

# WATER GARDENING

A water garden conjures up peaceful images of tinkling water and beautiful lily pads. Like a fireplace in winter, the water garden will be the attention magnet outdoors in summer.

Given the proper conditions, a water garden is as suitable outside a modular or ranch-style house as it is on the grounds of a lavish estate. Do-it-yourself water gardens may be installed and planted for little money.

Water gardening can take the shape of a large pond, a small waterfall alongside a deck, or a simple water tub in an alcove garden. A note of caution: Water gardens are not recommended for homeowners with small children who cannot be supervised or kept away from the area at all times. Check to see if your municipality will require fencing around a pond.

**LOCATION:** A water garden should be situated where it receives 10 hours of full sun each day if you plan to include lotus or waterlilies. Three hours of sunlight is the absolute minimum recommended for any type of water gardening; excessive shade encourages algae.

Although it would be picturesque, do not locate a water garden beneath trees. Dropping leaves or needles create a serious maintenance problem throughout the growing season. If foliage is not scooped out daily, the water will turn cloudy.

A well-drained stable site is recommended when a water garden will be made of poured concrete or from a fiberglass form. Other considerations are the proximity of a water tap and electricity.

**WATER:** Water gardens may be fashioned from preformed fiberglass shells, or shapes in a more free form pattern using a 20 or 32 ml. PVC liner or concrete. Consult a reference book or knowledgeable salesperson for additional information.

If you wish to grow water plants, the water garden must be at least 18" - 24" in this part of the country. A more shallow pond is likely to freeze completely in winter, killing most plants and fish which are not moved to winter quarters.

Designing a ledge about 9" - 12" below the surface will provide a suitable growing site for many water plants. If you use a preformed fiberglass shell, you may place potted water plants on bricks to attain the proper planting depth.

**WATER CIRCULATION:** Fountains and waterfalls are needed in most water gardens to circulate water and replenish gases. Water circulation keeps plants and fish healthy and discourages mosquito breeding.

Consult a reference book or salesperson to determine the size of pump required to adequately circulate your pond.

Newly-filled ponds should "sit" 48 hours to allow chlorine to evaporate. Avoid city water which has chloramines, as this is quite toxic to plants and fish.

**PLANTS:** There are five types of plants suited for water gardens: Deep water plants, bog plants, floating plants and oxygenators. The latter is essential.

**DEEP WATER PLANTS:** Hardy and tropical water lilies and lotus, are all suitable for Michigan ponds. Hardy water lilies bloom in many colors, are carefree, fragrant, and become established in 4 - 6 weeks. They bloom from mid June to late October and should be planted 12" - 24" below the surface. Hardy water lilies will survive a Michigan winter, as long as the water does not freeze completely. Hybrid varieties are preferred by experienced water gardeners.

**BOG PLANTS:** Bog plants include cattails, sweet flag iris, bamboo, cyperus or umbrella palm, horsetail grass, Japanese arrowhead, pickerel and others. Place bog plants near the edge of the pond in about six inches of water. A few small ornamental grasses, including pennywort, watercress, duckweed and azolla, also work in Michigan water gardens.

**OXYGENATORS:** Sometimes called "water weeds" or submerged plants, oxygenators resemble seaweed. They lie beneath the water surface absorbing excess nutrients, trapping debris, producing oxygen and generally slowing the growth of algae. All sizable ponds must have some oxygenators to complete the ecosystem.

Hardy oxygenators include elodea (*Anacharis*), *Myriophyllum*, dwarf sagittaria and *Vallisneria*.

**FLOATING PLANTS:** Water hyacinth is about the only one hardy in our area. Although pretty, it must never be introduced into any naturally occurring lake stream or pond or spillway as it is an invasive plant.

**PLANTING:** Nearly any container is acceptable for water plants; fiber pots are an excellent choice.

Using dampened water garden soil, plant each tuber on a 45 degree one side of the pot.

Do not use any commercial soils, as many contain chemicals which could kill fish or plants and affect algae growth. Place a 2" layer of pea gravel on top of each container to keep soil from floating away.

Resist the temptation to plant too much. NO more than 50% to 60% of the water surface may be covered with foliage. Excess foliage allows algae to flourish. Lilies and lotus should be divided every year (or two) in the spring.

**Fish:** Attractive fish will thrive in Michigan water gardens, provided the water does not freeze completely in winter. Fish cease nearly all activity when the temperature dips below 50 degrees F. Colorful white and orange koi or Japanese carp, which resemble goldfish, are well-suited to Michigan water gardens. Fish provide interest, movement and consume mosquito larvae.

**FERTILIZATION.** Lilies and lotus are heavy feeders. Mix fertilizer into the soil at planting time (1tsp. of 15-30-15 per gallon) or insert fertilizer spikes for flowering plants or those formulated specially for water plants into the container monthly during summer.

**WINTER CARE.** By early November, move all hardy lilies into the deepest part of the pond to avoid freezing. Move all tropical lilies to an indoor location before water temperature dips to 55 degrees F. They may be stored in a greenhouse or cool cellar over winter; light is not essential, but the soil must be kept moist.

Move fish to a cold water aquarium indoors for the winter. Some gardeners use an underwater heat to prevent the pond from freezing. If fish will remain in the pond over winter, snowfall should be shoveled off to allow replenishing of the oxygen.

Another way to keep a shallow pond from freezing is to cover it with boards and then a three-foot layer of leaves.

Pools should be drained and cleaned (without chemicals) once every five years, ideally in spring.

