

## Aquatic & Shoreline Plant Selection

Aquatic plant selection is extremely important in the development of aquatic pools. You must have some degree of balance between plants and animals in your pool so that the water remains clear and major problems with maintenance and filters do not arise. Plants are very important in pools. They produce oxygen through photosynthesis, which allows maximum fish health. Plants also take up excess nutrients, particularly nitrogen and phosphorus wastes from the fish. In certain situations, ornamental pools can be stocked with only plants, with excellent results.

While numerous aquatic plants are available for water gardens, it is important to consider certain factors when selecting plants for a water garden. These factors include water depth, sunlight and how each species relates to its surroundings. You can obtain most plants from local garden centers or catalogs, but in many instances you can harvest wild plants for use in garden ponds with proper permission.

Four general types of plants are available for aquatic use:

- Submerged plants, also called oxygenating plants.
- Shallow water or bog plants, which grow along the water's edge in natural environments.
- Floating plants, which are rooted in the bottom substrate and have floating leaves and flowers.
- True floating plants, which float on the surface of the water and whose roots are suspended in the water.

Two warnings should be heeded when selecting aquatic plants. Certain plants can become very

invasive when planted under ideal conditions. These plants should be planted in pots, if they are used at all. Other plants are considered to be nuisance aquatic species.

The following plants are listed with state and federal agencies as illegal plants:

- African oxygenweed (*Lagarosiphon major*)
- Alligatorweed (*Alternanthera philoxeroides*)
- Ambulia (*Limnophila sessiliflora*)
- Arrowhead (*Sagittaria sagittifolia*)
- Arrow-leaved monochoria (*Monochoria hastata*)
- Brazilian elodea (*Egeria densa*)
- Common reed (*Phragmites communis*)
- Duck lettuce (*Otella alismoides*)
- Eurasian watermilfoil (*Myriophyllum spicatum*)
- Exotic burreed (*Sparganium erectum*)
- Giant salvinia (*Salvinia auriculata*, *S. biloba*, *S. herzogii*, *S. molesta*)
- Hydrilla (*Hydrilla verticillata*)
- Mediterranean clone of caulerpa (*Caulerpa taxifolia*)
- Melaleuca (*Melaleuca quinquenervia*)
- Miramar weed (*Hygrophila polysperma*)
- Mosquito fern (*Azolla pinnata*)
- Pickerel weed (*Monochoria vaginalis*)
- Rooted water hyacinth (*Eichhornia azurea*)
- Slender naiad (*Najas minor*)
- Water chestnut (*Trapa natans*)
- Water lettuce (*Pistia stratiotes*)
- Water hyacinth (*Eichhornia crassipes*)
- Water primrose (*Ludwigia uruguayensis*)
- Water spinach (*Ipomoea aquatica*)
- Wetland nightshade (*Solanum tampicense*)

The oxygenating plants are submerged plants, which many individuals often overlook. You can plant them directly into the bottom, in pots, or simply weigh them down on the bottom. These plants offer excellent fish habitat and are major sources of oxygen in pools.

Shallow water and bog plants work best in containers. These plants are rooted in the bottom, grow above the water surface and generally have very showy flowers. They include cannas, irises, pickerel rush and other flowering aquatic plants.

Most water gardens utilize floating plants, which are rooted in the bottom. Examples of these plants are tropical water lilies, hardy water lilies, watershields and lotus. Tropical lilies are usually the best flowering plants. Some are day-blooming while others are night-blooming. When designing your pool, take into account when you will be viewing the pool. Tropical lilies cannot withstand cold temperatures and will either have to be grown as annuals or brought indoors during winter in South Carolina. Hardy water lilies are native to the area, and a number of varieties are available. The blooms are not as dramatic as the tropical water lilies, but they survive outdoors during the winter. The lotus can be a beautiful plant, but since it is known to spread rapidly and become invasive in natural ponds and lakes, it should be planted in pots. Watershield is also invasive and should be planted in pots.

True floating plants are generally not recommended in pools in South Carolina. They are the most invasive weed group.

The following Aquatic plants are recommended for South Carolina\*:

#### **Submerged Aquatic Plants ("oxygenators" or oxygen-producing plants):**

- Gray fanwort (*Cabomba caroliniana*)\*\*
- Coontail (*Ceratophyllum demersum*)\*\*
- White water snowflake (*Nymphoides cristata*)
- Tape grass or Eel grass (*Vallisneria americana*)
- Parrot's feather (*Myriophyllum aquaticum*)\*\*
- Yellow floating heart (*Nymphoides peltata*)

- Underwater banana plant (*Nymphoides aquatica*)
- Little floating heart (*N. cordata*)

#### **Floating Plants (deep-rooted aquatic plants with surface-floating leaves):**

- Hardy water lilies (*Nymphaea* species and cultivars)
- Tropical water lilies (*Nymphaea* species and cultivars, such as *N. capensis*, *N. colorata*, *N. gigantea*, *N. lotus*, and *N. rubra*)
- Asian lotus (*Nelumbo nucifera*)\*\* and American lotus (*Nelumbo lutea*)\*\*

#### **Shoreline, Shallow Water or Bog Plants:**

- Sweet flag (*Acorus calamus*)
- Japanese rush, Grass-leaved sweet flag (*Acorus gramineus*)
- Water plantain (*Alisma plantago-aquatica*)
- Variegated striped rush (*Baumea rubiginosa* 'Variegata')
- Native water canna (*Canna flaccida*)
- Gray canna (*Canna glauca*)
- Black leaf taro (*Colocasia esculenta* 'Illustris')
- Southern swamp lily (*Crinum americanum*)
- Umbrella palm (*Cyperus alternifolius*)
- Zimbabwe umbrella plant (*Cyperus involucratus*)
- Egyptian paper reed (*Cyperus papyrus*)
- Water bamboo (*Dulichium arundinaceum*)
- Star sedge (*Dichromena colorata*)
- Creeping burhead (*Echinodorus cordifolius*)
- Horsetail (*Equisetum hyemale*)
- Variegated water grass (*Glyceria maxima* var. *variegata*)
- Hardy white butterfly ginger (*Hedychium coronarium*)
- Scarlet swamp hibiscus (*Hibiscus coccineus*)
- Swamp rose mallow (*Hibiscus moscheutos*)
- Variegated spider lily (*Hymenocallis caribaea* 'Variegata')
- Spider lily (*Hymenocallis caroliniana*)
- Blue iris (*Iris versicolor*)
- Japanese iris (*I. ensata*)
- Siberian iris (*I. siberica*)
- Yellow water iris (*I. pseudoacorus*)
- Corkscrew rush (*Juncus effusus* 'Spiralis')
- Water mint (*Mentha aquatica*)

- Bog bean (*Menyanthes trifoliata*)
- Lavender musk (*Mimulus ringens*)
- Water forget-me-not (*Myosotis scorpioides*)
- Flamingo plant (*Oenanthe javanica* ‘Flamingo’)
- Golden club (*Orontium aquaticum*)
- Water arum (*Peltandra virginica*)
- Pickerel rush (*Pontederia cordata*)
- Giant pickerel rush (*Pontederia cordata* var. *lancifolia*)
- Lesser spearwort (*Ranunculus flammula*)
- Common arrowhead or Duck potato (*Sagittaria latifolia*)
- Double arrowhead (*Sagittaria sagittifolia* ‘Flore Pleno’)
- Lizard’s tail (*Saururus cernuus*)
- Club rush (*Schoenoplectus lacustris* subsp. *tabernaemontani*)
- Thalia (*Thalia dealbata*)
- Red-stemmed thalia (*Thalia geniculata* f. *ruminoides*)
- Graceful cattail (*Typha laxmannii*)

\*The South Carolina Department of Natural Resources Aquatic Nuisance Species Program helps regulate the importation of non-native aquatic species into the state and should be contacted if any plants not mentioned in this list are to be brought into the state. Contact Chris Page at [pagec@dnr.sc.gov](mailto:pagec@dnr.sc.gov).

\*\*May be invasive.

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Prepared by Jack M. Whetstone, Extension Aquatic Specialist; D. Lamar Robinette, Extension Aquatic Specialist; and Bob Polomski, Extension Consumer Horticulturist, Clemson University. (Revised 02/00.)

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