



Urban Water-Quality Management: Purchasing Aquatic Plants

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Aquatic plants are essential for a healthy and environmentally balanced water garden. Whether you are installing a new water feature or renovating an existing one, proper plant selection is critical. Plants compliment water features, soften hard edges, and add color, texture, and form. They also provide shelter and food for fish and other aquatic wildlife. The following steps will help you select and purchase aquatic plants.

Conducting a Site Analysis

Identifying particular site conditions will help you select plants that will grow best in your water garden.

USDA plant hardiness zone. You can find the cold hardiness zone for your area by contacting your local Virginia Cooperative Extension office or at www.usna.usda.gov/Hardzone/index.html on the Web. Purchase plants that are labeled for your hardiness zone.

Light exposure of the water garden. Is the water garden in sun, shade, or a combination?

Water movement. Is the water still, moving, or a combination?

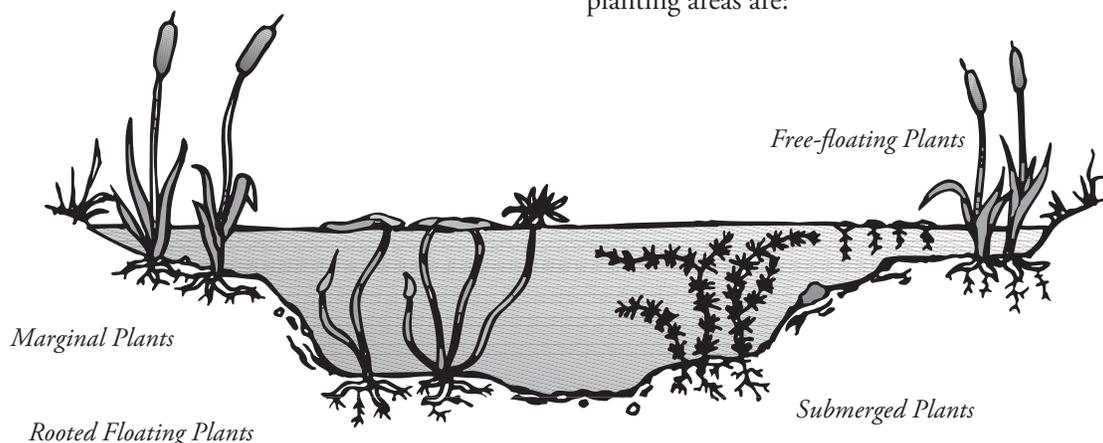
Maintenance access. How will you get to the plants for regular activities such as pruning, fertilizing, and dividing?

Cultural considerations. When will you be enjoying the pond? For evening use, consider night blooming plants and accent lighting. Will you view the pond from inside the home or from other yard areas? Water garden plants can frame desirable views or block unattractive ones.

Determining Specific Planting Areas

Select plant material based on these specific planting areas located in and around your pond: marginal, floating, and submerged.

Each planting area is a slightly different ecosystem. Plants that are adapted for one planting area may not be suitable for use in another. The three primary common planting areas are:



Marginal - Plants that grow in the shallow water around the edge of the pond. Examples are water iris and pickerel.

Floating - Plants that are suspended at the surface of your pond. One example of floating plants is the water lily, which is potted or planted at the bottom of the pond with its leaves floating on the surface. Another example is the free-floating water hyacinth.

Submerged - Sometimes called “oxygenators,” these plants use waste nutrients and help purify the water and planting area. Examples include parrotfeather and elodea.

Selecting Plants

After identifying water garden conditions and planting areas, begin the plant selection process. Everyone has personal preferences. Consider color, texture, form, and seasonal changes. Review water gardening publications, research Internet sites, or visit water gardens in person to help you visualize how aquatic plants look and grow. Another important consideration is whether to use annual or perennial plants or a combination.

Size is a critical factor in plant selection. Carefully select plants that fit into the scale of your water garden. Your local Extension agent or a reputable garden center or nursery should be able to provide information on the mature size and growth rate of specific aquatic plants. When there are cost limitations, consider installing healthy, smaller plants. Younger plants can also be easier to install. Larger plants provide a mature look, but usually are more expensive. Be cautious when utilizing plants with rapid growth rates, such as:

- Water celery (*Oenanthe javanica*)
- Water hyacinth (*Eichhornia crassipes*)
- Water lettuce (*Pistia stratiotes*)
- Parrotfeather (*Myriophyllum aquaticum*)

These aquatic plants and others may become invasive if they're released into waterways from ornamental ponds. The importation and sale of some potentially invasive species may be restricted for this reason. Plants with rapid growth rates also require more maintenance, as they often need to be thinned during the growing season. Be sure to select plants that don't exceed your maintenance requirements.

Purchasing Plants

Keep the following tips in mind when purchasing plants for your water garden:

- Purchase from a reputable dealer.
- Make sure plants are accurately labeled.
- Select plants with healthy foliage.
- Choose plants that are not root-bound.
- Look for signs of insects in both the foliage and roots.

Check for “contaminator” plants that you do not want in your water garden. These are small floating plants like duckweed, mosquito fern, salvinia, and even algae that attach to roots and containers of other plants.

Keep newly purchased aquatic plants moist during transport by taking buckets, plastic containers, or watertight plastic bags with you when you shop.

Glossary

Annual – Completes its life cycle in one year.

Floating – Leaves or the whole plant floats on the water's surface.

Oxygenator – Plant that can influence the level of oxygen in water; may assist in fish spawning.

Perennial – Lives more than two years.

Plant hardiness zone – Geographical regions where plants grow best.

Marginal – Lives along the shoreline with most vegetative and flowering parts growing above the water's surface.

Submerged – Grows underwater.

Joyce Latimer, Extension horticulturist, Virginia Tech; Debbie Dillion, Extension agent, Loudoun County; and Jim Orband, Extension agent, York County, reviewed this publication.

