Plants For
Lakefront Revegetation

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Seminole County’s continued effort to provide its citizens with vital information about our water resources, the County has been authorized by the Bureau of Invasive Plant Management of the Florida Department of Environmental Protection to reprint the Department’s, “Plants for Lakefront Revegetation” by John Rodgers. This publication is an excellent guide for waterfront owners to design their pond, lake, and stream/river property. As you landscape your lawn, this publication provides information needed to select beneficial native aquatic and wetland plants to aquascape your waterfront property.

*Please note, the cost range for each plant identified in this guide is a suggested rate at the time of printing and is subject to change.*
The benefits of revegetation with native plants have been widely published. The following is a summary of the advantages of replanting a shoreline:

1. Food source for wildlife.
2. Protective cover for small fish and other animals.
3. Source of nesting material for reptiles, birds, and small mammals.
4. Shade for fish and humans (cypress trees).
5. Erosion control and soil stabilization.
6. Aesthetics and landscaping appeal.
9. Plant competition for preventing encroachment of invasive exotics such as hydrilla.
10. Living surface for small insects and other invertebrates important to fisheries.

The plants listed in this document are species that can be used to provide one or more of the above. Below is a brief explanation of the terms used in this document:

**Average Height:** Typical height of the plant from substrate to top of leaves (not flowers).

**Leaf Type:** Shape of mature leaves.

**Leaf Size:** Length of mature leaves.

**Flower Type:** Arrangement and/or number of flowers per stem or stalk.

**Flower Color:** Color of the plant’s flowers.

**Flowering Season:** Spring (April, May, June), summer (July, Aug, Sept), fall (Oct, Nov, Dec), and winter (Jan, Feb, Mar).

**Habitat:** Most common areas where plant is found.

**Wildlife Value:** Animals that utilize the plant.

**Distribution:** Location within the state – South, Central, and North Florida.

**Overwinter:** Survivability, leaf drop, or leaf burn occurrence.

**Common Uses:** Reasons why plant is used – erosion control, landscape, fish habitat, nesting, etc.

**Soil:** Suggested planting substrate such as sand or muck.

**Light:** Shade or sun preference.

**Salinity:** Tolerance to brackish water (low – freshwater, medium – brackish, high – estuaries).

Propagation: How a plant reproduces or spreads. Rhizomes are underground stems that produce daughter plants.

**Pest Problems:** Insect, small mammal or reptile damage, and grass carp if they have been stocked in the waterbody.

**Growth Rate:** Slow, medium, or fast growth.

**Water Depth:** Typical recommended water depth of planting (not the maximum depth a plant can survive).

**Density:** Typical recommended spacing of plantings.

**Planting:** Planting suggestions to improve survivability.

**Survivability:** Low, medium or high.

**Cost:** Retail and wholesale cost per plant (does not include labor). Cost is dependent on the quantity, size, and time of year purchased. These cost figures are an average based on several sources checked in 2001-2002.
**HIBISCUS**

*(Hibiscus coccineus* (red) • *Hibiscus laevis* (white to pink) • *Hibiscus moscheutos* (white to cream) • *Hibiscus grandiflorus* (light-pink))

### DESCRIPTION

- **Average Height:** 5 to 6 ft
- **Leaf Type:** Ovate, some strongly lobed
- **Leaf Size:** 4 to 6”
- **Flower Type:** Single flower per leaf axil, numerous on plant
- **Flower Color:** Red, white or pink
- **Flowering Season:** Spring to summer
- **Habitat:** Marshes, edges of streams and lakes
- **Wildlife Value:** Shelter for small birds; butterfly attractor
- **Distribution:** Statewide
- **Overwinter:** Leaves and stems die back; resprout in spring
- **Common Uses:** Flowering shrub

### PLANTING REQUIREMENTS

- **Soil:** Sand to muck, prefers acid soils
- **Light:** Medium to high
- **Salinity:** Low (except *H. coccineus* and *H. grandiflorus*, occasionally in brackish marshes)
- **Propagation:** Seeds (and cuttings)
- **Pest Problems:** None
- **Growth Rate:** Medium to fast
- **Water Depth:** Moist soils and seasonal wet areas
- **Density:** 5 ft apart
- **Planting:** Trim branches to avoid leggy appearance and to promote bloom production
- **Survivability:** High (using small potted plants)
- **Cost:**
  - Retail: $15.00 3 gal
  - Wholesale: $4.00 - 6.00 3 gal (250 minimum order)
HIBISCUS

Hibiscus coccineus (red) • Hibiscus laevis (white to pink)
Hibiscus moscheutos (white to cream) • Hibiscus grandiflorus (light-pink)
**BALD CYPRESS**
*(Taxodium distichum)*

**DESCRIPTION**

**Average Height:** 60 to 80 ft

**Leaf Type:** Tiny on green, feather-like branchlets

**Leaf Size:** 1/4” to 3/8” long

**Flower Type:** No flowers; seeds formed in small, round female cones

**Flower Color:** Cones green to brown; pollen formed in long delicate cones

**Flowering Season:** Pollen released in spring

**Habitat:** Marshes, rivers, lakes

**Wildlife Value:** Habitat for fish and other aquatic animals; birds nest in upper branches; wood ducks and mammals feed on seeds

**Distribution:** Statewide

**Overwinter:** Branchlets drop during late fall to early winter (one of a few deciduous conifers)

**Common Uses:** Either along the shoreline or offshore; frequently grouped in clusters of 3 or more, good shade tree during spring through fall

**PLANTING REQUIREMENTS**

**Soil:** Sand to muck

**Light:** Medium to high

**Salinity:** Low to medium (brackish)

**Propagation:** Seeds

**Pest Problems:** None

**Growth Rate:** Medium, about 1 to 2 ft/yr

**Water Depth:** Upland to 36” of water

**Density:** 10 ft apart

**Planting:** Grows well in dry (if watered frequently during establishment) to wet soil; don’t plant in too deep of water to increase survivability (seeds must be unflooded to germinate)

**Survivability:** High with small trees

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BALD CYPRESS

*Taxodium distichum*
GOLDEN CANNA
(Canna flaccida)

DESCRIPTION

Average Height: 3 to 4 ft
Leaf Type: Lance shape
Leaf Size: 12 to 18” long
Flower Type: A few large flowers on a short spike
Flower Color: Yellow
Flowering Season: Mid spring to summer
Habitat: Marshes, ponds, and lake margins
Wildlife Value: Butterfly attractor
Distribution: South, Central and North Florida (west to Franklin County)
Overwinter: Hard freeze will brown upper leaves (lower leaves will remain green), but will not kill plant
Common Uses: Ornamental plant with large, showy flowers producing season-long color

PLANTING REQUIREMENTS

Soil: Sand to muck
Light: Medium to high
Salinity: Low
Propagation: Seeds and rhizomes
Pest Problems: Insect (aphids) leaf damage, not a preferred grass carp plant
Growth Rate: Fast
Water Depth: Dry, moist soils to intermittent flooding
Density: 18” apart
Planting: Will survive in low sunlight, but requires full sun to produce blooms
Survivability: High
Cost: Retail $ 6.00 1 gal
Wholesale $ 0.25 – 0.45 bareroot (1000 minimum order)
$ 1.50 1 gal (1000 minimum order)
GOLDEN CANNA

(Canna flaccida)
**ALLIGATOR FLAG**

*(Thalia geniculata)*

**DESCRIPTION**

- **Average Height:** 6 to 8 ft
- **Leaf Type:** Lance shape
- **Leaf Size:** 1 to 2 1/2 ft long
- **Flower Type:** Panicle spikes
- **Flower Color:** Purple
- **Flowering Season:** Spring to summer
- **Habitat:** Marshes, rivers
- **Wildlife Value:** Habitat for aquatic animals; butterfly attractor; ducks and mammals feed on seeds
- **Distribution:** Statewide
- **Overwinter:** Dies back in winter; resprouts from rhizomes during spring
- **Common Uses:** Can be used in partial shade areas and as protective cover for wildlife

**PLANTING REQUIREMENTS**

- **Soil:** Sand to muck
- **Light:** Low/medium to high
- **Salinity:** Low
- **Propagation:** Seeds and rhizomes
- **Pest Problems:** Insect (aphids and spider mites) leaf damage, not a preferred grass carp plant
- **Growth Rate:** Fast
- **Water Depth:** Moist soils and intermittent flooding
- **Density:** 3 ft apart
- **Planting:** Strong winds can cause some leaf damage in unprotected areas
- **Survivability:** High
- **Cost:**
  - Retail: $4.50 per 1 gal
  - Wholesale: $0.40 – 0.57 per bareroot (1000 minimum order)
ALLIGATOR FLAG
(Thalia geniculata)
SOUTHERN BLUE-FLAG
(Iris virginica)

DESCRIPTION

Average Height: 2 to 2 1/2 ft
Leaf Type: Ribbon shape, or strap-like
Leaf Size: 2 to 2 1/2 ft long
Flower Type: Single flower at a time on short spike
Flower Color: Blue to blue-purple
Flowering Season: Spring
Habitat: Marshes, ponds and streams
Wildlife Value: Habitat for small aquatic animals; butterfly attractor
Distribution: Central and North Florida
Overwinter: Evergreen
Common Uses: Ornamental plant with showy flowers, especially when planted in dense groupings

PLANTING REQUIREMENTS

Soil: Sand to muck
Light: Medium to high
Salinity: Low
Propagation: Seeds; rhizomes
Pest Problems: Infrequent caterpillar and aphid damage; not a preferred grass carp plant
Growth Rate: Medium
Water Depth: Water’s edge, moist soils to intermittent flooding
Density: 1 to 2 ft apart
Planting: Will survive in low sunlight, but requires full sun to produce blooms
Survivability: High
Cost: Retail $ 3.50 1 gal
      Wholesale $ 0.25 – 0.30 bareroot (1000 minimum order)
           $ 1.75 – 2.00 1gal (1000 minimum order)
SOUTHERN BLUE-FLAG

(Iris virginica)
SWAMP LILY
(Crinum americanum)

DESCRIPTION

Average Height: 2 ft
Leaf Type: Ribbon shape, or strap-like
Leaf Size: 12 to 24” long
Flower Type: 2 to 6 flowers on long stalk
Flower Color: White
Flowering Season: Spring to summer
Habitat: Marshes, rivers
Wildlife Value: Habitat for small aquatic animals; ducks and mammals feed on seeds
Distribution: Statewide
Overwinter: Hard freeze will cause leaves to turn yellow and burn, but will not kill plant
Common Uses: Along shoreline as a border plant; showy fragrant flowers

PLANTING REQUIREMENTS

Soil: Sand to mud
Light: Low to medium
Salinity: Low to medium (brackish)
Propagation: Seeds
Pest Problems: None, not a preferred grass carp plant
Growth Rate: Medium
Water Depth: Edge to 3” of water, seasonal wet areas
Density: 2 ft apart
Planting: Make sure leaves are above water and not in an area flooded all year; in nature, it’s usually found in partial or deep shade
Survivability: High
Cost:
- Retail: $4.00 1 gal
- Wholesale: $0.40 – 0.50 bareroot (1000 minimum order)
  $1.50 – 2.00 1 gal (1000 minimum order)
  $3.50 – 5.00 3 gal (1000 minimum order)
SWAMP LILY
(Crinium americanum)
**DUCK POTATO**
*(Sagittaria latifolia)*

### DESCRIPTION

**Average Height:** 2 1/2 ft  
**Leaf Type:** Arrowhead shape  
**Leaf Size:** 7 to 10” long  
**Flower Type:** In whorls of 3 flowers on tall flowering stalk  
**Flower Color:** White  
**Flowering Season:** Spring to fall  
**Habitat:** Marshes, rivers, lakes  
**Wildlife Value:** Habitat for fish and other aquatic animals; butterfly attractor; waterbirds and mammals feed on seeds and tubers  
**Distribution:** Statewide  
**Overwinter:** Hard freeze will brown margins of leaves, but will not kill plant  
**Common Uses:** Along edge of shoreline, usually landward of arrowhead and pickerelweed

### PLANTING REQUIREMENTS

**Soil:** Sand to muck  
**Light:** Low to high  
**Salinity:** Low  
**Propagation:** Seeds and rhizomes  
**Pest Problems:** Leaf spots and aphid damage occasionally; not a preferred grass carp plant  
**Growth Rate:** Medium  
**Water Depth:** Edge to 6” of water  
**Density:** 2 ft apart  
**Planting:** Make sure leaves are above water; plant landward of Sagittaria lancifolia  
**Survivability:** High  
**Cost:**  
- Retail: $ 3.50  
- Wholesale: $ 0.35 – 0.55 bareroot (1000 minimum order)
DUCK POTATO
(Sagittaria latifolia)
ARROWHEAD
(Sagittaria lancifolia)

DESCRIPTION

Average Height: 3 ft
Leaf Type: Lance shape
Leaf Size: 9 to 12” long
Flower Type: In whorls of 3 flowers on tall flowering stalk
Flower Color: White
Flowering Season: Spring to fall
Habitat: Marshes, rivers, lakes
Wildlife Value: Habitat for fish and other aquatic animals; butterfly attractor; ducks and mammals feed on seeds and tubers
Distribution: Statewide
Overwinter: Hard freeze will brown margins of leaves, but will not kill plant
Common Uses: Along shoreline, it’s light-green leaves and white flowers are a good contrast to the dark-green leaves and purple flowers of pickerelweed

PLANTING REQUIREMENTS

Soil: Sandy to muck
Light: Medium to high
Salinity: Low to medium (brackish)
Propagation: Seeds and rhizomes
Pest Problems: Weevils infrequently feed on flowering stalks; yellowing of leaves during late fall; not a preferred grass carp plant
Growth Rate: Medium
Water Depth: 6 to 12” of water
Density: 1 to 2 ft apart
Planting: Make sure leaves are above water; tends to grow in slightly shallower water than pickerelweed
Survivability: High
Cost: Retail $ 2.50 1 gal
        Wholesale $ 0.25 – 0.55 bareroot (1000 minimum order)
                      $ 1.25 4” pot (1000 minimum order)
ARROWHEAD
(Sagittaria lancifolia)
DESCRIPTION

Average Height: 3 ft  
Leaf Type: Lance to heart shape  
Leaf Size: 7 to 10” long  
Flower Type: Spike  
Flower Color: Purple  
Flowering Season: Spring to fall  
Habitat: Marshes, rivers, lakes  
Wildlife Value: Habitat for fish and other aquatic animals; stems provide surface for apple snail attachment; butterfly attractor; ducks and mammals feed on seeds  
Distribution: Statewide  
Overwinter: Hard freeze will brown leaves, but will not kill plant  
Common Uses: Along shoreline as a border plant, provides good erosion control

PLANTING REQUIREMENTS

Soil: Sand or muck  
Light: Medium to high  
Salinity: Low  
Propagation: Seeds and rhizomes  
Pest Problems: Not a preferred grass carp plant; insect (borer and weevil) damage on leaves and stems is not uncommon, but usually will not kill plant  
Growth Rate: Medium  
Water Depth: 6 to 18” of water  
Density: 1 to 2 ft apart  
Planting: Make sure leaves are above water; tends to grow in slightly deeper water than arrowhead  
Survivability: High  
Cost: 
Retail: $ 2.25 1 gal  
Wholesale: $ 0.25 – 0.45 bareroot (1000 minimum order)  
$ 1.25 4” pot (1000 minimum order)
PICKERELWEED

(*Pontederia cordata*)
**SAND CORD GRASS**  
* (Spartina bakeri)  

**DESCRIPTION**  

- **Average Height:** 4 1/2 ft  
- **Leaf Type:** Rolled or curled grass leaves  
- **Leaf Size:** 10 to 30” long  
- **Flower Type:** Narrow cluster of small spikes  
- **Flower Color:** Bronze  
- **Flowering Season:** Summer to fall  
- **Habitat:** Marshes, lakes  
- **Wildlife Value:** Habitat for small animals; waterfowl and songbirds feed on seeds  
- **Distribution:** Statewide  
- **Overwinter:** Hard freezes may cause some leaf browning  
- **Common Uses:** Along shoreline in fresh and brackish waters; good erosion control  

**PLANTING REQUIREMENTS**  

- **Soil:** Sand to muck  
- **Light:** Medium to high  
- **Salinity:** Low to medium (brackish to saline tidal marshes)  
- **Propagation:** Seeds and rhizomes (division)  
- **Pest Problems:** None  
- **Growth Rate:** Medium  
- **Water Depth:** Dry to moist soils; can survive in dry soils and extended flooded areas for long periods of time  
- **Density:** 3 ft apart  
- **Planting:** Establish at or above shoreline in moist soils  
- **Survivability:** High  
- **Cost:**  
  - **Retail:**  
    - $3.50 1 gal  
    - $8.50 3 gal  
  - **Wholesale:**  
    - $0.35 bareroot (1000 minimum order)  
    - $1.40 – 1.75 1 gal (1000 minimum order)  
    - $3.50 – 4.00 3 gal (1000 minimum order)
SAND CORD GRASS
(Spartina bakeri)
SOFT RUSH

(Juncus effusus)

DESCRIPTION

Average Height: 3 to 4 ft
Leaf Type: Leaves inconspicuous; stems green, round, tubular
Leaf Size: Blades absent; stems elongated with stiff green bract rising above flower cluster
Flower Type: Cluster of spikelets
Flower Color: Greenish-brown
Flowering Season: Summer
Habitat: Marshes
Wildlife Value: Habitat (shelter and nesting) for aquatic mammals and birds; ducks and small mammals feed on seeds
Distribution: Statewide
Overwinter: Evergreen
Common Uses: Along shoreline in fresh and brackish water areas; good erosion control plant

PLANTING REQUIREMENTS

Soil: Sandy to muck
Light: Medium to high
Salinity: Low to medium (brackish)
Propagation: Seeds and rhizomes
Pest Problems: None; not a preferred grass carp plant
Growth Rate: Medium
Water Depth: Moist soils; can survive extended flooding
Density: 3 ft apart
Planting: Can be sectioned into individual plants or clumps
Survivability: High
Cost:

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SOFT RUSH

(Juncus effusus)
SPIKERUSH
(Eleocharis cellulosa & interstincta)

DESCRIPTION

Average Height: 2 1/2 ft
Leaf Type: Leaves inconspicuous; stems green, round, tubular
Leaf Size: Blades are absent, stems elongated
Flower Type: Small short spike with scales, not showy
Flower Color: Yellow-brown
Flowering Season: Spring to fall
Habitat: Marshes, lakes
Wildlife Value: Habitat for fish and other aquatic animals; ducks and mammals feed on seed head
Distribution: Statewide
Overwinter: Yellowing of stems
Common Uses: Adds diversity to shoreline plants and attracts wildlife

PLANTING REQUIREMENTS

Soil: Sand to muck
Light: Medium to high
Salinity: Low to medium (brackish)
Propagation: Seeds and rhizomes
Pest Problems: None; not a preferred grass carp plant
Growth Rate: Medium
Water Depth: 6 to 12” of water
Density: 2 ft apart
Planting: Prefers shallow water areas, clumps soon send out rhizomes
Survivability: High
Cost:
Retail $ 2.50 1 gal
Wholesale $ 0.25 to 0.45 bareroot (1000 minimum order)
SPIKERUSH

(Eleocharis cellulosa & interstincta)
**PASPALIDIUM GRASS**

*(Paspalidium geminatum)*

**DESCRIPTION**

- **Average Height:** 3 ft
- **Leaf Type:** A grass; leaves with sheaths and blades
- **Leaf Size:** 8 to 12” long
- **Flower Type:** Spikelet seed head
- **Flower Color:** Green
- **Flowering Season:** All year
- **Habitat:** Marshes, rivers, and lakes
- **Wildlife Value:** Excellent habitat for fish and other aquatic animals
- **Distribution:** Statewide
- **Overwinter:** Stems and leaves may brown in hard freeze
- **Common Uses:** Planted in shallows beyond shoreline plants such as pickerelweed to improve fisheries

**PLANTING REQUIREMENTS**

- **Soil:** Sand to muck
- **Light:** Medium to high
- **Salinity:** Low
- **Propagation:** Seeds and rhizomes
- **Pest Problems:** None, not a preferred grass carp plant
- **Growth Rate:** Medium
- **Water Depth:** 12 to 18” of water
- **Density:** 2 ft apart
- **Planting:** Leaves must be above water; place rhizomes on top or slightly below soil; weigh down if necessary in windy areas
- **Survivability:** Medium to high
- **Cost:**
  - Retail: $3.00 1 gal
  - Wholesale: $0.45 – 0.55 2” pot (1000 minimum order)
PASPALIDIUM GRASS

(Paspalidium geminatum)
MAIDENCANE

(Panicum hemitomon)

DESCRIPTION

Average Height: 3 ft
Leaf Type: A grass; leaves with sheaths and blades
Leaf Size: 7 to 11” long
Flower Type: Spikelet seed head
Flower Color: Green
Flowering Season: Summer
Habitat: Marshes, rivers, lakes
Wildlife Value: Excellent habitat for fish and other aquatic animals, especially invertebrates; seeds fed upon by songbirds
Distribution: Statewide
Overwinter: Stems and leaves may brown in hard freeze
Common Uses: Planted in shallows beyond shoreline plants such as pickerelweed to improve fisheries

PLANTING REQUIREMENTS

Soil: Sand to muck
Light: Medium to high
Salinity: Low
Propagation: Seeds and rhizomes
Pest Problems: None, not a preferred grass carp plant
Growth Rate: Medium
Water Depth: 12 to 18” of water
Density: 2 ft apart
Planting: Make sure leaves are above water and rhizomes are firmly in soil
Survivability: Medium to high
Cost:
Retail $ 2.25 1 gal
Wholesale $ 0.25 - 0.40 bareroot (1000 minimum order)
$ 0.45 - 0.55 2” pot (1000 minimum order)
$ 0.75 - 0.80 4” pot (1000 minimum order)
MAIDEN CANE

(Panicum hemitomon)
JOINTED FLAT SEDGE

(Cyperus articulatus)

DESCRIPTION

Average Height: 5 ft
Leaf Type: Leaves inconspicuous; stems green, round, tubular
Leaf Size: Blades are absent, stems elongated
Flower Type: Cluster of spikelets
Flower Color: Light-brown
Flowering Season: Summer to fall
Habitat: Marshes, rivers, lakes
Wildlife Value: Habitat for fish and other aquatic animals; songbirds feed on seeds
Distribution: Statewide
Overwinter: Some browning of stems
Common Uses: Offshore, planted in deeper water

PLANTING REQUIREMENTS

Soil: Sand to muck
Light: Medium to high
Salinity: Low to medium (brackish)
Propagation: Seeds and rhizomes
Pest Problems: None; not a preferred grass carp plant
Growth Rate: Medium
Water Depth: 18 to 30” of water
Density: 3 ft apart
Planting: Use small plants versus large mature plants; place between shoreline plants and bulrush/water lily plants; stems are frequently bent over mid-way to prevent whipping of plants in windy areas; new stems will sprout.
Survivability: High
Cost: Retail $ 4.00 1 gal
          Wholesale $ 0.60 – 0.85 bareroot (1000 minimum order)
JOINTED FLAT SEDGE

(Cyperus articulatus)
# BULRUSH

*(Scirpus californicus & validus)*

## DESCRIPTION

**Average Height:**  *S. californicus* – 6 to 9 ft  
*S. validus* – 4 to 5 ft  

**Leaf Type:** Leaves inconspicuous. Stems green, round tubular, tall  
**Leaf Size:** Reduced sheaths with blades absent.  

**Flower Type:** Spikelets, not showy  
**Flower Color:** Brown  
**Flowering Season:** Spring to fall  
**Habitat:** Marshes, rivers, lakes  

**Wildlife Value:** Excellent habitat for fish and other aquatic animals; stems provide surface for apple snail and invertebrate attachment; ducks, songbirds and mammals feed on seeds  
**Distribution:** Statewide  
**Overwinter:** Generally evergreen  
**Common Uses:** Plant offshore in deeper water to improve fisheries and for songbird/wading bird habitat

## PLANTING REQUIREMENTS

**Soil:** Sandy or muck  
**Light:** Medium to high  
**Salinity:** Low to medium (brackish)  
**Propagation:** Seeds and rhizomes  

**Pest Problems:** At times insect damage can be heavy, especially during early fall; not a preferred grass carp plant  
**Growth Rate:** Medium  
**Water Depth:** 24 to 36” of water  
**Density:** 3 ft apart  

**Planting:** Use small plants versus large mature plants; stems are frequently bent over mid-way to prevent whipping of plants in windy areas; weigh down plants in deeper water; seeds can be spread in shallow muddy areas  
**Survivability:** Medium  
**Cost:**  
Retail  $ 2.60  1 gal  
Wholesale  $ 0.35 – 0.45  bareroot  (1000 minimum order)
BULRUSH
(Scirpus californicus & validus)
YELLOW WATER LILY
(Nymphaea mexicana)

DESCRIPTION

Average Height: Floating leaves
Leaf Type: Roundish heart shapes
Leaf Size: 6” to 8” wide
Flower Type: Single flower per stem
Flower Color: Yellow
Flowering Season: Summer
Habitat: Marshes, lakes and quiet streams
Wildlife Value: Habitat and shade for fish and other aquatic animals; mammals feed on tender stems
Distribution: Statewide
Overwinter: Perennial, majority of the leaves die off; overwintering rhizomes or stolons develop in late fall and occasionally produce small leaves.
Common Uses: Deep water plant used to improve fisheries, showy yellow blooms attractive

PLANTING REQUIREMENTS

Soil: Sand to muck
Light: Medium to high
Salinity: Low
Propagation: Seeds and rhizomes
Pest Problems: Insect leaf damage; turtles and small mammals feed on the leaves; not a preferred grass carp plant
Growth Rate: Medium
Water Depth: 24” to 36” of water
Density: 5 ft apart
Planting: Place rhizome cluster just below soil (trim off stolons)
Survivability: Medium
Cost: Retail $ 16.00 1 gal (multi-leaf)
Wholesale $ 2.50 - 3.00 bareroot (1000 minimum order)
YELLOW WATER LILY

(Nymphaea mexicana)
FRAGRANT WATER LILY
(Nymphaea odorata)

**DESCRIPTION**

*Average Height:* Floating leaves  
*Leaf Type:* Large, roundish heart shapes  
*Leaf Size:* 10 to 18” wide  
*Flower Type:* Single flower per stem  
*Flower Color:* White  
*Flowering Season:* Spring to fall  
*Habitat:* Marshes, lakes, and quiet streams  
*Wildlife Value:* Habitat and shade for fish and other aquatic animals; invertebrates attach on underside of leaves; ducks and mammals feed on seeds and stems  
*Distribution:* Statewide  
*Overwinter:* Evergreen  
*Common Uses:* Deep water plant for fisheries; showy sweet-scented flowers aesthetically pleasing

**PLANTING REQUIREMENTS**

*Soil:* Sand to muck  
*Light:* Medium to high  
*Salinity:* Low  
*Propagation:* Seeds and rhizomes  
*Pest Problems:* Insect and fungal leaf damage; ducks, turtles and small mammals feed on the leaves; not a preferred grass carp plant  
*Growth Rate:* Medium  
*Water Depth:* 30 to 36” of water  
*Density:* 5 ft apart  
*Planting:* Use a 18 to 24” long rhizome for planting, place on soil, weight down; leaf tear damage may occur in windy areas  
*Survivability:* High  
*Cost:*  
<table>
<thead>
<tr>
<th>Type</th>
<th>Retail</th>
<th>Wholesale</th>
<th>1 gal</th>
<th>1000 minimum order</th>
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<tbody>
<tr>
<td></td>
<td>$ 16.00</td>
<td>$ 0.90 – 1.20</td>
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FRAGRANT WATER LILY
(Nymphaea odorata)
SPATTERDOCK
(Nuphar luteua/advena)

DESCRIPTION

**Average Height:** Floating leaf or extending several inches above water surface  
**Leaf Type:** Heart shaped, longer than wide  
**Leaf Size:** 10 to 13” long  
**Flower Type:** Single, ovoid shape flower per stem  
**Flower Color:** Yellow  
**Flowering Season:** Late winter to summer  
**Habitat:** Marshes, rivers, lakes  
**Wildlife Value:** Habitat and shade for fish and other aquatic animals; waterbirds feed on seeds  
**Distribution:** Statewide  
**Overwinter:** No freeze damage (see pest problem below)  
**Common Uses:** Deep water plant; good plant for fisheries

PLANTING REQUIREMENTS

**Soil:** Sand to muck  
**Light:** Medium - high  
**Salinity:** Low  
**Propagation:** Seeds and rhizomes  
**Pest Problems:** Heavy insect damage to leaves and upper stems during winter; not a preferred grass carp plant  
**Growth Rate:** Fast in muck  
**Water Depth:** 30 to 36” of water  
**Density:** 5 ft apart  
**Planting:** Use small plant with submersed leaves or use 8 to 12” length rhizome for planting; place on soil, weigh down, leaves may die off soon after planting with new sprouts occurring in several weeks  
**Survivability:** High  
**Cost:**  
Retail $ 12.00 1 gal  
Wholesale $ 1.00 – 1.10 bareroot (1000 minimum order)
SPATTERDOCK

(Nuphar lutea/advena)
**TAPE-GRASS, EEL-GRASS**

*(Vallisneria americana)*

### DESCRIPTION

- **Average Height:** Plants submersed, 6 inches tall to several feet (horizontal length in flowing water)
- **Leaf Type:** Ribbon shape
- **Leaf Size:** 6 inches to several feet (in flowing water)
- **Flower Type:** Single flower per stalk; only female flowers seen at surface
- **Flower Color:** White, tiny green tube
- **Flowering Season:** Spring to summer
- **Habitat:** Rivers, lakes
- **Wildlife Value:** Excellent habitat for fish and other aquatic animals including invertebrates; waterfowl feed on leaves and flowers
- **Distribution:** Statewide
- **Overwinter:** Evergreen
- **Common Uses:** Excellent submersed species for fisheries; good competitor to invasive species such as hydrilla; reduces turbidity from sediments

### PLANTING REQUIREMENTS

- **Soil:** Sand to muck
- **Light:** Low to high
- **Salinity:** Low to medium (brackish)
- **Propagation:** Seeds, rhizomes and winter buds
- **Pest Problems:** Not a preferred grass carp plant; turtles feed on leaves
- **Growth Rate:** Medium
- **Water Depth:** 12” to 36” of water
- **Density:** 2 ft apart
- **Planting:** Plant in shallow water for best results; fence in area to prevent turtles from eating leaves; plant winter vegetative buds by burying them into the sediment 2 to 3” deep; make sure filamentous algae doesn’t cover water surface and shade out eel-grass
- **Survivability:** Low
- **Cost:**
  - Retail: $1.00 bareroot
  - Wholesale: $0.25 – 0.30 bareroot (1000 minimum order)
TAPE-GRASS, EEL-GRASS

(Vallisneria americana)