

Planting Your Water Garden

Water Lilies

A water garden really isn't a "garden" without a plethora of plants; and in most water gardens, there better be ...aquatic plants. The very appearance of the words "water garden" should conjure up a colorful picture of a lushly planted aquatic landscape that's home to fish, frogs and an abundance of other aquatic life. It's probably safe to say that one of the main reasons people enjoy water gardens is the beauty and unique characteristics of the aquatic plants that are a part of them.



Now we could start in a variety of places, but the crown jewel of water garden plants across the country is the lily, so that's where we'll start.

Lilies are the most popular of all water garden plants. Their ability to spread a multitude of leaves across the surface of the water and flower throughout the season, make them a sought after addition to the pond. Lily pads also provide a great deal of shade from the heat of the summer sun, allowing fish to retreat underneath the shelter of their leaves. And they come in a variety of forms.

Hardy Lilies

Hardy lilies come in a wide array of colors, shapes, and sizes. They are reliably perennial from the northern reaches of zone 3 to the subtropical areas of zone 11 of the extreme southern United States. Refer to the hardiness zone map to find out which zone you live in before purchasing plants. Each spring, their stems will begin to push the curled up leaves to the surface of the pond.

Each floating leaf is cut into two lobes. Lily leaves provide a great deal of shade from the heat of the summer sun, making algae control easier, as well as allowing fish to retreat underneath the shelter of their leaves. The white, pink, red, or yellow flowers are often fragrant and known as the jewels of the water garden as they float on the surface. Hardy lilies typically bloom from May through September.

Water lily flowers usually open in the early morning, and close by mid to late afternoon. When cold weather comes, the foliage dies and sinks to the bottom. New leaves will begin to arise from the submerged rhizomes the following spring.

Tropical Lilies

Tropical lilies produce vibrant, colorful blooms. The flowers, usually carried above the water surface on strong stems, come in brilliant whites,



yellows, pinks, reds, and lilacs. Their leaves also come in an abundance of sizes, shapes, and colors. Tropical lilies, only hardy to zones 10 and 11 can be planted in colder zones when the water temperature is consistently above 70 degrees Fahrenheit. Most tropicals are treated as annuals each year in colder climates. However, they can be brought inside and over wintered if given proper care.

Tropical lilies come in two categories, day bloomers and night bloomers. Day blooming tropical lilies bloom in the early morning and close in the afternoon. Night bloomers, however, begin to open in the late afternoon and continue to stay open until early the next morning. Night bloomers are very appealing to pond owners who work by day and enjoy their pond by night.

Lotus

Lotus have circular leaves that are held high above the water and flowers that rise above the leaves with fragrant, beautiful blooms of yellow, pink, rose, red, or white. Even their seedpods are interesting, and are commonly used in dried flower arrangements. This is one plant you'll want to keep in a pot, as it is highly aggressive.

Nelumbo 'Mrs. Perry Slocum'

This free flowering changeable lotus has flowers that are pink, flushed with yellow the first day, pink and yellow the second day, and changing to cream with pink the third day. Recommended for medium to large ponds, it will also grow and bloom in container gardens.

Hardy Marginal Plants

Marginal plants are typically found around the perimeter of the ponds, lakes, wetlands and streams. These plants are used to soften the boulder edges and help create a smooth transition from the water in the pond to the terrestrial planting area surrounding the pond. Most marginal plants like 1" - 8" of water, making the first shelf in the pond, as well as edges of streams and upper pools ideal planting areas. Any reputable water garden plant dealer will have many varieties of marginal plants to choose from. Some hardy marginal plants are:

- Sweet flag
- Dwarf horsetail
- Corkscrew rush
- Spike rush
- Northern blue flag
- Pickeral weed
- Duck potato
- Miniature cattail
- Powdery thalia or hardy canna
- Pennywort
- Water forget-me-not

- Creeping Jenny or moneywort
- Parrot's feather

Tropical Marginal Plants

The tropical marginal water garden plants are those that originally grew in subtropical to tropical regions, and therefore, are not perennial in cooler climates where frost and freezing are common during winter months. Stacking small cobblestones around the outside helps disguise the black pot. Some examples are:



- Water hyssop
- Umbrella plant
- Antiquorum
- Four-leaf water clover

Floating Plants

The floating aquatic plants are just that, they float on the water's surface while their roots hang down into the water below trapping sediment and utilizing many excess nutrients. Floating plants can be placed in the pond, but need to be situated out of reach of the skimmer. Tucking floaters into the edges of the pond or in and around lily pads can also help prevent the skimmer from drawing them in.

These plants also provide shade for the pond water, making summer algae control easier. Most are tropical, but a few are hardy perennials in climates with hard winter freezes. In more northern climates. The tropical floating aquatic plants should be treated as annuals, replanting them each year, or taking them into a warmer place for the winter. Some examples are:

- Tropical water hyacinth
- Water lettuce

Hardy Oxygenating Plants

Oxygenators are often the most overlooked plants in the water garden. They are typically submersed, and don't grab the onlooker's attention like the lilies and marginal plants do. These submersed plants are an important ally in creating a well-balanced water garden. Oxygenators help reduce algae by directly competing for the same food source. Think of them as nutrient sponges. They also provide protection and coverage for small fish and fry. They can be planted by simply pushing a bundle right into the gravel or simply sticking them around the edges of a lily pocket. Some examples are:

- Hornwort
- Water thyme

Designing the Pond for Effective Planting

Most **water garden plants** are fairly easy to grow, so be aware. It doesn't take more than a year or two before even a few plants can crowd a small pond. These are good design points to bring up to potential customers who think they want a small pond.

The first stage of planting, or "Aquascaping," a pond should be taken into consideration well before water is added. A little planning during the excavation will help provide plenty of planting areas for water garden plants.

Too Small

The ability to vary the widths of the shelves will ultimately depend on the overall size of the **water garden**. Keep in mind that your creativity will be limited by the width of the shelves, and your ability to provide planting areas, when building a small 4' x 6' pond.

So what is a Good Size?

The size of our most popular pond, the 11' x 16', doesn't allow you to get too crazy with the width of the shelves. However, it does provide enough space for some interesting designs.

Large Scale Ponds

In contrast to smaller **ponds**, large scale or commercial size water gardens provide extremely large areas along the first few shelves for aquatic plants. For example, a half acre pond provides enough square footage to create wide shelves and large plant pockets. Shelves for marginal plants may be as wide as 15' or more, giving the plants plenty of room to stretch out. Lily pockets may be as big as or bigger than an 11' x 16' pond and contain a hundred lilies.



Shelf Design on an 11' x 16' Pond

The shelves on 11' x 16' ponds are usually allowed to meander in and out, leaving wider sections dedicated for the placements of the marginal plants.

Lily Pockets

The typical 11' x 16' pond may have two or three lily pockets dug into the second shelf. A lily pocket is simply a hole dug into the excavation that serves as a "pot" for the lilies.

The lily pockets are approximately 18" wide and 6" to 8" deep. Two or three pockets in an 11' x 16' will provide a healthy coverage of lily pads on the surface of the water.

Lily Pockets in Other Areas

Don't feel limited to installing lily pockets on the second shelf only. Lilies have been known to grow in depths up to 15" deep. We take advantage of this by installing lily pockets in deeper portions of the pond. You can even dedicate entire shelves for lily pockets.

Proper Excavation for Plants

Height of the Shelves

The first and most important step is digging the pond with a series of shelves. Most of Aquascape's ponds consist of the first shelf excavated at a depth of 8" to 10" for marginal plants, and the second shelf from 12" to 18" for lilies and lily-like plants. Fairly simple ...right?

The key to excavating the pond for future planting, as well as adding a little personality to the pond, lies in the widths of the shelves. Let us explain. Most literature written about **pond construction** demonstrates the kidney bean or figure eight pond with a series of shelves. Each shelf is excavated approximately 18" wide throughout the pond. In our eyes, kind of dull, sort of boring. These uniform shelves not only look too formal, but do not allow for proper planting space.

Vary the Width

Instead of using only 18" wide shelves, try varying the shelf width. Increase the shelf width to around 3' along portions at the far side of the pond. This will provide space for a variety of marginal plants.

Eliminate Specific Areas of Shelves

We will completely eliminate a portion of the first shelf where the border of the pond meets up with a hardscape or viewing area. Providing a deeper section along this edge will allow fish to come to the side of the pond and greet the homeowner for feeding.

Proper Spacing

The width of the shelves is crucial in determining how much space you will have for the plants. Try to think of the pond's shelves as being similar to a planting bed around the front of the house. If you only come two feet away from the house with the planting bed, the selection of perennials, annuals, and shrubs is limited by the space requirements they consume as they grow. Take that same planting bed and add some bends and curves, allowing the bed to come out a few more feet in certain areas, and you have opened up a whole new



selection of plants with enough space for a tree. The same principles hold true when designing and planting a water garden.

Time and Material ... Some Things to Consider

The cost of plant material, and the amount of labor required to install them, can become a big factor to consider when building large scale **water gardens**. Wetland restoration companies, specializing in large-scale plantings, can supply a large selection of native water garden plants. Time-saving products, such as bog mats, can make planting a marginal shelf go very quickly. A bog mat is a woven blanket of coconut fibers that are pre-seeded with a variety of marginal plants such as arrowhead, cattails, rushes, and pickerel weed. The mat is simply rolled across the first shelf and backfilled with a layer of pea gravel to keep it in place.

Whether you are constructing a small residential **pond**, or a larger commercial project, the key to designing a natural looking, easy to plant pond lies in the design of the excavation. Try experimenting with different shelving techniques on your next pond.