although you can leave hardy plants where they are for the winter, some people prefer to turn the plants on their sides or drop them to the pond bottom for the winter.

Tropical Marginal and Bog Plants:

Your tropical plants need to be indoors for the winter. Bring them in before you turn on the heat in your house or when your basil starts to go (basil plants begin to die back at the first hint of frost). They will live quite happily in low light areas with a tray of water under them; the pots do not need to be totally submerged in water.

Floating Tropical Plants:

It's simplest to treat them as annuals and add them to your compost heap every fall, because they're a great source of nitrogen and nutrients for your compost. If you want to over winter them, a heated greenhouse is best. A south facing window with no shears or miniblinds to cut down the light is a poor second. Bring your floaters indoors when you bring in your tropical marginal plants and keep them in a container filled with water. Place an inch or two of garden soil in the container to provide nutrients and keep your room temperature at least 50 degrees.

Oxygenators:

No special care is needed; they should stay green all winter and provide food for the fish.

Fish and Pond:

As water temperatures fall, change your fish food to an easily digestible spring/fall or wheat germ food. Cut down on the amount you are feeding and the number of times a day you feed them; they naturally lose their appetites as temperatures drop. Stop feeding when your water temperature goes below 50 degrees.

Your koi and goldfish go dormant, almost hibernating, over the winter. Freezing temperatures do not really affect them much. What will affect them badly is the methane released by decaying plant material in the bottom of the pond. Be sure to clean out as much of the debris as possible from the bottom on your pond before winter.

WINTER:

Fish and Pond:

Koi should be hibernating, staying in the deepest part of your pond where the water temperature is the warmest. Your fish are living on their fat stores, weight they put on during the summer when they appetites were voracious. If your pond water temperature rises above 50 degrees, your fish may become active, searching for food. Feed them small amounts of spring/fall food early in the day, so they have time to digest the food before temperatures drop again at night. Also, cover your pond with netting to help protect your fish against hungry herons and raccoons.

Ice on your pond's surface is a problem when it is more than 2" thick and does not allow methane gas to escape. Create an air hole by placing a pan full of very hot water on the ice. Always melt, don't break the ice: harmful shock waves could travel throughout the water. Also, pond heaters are available to maintain an ice free area. Keep the ice free of snow so sunlight can still reach plants under the surface. If you don't brush off the snow, the dissolved oxygen in the water, produced by the plants, will be reduced. Also, shading the pond heavily with either a structure or snow could cause an algae die-off, releasing nitrites, harmful to your fish, into the water.

Filter and Pump:

Raise your pump from the bottom and set it close to the surface. Running the pump at the surface increases oxygenation and doesn't mix the warmer water from the bottom with the colder water at the surface. The warmer the water temperature stays, the less energy your fish have to use to keep them warm. The less energy they use the better shape they'll be in for spring.

You may also choose to completely disconnect your filter and store it where freezing temperatures will not damage it. When fish are dormant, they produce very little waste and the filter is not necessary. Also the beneficial bacteria in your filter are dormant at low temperatures and are killed by freezing temperatures.

EARLY SPRING:

Plants:

Hardy Plants:

Start bringing your plants up from the bottom of the pond; tipping them back upright and otherwise restoring them to they growing season home. Fertilizing them now will give them that extra boost to get them growing well for the year.

Tropical Plants:

Once the danger of frost is past, bring your tropicals outside. Gradually get them used to the sunlight by placing them in a shady area first and then move them into brighter and brighter light. Too much direct sun too quickly can cause your leaves to burn, damage that doesn't heal on plants. Increase the amount of water they're sitting in gradually too. Tropicals can also use a good dose of fertilizer to help get them growing at this time.

Fish and Pond:

As the water temperatures and day lengths increase, so does your fish activity. Watch for signs of parasites and disease; many parasites are actively looking for a host as part of their life cycle. Because of they long dormancy, living off their stored fat over the winter, your fish's resistance is at the lowest and a parasitic infection could be devastating. To help protect your fish, as soon as your water temperature rises above 50 degrees, start a broad spectrum anti-parasitic treatment. Feed your fish spring/fall foods, but feed cautiously because they won't be eating large amounts yet.

Pump and Filter:

Return your pump to the deepest part of the pond and start your filter. Although there will be bacteria in the bottom of the pond, you still may need to add some to your filter to handle the increases wastes from the increased feeding of your fish. We recommend Microblift PL spring through fall, as soon as the water warms to 60-65 degrees. Add your natural filtration (water hyacinths and water lettuce) at this time too.