

Aquarium Plants

Kingdom: Plantae

Conditions for Customer Ownership

We hold permits allowing us to transport these organisms. To access permit conditions, [click here](#).

Never purchase living specimens without having a disposition strategy in place.

Shipment of aquatic plants is prohibited in Puerto Rico. Shipment of *Cabomba* is restricted in CA, CT, MA, ME, VT, and WA. In all other cases, the USDA does not require any special permits to receive aquatic plants.

However, in order to continue to protect our environment, you must house your aquatic plants in an aquarium. Under no circumstances should you release your plants into the wild.



Primary Hazard Considerations

Always wash your hands thoroughly before and after you handle your aquatic plants, or anything it has touched.

Availability

Aquatic plants are generally available year round, and can be found in freshwater lakes and ponds. They are collected, so shortages may occur. The aquatic plants come packaged in plastic bags. Once received, open package and, using tap water, gently rinse away any debris or broken-off pieces. Some plants come in jars; remove lid and place in tank. Your plants do not need to be acclimated.

Aquarium Needs

Habitat:

- Water from the tap in most cases contains chlorine, which can be detrimental to the health of your plants and aquatic animals. De-chlorinate your water by using a commercial chemical designed to do so, such as Ammonia/Chlorine Detoxifier, or by leaving your water out in an open container for 24–48 hours. Tropical plants need temperatures ranging from 66–77°F. For an aquarium to function well, a [Filtration System 21 W 3535](#) is needed. You can use an outside filter system or an undergravel filter as long as the gravel bed is deep enough. An aquarium should have about 2 to 3 inches of [Aquarium Gravel 21 W 1800](#), especially if planting deep-rooted plants. Artificial light is a necessity for the development of aquarium plants. Plants kept under a 10 to 12 hour light schedule will have the same growth rate all year long. Plants react best to light, which is predominantly in the red and blue wavelengths. Such lighting is readily available in the form of special fluorescent tubes ([Fluorescent Light Source 21 W 5325](#)). Allow one plant for every 4-inch square of base area. Adding fish in the same tank will add healthy nitrogen.

Life Cycle, Propagation and Natural Habitat

- Most aquatic plants come from tropical and subtropical areas, with a few from the warmer parts of the temperate zone.
- *Elodea densa* originates in tropical Asia. It is a perennial, stoloniferous plant (producing shoot and buds). Propagation is by cutting of young stems.
- *Elodea canadensis* is native to North America and Canada. It is a perennial; the leaves are bright green, 6–17 mm long and 1–4 mm broad. Propagation is by cutting of young stems.
- *Wolffia sp.* is native to Florida and is found in temperate and subtropical areas of the world. It is a tiny, floating, rootless plant. At 1 to 1.5 mm long, it is the smallest flowering plant on earth. Propagation is by seeds; it forms winter buds at the bottom of lakes.
- *Vallisneria spiralis* is in tropical and subtropical regions including the Southern part of the United States. Propagation is by offshoot, which should carry a leaf rosette.
- *Vallisneria gigantea* (jungle vallisneria) is found in the Philippine Islands and in New Guinea. Propagation is by offshoot, which should carry a leaf rosette.
- *Riccia fluitans* is found worldwide, tropical and temperate. Propagation is by division of the thallus.

- *Azolla caroliniana* is a species native to North and South America and the Caribbean. It is a freshwater aquatic fern, with scale-like fronds 5–10 mm long, green to reddish, most often reddish in strong light and in winter. Propagation is by division.
- *Cabomba caroliniana* (fanwort) is native to the east and west coast, and is not found in the midwest. Propagation is by cutting of young stems.
- *Isoetes lacustris* (quillwort) is native to Europe, North America, Canada, and Siberia. Quillwort has many long, narrow leaves from 8–20 cm long and 0.5–2 mm broad, widening to 5 mm broad at the base. Propagation is by dividing older tufts or by spores.
- *Salvinia rotundifolia* is mostly tropical; North America, Mexico, West Indies, Central America, South America, Eurasia, and Africa, including Madagascar. *Salvinia* is a free floating, heterosporous (producing spores of differing sizes) fern, 1 to 4 cm long.
- *Marsilea quadifolia* (four leaf clover) originates in Europe, and was introduced to the Eastern United States. Propagation is by division of the root stock. Does well in shaded, half-submerged tanks.
- *Echinodorus paniculatus* (amazon sword) is native to South America. They reproduce by division of the plantlets, which develop on the shoot, and by seed.
- *Cryptocoryne wendtii* originates in tropical Asia. It is a perennial, stoloniferous plant (producing shoots and buds). Propagation is by division of the rhizome (the underwater base of the stem).
- *Lemna minor* (duckweed) is distributed from the tropics to the temperate zones. An annual, floating, short-stemmed plant, it usually forms colonies of 2 to 4 individuals. Propagation is rapid vegetative.
- *Ludwigia repens* (false loosestrife) is found in Europe, Asia, Africa, and North and South America. It is a perennial and annual plant. Propagation is vegetative.
- *Sagittaria graminea* (grassleaf) is distributed in the eastern United States and Canada. A perennial aquatic or marsh plant, it does well partly or completely submerged. Propagation is by offshoot and by seed.
- *Ceratophyllum demersum* is found in the United States, Puerto Rico, the Virgin Islands, and throughout most of Canada. It is an herbaceous perennial plant. Propagation is by division of the stems. It is an excellent species for oxygenating water.
- *Nymphoides aquatica* (underwater banana) is found in the Atlantic coast of North America, particularly in Florida. Propagation is by division of the shoots that grow on the leaf stalks.
- *Sagittaria subulata* (dwarf sagittaria) is common and widespread in South and North America. This fast growing plant resembles grass and can grow above the water level. The Dwarf *Sagittaria* will propagate by producing multiple runners.

Species	Class	Temp.	Rooted	Species	Class	Temp.	Rooted
<i>Elodea densa</i>	Monocot	50–77°F	Small roots	<i>Marsilea quadifolia</i>	Monocot	64–82°F	Rooted
<i>Elodea canadensis</i>	Monocot	50–77°F	Small roots	<i>Echinodorus paniculatus</i>	Monocot	68–77°F	Rooted
<i>Wolffia sp.</i>	Monocot	62–78°F	Floating plant	<i>Cryptocoryne wendtii</i>	Dicot	68–86°F	Rooted
<i>Vallisneria spiralis</i>	Monocot	59–72°F	Rooted	<i>Lemna minor</i>	Monocot	41–77°F	Floating plant
<i>Vallisneria gigantea</i>	Monocot	68–77°F	Rooted	<i>Ludwigia repens</i>	Dicot	59–77°F	Rooted
<i>Riccia fluitans</i>		59–77°F	Floating plant	<i>Sagittaria graminea</i>	Monocot	59–77°F	Rooted
<i>Azolla caroliniana</i>		77–86°F	Floating plant	<i>Ceratophyllum demersum</i>	Dicot	50–65°F	No roots
<i>Cabomba caroliniana</i>	Dicot	50–77°F	Rooted	<i>Nymphoides aquatica</i>	Dicot	50–77°F	Small roots
<i>Isoetes lacustris</i>	Monocot	68–78°F	Rooted	<i>Sagittaria subulata</i>	Monocot	42–82°F	Rooted
<i>Salvinia rotundifolia</i>		68–89.6°F	Floating plant				

Disposition

- Please dispose of excess living material in a manner to prevent spread into the environment. Consult with your schools to identify their preferred methods of disposal.
- Do one of the following:
 - Place aquarium plants in a freezer for 48 hours
 - Allow aquarium plants to “dry out” for 72 hours
 - Incinerate aquarium plants