

## Planting Methods

Water plants are typically planted in pockets, crates, or containers to contain the soil.

**Pockets** can be created during construction and used for all water plants. Pockets around the pool edge can hold marginal plants. Pockets on the bottom of the pond can be used for water lilies and other deeper water plants. Plants eventually outgrow the pockets.

**Crates or containers** are commonly used for most water garden plants and offer flexibility in plant arrangements. They also are easily replaced when plants outgrow them. Regular top soil (without organic matter) should be used. Crates with open slats and plastic pots with holes in the bottom should be lined with landscape fabric or untreated burlap. Plastic pots that do not have bottom holes also can be used.

## Fertilizing Plants

Most aquatic plants are heavy feeders and need fertilizing when planted and during the growing season. Aquatic plant fertilizers are available in three forms.

- *liquid*—added directly to the water for floating plants
- *tablets*—added during growing season
- *granular*—added when potting plants

Follow label directions for suggested amounts.

### Water Garden Design Tips

- Notice the water features in the natural landscape and at public gardens. What design ideas do you like? What plants do well in your area? What plants do well together?
- Include plants from all categories; proper plant selection is vital to the garden's success.
- Follow planting directions to promote plant survival.



## For More Information

Horticultural information on selection, planting, cultural practices, and environmental quality is available from your local Iowa State University Extension office and from these Web sites.

Eastern Iowa Pond Society—  
[www.geocities.com/RainForest/Vines/3938/](http://www.geocities.com/RainForest/Vines/3938/)

Central Iowa Water Garden Association—  
[www.ciwga.org](http://www.ciwga.org)

ISU Extension Publications—  
[www.extension.iastate.edu/pubs/](http://www.extension.iastate.edu/pubs/)

ISU Horticulture—  
[www.yardandgarden.extension.iastate.edu](http://www.yardandgarden.extension.iastate.edu)

Northern Iowa Association of Pond and Water Gardeners—  
[www.bio.uni.edu/outreach/ponds/](http://www.bio.uni.edu/outreach/ponds/)

Reiman Gardens—  
[www.reimangardens.iastate.edu](http://www.reimangardens.iastate.edu)

If you want to learn more about horticulture through training and volunteer work, ask your ISU Extension office for information about the ISU Extension Master Gardener program.

Prepared by Cindy Haynes, extension horticulturist; Jamie Beyer, Iowa master gardener; Rachel Volesky, horticulture student; and Diane Nelson, extension communication specialist. Illustrations by Jane Lenahan, Instructional Technology Center.

File: Hort and LA 2-1

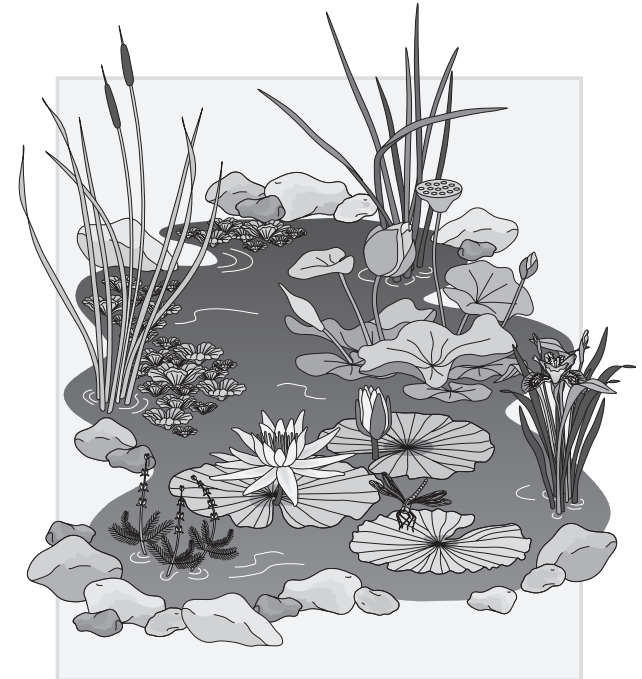
Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture. Stanley R. Johnson, director, Cooperative Extension Service, Iowa State University of Science and Technology, Ames, Iowa. 6/04

#### ... and justice for all

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs.) Many materials can be made available in alternative formats for ADA clients. To file a complaint of discrimination, write USDA, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call 202-720-5964.

REIMAN  
GARDENS  
IOWA STATE UNIVERSITY

# Water Gardens: Aquatic Plants



IOWA STATE UNIVERSITY  
University Extension

**W**ater sustains life in the garden and often becomes the center of attraction when added to a yard or garden. Starting a water garden—even one as simple as a large container of water—also expands the gardener's choice of possible plants to be enjoyed.

### Plant Selection

Space is limited in most water gardens so each plant should have a purpose—to add color, to add height, or to help deter algae. Using a variety of plants adds visual interest, as well as improving the health of the water garden.

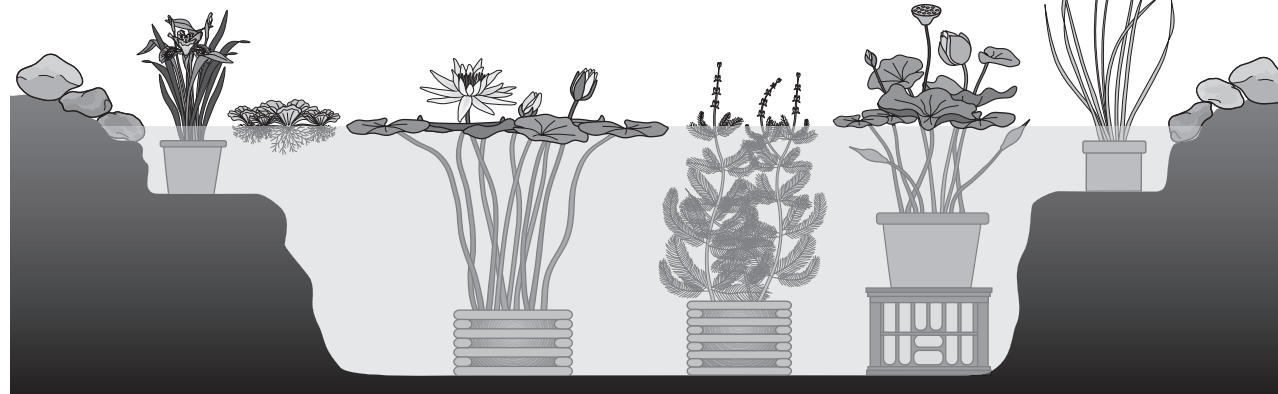
*Caution: If given the right conditions, most water plants can spread rapidly.*

### Floating Plants

Plants that float on the water's surface survive without soil by extracting nutrients from the water. Because they act as natural filters to remove excess nitrogen from the water, they also help control algal growth. Some gardeners compare the use of floating plants in water gardens with the use of ground-covers or annuals around larger perennials or shrubs.

Examples include the following:

- Duckweed (*Lemna*)
- Fairy moss (*Azolla*)
- Water hyacinth (*Eichhornia crassipes*)
- Water lettuce (*Pistia stratiotes*)



iris   water lettuce   hardy water lily   hornwort   lotus   miniature cattail

### Submerged Plants

Also called oxygenators, these plants grow under water. Submerged plants are usually sold as unrooted cuttings and take time to become established. They provide food and cover for fish and also help rid the pond of algae by absorbing excess nutrients in the water.

This group of plants can free float on the water surface or be planted in pots that are sunk to the bottom of ponds. Do not be alarmed if fish feed on the plants; they can regrow quickly, so no serious harm is done.

Examples include the following:

- Canadian pondweed (*Elodea*)
- Hornwort (*Ceratophyllum*)

### Shallow Marginal Plants

Also known as bog plants, these plants can survive with up to 3 inches of water over the plant crown. Marginal or bog plants add color and height to any shape of water garden. They also help blend an inground pool into the surrounding yard. Depending on the water garden design, these plants can be planted in pots set on underwater shelves, or they can be planted directly in soil around a pond or stream.

Examples include the following (all can be left in place over Iowa winters, except parrot's feather, which should be moved below ice level):

- Arrowhead (*Sagittaria* spp.)
- Cattail (*Typha* spp.)
- Cardinal flower (*Lobelia* spp.)
- Marsh marigold (*Caltha palustris*)
- Parrot's feather (*Myriophyllum aquaticum*)
- Water iris (*Iris laevigata*)
- Water plantain (*Alisma*)
- Yellow flag (*Iris pseudacorus*)

### Deep Water Plants

More than one gardener has added a water feature simply to enjoy the group of sun-loving plants that can survive with 4 to 10 or more inches of water over the plant's crown.

Waterlilies and lotus may be the best known of the group, but all provide contrast in the garden through floating leaves, upright spikes, and/or attention-grabbing flowers. Water lily and lotus leaves also provide shade for fish as well as shading out algae that would cloud the water. In a well-established pool, 40 to 50 percent of the surface area should be covered with leaves.

Follow plant instructions when planting any of these deep-water choices. Fountains inhibit water lily growth, so place these plants away from fountain sprays. Leaves and flowers are constantly replaced and should be removed when dead or dying to reduce the amount of organic matter that can feed algae.

Examples include the following (all should be moved below ice level, except tropical and Victoria water lilies, which should be brought inside or discarded on the compost pile):

- Dwarf or miniature water lily (*Nymphaea* spp.)
- Golden club (*Orontium aquaticum*)
- Hardy water lily (*Nymphaea* spp.)
- Lotus (*Nelumbo* spp.)
- Tropical water lily (*Nymphaea* spp.)
- Victoria lily (*Victoria* spp.)
- Yellow pondlily (*Nuphar lutea*)