

FAQ's Asked about Water Gardening

Provided by Keith Folsom, President, Springdale Water Gardens in Greenville, Virginia

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"I really want a water garden. I've heard so much about them from my friends. They really are the *in* thing to have." These words are commonplace as a new customer walks in the door of the water garden center. Even as the summer season progresses towards fall, the urge to build a pond and get an advance on spring is great. The summer gardening season is winding down, the canning is almost finished, now is the time to get started on a new project. After all, you have time before the weather is too cold and not a lot of other stuff is going on. There are a lot of questions from designing to building, then to stocking with plants and fish. This is not to mention what to do with the pond after it is built.

With the complexity of the subject of water gardening, it is difficult to decide which topics are on the minds of new pond keepers. Plants are essential to the ecology of a pond and are a hot topic of conversation among water gardeners. Listening in on the sales staff at Springdale Water Gardens, one might encounter many questions like those that follow.

How many plants do I need in my water garden?

Plants are the most essential item for a successful water garden. They provide the pond with a cooling system by shading the water with their leaves. Try to establish a surface cover of 50 to 70 percent. Water lilies vary in cover from four to twenty-four square feet each. Each variety has a range of size that is determined by pot size and soil fertility. The larger the pot and the more fertilizer, the larger the plant will grow.

Submerged plants (sometimes called oxygenator plants) are planted at the rate of one bunch of unrooted cuttings per two square feet of pond surface area. These are potted several bunches per pot to conserve space on the bottom of the pond. These underwater plants cool the water much the same way a shade tree does. They are also useful as natural filters since they are planted in gravel and must take nutrients from the water. These plants also are great spawning media for goldfish.

Bog plants are chosen for their aesthetic beauty, not so much for their contribution to the ecological "balance". They should be selected for how they fit in to the landscape. Try to place them in the background so they do not obstruct the view of the water.



Lotus can be quite large if the full size varieties are given enough space and fertilizer. They can reach up to four feet above the water surface with leaves 15-18 inches in diameter or more. Some varieties are smaller with leaves standing only a foot or two off the water and twelve-inch leaves. Bowl lotuses are going to have four to six-inch leaves that will grow six inches above the water.

What do underwater plants do for my water garden?

Underwater plants such as *Anacharis* or *Cabomba* are often called oxygenating plants. They provide oxygen during the day, but like any other plant, they use oxygen during the night. Their main function in the pond is cooling the water by shading. They are planted in gravel instead of soil to force them to extract nutrients from the water that would otherwise feed algae growth. These plants make a great spawning media for goldfish, giving a place for the fish to deposit eggs for fertilization and a place for their baby fish to have protection from being eaten by the adults.

Do I need to fertilize my aquatic plants? How? When?

All aquatic plants, except the submerged plants (like *Anacharis*) should be fertilized with tablet type fertilizers. Submerged plants are not fertilized at all. Water lilies are heavy feeders for the best foliage and flower production. They are fed according to label instructions either monthly or once in spring and once in summer if a slow release fertilizer is used. Water lilies are fertilized when the first floating leaves appear in spring. Bog plants are fed when they have started growing actively. Lotuses are given their tablets once the first leaves reach the surface of the water. The tablet is inserted into the soil, finger-deep approximately three inches from the growing points of the plants. After withdrawing the finger that pushed the tablet into the soil, the soil is squeezed around the tablet to prevent it from releasing nutrients into the water.

How do I maintain my water lilies and aquatic plants?

Water lilies must be given fertilizer tablets according to the frequency recommended by the manufacturer. This promotes healthy and vigorous foliage and flowers throughout the season. As leaves age and turn yellow and when flowers are spent, they should be pinched back at the soil level. This reduces decomposing plant matter in the water and keeps the water cleaner. Removing older plant parts invigorates the plant, promoting active growth. Repot the water lilies as needed every three years or so to keep roots strong and healthy.



Bog plants must also be fertilized according to recommended rates on a regular basis. The older yellow leaves and dead flowers should be removed regularly to encourage new growth. Repot as needed to keep the roots from being bound by the pot.

How can I over-winter my tropical water lily?

Tropical Lilies are often enough of a pain to overwinter, that they are treated as annuals. Many people that have tried end up replacing them annually after experiencing the normal delay in getting to the first flowers. The water lily root is removed from the pond in fall before the water temperature reaches 55 degrees. Rinse the soil from the roots and remove the walnut shape tuber from the bottom of the root. Sometimes this does not form, and the lily will not be salvageable. Lay the tuber on a wire rack to dry for a few days. Place the dried tuber into a jar of distilled water that is kept at 50-55 degrees.

Set up a pan of water with a couple inches of sand in the bottom in a sunny window. An aquarium heater will help you maintain 70-degree water temperature to force sprouting. Bury the tuber right side up in the sand (right at the top). When the tuber sprouts new growth, allow growth to develop to three or four floating leaves. The new plantlet will be attached with an umbilical-like stem below the new root system. Cut this stem and replant the tiny water lily into a small pot of soil into water that is also in water that is 70 degrees. You may find this takes as much as 60-90 days to the first flower. This works quite well, but takes longer than most people want to wait, but it is interesting to watch.

Do my submerged plants (oxygenators) over-winter?

Submerged plants like *Anacharis* or *Cabomba* are winter-hardy and can overwinter in Hardiness Zone 6 (USDA). These plants break up in cold water and often do not look good by the time spring comes. On sunny winter days, fish swim around in the plants and break them up while they are brittle in the cold water. The fish also eats the plants on warmer winter days. These things combined cause the submerged plants to look messy by the beginning of spring. Many water gardeners prefer to replace them annually so they look good for the beginning of the season even though the plants could make it through another season with some care.

Will my plants grow in the winter?

Like other herbaceous perennials, aquatic plants go dormant during the winter and appear to die off. The roots remain alive and put out new growth in the spring. Some water gardeners prefer to cut back the dried foliage, while others appreciate the beauty of the dried leaves and stems during the winter, then cut them back in early spring.

Will hyacinths and lettuce overwinter?

Floating tropical plants do not over-winter well unless in a greenhouse. Most water gardeners are not successful trying to keep the plants indoors through the winter. Treat them as annuals and replace them each year. This avoids the mess, smell and time required to successfully bringing the floaters through the winter.

Plant questions, ranging from stocking recommendations to care and culture, are endless but important. Being a successful water gardener is having accurate and timely information. Knowing where to access information, when it is needed, can make the water gardening experience enjoyable. Springdale Water Gardens can answer questions like these with just a phone call or an e-mail message.



This article was submitted by Keith Folsom, President of Springdale Water Gardens and Springdale Aquatic Nursery and Supply located in Greenville, Virginia. Springdale was started in 1988 and opened in 1993. Keith has been working in the water garden field since 1980. He has worked in many aspects including propagation, production, sales, wholesale and retail mail order, fish production, design and installation. He has contributed to numerous articles, programs on radio and television and has been speaking publicly for twenty years. Springdale Water Gardens, the retail division can be reached at (800) 420-5459.