

# Finding Alternatives to Invasive Ornamental Plants in New York



Cornell University  
Cooperative Extension  
of Suffolk County

# *Finding Alternatives to Invasive Ornamental Plants in New York*

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**On the Cover:** The Native-Friendly Demonstration Garden, a demonstration garden for some alternative plants to invasive ornamental plants. The Native-Friendly Demonstration Garden is located at the Long Island Horticultural Research & Extension Center, 3059 Sound Avenue, Riverhead, NY 11901.

All photos by Alexis A. Alvey, except where otherwise noted.

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# Introduction

## *Frequently Asked Questions About Invasive Plants*

### ***What is an invasive plant?***

The concept of “invasive” plants can be difficult to define and controversial. An invasive plant is generally considered to be a plant that is not native to the ecosystem under consideration AND whose introduction causes measurable harm to the natural and scenic environment, agriculture, recreation, and human health and safety. This definition DOES NOT include plants which behave aggressively only in garden settings.

### ***Where do invasive plants come from?***

Invasive plants may have been intentionally or inadvertently brought into a specific area for their ornamental value or ability to be used for food, fiber, or habitat restoration. Some invasive plants have been accidentally introduced through such means as ship-ballast dumping, contaminated soil, or mixed with various imported plant materials and crop seeds. They may begin to invade natural areas immediately or many years later. In most cases, the negative impact the species would have on the environment was not predicted or recognized initially.

### ***What makes a plant invasive?***

Non-native plants may become invasive in their introduced environment because they did not evolve with the local flora and fauna and have few or no predators or pests in this new location. An invasive plant may also possess genetic traits that make it a better competitor than native plant species.

The following characteristics allow plants to adapt quickly to a new environment, thrive, and spread. Most invasive plants possess one or more of these traits:

- Abundant reproduction
- Rapid growth rate
- Short generation time/life cycle
- Ability to occupy different habitats
- Ability to adapt to changing environments
- Ability to germinate and establish before native plants
- Ability to senesce later than native plants
- Effective seed dispersal
- Long-lived seeds
- Poisonous or allergenic to other organisms or allelopathic to other plants

Additionally, human-induced changes to natural ecosystems can also provide opportunities for invasive plants to establish and thrive. Invasive plants are usually most com



mon where human development is most common.

It should be noted that only a very small percentage of non-native plant species in the United States display invasive qualities. This small group, however, is able to cause considerable damage to native ecosystems.

### ***How do invasive plants cause harm to the environment?***

Invasive plants may harm the environment by establishing in natural ecosystems and displacing the native flora. This in turn affects wildlife and other species that may be dependent upon indigenous plants for food or habitat. Invasive plants may also disrupt natural ecosystem processes such as hydrology, nutrient cycling, wildfire regimes, natural succession, and soil cycles. This leads to ecological instability and decreased biodiversity.

Following habitat loss, the introduction and spread of invasive species is documented as the second leading cause of global biodiversity loss. About 42% of species listed on the U.S. Threatened or Endangered Species Lists are considered to be at risk primarily due to competition or predation from invasive species (Pimentel et al. 2005<sup>1</sup>).

Control measures employed to manage invasive plants, such as herbicide use and mechanical harvesting, may also increase risk to non-target plant and animal species.

### ***How do invasive plants cause economic loss?***

Invasive plants negatively impact the economy through damage losses and control costs. Invasive plants can directly reduce crop yield, be toxic to cattle, replace valuable forage plants, and increase the need for herbicide applications and other control measures. Aquatic invasive plants can also impact fish stocks, prevent transit through choked waterways, and reduce the recreational value of rivers and lakes.

The annual cost to the US economy for invasive plants is estimated to be \$27 billion in crop systems, \$6 billion in pastures and rangeland, \$1 billion in golf courses, and \$500 million in residential yards and gardens (Pimentel et al. 2005<sup>1</sup>).

### ***How do we know which species are most invasive?***

Recognizing the problem of invasive species, both Nassau and Suffolk Counties on Long Island passed legislation in 2007 that prohibited the sale, transport, distribution, and propagation of dozens of invasive plants.

In order to assess the invasive nature of non-native plant species and make recommendations to legislators, a subcommittee of the Long Island Invasive Species Man-

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<sup>1</sup> Pimentel, D., R. Zuniga, and D. Morrison. 2005. Update on the environmental and economic costs associated with alien-invasive species in the United States. *Ecological Economics* 52: 273 – 288.

agement Area (LIISMA) called the Scientific Review Committee (SRC) was formed in 2008. These efforts were spearheaded by The Nature Conservancy and the Brooklyn Botanic Garden and included observers representing a broad cross-section of interests and expertise such as academia, cooperative extension, the nursery industry, landscape designers, local park services, etc. By the end of 2012 this group had assessed more than 180 species of plants – including aquatics, vines, herbaceous plants, and trees and shrubs – for their invasive potential in New York State and on Long Island. Species were assessed using a ranking protocol designed to be repeatable, based on the best available science, clearly explained and fully documented. Species are evaluated first on a statewide level addressing their ecological impact, biological characteristics and dispersal ability, ecological amplitude and distribution, and difficulty of control. Species are then further assessed on a regional basis, taking local effects into consideration. More details on this process and all assessments can be found on the New York Invasive Species Clearinghouse webpage ([www.nyis.info](http://www.nyis.info)).

Species ranked highly invasive or very highly invasive are prohibited in Nassau and Suffolk Counties; species ranked moderately invasive are not recommended for use in natural areas, parks and preserves and should be removed if found. Any new scientific evidence that emerges will be used to update plant assessments. It should therefore be noted that the LIISMA Invasiveness Rank of the plants described herein is current as of the date of this publication and subject to change in the future if warranted by new research data.

In 2012, New York State passed the Invasive Species Prevention Act. This law provides the NY Department of Environmental Conservation and the NY Department of Agriculture and Markets with the authority to regulate the sale, purchase, possession, introduction, importation and transport of invasive species and establishes penalties for those who violate such regulations. Actions taken pursuant to this new legislation may further change the status of the plant species addressed in this publication and may identify additional invasive and prohibited species.

### ***What can I do about invasive plants?***

First, educate yourself and your clients as to which plants are considered invasive and how to identify these species. Review the information on the LIISMA website ([www.liisma.org](http://www.liisma.org)) and the New York State Invasive Species Clearinghouse ([www.nyis.info](http://www.nyis.info)). The most cost effective action you can take is to prevent new infestations from occurring in the first place. Start with your own nursery or landscape and make sure not to sell or utilize species that are locally prohibited.

Various strategies may be employed to control invasive plants already established in landscapes. Some invasive species are successfully controlled using chemical means (standard pesticide regulations apply when using herbicides) while others may be controlled through a mechanical process such as hand-pulling or a combined approach. If you are unsure how to proceed, consult with a qualified nursery expert, arborist or university cooperative extension office. No matter how you continue, be sure to dispose of invasive plants properly and recognize that plants and plant parts may regrow if dumped irresponsibly. Invasive plant remains should be dried completely or shred-

ded into fine particles to ensure they are no longer viable and bagged in plastic bags for disposal.

There are many native and non-native ornamental plants that are not invasive and can serve as suitable alternatives for invasive plants. This guidebook describes the ornamental history and ecological threat of twenty-five invasive ornamental plants, with suggestions of alternative plants for each invasive species. For each invasive plant the LIISMA SRC Invasiveness Rank (described above) is shown as well as whether the plant is on the Do-Not-Sell List in Nassau and Suffolk Counties. (Please note that the LIISMA Invasiveness Rank and prohibited status on Long Island will not necessarily indicate that the plant will be prohibited in New York State when further details of the NYS Invasive Species Prevention Act are made available.) Following each invasive plant, suggestions of alternative plants are listed. For each suggested alternative plant, information on form, hardiness, native status, landscape function, habit, ornamental features, size, cultural requirements, growth rate, potential pest or cultural problems, and examples of appropriate cultivars are presented.

## INVASIVE

### Amur Maple - *Acer ginnala*



#### Ornamental History

*Acer ginnala* is a small, deciduous maple, native to China and Japan. It is valued for its ability to thrive under tough, urban conditions, and its small stature lends itself to street tree usage beneath overhead utility wires. It is quite adaptable to a wide range of soils and soil pH. Many cultivars have been developed that have samaras that are a striking bright red color in summer and fall, and also that have excellent red fall foliage color.

#### Ecological Threat

*A. ginnala* is able to invade riparian areas, old fields, roadsides, and ditches. It is also reported to grow in woodlands where it can impact the forest community structure by creating a new subcanopy. *A. ginnala*'s specific impact on ecosystem processes is unknown, and data is lacking on its ability to significantly reduce native plant populations. An individual tree can produce up to 10,000 seeds per year, although most seeds fall within 350 feet of the parent tree.

#### LIISMA Invasiveness Rank

- Moderately Invasive
- Not Recommended for Planting

#### Alternatives to Amur Maple

**Trident Maple** - *Acer buergerianum*

**Red Buckeye\*** - *Aesculus pavia*

**Eastern Redbud\*** - *Cercis canadensis*

\* = Native to the U.S. \*\* = Native to NY State (hybrids & cultivars of native species included)

# Trident Maple - *Acer buergerianum*

*Alternative to Amur Maple*



**Form** - small to medium deciduous tree

**Hardiness Zones** - 5-8(9)

**Native Status** - introduced from China and Korea

**Function in the Landscape** - specimen tree; street tree; fall color; commercial sites; beneath overhead utility wires; small or large residential properties

**Habit/Shape** - low-branching, often multi-trunked tree with a rounded crown

**Ornamental Feature(s)** - very lustrous dark green leaves; fall color ranges from yellow to orange to red to purple; exfoliating bark adds winter interest

**Size at Maturity** - 20-35 ft. tall; 20-25 ft. wide

**Cultural Requirements** - full sun; best in acidic, well-drained soil; drought-tolerant

**Growth Rate** - slow

**Cultivars include** - Aeryn®, Streetwise®

**What to Watch For** - relatively pest-free

## Similarities to Amur Maple

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Size                       |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input type="checkbox"/> Cultural Requirements                 |
|   | <input type="checkbox"/> Growth Rate                           |

# Red Buckeye - *Aesculus pavia*

*Alternative to Amur Maple*



**Form** - large deciduous shrub or small deciduous tree

**Hardiness Zones** - 4-8

**Native Status** - Virginia to Florida, west to Texas

**Function in the Landscape** - small specimen plant

**Habit/Shape** - rounded to shrub-like

**Ornamental Feature(s)** - brilliant dark green leaves, red/pink flowers in spring

**Size at Maturity** - 15-15 ft. high and wide

**Cultural Requirements** - partial shade, moist soils

**Growth Rate** - medium

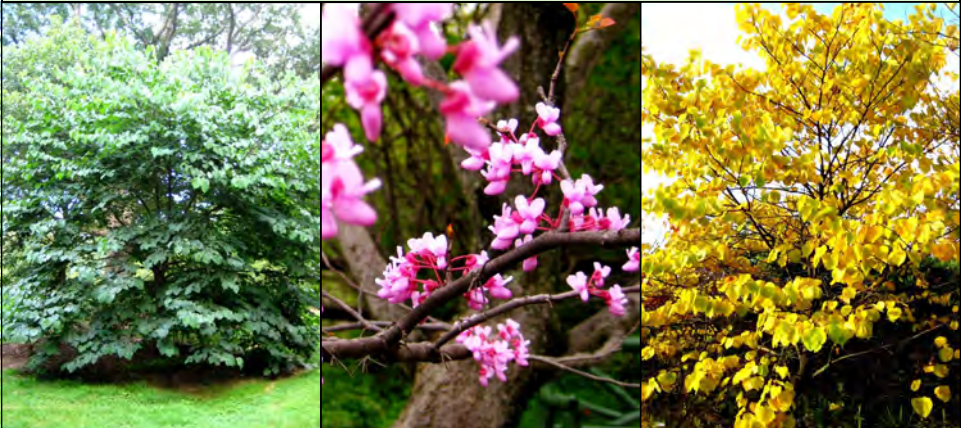
**What to Watch For** - provide adequate, even moisture; avoid dense shade

## Similarities to Amur Maple

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input type="checkbox"/> Main Ornamental Feature(s) |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Size            |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input type="checkbox"/> Cultural Requirements      |
|   | <input checked="" type="checkbox"/> Growth Rate     |

# Eastern Redbud - *Cercis canadensis*

*Alternative to Amur Maple*



**Form** - small, deciduous flowering tree

**Hardiness Zones** - 4-9

**Native Status** - East Coast from New Jersey to Florida, and west to Texas and Missouri

**Function in the Landscape** - specimen tree; street tree; commercial sites; beneath overhead utility wires; small residential properties; woodland gardens

**Habit/Shape** - low-branching, often multi-trunked small tree with spreading, ascending branches

**Ornamental Feature(s)** - bright reddish-lavender flowers along branches open in spring; green, heart-shaped foliage; striking bark with red and orange undertones; yellow fall color

**Size at Maturity** - 20-30 ft. tall; 25-35 ft. wide

**Cultural Requirements** - full sun to

partial shade; highly adaptable to various soil types - sandy, clay, alkaline, or acidic; tolerant of infertile soil - fixes its own nitrogen; some drought-tolerance

**Growth Rate** - medium to fast

**Cultivars Include** - 'Alba', 'Appalachian Red', Lavender Twist™

**What to Watch For** - prune out deadwood to prevent spread of canker and *Verticillium* wilt; susceptible to herbicide damage

### Similarities to Amur Maple

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input type="checkbox"/> Main Ornamental Feature(s)       |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Size                  |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Cultural Requirements |
|   | <input checked="" type="checkbox"/> Growth Rate           |

## INVASIVE

### Norway Maple - *Acer platanoides*



#### Ornamental History

Norway Maple (*Acer platanoides*) is a medium-sized, deciduous shade tree that is native to Europe and western Asia. Its ability to thrive in poor, urban soils and the deep shade it provides, have made it a popular choice for planting along streets and in yards and parks throughout the eastern U.S. It has a dense, rounded, crown that turns golden yellow in fall. Many desirable cultivars have been developed, including ones with deep, season-long, crimson foliage, such as 'Crimson King' and 'Royal Red.'

#### Ecological Threat

*A. platanoides* can invade woodlots, forest edges, and fragmented forests, from wind-dispersed seeds of nearby plantings. Once established, *A. platanoides* can then spread to undisturbed forests. Mature trees reduce regeneration of native plants by direct shading - up to 95% of the light available for photosynthesis is unavailable beneath the dense canopy of an *A. platanoides*. Its own seedlings however, are exceptionally shade-tolerant and can grow where native trees cannot. Dense, monospecific stands of *A. platanoides* can form in disturbed areas, and are quite prevalent on vacant urban sites. By preventing the establishment of an herbaceous or shrub layer, *A. platanoides* can also increase risk of soil erosion.

#### LIISMA Invasiveness Status

- Very Highly Invasive
- Banned on Long Island, 1/1/2013 (1/1/2016 for 'Crimson King' & 'Royal Red' cultivars)

#### Alternatives to Norway Maple by Cultivar

##### Green

**Freeman Maple\*\*** - *Acer x freemanii*

**Red Maple\*\*** - *Acer rubrum*

**Sugar Maple\*\*** - *Acer saccharum*

##### Crimson or Red

**Eastern Redbud\*** - *Cercis canadensis*  
(purple cultivars)

**European Beech** - *Fagus sylvatica*  
(purple cultivars)

**Chokecherry\*\*** - *Prunus virginiana*  
(purple cultivars)

\* = Native to the U.S. \*\* = Native to NY State (hybrids & cultivars of native species included)



# Freeman Maple - *Acer x freemanii*

Alternative to Norway Maple (green cultivars)



**Form** - medium to large, deciduous shade tree

**Hardiness Zones** - 4-8

**Native Status** - hybrid of *A. rubrum* and *A. saccharinum* which are both native to the East Coast

**Function in the Landscape** - specimen tree; fall foliage; street tree; commercial sites

**Habit/Shape** - variable by cultivar - columnar, pyramidal, dense, or open

**Ornamental Feature(s)** - striking red to yellow-orange fall color depending on cultivar

**Size at Maturity** - 50-70 ft. tall; 15-40 ft. wide

**Cultural Requirements** - partial shade or full sun; acidic soils; some drought-tolerance

**Growth Rate** - fast

**Cultivars Include** - 'Armstrong', Autumn Blaze®

**What to Watch For** - leafhoppers; circling roots; mechanical injury to thin bark

## Similarities to Norway Maple

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Size                       |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Cultural Requirements      |
|   | <input checked="" type="checkbox"/> Growth Rate                |

# Red Maple - *Acer rubrum*

*Alternative to Norway Maple (green cultivars)*



**Form** - medium to large, deciduous shade tree

**Hardiness Zones** - 3b-9

**Native Status** - East Coast, from Canada to Florida and west to Minnesota and Texas

**Function in the Landscape** - specimen tree; fall foliage color; street tree; commercial sites; parks and natural areas

**Habit/Shape** - pyramidal when young, developing a rounded crown

**Ornamental Feature(s)** - brilliant red fall foliage, can vary by cultivar

**Size at Maturity** - 40-60 ft. tall; 25-40 ft. wide

**Cultural Requirements** - partial shade or full sun; best grown in moist, acidic soils; tolerant of wet soils; not drought or salt tolerant

**Growth Rate** - medium to fast

**Cultivars Include** - October Glory®, Red Sunset®

**What to Watch For** - chlorosis in high pH soils (Mn deficiency); girdling roots; sunscald and mechanical injury on thin bark; select cultivars with appropriate cold hardiness; prune when young for a strong branch structure

## Similarities to Norway Maple

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Size                       |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Cultural Requirements      |
|   | <input checked="" type="checkbox"/> Growth Rate                |

# Sugar Maple - *Acer saccharum*

*Alternative to Norway Maple (green cultivars)*



**Form** - large, deciduous shade tree

**Hardiness Zones** - 4-8

**Native Status** - East Coast from Canada to Georgia, west to Alabama and Texas

**Function in the Landscape** - specimen tree; shade tree; fall foliage color; street tree; parks and natural areas

**Habit/Shape** - oval to rounded, dense canopy

**Ornamental Feature(s)** - brilliant fall color, ranging from yellow to orange to red

**Size at Maturity** - 50-75 ft. tall; 35-50 ft. wide

**Cultural Requirements** - shade or full sun; moist, fertile soil; tolerant of high pH soils; shade-tolerant; not drought- or salt-tolerant

**Growth Rate** - slow to medium

**Cultivars Include** - Green Mountain®

**What to Watch For** - leaf scorch; verticillium wilt; leafhoppers; choose cultivars which are more drought and heat tolerant than the species; avoid soil compaction, root restriction, and drought

## Similarities to Norway Maple

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Size                       |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input type="checkbox"/> Cultural Requirements                 |
|   | <input type="checkbox"/> Growth Rate                           |

**Eastern Redbud - *Cercis Canadensis*** (purple cultivars)  
*Alternative to Norway Maple (purple cultivars)*



**Form** - small, deciduous flowering tree

**Hardiness Zones** - 4-9

**Native Status** - East Coast from New Jersey to Florida, and west to Missouri

**Function in the Landscape** - specimen tree; street tree; contrast foliage color; commercial sites; beneath overhead utility wires; small residential properties; woodland gardens

**Habit/Shape** - low-branching, often multi-trunked small tree with spreading, ascending branches

**Ornamental Feature(s)** - bright reddish-lavender flowers along branches open in spring; deep burgundy to purplish-green, heart-shaped foliage; striking bark with red undertones; yellow fall color

**Size at Maturity** - 20-30 ft. tall; 25-35 ft. wide

**Cultural Requirements** - full sun to partial shade; highly adaptable to various soil types - sandy, clay, alkaline, or acidic; tolerant of infertile soil - fixes its own nitrogen; some drought-tolerance

**Growth Rate** - medium to fast

**Cultivars Include** - 'Forest Pansy', 'Merlot', 'Ruby Falls'

**What to Watch For** - prune out deadwood to prevent spread of canker and *Verticillium* wilt; susceptible to herbicide damage; select cultivars with appropriate cold tolerance

**Similarities to Norway Maple**

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input type="checkbox"/> Size                                  |
| <input type="checkbox"/> Habit/Shape  | <input checked="" type="checkbox"/> Cultural Requirements      |
|   | <input checked="" type="checkbox"/> Growth Rate                |

**European Beech - *Fagus sylvatica*** (purple cultivars)  
*Alternative to Norway Maple (purple cultivars)*



**Form** - large, deciduous shade tree

**Hardiness Zones** - 4-7

**Native Status** - introduced from Europe

**Function in the Landscape** - specimen tree; shade tree; contrast foliage color

**Habit/Shape** - large, rounded crown with branches to the ground; some cultivars are weeping

**Ornamental Feature(s)** - deep maroon-colored, lustrous foliage; smooth gray bark

**Size at Maturity** - 50-75 ft. tall; 40-60 ft. wide

**Cultural Requirements** - partial shade to full sun; moist, well-drained, acidic soils; not tolerant of compaction, drought, any root injury, or wet sites

**Growth Rate** - slow to medium

**Cultivars Include** - Purpurea group, 'Riversii', 'Spaethiana', 'Rohanii'

**What to Watch For** - woolly beech aphid; beech-bark disease; phytophthora canker on older specimens; mulch beneath canopy to maintain soil aeration and organic matter; performs poorly in dry compacted soil; do not grow turfgrass under canopy

**Similarities to Norway Maple**

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
| <input type="checkbox"/> Function in the Landscape                                | <input type="checkbox"/> Size                                  |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input type="checkbox"/> Cultural Requirements                 |
|   | <input type="checkbox"/> Growth Rate                           |

# Chokecherry - *Prunus virginiana* (purple cultivars)

*Alternative to Norway Maple (purple cultivars)*



**Form** - small to medium, deciduous shade tree

**Hardiness Zones** - 2-7

**Native Status** - East Coast, from Canada to North Carolina, west to North Dakota and Missouri

**Function in the Landscape** - specimen tree; contrast foliage color; street tree; small, residential sites; commercial sites; parks and natural areas

**Habit/Shape** - rounded, irregular, relatively thin crown

**Ornamental Feature(s)** - leaves often emerge green and change to bright maroon; ephemeral white flowers in spring produce small, edible berries

**Size at Maturity** - 20-30 ft. tall; 18-25 ft. wide

**Cultural Requirements** - partial shade to full sun; grows best in moist soil;

tolerates a wide range of soils from acidic to alkaline, and from clay to sand; very cold-tolerant

**Growth Rate** - fast

**Cultivars Include** - 'Canada Red', 'Schubert'

**What to Watch For** - prune when young to develop a strong branch structure; tent caterpillars

## Similarities to Norway Maple

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Size                       |
| <input type="checkbox"/> Habit/Shape  | <input checked="" type="checkbox"/> Cultural Requirements      |
|   | <input checked="" type="checkbox"/> Growth Rate                |

## INVASIVE

### Porcelain-berry - *Ampelopsis brevipedunculata*



#### Ornamental History

Porcelain-berry (*Ampelopsis brevipedunculata*) is a deciduous, woody vine in the grape family introduced from China, Japan, and Korea. It is a vigorous, clinging vine whose claim to fame is its uniquely colored fruits. In late summer into fall, the berries ripen into beautiful, vibrant shades of blue and amethyst. This vine has lost favor in the modern landscape, but is still occasionally planted next to a trellis or arbor.

#### Ecological Threat

*A. brevipedunculata* is quite adaptable to various soils except those that are permanently wet. *A. brevipedunculata* can invade riparian areas, where it grows extremely vigorously in moist soil along the edges of ponds and stream banks. This vine is also drought-tolerant and is most often seen quickly spreading in open areas of the urban landscape where it can tolerate poor soils of varying pH. Sprawling mats can be formed by this vine, which shade out other plants beneath. The beautiful berries of *A. brevipedunculata* are also its downfall - birds and other small animals eat the colorful fruits and disperse the seeds which have a high germination rate.

#### LIISMA Invasiveness Rank

- Highly Invasive
- Banned on Long Island, 1/1/2009

#### Alternatives to Porcelain-berry

**Bodinier or Purple Beautyberry** -  
*Callicarpa bodinieri*; *C. dichotoma*

**Trumpet Honeysuckle\*\*** - *Lonicera sempervirens*

**Coralberry\*** - *Symphoricarpos orbiculatus*  
(and hybrids)

\* = Native to the U.S. \*\* = Native to NY State (hybrids & cultivars of native species included)

# Bodinier or Purple Beautyberry - *Callicarpa*

*bodinieri*; *C. dichotoma*

Alternative to Porcelain-berry



**Form** - small to medium, deciduous shrub

**Hardiness Zones** - *C. bodinieri*: 6-8; *C. dichotoma*: 5-8

**Native Status** - introduced from China

**Function in the Landscape** - shrub border; accent planting in the fall garden; mass planting; works well in fall perennial borders

**Habit/Shape** - shrub with long, arching or erect, graceful branches

**Ornamental Feature(s)** - abundant clusters of bright purple berries appear in fall

**Size at Maturity** - *C. bodinieri*: 6-10 ft. tall; *C. dichotoma*: 3-6 ft. tall

**Cultural Requirements** - partial shade to full sun; grows best in moist soil

**Growth Rate** - fast

**Cultivars Include** - 'Profusion', 'Issai', 'Early Amethyst'

**What to Watch For** - cold-temperature injury; may prune to 6" above the ground in early spring to promote berries which form on new growth

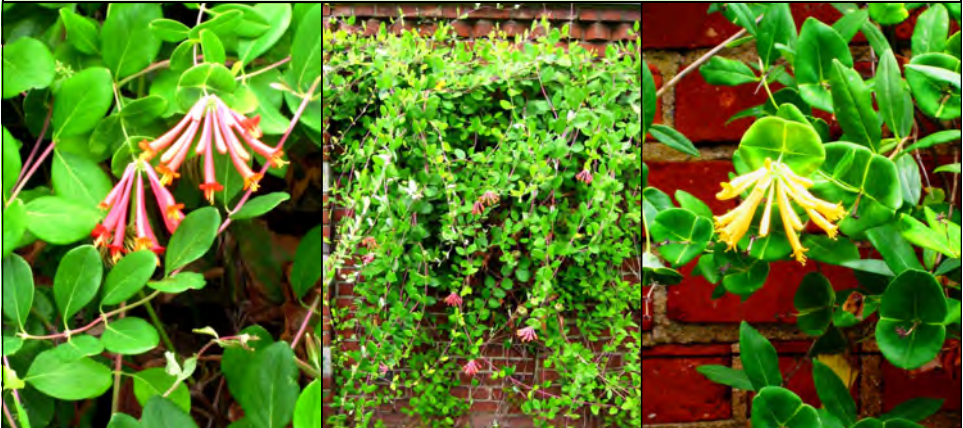
### Similarities to Porcelain-berry

- |  |  |
|--|--|
| <input type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
| <input checked="" type="checkbox"/> Function in the Landscape          | <input type="checkbox"/> Size                                  |
| <input type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Cultural Requirements      |
|  | <input checked="" type="checkbox"/> Growth Rate                |



# Trumpet Honeysuckle - *Lonicera sempervirens*

*Alternative to Porcelain-berry*



**Form** - deciduous, flowering vine

**Hardiness Zones** - (3)4-9

**Native Status** - East Coast, from Connecticut to Florida, west to Nebraska and Texas

**Function in the Landscape** - twining vine for use in the residential landscape, supported by a trellis, arbor, or fence

**Habit/Shape** - flowering, twining vine

**Ornamental Feature(s)** - leathery leaves with silver undersides; bright, vibrant flowers in shades of yellow, pink, red, and orange in May through summer; attractive to hummingbirds

**Size at Maturity** - 10-20 ft. or higher

**Cultural Requirements** - full sun for best flowering; grows best in moist, acidic to neutral soil

**Growth Rate** - fast

**Cultivars Include** - 'Major Wheeler', 'Sulphurea', 'John Clayton', 'Alabama Crimson'

**What to Watch For** - aphids; may be pruned directly after flowering to shape and control growth (flowers form on old wood)

## Similarities to Porcelain-berry

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input type="checkbox"/> Main Ornamental Feature(s)       |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Size                  |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Cultural Requirements |
|   | <input checked="" type="checkbox"/> Growth Rate           |

# Coralberry - *Symphoricarpos orbiculatus* (and hybrids)

Alternative to *Porcelain-berry*



**Form** - small to medium, deciduous shrub

**Hardiness Zones** - 4-7(8)

**Native Status** - East Coast from New Jersey to Georgia, west to South Dakota and Texas

**Function in the Landscape** - shrub border; mass planting; natural plantings

**Habit/Shape** - dense shrub with arching branches

**Ornamental Feature(s)** - pink-tinged white flowers in summer; abundant clusters of coral-red berries appear in fall and persist through most of the winter

**Size at Maturity** - 2-5 ft. tall; 4-8 ft. tall

**Cultural Requirements** - partial shade to full sun; tolerates a wide range of soils

**Growth Rate** - fast

**Cultivars Include** - hybrids: *S. x chenaultii*; *S. x doorenbosii*

**What to Watch For** - can sucker and spread by runners if left unchecked; powdery mildew can sometimes be a problem

## Similarities to *Porcelain-berry*

- |  |  |
|--|--|
| <input type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
| <input checked="" type="checkbox"/> Function in the Landscape          | <input type="checkbox"/> Size                                  |
| <input type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Cultural Requirements      |
|  | <input checked="" type="checkbox"/> Growth Rate                |

## INVASIVE

### Japanese Angelica Tree - *Aralia elata*



#### Ornamental History

Japanese Angelica Tree (*Aralia elata*) is a small-stature, flowering tree from Japan, Korea, and China. Its limited availability and high price have elevated it to “boutique” status among plant collectors. Cultivars with variegated leaves, such as ‘Variegata’, ‘Aurea’, and ‘Silver Umbrella’, are most often planted. The large compound leaves of the tree are arranged in a horizontal branching pattern that brings a unique look to the landscape. *A. elata* really becomes a head-turning, specimen tree in mid- to late summer when the large panicles of creamy white flowers bloom.

#### Ecological Threat

*A. elata* is a highly adaptable plant that thrives in moist, well-drained soil, but is also drought- and heat-tolerant. It has the ability to invade riparian areas, old fields, roadsides, woodlands, and urban areas. The fruits of *A. elata* are eaten and dispersed by birds and other small animals. *A. elata* also root suckers abundantly and can readily re-grow from cut stumps. This small tree can create a new understory layer in woodlands and shade out native herbaceous plants below. *A. elata* is easily mistaken for the native Devils-walkingstick (*A. spinosa*), and is likely much more invasive than previously believed.

#### LIISMA Invasiveness Rank

- Very Highly Invasive
- Banned on Long Island, 1/1/2009

#### Alternatives to Japanese Angelica Tree

**Pagoda Dogwood\*\*** - *Cornus alternifolia*  
(variegated cultivars)

**Kousa Dogwood** - *Cornus kousa*  
(variegated cultivars)

**Staghorn Sumac\*\*** - *Rhus typhina*  
(cutleaf cultivars)

\* = Native to the U.S. \*\* = Native to NY State (hybrids & cultivars of native species included)

**Pagoda Dogwood - *Cornus alternifolia*** (variegated cultivars)  
*Alternative to Japanese Angelica Tree*



**Form** - small, deciduous, flowering tree

**Hardiness Zones** - 3-7

**Native Status** - native to East Coast, from Canada to Georgia, west to Minnesota and Alabama

**Function in the Landscape** - specimen flowering tree on large or small properties; foundation planting; mixed border; accent tree to provide unique variegated foliage and horizontal elements to the landscape

**Habit/Shape** - low-branching tree that is spreading and forms a picturesque, stratified branching pattern

**Ornamental Feature(s)** - unique, white or yellow and green variegated foliage; fragrant, small, off-white clusters of flowers in late spring; dark blue fruits in late summer

**Size at Maturity** - 15-25 ft. tall; 20-30 ft. wide

**Cultural Requirements** - partial shade to full sun; best in moist, well-drained, acidic soil

**Growth Rate** - slow

**Cultivars Include** - 'Argentea', Golden Shadows®

**What to Watch For** - provide adequate moisture and sufficient soil drainage; dogwood borer; cottony scales

**Similarities to Japanese Angelica Tree**

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
|   | <input checked="" type="checkbox"/> Size                       |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input type="checkbox"/> Cultural Requirements                 |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Growth Rate                |

**Kousa Dogwood - *Cornus kousa*** (variegated cultivars)  
*Alternative to Japanese Angelica Tree*



**Form** - small, deciduous, flowering tree

**Hardiness Zones** - 5-8

**Native Status** - introduced from Korea, Japan, and China

**Function in the Landscape** - specimen flowering tree on large or small properties; foundation planting; mixed border; accent tree to provide unique variegated foliage and horizontal elements to the landscape; winter interest; commercial sites; beneath overhead utility wires

**Habit/Shape** - low-branching tree that is spreading and forms a picturesque, stratified branching pattern

**Ornamental Feature(s)** - unique, white and green variegated foliage; off-white long-flowering, star-shaped blooms; reddish-pink edible fruits in late summer; rosy pink fall color; beautiful exfoliating bark with age

**Size at Maturity** - 15-25 ft. tall; 20-30 ft. wide

**Cultural Requirements** - partial shade to full sun; best in moist, well-drained, acidic soil

**Growth Rate** - slow to medium

**Cultivars Include** - 'Wolf Eyes', 'Gold Star', Samaritan®

**What to Watch For** - dogwood borer; cottony scales

**Similarities to Japanese Angelica Tree**

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
|   | <input checked="" type="checkbox"/> Size                       |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Cultural Requirements      |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Growth Rate                |

# Staghorn Sumac - *Rhus typhina* (cutleaf cultivars)

*Alternative to Japanese Angelica Tree*



**Form** - large, deciduous shrub or small tree

**Hardiness Zones** - 4-8

**Native Status** - East Coast from Canada to Georgia, west to Indiana and Iowa

**Function in the Landscape** - mixed border; accent planting in the fall garden; mass planting; low-maintenance landscapes; commercial sites; natural areas

**Habit/Shape** - coarse, low, spreading branches with large, compound leaves give a horizontal structure and tropical feel

**Ornamental Feature(s)** - uniquely divided compound leaves; some cultivars have golden foliage; fiery autumn color; bright crimson upright fruits provide fall and winter interest

**Size at Maturity** - 15-25 ft. tall; 15-30 ft. wide

**Cultural Requirements** - full sun; adaptable to any soil type as long as it is well-drained; very drought-tolerant; tolerant of infertile soils

**Growth Rate** - medium

**Cultivars Include** - Tiger Eyes®

**What to Watch For** - cutleaf varieties tend to sucker less than the species

## Similarities to Japanese Angelica Tree

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input type="checkbox"/> Main Ornamental Feature(s)       |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Size                  |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Cultural Requirements |
|   | <input type="checkbox"/> Growth Rate                      |

# INVASIVE

## Japanese Barberry - *Berberis thunbergii*



### Ornamental History

Japanese Barberry (*Berberis thunbergii*) is a dense, deciduous shrub introduced from Japan. It is valued for its extreme adaptability, and can withstand drought, heat, and compacted soils. Numerous cultivars have been developed that range from 12 in. to 6 ft. tall, with purple, green, yellow, or variegated foliage. With its great versatility, *B. thunbergii* has become a very popular staple in the modern landscape. It makes an excellent foundation or hedging plant, and can even be used as a barrier due to the small spines along its stems. It is also one of the few truly deer-resistant landscape plants.

### Ecological Threat

*B. thunbergii* can invade forests, open woods, and old fields, where it forms dense thickets. *B. thunbergii* can alter soil pH and nitrogen levels which may increase its competitive advantage. Because *B. thunbergii* is not palatable to deer, it increases browse pressure on other plants. Over 2,000 fruits can be produced on a single *B. thunbergii*, which are dispersed by birds and small mammals. In forests invaded by *B. thunbergii*, studies have shown that the abundance of Lyme disease-carrying ticks is higher.

### LIISMA Invasiveness Rank

- Very Highly Invasive
- Banned on Long Island, 1/1/2014

### Alternatives to Japanese Barberry by Cultivar

Dwarf Purple Old Fashioned Weigela - <i>Weigela florida</i>	Standard Purple Smokebush - <i>Cotinus coggygria</i>	Eastern Ninebark** - <i>Physocarpus opulifolius</i>	Old Fashioned Weigela - <i>Weigela florida</i>
Yellow or Gold Glossy Abelia - <i>Abelia x grandiflora</i>	Border or Greenstem Forsythia - <i>Forsythia x intermedia</i> ; <i>F. viridissima</i>	Boxleaf Honeysuckle - <i>Lonicera nitida</i>	Old Fashioned Weigela - <i>Weigela florida</i>
Green Cranberry Cotoneaster - <i>Cotoneaster apiculatus</i>	Bush Cinquefoil** - <i>Potentilla fruticosa</i>	Fragrant Sumac** - <i>Rhus aromatica</i>	Old Fashioned Weigela - <i>Weigela florida</i>

\* = Native to the U.S. \*\* = Native to NY State (hybrids & cultivars of native species included)

**Old Fashioned Weigela - *Weigela florida*** (dwarf purple cultivars)

*Alternative to Japanese Barberry (dwarf purple cultivars)*



**Form** - small, deciduous, flowering shrub

**Hardiness Zones** - 5-8(9)

**Native Status** - introduced from Japan

**Function in the Landscape** - groupings in the shrub border; foundation plantings; commercial sites; contrast foliage color

**Habit/Shape** - small, dense, compact, rounded, symmetrical shrub

**Ornamental Feature(s)** - purple cultivars have dark purple to reddish bronze foliage; brightly colored azalea-like flowers in late-May to early-June

**Size at Maturity** - 2-3 ft. tall; 2-3 ft. wide

**Cultural Requirements** - full sun; very adaptable to different soil types; pollution-tolerant

**Growth Rate** - medium

**Cultivars Include** - Dark Horse®, Fine Wine™, Midnight Wine®, Ruby Queen®

**What to Watch For** - relatively pest-free

**Similarities to Japanese Barberry**

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Size                       |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Cultural Requirements      |
|   | <input checked="" type="checkbox"/> Growth Rate                |



# Smokebush - *Cotinus coggygia* (purple cultivars)

*Alternative to Japanese Barberry (standard purple cultivars)*



**Form** - large, deciduous, flowering shrub

**Hardiness Zones** - (4)5-8

**Native Status** - introduced from Europe and central China

**Function in the Landscape** - shrub border; foundation plantings; commercial sites; contrast foliage color; mass plantings; can also be grown as a small tree

**Habit/Shape** - upright and rather open with long shoots

**Ornamental Feature(s)** - purple cultivars have rich maroon, rounded foliage; reddish-purple fall color; soft, smoky-pink panicles appear in June and last through the summer

**Size at Maturity** - 10-15 ft. tall; 10-15 ft. wide

**Cultural Requirements** - best in full sun; very adaptable to different pH

and soils as long as there is good drainage; drought-tolerant; somewhat salt-tolerant

**Growth Rate** - medium

**Cultivars Include** - 'Grace', 'Royal Purple'

**What to Watch For** - verticillium wilt

## Similarities to Japanese Barberry

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Size                       |
| <input type="checkbox"/> Habit/Shape  | <input checked="" type="checkbox"/> Cultural Requirements      |
|   | <input checked="" type="checkbox"/> Growth Rate                |

**Eastern Ninebark - *Physocarpus opulifolius*** (purple cultivars)

*Alternative to Japanese Barberry (standard purple cultivars)*



**Form** - large, deciduous, flowering shrub

**Hardiness Zones** - 2-7

**Function in the Landscape** - shrub border; commercial sites; contrast foliage color

**Habit/Shape** - upright, vase-shaped, multi-stemmed shrub

**Ornamental Feature(s)** - purple cultivars have deep plum colored foliage; clusters of delicate pink flowers in early June; ornamental exfoliating reddish-orange bark provides winter interest

**Size at Maturity** - 5-10 ft. tall; 6-10 ft. wide

**Cultural Requirements** - plant where it will have enough room to grow; full sun or partial shade; drought-tolerant; adaptable to acid or alkaline soils

**Growth Rate** - medium to fast

**Cultivars Include** - Diablo®, Summer Wine™, 'Little Devil'

**What to Watch For** - cut back annually after blooming to reduce powdery mildew and maintain size; NOT deer-resistant

**Similarities to Japanese Barberry**

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Size                       |
| <input type="checkbox"/> Habit/Shape  | <input checked="" type="checkbox"/> Cultural Requirements      |
|   | <input checked="" type="checkbox"/> Growth Rate                |

## Old Fashioned Weigela - *Weigela florida* (standard purple cultivars)

*Alternative to Japanese Barberry (standard purple cultivars)*



**Form** - medium, deciduous, flowering shrub

**Hardiness Zones** - 5-8(9)

**Native Status** - introduced from Japan

**Function in the Landscape** - groupings in the shrub border; foundation plantings; commercial sites; contrast foliage color

**Habit/Shape** - dense, compact, rounded, symmetrical shrub

**Ornamental Feature(s)** - purple cultivars have dark burgundy foliage; brightly colored azalea-like flowers in late-May to early-June

**Size at Maturity** - 4-5 ft. tall; 4-5 ft. wide

**Cultural Requirements** - full sun; very adaptable to different soil types; pollution-tolerant

**Growth Rate** - medium

**Cultivars Include** - Shining Sensation™, Wine & Roses®, Midnight Wine®, Fine Wine™

**What to Watch For** - relatively pest-free

### Similarities to Japanese Barberry

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Size                       |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Cultural Requirements      |
|   | <input checked="" type="checkbox"/> Growth Rate                |

## Glossy Abelia - *Abelia x grandiflora* (yellow cultivars)

*Alternative to Japanese Barberry (yellow or gold cultivars)*



**Form** - medium, deciduous, flowering shrub

**Hardiness Zones** - 6-9

**Native Status** - hybrid of *A. chinensis* and *A. uniflora* which are native to China

**Function in the Landscape** - groupings in the shrub border; foundation plantings; commercial sites; great roadside plant; small hedge; contrast foliage color

**Habit/Shape** - dense, rounded, multi-stemmed shrub

**Ornamental Feature(s)** - yellow cultivars can have copper colored new growth which changes to bright yellow to yellow-green; small, white flowers borne on new growth

**Size at Maturity** - 3-6 ft. tall; 3-6 ft. wide

**Cultural Requirements** - partial shade to full sun; best in acidic, well-

drained, moist soil; drought-tolerant

**Growth Rate** - fast

**Cultivars Include** - 'Francis Mason', 'Golden Glow', Mardi Gras™, Golden Anniversary™

**What to Watch For** - trim new growth regularly to maintain a neat appearance; relatively pest-free

### Similarities to Japanese Barberry

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
|   | <input checked="" type="checkbox"/> Size                       |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Cultural Requirements      |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input type="checkbox"/> Growth Rate                           |

# Boxleaf Honeysuckle - *Lonicera nitida* (gold cultivars)

*Alternative to Japanese Barberry (yellow or gold cultivars)*



**Form** - medium, evergreen shrub

**Hardiness Zones** - (6)7-9

**Native Status** - introduced from China

**Function in the Landscape** - groupings in the shrub border; formal or informal hedge; commercial sites; contrast foliage color; foundation planting

**Habit/Shape** - dense, upright, and mounding with numerous shoots

**Ornamental Feature(s)** - tiny, opposite, chartreuse leaves of gold cultivars; small, inconspicuous white flowers in spring

**Size at Maturity** - 3-6 ft. tall; 3-5 ft. wide

**Cultural Requirements** - partial shade to full sun; adaptable to many different soil types and pH; drought-tolerant

**Growth Rate** - fast

**Cultivars Include** - 'Baggesen's Gold', Edmee Gold®

**What to Watch For** - winter injury; relatively pest-free; prune regularly to maintain a formal hedge

## Similarities to Japanese Barberry

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Size                       |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Cultural Requirements      |
|   | <input type="checkbox"/> Growth Rate                           |

# Old Fashioned Weigela - *Weigela florida* (yellow cultivars)

*Alternative to Japanese Barberry (yellow or gold cultivars)*



**Form** - medium, deciduous, flowering shrub

**Hardiness Zones** - 5-8(9)

**Native Status** - introduced from Japan

**Function in the Landscape** - groupings in the shrub border; foundation plantings; commercial sites; contrast foliage color

**Habit/Shape** - dense, compact, rounded, symmetrical shrub

**Ornamental Feature(s)** - yellow cultivars have neon-yellow eye-catching foliage sure to brighten-up any garden; vibrant crimson azalea-like flowers in late-May to early-June - some cultivars reblooming

**Size at Maturity** - 4-7 ft. tall; 4-5 ft. wide

**Cultural Requirements** - full sun; very adaptable to different soil types; pollution-tolerant

**Growth Rate** - medium

**Cultivars Include** - Ghost™, 'Rubidor'

**What to Watch For** - relatively pest-free

## Similarities to Japanese Barberry

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Size                       |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Cultural Requirements      |
|   | <input checked="" type="checkbox"/> Growth Rate                |

# Cranberry Cotoneaster - *Cotoneaster apiculatus*

*Alternative to Japanese Barberry (green cultivars)*



**Form** - low-growing, deciduous shrub or tall groundcover

**Hardiness Zones** - 4-7

**Native Status** - introduced from China

**Function in the Landscape** - foundation plantings; commercial sites; banks and hillsides; shrub border; growing over walls; as a woody groundcover; winter interest

**Habit/Shape** - prostrate and mounding with arching branches

**Ornamental Feature(s)** - small, glossy green leaves; small white spring flowers; bright red berries from late summer through early winter

**Size at Maturity** - 1.5-3 ft. tall; 3-6 ft. wide

**Cultural Requirements** - full sun; very adaptable to different soil types from sand to clay, acidic to alkaline; drought-tolerant; salt-tolerant; not

tolerant of permanently wet soils; not tolerant of shade

**Growth Rate** - medium to slow

**Cultivars Include** - 'Tom Thumb'

**What to Watch For** - mites during heat; fireblight; difficult to clean out fallen leaves

## Similarities to Japanese Barberry

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Size                       |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Cultural Requirements      |
|   | <input checked="" type="checkbox"/> Growth Rate                |

# Bush Cinquefoil - *Potentilla fruticosa*

*Alternative to Japanese Barberry (green cultivars)*



**Form** - small, deciduous flowering shrub

**What to Watch For** - relatively pest-free

**Hardiness Zones** - 2-7

**Native Status** - northern half of U.S. and Canada

**Function in the Landscape** - foundation plantings; commercial sites; mixed border; mass plantings

**Habit/Shape** - bushy, rounded shrub

**Ornamental Feature(s)** - uniquely shaped bluish-green leaves; covered in bright yellow, white, pink, or red flowers from June until frost

**Size at Maturity** - 2-4 ft. tall; 2-4 ft. wide

**Cultural Requirements** - partial sun to full sun; adaptable to many different soils; drought-tolerant; salt-tolerant; tolerant of wet sites; tolerant of extreme cold; not heat-tolerant

**Growth Rate** - slow

## Similarities to Japanese Barberry

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input type="checkbox"/> Main Ornamental Feature(s)       |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Size                  |
| <input type="checkbox"/> Habit/Shape  | <input checked="" type="checkbox"/> Cultural Requirements |
|   | <input type="checkbox"/> Growth Rate                      |



**Fragrant Sumac - *Rhus aromatic*** (dwarf cultivars)  
*Alternative to Japanese Barberry (green cultivars)*



**Form** - low-growing, deciduous shrub or tall groundcover

**Hardiness Zones** - 3-9

**Native Status** - East Coast from Canada to Florida, west to Minnesota and Louisiana

**Function in the Landscape** - foundation plantings; commercial sites; edging; banks and hillsides; shrub border; as a woody groundcover; fall color

**Habit/Shape** - low-growing and spreading

**Ornamental Feature(s)** - glossy green trifoliate leaves; fiery red autumn color; yellow catkin-like flowers; small, soft red fruits on female plants in late summer into winter

**Size at Maturity** - 2 ft. tall; 6-8 ft. wide

**Cultural Requirements** - partial to full sun; best in acidic, well-drained soils;

drought-tolerant; tolerant of infertile soil

**Growth Rate** - medium

**Cultivars Include** - 'Gro-Low'

**What to Watch For** - will spread by root suckers

**Similarities to Japanese Barberry**

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
| <input type="checkbox"/> Function in the Landscape                                | <input checked="" type="checkbox"/> Size                       |
| <input type="checkbox"/> Habit/Shape  | <input checked="" type="checkbox"/> Cultural Requirements      |
|   | <input checked="" type="checkbox"/> Growth Rate                |

**Old Fashioned Weigela - *Weigela florida*** (green cultivars)  
*Alternative to Japanese Barberry (green cultivars)*



**Form** - medium to large deciduous, flowering shrub

**Hardiness Zones** - 5-8(9)

**Native Status** - introduced from Japan

**Function in the Landscape** - groupings in the shrub border; foundation plantings; commercial sites

**Habit/Shape** - dense, vase-shaped shrub

**Ornamental Feature(s)** - vibrant azalea-like flowers in late-May to early-June  
 - some cultivars reblooming

**Size at Maturity** - 2.5-6 ft. tall; 2-5 ft. wide

**Cultural Requirements** - full sun; very adaptable to different soil types; pollution-tolerant

**Growth Rate** - medium

**Cultivars Include** - 'Carnaval', 'Minuet', 'Polka', 'Red Prince', 'White Knight', 'Bristol Ruby'

**What to Watch For** - relatively pest-free

**Similarities to Japanese Barberry**

<input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine)	<input type="checkbox"/> Main Ornamental Feature(s)
<input checked="" type="checkbox"/> Function in the Landscape	<input checked="" type="checkbox"/> Size
<input checked="" type="checkbox"/> Habit/Shape	<input checked="" type="checkbox"/> Cultural Requirements
	<input checked="" type="checkbox"/> Growth Rate

## INVASIVE

### Sweetautumn Clematis - *Clematis terniflora*



#### Ornamental History

Sweetautumn Clematis (*Clematis terniflora*), also known as Japanese Virgin's Bower, is a vigorous vine introduced from Japan, China, and Korea. It is valued for its ease of culture and the profuse cloud of white, star-shaped flowers which announce the arrival of fall at the end of summer. The flowers are sweetly scented which adds to the allure of this vine. In bloom, it looks lovely growing along a fence or over an arbor.

#### Ecological Threat

Despite its beauty, renowned plantsman Michael Dirr describes *C. terniflora* as a, "rampant, rampaging vine which engulfs every structure in sight." *C. terniflora* indeed grows extremely vigorously and can invade hedgerows, forest edges, coastal areas, riverbanks, and urban sites where it grows up to 20 ft. into the existing vegetation. *C. terniflora* is highly adaptable to various soil conditions, and large stands can form, which may be over a quarter acre in size. Seeds of *C. terniflora* are wind-dispersed and the vine can resprout from underground root systems, making removal difficult.

#### LIISMA Invasiveness Rank

- Highly Invasive
- Banned on Long Island, 1/1/2011

#### Alternatives to Sweetautumn Clematis

**Anemone Clematis** - *Clematis montana*

**Virgin's Bower\*\*** - *Clematis virginiana*

**Climbing Hydrangea** - *Hydrangea anomala*  
subsp. *petiolaris*

\* = Native to the U.S. \*\* = Native to NY State (hybrids & cultivars of native species included)

# Anemone Clematis - *Clematis montana*

Alternative to Sweetautumn Clematis



**Form** - deciduous, flowering vine

**Hardiness Zones** - 5-7

**Native Status** - introduced from China

**Function in the Landscape** - growing on trellises, fences, rock walls, and other structures

**Habit/Shape** - twining, deciduous vine

**Ornamental Feature(s)** - lovely white to pink flowers in late spring that are often fragrant

**Size at Maturity** - 20-30 ft. high

**Cultural Requirements** - full sun to partial shade; moist, well-drained soil; blooms on previous season's wood - prune after flowering if needed

**Growth Rate** - fast

**Cultivars Include** - 'Alexander', 'Grandiflora', 'Rubens'

**What to Watch For** - leaf spot, stem rot and wilt; very vigorous

## Similarities to Sweetautumn Clematis

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Size                       |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Cultural Requirements      |
|   | <input checked="" type="checkbox"/> Growth Rate                |

# Virgin's Bower - *Clematis virginiana*

Alternative to Sweetautumn Clematis



**Form** - deciduous, flowering vine

**Hardiness Zones** - 4-8

**Native Status** - East Coast from Canada to Georgia

**Function in the Landscape** - growing on trellises, fences, rock walls, and other structures

**Habit/Shape** - twining, deciduous vine

**Ornamental Feature(s)** - clusters of small white fragrant flowers August through October on current year's growth

**Size at Maturity** - 12-20 ft. high

**Cultural Requirements** - full sun to partial shade; moist to wet soil

**Growth Rate** - fast

**What to Watch For** - leaf spot, stem rot and wilt

## Similarities to Sweetautumn Clematis

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Size                       |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Cultural Requirements      |
|   | <input checked="" type="checkbox"/> Growth Rate                |

# Climbing Hydrangea - *Hydrangea anomala* subsp. *petiolaris*

Alternative to Sweetautumn Clematis



**Form** - deciduous, woody, flowering vine

**Hardiness Zones** - 4-7(8)

**Native Status** - introduced from Japan and China

**Function in the Landscape** - climbing vine for brick or stone walls, arbors, or trees

**Habit/Shape** - climbs as well as protrudes out from the structure it is holding onto

**Ornamental Feature(s)** - flat-topped, lacecap-like, showy white flowers last for up to 6 weeks in summer; glossy dark green leaves reveal exfoliating cinnamon-colored bark in wintertime; nice yellow fall color

**Size at Maturity** - climbs up to 80 ft. high

**Cultural Requirements** - full sun to mostly shade; moist, well-drained

soil; clinging rootlets need porous surface for support

**Growth Rate** - slow to establish, but fast growth rate afterwards

**Cultivars Include** - 'Skylands Giant'

**What To Watch For** - Japanese beetles may feed on foliage

### Similarities to Sweetautumn Clematis

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Size                       |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Cultural Requirements      |
|   | <input type="checkbox"/> Growth Rate                           |

## INVASIVE

### Russian-olive - *Elaeagnus angustifolia*



#### Ornamental History

*Elaeagnus angustifolia* is a small tree or large shrub that is native from southern Europe to central Asia. It is valued for its ability to flourish under the worst of conditions; it is tolerant of drought, salt, cold, and sandy or alkaline soil. It also fixes atmospheric nitrogen which allows it to tolerate the poorest soils. Its silvery foliage is attractive and adds a soft texture to seaside gardens.

#### Ecological Threat

Although *E. angustifolia* has not been observed in many riparian areas of New York, it poses a large problem in the western U.S. where it proliferates along rivers and creeks. *E. angustifolia* alters nutrient cycling through its ability to fix nitrogen and can alter the hydrology of ecosystems. In agricultural areas of the Midwest, *E. angustifolia* has been shown to significantly impact groundwater levels. In the western U.S., *E. angustifolia* can form a tall, thick monoculture, eradicating vegetation below, but dense stands have not been observed in New York.

#### LIISMA Invasiveness Rank

- Moderately Invasive
- Not Recommended for Planting

#### Alternatives to Russian-olive

**Chinese or White\* Fringetree** -  
*Chionanthus retusus*; *C. virginicus*

**Corkscrew Willow Cultivars**- *Salix matsudana*

\* = Native to the U.S. \*\* = Native to NY State (hybrids & cultivars of native species included)

**Chinese or White Fringetree - *Chionanthus retusus*;  
*C. virginicus***

*Alternative to Russian-olive*



**Form** - small, deciduous, flowering tree or large shrub

**Hardiness Zones** - *C. retusus*: (5)6-8; *C. virginicus*: 4-9

**Native Status** - *C. retusus*: introduced from China, Japan, and Korea; *C. virginicus*: East Coast, from New Jersey to Florida and west to Texas

**Function in the Landscape** - specimen flowering tree; coastal plantings; beneath overhead utility wires; small residential properties; woodland plantings

**Habit/Shape** - low-branching, often multi-stemmed small tree with a variable, spreading crown

**Ornamental Feature(s)** - covered in a feathery glow of soft white flowers in early June; dark green leathery foliage; navy blue fruits on female plants which ripen in the fall are relished by birds

**Size at Maturity** - 15-25 ft. tall; 15-20 ft. wide

**Cultural Requirements** - full sun to partial shade; air pollution and some salt tolerance; tolerant of varied soils but prefers moist, acidic soils

**Growth Rate** - slow

**Cultivars Include** - 'Emerald Night'

**What to Watch For** - Relatively pest-free; can be slow to regenerate roots - plant container-grown stock in spring

**Similarities to Russian-olive**

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input type="checkbox"/> Main Ornamental Feature(s)       |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Size                  |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Cultural Requirements |
|   | <input type="checkbox"/> Growth Rate                      |



# Corkscrew Willow Cultivars - *Salix matsudana* cvs.

*Alternative to Russian-olive*



**Form** - medium, deciduous, tree

**Hardiness Zones** - (4)5-7(8)

**Native Status** - introduced from China

**Function in the Landscape** - specimen tree; coastal plantings; winter interest

**Habit/Shape** - irregularly shaped crown of finely textured, twisted branches

**Ornamental Feature(s)** - uniquely shaped branches and leaves in a contorted, corkscrew-like habit; leaves may be somewhat silvery

**Size at Maturity** - 30-40 ft. tall; 15-30 ft. wide

**Cultural Requirements** - full sun; salt-tolerant; tolerant of both wet and dry sites

**Growth Rate** - fast

**Cultivars Include** - 'Snake', 'Tortuosa', 'Golden Curls', 'Scarlet Curls'

**What to Watch For** - wood is relatively weak and prone to breakage - prune to maintain strong structure; aphids, other sucking insects, and canker can be problematic

## Similarities to Russian-olive

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input type="checkbox"/> Size                                  |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Cultural Requirements      |
|   | <input checked="" type="checkbox"/> Growth Rate                |

## INVASIVE

### Autumn-olive - *Elaeagnus umbellata*



#### Ornamental History

*Elaeagnus umbellata* is a large, deciduous shrub introduced from Japan, Korea, and China. Its foliage has silvery undersides which make the shrub seem iridescent when its open, spreading branches catch the wind. It is extremely drought- and salt-tolerant. Capable of nitrogen fixation, it thrives in poor, sandy soils. *E. umbellata* is perfect for seashore gardens where it is planted as a windbreak and to reduce beach erosion. *E. umbellata* has small, non-descript, fragrant flowers in mid-spring, which are followed by red fruits which ripen in the fall. Originally, *E. umbellata* was promoted and planted for soil conservation purposes.

#### Ecological Threat

*E. umbellata* can invade coastal areas, roadsides, old fields, and meadows. *E. umbellata* forms large stands and eradicates all vegetation beneath. *E. umbellata* is quite vigorous, grows rapidly, and begins fruit production in only 3-5 years. An enormous quantity of seeds are produced which are widely dispersed by birds and small mammals. One individual shrub is capable of producing up to 420,000 seeds per year! Once established, it is extremely difficult to remove *E. umbellata* since it quickly re-sprouts after fire or cutting. *E. umbellata* may become (if it hasn't already) one of the most troublesome invasive shrubs in the eastern and central U.S.

#### LIISMA Invasiveness Rank

- Very Highly Invasive
- Banned on Long Island, 1/1/2009

#### Alternatives to Autumn-olive

**Eastern Baccharis\*\*** - *Baccharis halimifolia*

**Sweetfern\*\*** - *Comptonia peregrina*

**Northern Bayberry\*\*** - *Morella pensylvanica*

\* = Native to the U.S. \*\* = Native to NY State (hybrids & cultivars of native species included)

# Eastern Baccharis - *Baccharis halimifolia*

*Alternative to Autumn-olive*



**Form** - medium to large, deciduous, flowering shrub

sand; tolerant of soils with little organic matter

**Hardiness Zones** - 5-9

**Growth Rate** - fast

**Native Status** - East Coast from Massachusetts to Florida, west to Texas

**What to Watch For** - relatively pest-free

**Function in the Landscape** - seashore planting; beach erosion control; mass planting; mixed border; fall interest

**Habit/Shape** - dense, rounded shrub with upright branches

**Ornamental Feature(s)** - deep green to gray-green uniquely shaped leaves; cottony fruits appear in the fall and transform the plant into a billowy cloud

**Size at Maturity** - 5-12 ft. tall; 5-12 ft. wide

**Cultural Requirements** - full sun; adaptable to many different soil types; highly salt-tolerant; will grow in pure

### Similarities to Autumn-olive

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Size                       |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Cultural Requirements      |
|   | <input checked="" type="checkbox"/> Growth Rate                |

# Sweetfern - *Comptonia peregrina*

Alternative to Autumn-olive



**Form** - small to medium, deciduous, woody shrub

**Hardiness Zones** - 2-6(7)

**Native Status** - East Coast from Canada to North Carolina

**Function in the Landscape** - seashore planting; beach erosion control; mass planting; mixed border; naturalized plantings

**Habit/Shape** - dense, rounded, spreading shrub

**Ornamental Feature(s)** - unique lustrous leaves that resemble a fern frond; fragrant

**Size at Maturity** - 2-4 ft. tall; 4-8 ft. wide

**Cultural Requirements** - partial shade to full sun; best in sandy, acidic soils; highly salt-tolerant; tolerant of poor soils with little organic matter—fixes its own nitrogen; drought-tolerant

**Growth Rate** - medium

**What to Watch For** - suckers and can form colonies if left unchecked; can be difficult to establish at first—use container-grown plants

## Similarities to Autumn-olive

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input type="checkbox"/> Main Ornamental Feature(s)       |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input type="checkbox"/> Size                             |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Cultural Requirements |
|   | <input type="checkbox"/> Growth Rate                      |

# Northern Bayberry - *Morella pensylvanica* (*Myrica pensylvanica*)

Alternative to Autumn-olive



**Form** - medium, deciduous, shrub

**Hardiness Zones** - 3-7

**Native Status** - East Coast from Canada to North Carolina

**Function in the Landscape** - seashore planting; beach erosion control; mass planting; mixed border; fall and winter interest; commercial sites; foundation plantings

**Habit/Shape** - irregular shrub with upright branches; easily pruned into a hedge

**Ornamental Feature(s)** - lustrous, deep green leathery leaves; small, blue-gray fruits on female plants in late summer through winter; fragrant

**Size at Maturity** - 5-12 ft. tall; 5-8 ft. wide; smaller along the seashore

**Cultural Requirements** - partial shade to full sun; adaptable to many different soil types from pure sand to

heavy clay; acidic soils; highly salt-tolerant; tolerant of soils with little organic matter

**Growth Rate** - fast

**What to Watch For** - tends to sucker and form colonies; chlorosis on high pH soils

### Similarities to Autumn-olive

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input type="checkbox"/> Main Ornamental Feature(s)       |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Size                  |
| <input type="checkbox"/> Habit/Shape  | <input checked="" type="checkbox"/> Cultural Requirements |
|   | <input checked="" type="checkbox"/> Growth Rate           |

## INVASIVE

### Winged Euonymus - *Euonymus alatus*



#### Ornamental History

Winged Euonymus (*Euonymus alatus*), also known as Burning Bush, is a large, deciduous shrub introduced from northeastern Asia and central China. It is commonly used in the modern landscape in foundation plantings, mass plantings, and highway plantings. *E. alatus* is very dense and has a horizontal branching habit which lends itself to making a fine hedge. In autumn, its true colors come out when the foliage turns an unrivaled, striking, fire-engine-red, or a red/pink color in shady areas. It grows best in well-drained soil and is adaptable to soil pH.

#### Ecological Threat

*E. alatus* can invade forests and woodlands, riparian areas, and urban areas. Birds relish the bright red fruits, and distribute the seeds widely. Because it is highly shade-tolerant, *E. alatus* can form dense thickets in the forest understory and reduce the number of native species by shading and competition.

#### LIISMA Invasiveness Rank

- Very Highly Invasive
- Banned on Long Island, 1/1/2016

#### Alternatives to Winged Euonymus

**Red\*\* or Black\*\* Chokeberry** - *Aronia arbutifolia*; *A. melanocarpa*

**Dwarf\*, Hybrid\*, or Large\* Fothergilla** - *Fothergilla gardenii*; *F. x intermedia*; *F. major*

**Virginia Sweetspire\*** - *Itea virginica*

\* = Native to the U.S. \*\* = Native to NY State (hybrids & cultivars of native species included)

# Red or Black Chokeberry - *Aronia arbutifolia*; *A. melanocarpa*

Alternative to Winged Euonymus



**Form** - medium, deciduous, flowering shrub

**Hardiness Zones** - *A. arbutifolia*: 4-9; *A. melanocarpa*: 3-8(9)

**Native Status** - *A. arbutifolia*: Massachusetts to Florida and west to Minnesota and Texas; *A. melanocarpa*: Nova Scotia to Florida and west to Michigan

**Function in the Landscape** - groupings and mass planting; naturalized plantings; commercial sites

**Habit/Shape** - upright, suckering, leggy, multi-stemmed shrub

**Ornamental Feature(s)** - small, delicate white flowers in spring; fall color varies from bright red to reddish purple; glossy red or shiny black fruits provide winter interest

**Size at Maturity** - 6-10 ft. tall; 3-5 ft. wide; *A. melanocarpa* slightly shorter

**Cultural Requirements** - full sun to partial shade but full sun for best fruit production; adapted to fertile or infertile, acidic soils; tolerant of wet or dry sites

**Growth Rate** - slow to medium, but suckers can grow and spread quickly

**Cultivars Include** - 'Brilliantissima', 'Viking'

**What to Watch For** - can form a suckering colony if left unchecked; in the rose family, it is susceptible to Japanese beetles and leaf spots; may need to be rejuvenated in time

### Similarities to Winged Euonymus

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
|   | <input checked="" type="checkbox"/> Size                       |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input type="checkbox"/> Cultural Requirements                 |
| <input type="checkbox"/> Habit/Shape  | <input checked="" type="checkbox"/> Growth Rate                |

**Dwarf, Hybrid, or Large Fothergilla - *Fothergilla gardenii*; *F. x intermedia*; *F. major*** *Alternative to Winged Euonymus*



**Form** - small to medium, deciduous, flowering shrub

**Hardiness Zones** - 4-8

**Native Status** - *F. gardenii* and *F. major*: southeastern U.S. from North Carolina to Alabama; *F. x intermedia*: hybrid of *F. gardenii* and *F. major*

**Function in the Landscape** - foundation planting; fall color; mixed border; mass planting; on small or large residential lots

**Habit/Shape** - upright, rounded, shrub

**Ornamental Feature(s)** - early showy, white, fragrant, terminal flowers in the shape of a bottlebrush; foliage may be blue-green; fall color ranges from brilliant red to yellow

**Size at Maturity** - *F. gardenii*: 2-3 ft. tall, 2-4 ft. wide; *F. major*: 6-10 ft. tall, 5-10 ft. wide; *F. x intermedia*: in between

**Cultural Requirements** - partial shade to full sun; best in moist, well-drained, acidic soil

**Growth Rate** - slow

**Cultivars Include** - *F. x intermedia*: 'Mt. Airy'

**What to Watch For** - chlorosis on high pH soils; relatively pest-free

**Similarities to Winged Euonymus**

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Size                       |
| <input type="checkbox"/> Habit/Shape  | <input type="checkbox"/> Cultural Requirements                 |
|   | <input checked="" type="checkbox"/> Growth Rate                |



# Virginia Sweetspire - *Itea virginica*

*Alternative to Winged Euonymus*



**Form** - medium, deciduous, flowering shrub

**Hardiness Zones** - 5-9

**Native Status** - East Coast from New Jersey to Florida, west to Missouri and Louisiana

**Function in the Landscape** - mass planting; mixed border; foundation plantings; fall color; woodland gardens; natural areas

**Habit/Shape** - rounded, mounding shrub, often wider than tall, with arching, floppy branches

**Ornamental Feature(s)** - numerous, arching spikes of lightly fragrant white flowers in June; strikingly beautiful, long-lasting fall color in a rainbow of wine to scarlet to gold; bright red stems

**Size at Maturity** - 3-6 ft. tall; 4-8 ft. wide

**Cultural Requirements** - sun to part

shade; very adaptable; best in moist soil although it is both drought-tolerant and tolerant of wet sites; acidic or alkaline

**Growth Rate** - medium to fast

**Cultivars Include** - 'Henry's Garnet', Little Henry™

**What to Watch For** - prune after spring flowering to maintain shape and size; may sucker in areas with sufficient moisture

### Similarities to Winged Euonymus

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input type="checkbox"/> Size                                  |
| <input type="checkbox"/> Habit/Shape  | <input checked="" type="checkbox"/> Cultural Requirements      |
|   | <input type="checkbox"/> Growth Rate                           |

## INVASIVE

### Wintercreeper Euonymus - *Euonymus fortunei*



#### Ornamental History

Wintercreeper Euonymus (*Euonymus fortunei*) is an evergreen, woody plant introduced from China. When used as a groundcover, it forms a low-growing mat, and can climb as a vine 40 ft. or higher. A tremendous number of cultivars have been developed, and some of the most popular forms are small, erect, evergreen shrubs. Compact, shrub-form cultivars with striking variegated foliage, such as Emerald 'n Gold® and 'Emerald Gaiety', are used extensively for foundation plantings, small hedges, and groupings. *E. fortunei* can be grown in full sun or heavy shade and is soil pH adaptable. It is best grown in moist, well-drained soil.

#### Ecological Threat

*E. fortunei* can invade woodlands, riparian areas, old fields, roadsides, rocky bluffs, and urban areas. It grows aggressively and is capable of outcompeting other plants by forming a dense mat that blocks the regeneration of native seedlings. Seeds are spread by birds, small mammals, and water.

#### Alternatives to Wintercreeper by Habit

##### Groundcover

**Bearberry\*\*** - *Arctostaphylos uva-ursi*

**Bearberry Cotoneaster** - *Cotoneaster dammeri*

**Willowleaf Cotoneaster** - *Cotoneaster salicifolius* (low-growing cultivars)

**Creeping Raspberry** - *Rubus calycinoides* (*Rubus pentalobus*)

##### Shrub

**Japanese Aucuba** - *Aucuba japonica* (dwarf cultivars)

**Japanese Skimmia** - *Skimmia japonica*

#### LIISMA Invasiveness Rank

- Very Highly Invasive
- Banned on Long Island, 1/1/2013

\* = Native to the U.S. \*\* = Native to NY State (hybrids & cultivars of native species included)

# Bearberry - *Arctostaphylos uva-ursi*

*Alternative to Wintercreeper Euonymus (groundcover habit)*



**Form** - low-growing, evergreen groundcover

**Hardiness Zones** - 2-7(8)

**Native Status** - Canada and northern half and western half of U.S.

**Function in the Landscape** - groundcover; seashore plantings; beach erosion control; slopes and hillsides; edging; woodland plantings

**Habit/Shape** - low-growing, wide-spreading evergreen groundcover

**Ornamental Feature(s)** - tiny, delicate pink flowers appear in spring; glossy green leaves which turn reddish brown in winter; small, bright red fruits provide winter interest and food for birds and wildlife

**Size at Maturity** - 0.5–1 ft. tall; 2-4 ft. wide or more

**Cultural Requirements** - full sun to partial shade; an Ericaceous plant, it

grows best on acidic soils; very salt-tolerant; thrives in pure sand; drought-tolerant; very cold hardy

**Growth Rate** - slow

**Cultivars Include** - 'Massachusetts'

**What to Watch For** - well-drained soil is a must

## Similarities to Wintercreeper Euonymus

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Size                       |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input type="checkbox"/> Cultural Requirements                 |
|   | <input type="checkbox"/> Growth Rate                           |

# Bearberry Cotoneaster - *Cotoneaster dammeri*

*Alternative to Wintercreeper Euonymus (groundcover habit)*



**Form** - low-growing, evergreen groundcover

**Hardiness Zones** - 5-7(8)

**Native Status** - introduced from China

**Function in the Landscape** - groundcover; slopes and hillsides; edging; commercial sites; winter interest; mass planting

**Habit/Shape** - low-growing, evergreen groundcover

**Ornamental Feature(s)** - tiny little white flowers in mid-spring; small, lustrous dark green leaves during growing season; dull green to reddish winter foliage; bright red fruits provide winter interest

**Size at Maturity** - 3 inches to 3 ft. tall; 6 or more ft. wide

**Cultural Requirements** - full sun to partial shade; adaptable to different soil pH; best in well-drained soil

**Growth Rate** - fast; roots readily from branches that touch the ground

**Cultivars Include** - 'Coral Beauty', 'Mooncreeper', 'Streib's Finding'

**What to Watch For** - fireblight and mites can be a problem on Cotoneaster especially in warmer climates

## Similarities to Wintercreeper Euonymus

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
|   | <input checked="" type="checkbox"/> Size                       |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Cultural Requirements      |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Growth Rate                |

**Willowleaf Cotoneaster - *Cotoneaster salicifolius*** (low-growing cultivars)

*Alternative to Wintercreeper Euonymus (groundcover habit)*



**Form** - evergreen to semi-evergreen woody groundcover

adaptable to different soil pH; best in well-drained soil

**Hardiness Zones** - 6-8

**Growth Rate** - medium

**Native Status** - introduced from China

**Cultivars Include** - 'Repandens', 'Scarlet Leader'

**Function in the Landscape** - groundcover; slopes and hillsides; commercial sites; mass plantings; winter interest

**What to Watch For** - fireblight and mites can be a problem on Cotoneaster especially in warmer climates

**Habit/Shape** - low-growing, wide-spreading evergreen groundcover with long arching branches

**Ornamental Feature(s)** - small clusters of white flowers in mid-spring; small, lustrous dark green leaves during growing season; reddish purple winter foliage; bright red fruits provide winter interest

**Size at Maturity** - low-growing forms are 8 in. to 3 ft. tall; up to 8 ft. wide

**Cultural Requirements** - full sun to partial shade; drought-tolerant;

**Similarities to Wintercreeper Euonymus**

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Size                       |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Cultural Requirements      |
|   | <input type="checkbox"/> Growth Rate                           |

# Creeping Raspberry - *Rubus calycinoides* (*Rubus pentalobus*)

Alternative to Wintercreeper Euonymus (groundcover habit)



**Form** - low-growing, woody, evergreen groundcover

**Hardiness Zones** - (6)7-9

**Native Status** - introduced from Taiwan

**Function in the Landscape** - groundcover; slopes and hillsides; edging; commercial sites; winter interest; rock walls; textural effect; container planting

**Habit/Shape** - creeping, evergreen groundcover

**Ornamental Feature(s)** - tiny, lobed, dark green leaves; some cultivars' leaves turn burgundy in fall; small white flower; small orange to red fruits

**Size at Maturity** - 6-12 in. tall; 18-24 in. wide

**Cultural Requirements** - full sun to partial shade; best in well-drained soil; drought-tolerant

**Growth Rate** - medium

**Cultivars Include** - 'Emerald Carpet'

**What to Watch For** - relatively pest-free

### Similarities to Wintercreeper Euonymus

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
|   | <input checked="" type="checkbox"/> Size                       |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Cultural Requirements      |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input type="checkbox"/> Growth Rate                           |

## Dwarf Japanese Aucuba - *Aucuba japonica* (dwarf cultivars)

Alternative to Wintercreeper Euonymus (shrub habit)



Photo courtesy of J. Lehrer

**Form** - small, evergreen shrub

**Hardiness Zones** - (6)7-10

**Native Status** - introduced from Japan

**Function in the Landscape** - foundation plantings; mass planting; shade gardens; beneath large trees; winter interest

**Habit/Shape** - dwarf cultivars are small, compact, rounded, evergreen shrubs

**Ornamental Feature(s)** - lustrous dark green leathery foliage year round; occasional speckles on leaves of some small cultivars; scarlet-red fruits through the winter

**Size at Maturity** - dwarf cultivars are 3-5 ft. tall; 4-6 ft. wide

**Cultural Requirements** - partial shade to full shade; well-drained, moist soil with high organic matter content; pollution-tolerant

**Growth Rate** - slow to medium

**Cultivars Include** - 'Nana', 'Nana Rotundifolia', 'Rozannie', 'Wisley Nana'

**What to Watch For** - leaf bleaching in full sun; stem dieback; *Phytophthora* root rot

### Similarities to Wintercreeper Euonymus

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Size                       |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input type="checkbox"/> Cultural Requirements                 |
|   | <input type="checkbox"/> Growth Rate                           |

# Japanese Skimmia - *Skimmia japonica*

*Alternative to Wintercreeper Euonymus (shrub habit)*



**Form** - small, evergreen shrub

**Hardiness Zones** - (6)7-8(9)

**Native Status** - introduced from Japan

**Function in the Landscape** - foundation planting; small residential sites; mixed border; winter interest; container planting; woodland plantings

**Habit/Shape** - small, rounded, symmetrical evergreen shrub

**Ornamental Feature(s)** - lustrous, dark green, laurel-like evergreen foliage; tiny maroon buds open up to white clusters of small flowers, which are larger and more fragrant on male plants; female plants have bright red fruits which provide winter interest

**Size at Maturity** - 3 in. to 3 ft. tall; 6 or more ft. wide

**Cultural Requirements** - partial shade to full shade; best in moist, acidic

soils with high organic matter content; does not tolerate dry conditions

**Growth Rate** - slow

**What to Watch For** - relatively pest-free; need male and female plant for fruit production

### Similarities to Wintercreeper Euonymus

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Size                       |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input type="checkbox"/> Cultural Requirements                 |
|   | <input type="checkbox"/> Growth Rate                           |



## INVASIVE

### English Ivy - *Hedera helix*



#### Ornamental History

*Hedera helix* is a woody, ornamental vine that is native to Europe and Russia. It is valued for its lustrous, dark, evergreen foliage. It tolerates both full sun and deep shade, is drought-tolerant, and makes an attractive, weed-suppressing groundcover. It is often seen growing on trees or buildings. *H. helix* is also commonly used in container gardening and as a house plant. A staggering number of cultivars have been developed, some with variegated foliage.

#### Ecological Threat

*Hedera helix* commonly invades disturbed urban areas and roadsides. It is also present in old fields, woodlands, and riparian and coastal areas and is capable of rampant, vegetative growth. When it grows as a groundcover, dense stands can form and the thick, evergreen leaves reduce light availability to regenerating native plants. The vine can grow 90 feet up the trunks of trees, and can spread over tree branches, blocking sunlight to foliage. Climbing *H. helix* produce abundant amounts of fruit, which are eaten and dispersed by birds. Because it roots easily from stem fragments, *H. helix* can also be spread inadvertently through the disposal of yard waste.

#### LIISMA Invasiveness Rank

- Moderately Invasive
- Not Recommended for Planting

#### Alternatives to English Ivy

**Crossvine\*** - *Bignonia capreolata*

**Carolina Yellow Jessamine\*** - *Gelsemium sempervirens* (cold hardy cultivars)

**Climbing Hydrangea** - *Hydrangea anomala* subsp. *petiolaris*

**Japanese Hydrangea-vine** - *Schizophragma hydrangeoides*

\* = Native to the U.S. \*\* = Native to NY State (hybrids & cultivars of native species included)

# Crossvine - *Bignonia capreolata*

Alternative to English Ivy



Photos courtesy of Will Cook, [people.duke.edu/~cwcook/trees/bica.html](http://people.duke.edu/~cwcook/trees/bica.html)

**Form** - twining, evergreen, flowering vine

**Hardiness Zones** - (5) 6-9

**Native Status** - East Coast from Maryland to Florida, west to Illinois and Louisiana

**Function in the Landscape** - twining vine for use in the residential landscape, supported by a trellis, arbor, or fence; will also climb up trees and adhere to brick walls

**Habit/Shape** - flowering, twining vine

**Ornamental Feature(s)** - covered in bright trumpet-shaped, fragrant flowers in spring for 3-4 weeks; some cultivars rebloom sporadically through the season; two-toned orange and red flowers are attractive to hummingbirds; mostly evergreen foliage develops a purplish cast in winter

**Size at Maturity** - 30-50 ft. high

**Cultural Requirements** - full sun to partial shade; best flowering in full sun; moist, well-drained soil; prune after flowering if needed

**Growth Rate** - fast

**Cultivars Include** - 'Tangerine Beauty'

**What to Watch For** - relatively pest-free

## Similarities to English Ivy

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Size                       |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Cultural Requirements      |
|   | <input checked="" type="checkbox"/> Growth Rate                |

# Carolina Yellow Jessamine - *Gelsemium sempervirens*

(cold hardy cultivars)

Alternative to English Ivy



Photos courtesy of R. Alvey

**Form** - twining, evergreen, flowering vine

**Hardiness Zones** - 6-9

**Native Status** - East Coast from Virginia to Florida west to Texas

**Function in the Landscape** - twining vine for use in the residential landscape, supported by a trellis, arbor, or fence; will also climb up small trees; can also be used as a groundcover

**Habit/Shape** - flowering, twining vine

**Ornamental Feature(s)** - covered in bright, sunshine-yellow, trumpet-shaped, fragrant flowers in early spring; may rebloom sporadically in fall; dark, lustrous, mostly evergreen foliage develops a purplish or yellowish cast in winter

**Size at Maturity** - 10-20 ft. high

**Cultural Requirements** - full sun to

partial shade; best flowering in full sun; adaptable to many different soils as long as it is not wet

**Growth Rate** - fast

**Cultivars Include** - 'Margarita', this is a cold hardy cultivar

**What to Watch For** - relatively pest-free

### Similarities to English Ivy

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
|   | <input type="checkbox"/> Size                                  |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Cultural Requirements      |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Growth Rate                |

# Climbing Hydrangea - *Hydrangea anomala* subsp. *petiolaris*

Alternative to English Ivy



**Form** - deciduous, woody, flowering vine

**Hardiness Zones** - 4-7(8)

**Native Status** - introduced from Japan and China

**Function in the Landscape** - climbing vine for brick or stone walls, arbors, or trees; can also be used as a groundcover

**Habit/Shape** - climbs as well as protrudes out from the structure it is holding onto

**Ornamental Feature(s)** - flat-topped, lacecap-like, showy white flowers last for up to 6 weeks in summer; glossy dark green leaves reveal exfoliating cinnamon-colored bark in wintertime; nice yellow fall color

**Size at Maturity** - climbs up to 80 ft. high

**Cultural Requirements** - full sun to

mostly shade; moist, well-drained soil; use container-grown plants for best transplant success rate

**Growth Rate** - medium growth rate initially, but fast growth once established

**Cultivars Include** - 'Skylands Giant'

**What to Watch For** - Japanese beetles may feed on foliage

Similarities to English Ivy	
<input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine)	<input type="checkbox"/> Main Ornamental Feature(s)
<input type="checkbox"/> Function in the Landscape	<input checked="" type="checkbox"/> Size
<input checked="" type="checkbox"/> Habit/Shape	<input checked="" type="checkbox"/> Cultural Requirements
	<input checked="" type="checkbox"/> Growth Rate

**Japanese Hydrangea-vine - *Schizophragma hydrangeoides***

*Alternative to English Ivy*



**Form** - deciduous, woody, flowering vine

'Roseum'

**Hardiness Zones** - 5-7(8)

**What to Watch For** - relatively pest-free

**Native Status** - introduced from Japan

**Function in the Landscape** - climbing vine for brick or stone walls, arbors, or trees

**Habit/Shape** - climbing, flowering vine

**Ornamental Feature(s)** - showy white flat-topped, inflorescences in early summer fade to bronze; toothed, heart-shaped deep green leaves

**Size at Maturity** - climbs up to 30 ft. high

**Cultural Requirements** - partial shade to mostly shade; moist, well-drained soil with high organic matter content

**Growth Rate** - medium

**Cultivars Include** - 'Moonlight',

**Similarities to English Ivy**

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input type="checkbox"/> Main Ornamental Feature(s)       |
| <input type="checkbox"/> Function in the Landscape                                | <input checked="" type="checkbox"/> Size                  |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Cultural Requirements |
|   | <input type="checkbox"/> Growth Rate                      |

## INVASIVE

### Yellow Flag Iris - *Iris pseudacorus*



#### Ornamental Uses

Yellow Flag Iris (*Iris pseudacorus*) is a flowering perennial native to Europe, Asia, and northern Africa. *I. pseudacorus* is a popular ornamental for pond gardens because it thrives in wet soil. It can also be grown in more typical garden settings as long as the soil is kept consistently moist. It may reach 3-4ft. in height. Cheery yellow, beardless flowers open in early summer. It flowers well even in shady sites.

#### Ecological Threat

*I. pseudacorus* can invade wetlands and proliferate around the edges of ponds, marshes, streams, and tidal zones. Its rhizomes can form thick mats that prevent the germination of native plants. The mat of rhizomes also collects sediments and slowly elevates the banksides, resulting in a drier microhabitat. *I. pseudacorus* has a rapid growth rate and has been shown to outcompete native cattail and impact willow trees. Unlike some invasive plants, *I. pseudacorus* can invade pristine habitats, and has formed large stands in wetlands of the Adirondacks. Its buoyant seeds and rhizomes can easily be spread and transported downstream great distances.

#### LIISMA Invasiveness Rank

- Highly Invasive
- Banned on Long Island, 1/1/2012

#### Alternatives to Yellow Flag Iris

**Louisiana Irises\*** - *Iris* spp.  
(yellow flowering cultivars)

**Japanese Iris** - *Iris ensata*

**Pseudata Iris** - *Iris x pseudata*  
(yellow flowering cultivars)

**Blueflag Iris\*\*** - *Iris versicolor*

\* = Native to the U.S. \*\* = Native to NY State (hybrids & cultivars of native species included)

## Louisiana Irises - *Iris* spp. (yellow flowering cultivars)

*Alternative to Yellow Flag Iris*



Photos courtesy of Zydeco Louisiana Iris Garden, [zydecoirises.com](http://zydecoirises.com) (left); Plant Delights Nursery, [www.plantdelights.com](http://www.plantdelights.com) (center); Louisiana Iris Farms, [www.louisianairis.com](http://www.louisianairis.com) (right)

**Form** - deciduous, flowering perennial

**Hardiness Zones** - 4-9

**Native Status** - this unique group of 5 species is native to the Gulf Coast from Texas to Florida

**Function in the Landscape** - mixed border; mass planting; pond gardens; rain gardens

**Habit/Shape** - beardless, upright iris

**Ornamental Feature(s)** - yellow-flowering cultivars have pale pastel to bright golden yellow flowers which appear in summer; other flower colors include red, blue, lilac, and white

**Size at Maturity** - 3-4 ft. tall; 3 ft. wide clump

**Cultural Requirements** - full sun; consistently moist to wet soils with high organic matter content; some hybrids are somewhat salt-tolerant

**Growth Rate** - medium

**Cultivars Include** - yellow cultivars include: 'Brazos Gold', 'Brushfire Moon', 'Cabildo', 'Candlelight Supper', 'Dixie Deb', 'Harland K. Riley', 'Joy Flight', 'Laura Louise', 'Lemon Zest', 'President Hedley', 'Professor Barbara', 'Rigolets', 'Rokki Rockwell', 'Willow Mint'

**What to Watch For** - cut off half of foliage after flowering to reduce foliar fungal and bacterial infections

### Similarities to Yellow Flag Iris

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Size                       |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Cultural Requirements      |
|   | <input checked="" type="checkbox"/> Growth Rate                |

**Pseudata Iris - *Iris x pseudata* (*I. pseudacorus* X *I. ensata*)**  
(yellow cultivars)

*Alternative to Yellow Flag Iris*



Photos courtesy of Plant Delights Nursery, [www.plantdelights.com](http://www.plantdelights.com)

**Form** - deciduous, flowering perennial

**Hardiness Zones** - 5-9

**Native Status** - Cross between *Iris pseudacorus*, native to Europe, Asia, and northern Africa, and *I. ensata*, native to Japan, northern China, and Eastern Russia.

**Function in the Landscape** - mixed border; mass planting; pond gardens; rain gardens

**Habit/Shape** - beardless, upright iris

**Ornamental Feature(s)** - strong growing plants with multiple flowers per stalk; many cultivars have strong eyelash pattern in their signal; sterile hybrids will not spread into waterways via seeds

**Size at Maturity** - 2-5 ft. tall

**Cultural Requirements** - can grow in fertile, drained soil or bog-like conditions; full sun

**Growth Rate** - moderate to vigorous

**Cultivars Include** - cream to yellow cultivars include 'Chance Beauty', 'Kimboshi', 'Ryugan', 'Samon', 'Aichi-No-Kagayaki'

**What to Watch For** - iris borers

**Similarities to Yellow Flag Iris**

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
|   | <input checked="" type="checkbox"/> Size                       |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Cultural Requirements      |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Growth Rate                |



# Japanese Iris - *Iris ensata*

*Alternative to Yellow Flag Iris*



**Form** - deciduous, flowering perennial

**Hardiness Zones** - 4-9

**Native Status** - introduced from China and Japan

**Function in the Landscape** - mixed border; mass planting; pond gardens; rain gardens

**Habit/Shape** - beardless, rhizomatous iris

**Ornamental Feature(s)** - many cultivars with beautifully colored flowers in purple, white, blue, lavender, and pink which appear in early to mid summer; large seedheads which follow the flowers also provide interest

**Size at Maturity** - 2-2.5 ft. tall; 2 ft. wide clump

**Cultural Requirements** - full sun to partial shade; consistently moist to wet soils with high organic matter

content; acidic soil; may be divided in spring and fall

**Growth Rate** - medium

**Cultivars Include** - American Iris Society winners include: 'Bellender Blue', 'Blue Spritz', 'Electric Glow', 'Epimetheus', 'Lion King'

**What to Watch For** - avoid overly wet conditions in winter which may cause root rot

## Similarities to Yellow Flag Iris

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input type="checkbox"/> Main Ornamental Feature(s)       |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Size                  |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Cultural Requirements |
|   | <input checked="" type="checkbox"/> Growth Rate           |

# Blueflag Iris - *Iris versicolor*

*Alternative to Yellow Flag Iris*



**Form** - deciduous, flowering perennial

**Hardiness Zones** - 3-9

**Native Status** - eastern half of U.S. from Maine to Virginia, west to Minnesota and into Canada

**Function in the Landscape** - mixed border; mass planting; pond gardens; rain gardens; natural areas along streambanks and marshes

**Habit/Shape** - beardless, rhizomatous iris

**Ornamental Feature(s)** - striking violet-blue flowers with yellow bases of sepals which appear in late spring

**Size at Maturity** - 2-2.5 ft. tall; 2-2.5 ft. wide clump

**Cultural Requirements** - full sun to partial shade; moist to wet soils with high organic matter content; divide after flowering to propagate

**Growth Rate** - medium

**What to Watch For** - will spread in areas with sufficient moisture; iris borer

## Similarities to Yellow Flag Iris

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input type="checkbox"/> Main Ornamental Feature(s)       |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Size                  |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Cultural Requirements |
|   | <input checked="" type="checkbox"/> Growth Rate           |

**INVASIVE Bell's, Amur, Morrow, Tatarian Honeysuckle - *Lonicera x bella*; *L. maackii*; *L. morrowii*; *L. tatarica***



**Ornamental History**

Amur (*Lonicera maackii*), Morrow (*L. morrowii*), and Tatarian Honeysuckles (*L. tatarica*) are all large, deciduous flowering shrubs native to Asia. Bell's Honeysuckle (*L. x bella*) is a hybrid of *L. morrowii* and *L. tatarica*. These honeysuckles are multi-stemmed with a dense, twiggy, rounded habit, often with long, arching branches, from 6-15 ft. tall. In early or mid-spring, they are covered in flowers that are white or pink. The flowers often fade to a yellow color and are followed in summer or fall by bright red berries. Most of these honeysuckles are quite shade- and cold-tolerant, although flowering is best in full sun. At one time a popular ornamental, shrub honeysuckles have been replaced in the modern landscape with more compact and more versatile plants. *L. maackii* had also been planted for soil conservation purposes.

**Ecological Threat**

These honeysuckles can invade old fields, forest edges, woodlands, roadsides, riparian areas, and urban areas. Most disturbing is the ability of these honeysuckles to form dense thickets in the understory of woodlands. At 100% cover, they shade out native vegetation below, leading to forest degradation. The bright red berries are produced abundantly and are eaten and dispersed by birds and small mammals. High germination rates up to 97% have been found for some of these honeysuckles.

**LIISMA Invasiveness Rank**

- Very Highly Invasive
- Banned on Long Island, 1/1/2011

**Alternatives to Shrub Honeysuckles**

**Deutzia** - *Deutzia* spp.

**Beautybush** - *Kolkwitzia amabilis*

**Mockorange\*** - *Philadelphus* spp.  
(some species native to U.S.)

**Nippon or Vanhoutte Spirea** - *Spiraea nipponica*; *S. x vanhouttei*

\* = Native to the U.S. \*\* = Native to NY State (hybrids & cultivars of native species included)

# Deutzia - *Deutzia* spp.

Alternative to Shrub Honeysuckles



**Form** - small to medium, deciduous, flowering shrub

**Hardiness Zones** - 5-8

**Native Status** - introduced from Japan

**Function in the Landscape** - mixed border; mass planting; informal hedge

**Habit/Shape** - overall coarsely rounded with numerous upright, arching branches

**Ornamental Feature(s)** - bell-shaped white flowers cover the shrub in mid-spring

**Size at Maturity** - 2-10 ft. tall; 3-8 ft. wide

**Cultural Requirements** - partial shade to full sun; very adaptable to different soil types and pH; drought-tolerant

**Growth Rate** - slow to medium

**Cultivars Include** - *D. gracilis* 'Nikko'; *D. scabra* 'Pride of Rochester'

**What to Watch For** - relatively pest-free; prune after flowering to maintain size and shape; holds onto its deadwood and can look scraggly if not pruned on a periodic basis

## Similarities to Shrub Honeysuckles

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Size                       |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Cultural Requirements      |
|   | <input type="checkbox"/> Growth Rate                           |

# Beautybush - *Kolkwitzia amabilis*

*Alternative to Shrub Honeysuckles*



**Form** - medium to large, deciduous, flowering shrub

**Hardiness Zones** - 4-8

**Native Status** - introduced from China

**Function in the Landscape** - mixed border; mass planting; informal hedge

**Habit/Shape** - overall coarsely upright vase-shaped with numerous upright, arching branches

**Ornamental Feature(s)** - clusters of light pink, bell-shaped flowers cover the shrub in mid-spring

**Size at Maturity** - 6-15 ft. tall; 5-12 ft. wide

**Cultural Requirements** - full sun; very adaptable to different soil types and pH

**Growth Rate** - fast

**Cultivars Include** - Dream Catcher™

**What to Watch For** - relatively pest-free; prune after flowering to maintain size and shape; stems can be thinned if shrub becomes overgrown

## Similarities to Shrub Honeysuckles

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Size                       |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Cultural Requirements      |
|   | <input checked="" type="checkbox"/> Growth Rate                |

# Mockorange - *Philadelphus* spp.

*Alternative to Shrub Honeysuckles*



**Form** - small, medium, or large, deciduous, flowering shrub

**Hardiness Zones** - 4-8

**Native Status** - many are hybrids of species native to southeastern Europe; *P. microphyllus* is native to southwestern U.S.

**Function in the Landscape** - mixed border; mass planting; informal hedge; foundation planting

**Habit/Shape** - upright with arching branches or small, dense, and compact - variable depending on cultivar

**Ornamental Feature(s)** - single, semi-double, or double white flowers in late spring which are often very sweetly scented

**Size at Maturity** - 3-12 ft. tall; 3-12 ft. wide

**Cultural Requirements** - full sun; very adaptable to different soil types and pH

**Growth Rate** - fast

**Cultivars Include** - *P. x lemoinei* 'Manteau d'Hermine', 'Minnesota Snowflake', 'Belle Etoile'

**What to Watch For** - relatively pest-free; prune after flowering to maintain size and shape

## Similarities to Shrub Honeysuckles

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Size                       |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Cultural Requirements      |
|   | <input checked="" type="checkbox"/> Growth Rate                |

# Nippon or Vanhoutte Spirea - *Spiraea nipponica*; *S. x vanhouttei*

Alternative to Shrub Honeysuckles



**Form** - small to medium or large, deciduous, flowering shrub

**Hardiness Zones** - *S. nipponica*: (3)-7 (8); *S. x vanhouttei*: 3-8(9)

**Native Status** - *S. nipponica*: introduced from Japan; *S. x vanhouttei*: hybrid of two Chinese species

**Function in the Landscape** - mixed border; mass planting; informal hedge; foundation planting; commercial sites

**Habit/Shape** - *S. nipponica*: dense, upright compact shrub with arching branches; *S. vanhouttei*: dense, mounding, irregularly shaped shrub with branches arching to ground

**Ornamental Feature(s)** - clusters of white flowers in spring; bluish-green foliage; flowers attractive to butterflies

**Size at Maturity** - *S. nipponica*: 3-5 ft.

tall; 3-5 ft. wide; *S. x vanhouttei*: 6-10 ft. tall; 10-12 ft. wide

**Cultural Requirements** - very adaptable to different soil types and pH; *S. nipponica*: full sun to partial shade; *S. x vanhouttei*: full sun

**Growth Rate** - fast

**Cultivars Include** - *S. nipponica* 'Snowmound'

**What to Watch For** - prune after flowering to maintain size and shape; leaf spots

### Similarities to Shrub Honeysuckles

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
|   | <input checked="" type="checkbox"/> Size                       |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Cultural Requirements      |
| <input type="checkbox"/> Habit/Shape  | <input checked="" type="checkbox"/> Growth Rate                |

## INVASIVE

### Japanese Honeysuckle - *Lonicera japonica*



#### Ornamental History

Japanese Honeysuckle (*Lonicera japonica*) is a twining, woody, flowering vine introduced from Japan, China, and Korea. It is evergreen, semi-evergreen, or deciduous depending on the climate. *L. japonica* is commonly grown over an arbor, trellis, or fence and will grow up to 15-30 ft. tall. From spring to fall, white flowers bloom and fade to yellow, giving off a most pleasant scent. *L. japonica* is very adaptable to various site conditions, and grows vigorously as a groundcover or vine.

#### Ecological Threat

*L. japonica* can invade old fields, woodlands, roadsides, wetlands, and urban areas. This vine has a very aggressive growth rate and can overtop small trees and shrubs, reducing the amount of light available for photosynthesis and the number of native species in the forest understory. *L. japonica* spreads by ground runners that root at nodes when in contact with the soil, and by having its seeds eaten and dispersed by birds and small mammals. *L. japonica* has a high germination rate - up to 97%. Interestingly, *L. japonica* has been linked to habitat degradation of the bog turtle.

#### LIISMA Invasiveness Rank

- Very Highly Invasive
- Banned on Long Island, 1/1/2011

#### Alternatives to Japanese Honeysuckle

**Crossvine\*** - *Bignonia capreolata*

**Carolina Yellow Jessamine\*** - *Gelsemium sempervirens* (Cold hardy cultivars)

**Goldflame Honeysuckle** - *Lonicera x heckrottii*

**Trumpet Honeysuckle\*\*** - *Lonicera sempervirens*

\* = Native to the U.S. \*\* = Native to NY State (hybrids & cultivars of native species included)



# Crossvine - *Bignonia capreolata*

Alternative to Japanese Honeysuckle



Photos courtesy of Will Cook, [people.duke.edu/~cwcook/trees/bica.html](http://people.duke.edu/~cwcook/trees/bica.html)

**Form** - twining, evergreen, flowering vine

**Hardiness Zones** - (5) 6-9

**Native Status** - East Coast from Maryland to Florida, west to Illinois and Louisiana

**Function in the Landscape** - twining vine for use in the residential landscape, supported by a trellis, arbor, or fence; will also climb up trees and adhere to brick walls

**Habit/Shape** - flowering, twining vine

**Ornamental Feature(s)** - covered in bright trumpet-shaped, fragrant flowers in spring for 3-4 weeks; some cultivars rebloom sporadically through the season; two-toned orange and red flowers are attractive to hummingbirds; mostly evergreen foliage develops a purplish cast in winter

**Size at Maturity** - 30-50 ft. high

**Cultural Requirements** - partial shade to full sun; best flowering in full sun; moist, well-drained soil; prune after flowering if needed

**Growth Rate** - fast

**Cultivars Include** - 'Jekyll', 'Tangerine Beauty'

**What to Watch For** - relatively pest-free

## Similarities to Japanese Honeysuckle

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input type="checkbox"/> Size                                  |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Cultural Requirements      |
|   | <input checked="" type="checkbox"/> Growth Rate                |

# Carolina Yellow Jessamine - *Gelsemium sempervirens*

(cold hardy cultivars)

*Alternative to Japanese Honeysuckle*



Photos courtesy of R. Alvey

**Form** - twining, evergreen, flowering vine

**Hardiness Zones** - 6-9

**Native Status** - East Coast from Virginia to Florida west to Texas

**Function in the Landscape** - twining vine for use in the residential landscape, supported by a trellis, arbor, or fence; will also climb up small trees; can also be used as a groundcover

**Habit/Shape** - flowering, twining vine

**Ornamental Feature(s)** - covered in bright, sunshine-yellow, trumpet-shaped, fragrant flowers in early spring; may rebloom sporadically in fall; dark, lustrous, mostly evergreen foliage develops a purplish or yellowish cast in winter

**Size at Maturity** - 10-20 ft. high

**Cultural Requirements** - partial shade

to full sun; best flowering in full sun; adaptable to many different soils as long as it is not wet

**Growth Rate** - fast

**Cultivars Include** - 'Margarita', this is a cold hardy cultivar

**What to Watch For** - relatively pest-free

### Similarities to Japanese Honeysuckle

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
|   | <input checked="" type="checkbox"/> Size                       |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Cultural Requirements      |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Growth Rate                |

# Goldflame Honeysuckle - *Lonicera x heckrottii*

*Alternative to Japanese Honeysuckle*



**Form** - twining, deciduous, flowering vine

**Hardiness Zones** - 5-9

**Native Status** - hybrid likely of *L. sempervirens* and *L. x americana*, which is native to the East Coast and a hybrid of European species, respectively

**Function in the Landscape** - twining vine for use in the residential landscape, supported by a trellis, arbor, or fence

**Habit/Shape** - flowering, twining vine

**Ornamental Feature(s)** - beautifully vibrant two-toned flowers with orange-yellow interiors and reddish-pink exteriors; long-blooming flowers occur in spring and summer and sporadically in the fall on new growth; flowers are attractive to hummingbirds and are slightly fragrant

**Size at Maturity** - 10-20 ft.

**Cultural Requirements** - partial shade to full sun; well-drained soil with high organic matter content

**Growth Rate** - medium

**What to Watch For** - powdery mildew, aphids

## Similarities to Japanese Honeysuckle

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Size                       |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input type="checkbox"/> Cultural Requirements                 |
|   | <input type="checkbox"/> Growth Rate                           |

# Trumpet Honeysuckle - *Lonicera sempervirens*

*Alternative to Japanese Honeysuckle*



**Form** - twining, deciduous, flowering vine

**Hardiness Zones** - (3)4-9

**Native Status** - East Coast, from Connecticut to Florida, west to Nebraska and Texas

**Function in the Landscape** - twining vine for use in the residential landscape, supported by a trellis, arbor, or fence

**Habit/Shape** - flowering, twining vine

**Ornamental Feature(s)** - leathery leaves with silver undersides, bright, vibrant flowers in shades of yellow, pink, red, and orange in May through summer; attractive to hummingbirds

**Size at Maturity** - 10-20 ft. or higher

**Cultural Requirements** - full sun for best flowering; grows best in moist, acidic or neutral soil

**Growth Rate** - fast

**Cultivars Include** - 'Major Wheeler', 'Sulphurea', 'John Clayton', 'Alabama Crimson'

**What to Watch For** - aphids; may be pruned directly after flowering to shape and control growth (flowers form on old wood)

## Similarities to Japanese Honeysuckle

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Size                       |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Cultural Requirements      |
|   | <input checked="" type="checkbox"/> Growth Rate                |

## INVASIVE Creeping Jenny or Moneywort - *Lysimachia nummularia*



### Ornamental History

Creeping Jenny (*Lysimachia nummularia*), also known as Moneywort, is an herbaceous perennial groundcover native to Europe. This fast-growing, mat-forming, plant is used to cover patches of soil in moist and shady areas of the garden and around ponds. Small, yellow flowers bloom in early summer. Gold cultivars, including 'Aurea,' have been developed and their chartreuse foliage brightens up the duller of planting spots. *L. nummularia* is also used extensively in container gardening.

### Ecological Threat

*L. nummularia* can invade moist wooded areas and along streams and ponds. It is shade-tolerant and spreads vigorously by vegetative growth. Once established, it can disrupt water flow of springs and seeps and may alter the rate of chemical reactions in the soil. The dense mat of this ground cover can also reduce the number of individuals of native herbaceous plants.

#### Alternatives to Creeping Jenny by Cultivar

##### Green

**Green and Gold\*** - *Chrysogonum virginianum*

**Spotted Dead Nettle** - *Lamium maculatum*

**Creeping Mazus** - *Mazus reptans*

**Siberian Barren-strawberry** - *Waldsteinia ternata*

##### Gold

**Coral\*** or **Foamy Bells** - *Heuchera*; X *Heuchera* (*gold cultivars*)

**Goldmoss Stonecrop** - *Sedum acre*

**Japanese Stonecrop** - *Sedum makinoi* (*gold cultivars*)

**Creeping Speedwell** - *Veronica prostrata*; *V. repens* (*gold cultivars*)

#### LIISMA Invasiveness Rank

- Moderately Invasive
- Not Recommended for Planting

\* = Native to the U.S. \*\* = Native to NY State (hybrids & cultivars of native species included)

# Green and Gold - *Chrysogonum virginianum*

*Alternative to Creeping Jenny (green cultivars)*



**Form** - low-growing, herbaceous, deciduous, flowering perennial

tolerates wet sites; may be divided in late spring

**Hardiness Zones** - 5-9

**Growth Rate** - slow to medium

**Native Status** - East Coast, from New York to Florida

**Cultivars Include** - 'Allen Bush'

**Function in the Landscape** - shade garden; woodland planting; low-maintenance garden; edging; front of perennial border

**What to Watch For** - remove dead black leaves if plants are allowed to dry out in summer

**Habit/Shape** - low-growing, flowering perennial

**Ornamental Feature(s)** - small, star-shaped gold flowers appear in May and occur sporadically throughout the season against large, bright green lettuce-like leaves

**Size at Maturity** - 6-8 in. tall; 12 in. wide

**Cultural Requirements** - partial to full shade; moist, well-drained soils;

### Similarities to Creeping Jenny

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input type="checkbox"/> Size                                  |
| <input type="checkbox"/> Habit/Shape  | <input checked="" type="checkbox"/> Cultural Requirements      |
|   | <input type="checkbox"/> Growth Rate                           |

# Spotted Dead Nettle - *Lamium maculatum*

Alternative to Creeping Jenny (green cultivars)



**Form** - herbaceous, deciduous, flowering groundcover

**Hardiness Zones** - 4-8

**Native Status** - introduced from Europe and western Asia

**Function in the Landscape** - groundcover; shade garden; woodland planting; edging; front of perennial border; container planting

**Habit/Shape** - low-growing, spreading groundcover

**Ornamental Feature(s)** - leaves are often variegated with silvery-white stripes or blotches; long-blooming flowers throughout the summer in shades of pink, red, purple or white

**Size at Maturity** - 6-12 in. tall; 18 in. wide

**Cultural Requirements** - partial to full shade; moist, well-drained soils but not tolerant of wet soils; plants can be

divided at any time of the growing season so long as there is sufficient moisture

**Growth Rate** - fast

**Cultivars Include** - 'Pink Chablis', 'Pink Nancy', 'White Nancy'

**What to Watch For** - aphids and slugs can sometimes be a problem; bare patches may appear in summer heat if soil dries out too much

### Similarities to Creeping Jenny

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input type="checkbox"/> Main Ornamental Feature(s)       |
| <input type="checkbox"/>  | <input type="checkbox"/> Size                             |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Cultural Requirements |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Growth Rate           |

# Creeping Mazus - *Mazus reptans*

*Alternative to Creeping Jenny (green cultivars)*



**Form** - herbaceous, semi-evergreen, flowering groundcover

**Hardiness Zones** - 5-8

**Native Status** - introduced from the Himalayas

**Function in the Landscape** - edging; stepable groundcover; rock gardens; low-maintenance gardens; container plants; turf grass substitute; commercial sites

**Habit/Shape** - very low-growing groundcover

**Ornamental Feature(s)** - bright green leaves form a dense, ground-hugging carpet; tiny orchid-like lavender flowers cover the plant in spring and sporadically throughout the season

**Size at Maturity** - 1-2 in. tall; 20 in. wide

**Cultural Requirements** - full sun to partial shade; moist to wet, well-

drained soils

**Growth Rate** - fast

**Cultivars Include** - 'Alba', has white flowers

**What to Watch For** - relatively pest-free

### Similarities to Creeping Jenny

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input type="checkbox"/> Main Ornamental Feature(s)       |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Size                  |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Cultural Requirements |
|   | <input checked="" type="checkbox"/> Growth Rate           |



# Siberian Barren-strawberry - *Waldsteinia ternata*

*Alternative to Creeping Jenny (green cultivars)*



**Form** - herbaceous, evergreen, flowering groundcover

**Hardiness Zones** - 4-8

**Native Status** - introduced from Japan and China

**Function in the Landscape** - shade garden; woodland planting; low-maintenance garden; groundcover; edging

**Habit/Shape** - low-growing, evergreen groundcover

**Ornamental Feature(s)** - little yellow flowers appear in spring; foliage is reminiscent of a strawberry plant with three leaflets and will form a dense green carpet; evergreen leaves will turn a bronze purple over winter

**Size at Maturity** - 4-6 in. tall; 12 in. wide

**Cultural Requirements** - full sun to mostly shade; moist, well-drained soil

**Growth Rate** - slow to medium

**What to Watch For** - leaf spots and anthracnose may develop, especially later in the season

## Similarities to Creeping Jenny

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input type="checkbox"/> Size                                  |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Cultural Requirements      |
|   | <input type="checkbox"/> Growth Rate                           |

## Coral or Foamy Bells - *Heuchera* spp.; X *Heucherella* (gold cultivars)

Alternative to *Creeping Jenny* (gold cultivars)



**Form** - low-growing, herbaceous, semi-evergreen, flowering perennial

**Hardiness Zones** - most hybrids and cultivars are (3)4-8

**Native Status** - *Heuchera* spp: many hybrids of species native to the U.S.; X *Heucherella*: intergeneric cross between *Heuchera* and *Tiarella*, which are both native to the U.S.

**Function in the Landscape** - container plantings; groundcover when massed together; contrast foliage color; edging; mixed border

**Habit/Shape** - small clump with relatively large leaves

**Ornamental Feature(s)** - gold cultivars have shades of bright chartreuse or gold foliage, some with dark red colored veins; flowers bloom on stalks held high above the leaves

**Size at Maturity** - 4-18 in. tall; 9-18 in. wide, depending on cultivar

**Cultural Requirements** - best in partial shade; moist, well-drained soil with high organic matter; divide in spring every 3 years; mulch in winter to prevent frost heaving; some cultivars will be weak performers in high heat and humidity

**Growth Rate** - medium to fast

**Cultivars Include** - *Heuchera* spp.: Citronelle®, Dolce Key Lime Pie®, Little Ricky®; X *Heucherella*: Strike It Rich® Gold, Stoplight®

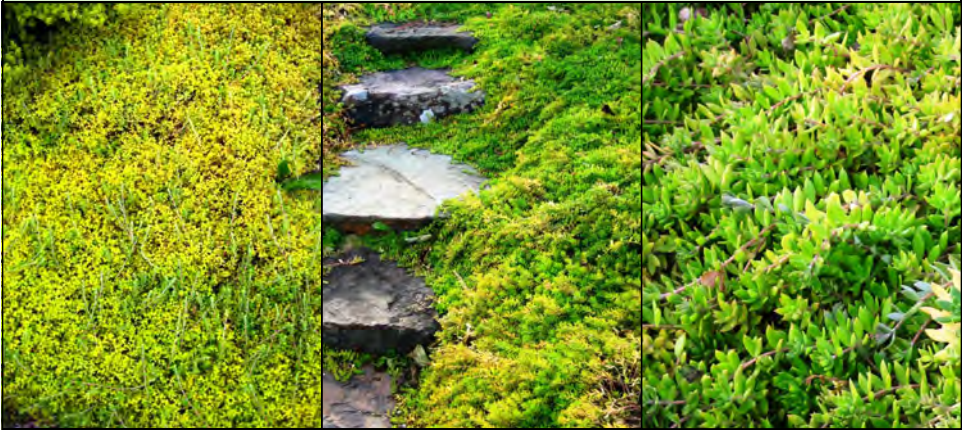
**What to Watch For** - powdery mildew; leaf scorch if soils dry out; leaves can bleach in full sun

### Similarities to *Creeping Jenny*

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input type="checkbox"/> Size                                  |
| <input type="checkbox"/> Habit/Shape  | <input checked="" type="checkbox"/> Cultural Requirements      |
|   | <input checked="" type="checkbox"/> Growth Rate                |

# Goldmoss Stonecrop - *Sedum acre*

*Alternative to Creeping Jenny (gold cultivars)*



**Form** - low-growing, herbaceous, evergreen groundcover

**Hardiness Zones** - 3-8

**Native Status** - introduced from Europe and North Africa

**Function in the Landscape** - container plantings; low-maintenance groundcover; contrast foliage color; edging; mixed border; rock garden; between stepping stones; green roofs

**Habit/Shape** - very low-growing groundcover with prostrate stems

**Ornamental Feature(s)** - tiny lime-green succulent foliage will brighten up any spot; small yellow flowers in late spring

**Size at Maturity** - 2-3 in. tall; 18 in. wide

**Cultural Requirements** - full sun; moist, well-drained soil; drought-tolerant; not tolerant of wet sites;

easily divided at any time of year

**Growth Rate** - fast

**Cultivars Include** - 'Aureum'

**What to Watch For** - roots may rot in overwatered, poorly drained soils; can be quite vigorous in the garden

### Similarities to Creeping Jenny

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
|   | <input checked="" type="checkbox"/> Size                       |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input type="checkbox"/> Cultural Requirements                 |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Growth Rate                |

**Japanese Stonecrop - *Sedum makinoi*** (gold cultivars)  
*Alternative to Creeping Jenny (gold cultivars)*



**Form** - low-growing, herbaceous, evergreen groundcover

**Hardiness Zones** - 6-9

**Native Status** - introduced from Japan

**Function in the Landscape** - container plantings; low-maintenance groundcover; contrast foliage color; edging; mixed border

**Habit/Shape** - very low-growing groundcover

**Ornamental Feature(s)** - the tiny chartreuse succulent foliage of gold cultivars will brighten up any spot; small yellow flowers in summer

**Size at Maturity** - 1-2 in. tall; 12 in. wide

**Cultural Requirements** - full sun to partial shade; moist, well-drained soil; unlike most *Sedum* spp. it does prefer some afternoon shade and moisture; not tolerant of wet sites

**Growth Rate** - slow

**Cultivars Include** - 'Ogon'

**What to Watch For** - roots may rot in overwatered, poorly drained soils

**Similarities to Creeping Jenny**

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Size                       |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input type="checkbox"/> Cultural Requirements                 |
|   | <input type="checkbox"/> Growth Rate                           |

# Creeping Speedwell - *Veronica prostrata*; *V. repens* (gold cultivars)

Alternative to Creeping Jenny (gold cultivars)



**Form** - low-growing, herbaceous, deciduous, flowering groundcover

**Hardiness Zones** - *V. prostrata*: 5-8; *V. repens*: 6-9

**Native Status** - introduced from Europe and Northern Asia

**Function in the Landscape** - container plantings; low-maintenance groundcover; contrast foliage color; edging; mixed border; rock gardens

**Habit/Shape** - mat-forming groundcover

**Ornamental Feature(s)** - gold cultivars have bright, tiny, golden foliage which contrasts nicely with light blue to purple flowers in spring

**Size at Maturity** - 1-8 in. tall; 12 in. wide

**Cultural Requirements** - full sun to partial shade; brightest leaf color in full sun; well-drained soil with medium

moisture; not tolerant of wet sites

**Growth Rate** - medium to fast

**Cultivars Include** - *V. prostrata*: Aztec Gold®; *V. repens*: 'Sunshine'

**What to Watch For** - roots may rot in overwatered, poorly drained soils

## Similarities to Creeping Jenny

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
|   | <input checked="" type="checkbox"/> Size                       |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input type="checkbox"/> Cultural Requirements                 |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Growth Rate                |

## INVASIVE

### Purple Loosestrife - *Lythrum salicaria*



#### Ornamental History

Purple Loosestrife (*Lythrum salicaria*) is a flowering perennial native to Europe and Asia. It is valued for its bright spikes of magenta flowers which bloom mid-summer through the end of summer. *L. salicaria* grows extremely well in moist and wet soils, but will also grow well under drier conditions, including that of a typical garden bed. Recognizing the ecological threat of this species, plant breeders have developed sterile cultivars of the related European Wand Loosestrife (*L. virgatum*) notably, 'Morden Pink' and 'Morden Gleam.' Unfortunately, both these cultivars easily hybridize with *L. salicaria* and produce over 80% viable and germinating seeds, further contributing to the problem.

#### Ecological Threat

*L. salicaria* is capable of invading many different types of wetland habitats, including marshes, river and stream banks, pond edges, lakes, and roadside ditches. *L. salicaria* forms dense stands and outcompetes and replaces native grasses, sedges, and other flowering plants that provide a high quality food source and habitat for wildlife. *L. salicaria* is an extremely prolific seeder - an individual, mature plant can produce over 2.5 million seeds! Interestingly, tadpoles of the American toad have a lower survival rate in wetlands invaded by *L. salicaria*. *L. salicaria* is considered one of the top 100 "World's Worst" invasive species.

#### LIISMA Invasiveness Rank

- Very Highly Invasive
- Banned on Long Island, 1/1/2009

#### Alternatives to Purple Loosestrife

**Meadowsweet** - *Filipendula purpurea*; *F. rubra*\*

**Dense Blazing Star**\* - *Liatris spicata*

**Obedient Plant**\*\* - *Physostegia virginiana*

**Perennial Sage** - *Salvia nemorosa* (*S. x superba*; *S. x sylvestris*)

\* = Native to the U.S. \*\* = Native to NY State (hybrids & cultivars of native species included)

# Meadowsweet - *Filipendula purpurea*; *F. rubra*

Alternative to Purple Loosestrife



**Form** - large, upright, herbaceous, deciduous, flowering perennial

**Hardiness Zones** - *F. purpurea*: 5-8; *F. rubra*: 3-8

**Native Status** - *F. purpurea*: introduced from Japan; *F. rubra*: East Coast from Pennsylvania to Georgia west to Iowa

**Function in the Landscape** - back of perennial border; wet meadow plantings; low-maintenance gardens; around ponds and rain gardens; along stream banks

**Habit/Shape** - large, upright clump-forming habit

**Ornamental Feature(s)** - astilbe-like panicles of light pink to magenta flowers in mid- to late summer; ornamental, spent flower heads provide some fall and winter interest; pinnately compound bright green leaves

**Size at Maturity** - 4-8 ft. tall depending on cultivar; 3-4 ft. wide

**Cultural Requirements** - full sun to partial shade; moist to wet soil with high organic matter content; not drought-tolerant; neutral to alkaline soil pH; cut to ground in early spring; no staking needed

**Growth Rate** - medium to fast

**Cultivars Include** - *F. purpurea*: 'Elegans' - only 1.5 ft. tall

**What to Watch For** - dry soils

## Similarities to Purple Loosestrife

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input type="checkbox"/> Size                                  |
| <input type="checkbox"/> Habit/Shape  | <input checked="" type="checkbox"/> Cultural Requirements      |
|   | <input checked="" type="checkbox"/> Growth Rate                |

# Dense Blazing Star - *Liatris spicata*

*Alternative to Purple Loosestrife*



**Form** - upright, herbaceous, deciduous, flowering perennial

**Hardiness Zones** - 3-9

**Native Status** - eastern and mid-western U.S. and Canada

**Function in the Landscape** - perennial border; foundation planting; cut flowers; meadow plantings; low-maintenance gardens; butterfly gardens; commercial sites

**Habit/Shape** - upright clump-forming habit

**Ornamental Feature(s)** - vibrant spikes of purple flowers appear in mid- to late summer; especially attractive to butterflies and bumblebees

**Size at Maturity** - 2-4 ft. tall; clusters are 1 ft. wide

**Cultural Requirements** - full sun; well-drained soil; drought-tolerant once established; tolerant of poor soils;

deadhead by cutting entire spike down to ground

**Growth Rate** - fast

**Cultivars Include** - 'Kobold'

**What to Watch For** - roots may rot in overwatered, poorly drained soils, especially those that are wet in the winter

### Similarities to Purple Loosestrife

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
|   | <input checked="" type="checkbox"/> Size                       |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input type="checkbox"/> Cultural Requirements                 |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Growth Rate                |



# Obedient Plant - *Physostegia virginiana*

Alternative to Purple Loosestrife



**Form** - upright, herbaceous, deciduous, flowering perennial

**Hardiness Zones** - 2-9

**Native Status** - eastern U.S.

**Function in the Landscape** - perennial border; cut flowers; meadow plantings; naturalized gardens; wildflower garden

**Habit/Shape** - upright spreading habit

**Ornamental Feature(s)** - vibrant spikes of tubular flowers in shades of pink, rose, or white appear in late summer

**Size at Maturity** - 3-4 ft. tall; 2-3 ft. wide

**Cultural Requirements** - full sun; moist, well-drained soil with high organic matter content; better in acidic soils

**Growth Rate** - fast

**Cultivars Include** - 'Miss Manners', 'Eyeful Tower' (compact)

**What to Watch For** - spreads vigorously in the garden - divide every few years to control growth; do not add excessive fertilizer or will flop over

## Similarities to Purple Loosestrife

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
|   | <input checked="" type="checkbox"/> Size                       |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Cultural Requirements      |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Growth Rate                |

**Perennial Sage - *Salvia nemorosa* (*S. x superba*; *S. x sylvestris*)**

*Alternative to Purple Loosestrife*



**Form** - upright, herbaceous, deciduous, flowering perennial

**Hardiness Zones** - 3-8

**Native Status** - hybrid

**Function in the Landscape** - mass planting; perennial border; butterfly gardens; weed-suppressive; commercial sites; container plantings

**Habit/Shape** - upright clump-forming habit

**Ornamental Feature(s)** - many cultivars with blue, indigo, deep purple, or purplish-pink flowers that bloom from spring through the end of summer; attracts butterflies and pollinators

**Size at Maturity** - 18-36 in. tall; 24 in. wide

**Cultural Requirements** - full sun; needs dry to moist, well-drained soil; deadheading to lateral buds

encourages an even longer bloom period up to frost; divide in the spring; drought-tolerant

**Growth Rate** - medium to fast

**Cultivars Include** - 'Blue Hill', 'Caradonna', 'East Friesland', 'May Night'

**What to Watch For** - over-fertilization and high humidity can cause plants to flop over - prune down to basal foliage; high humidity and poor air circulation can induce powdery mildew and leaf spot diseases

**Similarities to Purple Loosestrife**

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
|   | <input type="checkbox"/> Size                                  |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Cultural Requirements      |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Growth Rate                |

## INVASIVE

### Japanese Silver or Maiden Grass - *Miscanthus sinensis*



#### Ornamental History

Japanese Silver Grass (*Miscanthus sinensis*) is a clump-forming, ornamental grass, native to Japan, China, and Korea. The relatively recent explosion in popularity of ornamental grasses for low-maintenance landscapes is mainly due to this genus. Numerous cultivars of *M. sinensis* have been developed that are of small stature, large stature, upright habit, graceful rounded habit, with variegated foliage, with banded foliage, with burgundy fall foliage, with feathery pink plumes of flowers, or with large, silvery plumes of flowers. *M. sinensis* provides year-round interest, even during winter, and flowers look spectacular when illuminated by the autumn sun.

#### Ecological Threat

*M. sinensis* is highly competitive in moist, sunny, temperate and subtropical areas. It can invade roadsides, forest edges, and clearings. Seeds are dispersed by wind and can build up in the soil as seed banks. *M. sinensis* is drought-tolerant and can thrive in both sandy and clay soils. A true warm-season grass, *M. sinensis* is undeterred by high humidity. *M. sinensis* readily naturalizes within and outside of the garden. Climates that are cooler and drier than the mid-Atlantic are not as susceptible to the spread of *M. sinensis*. Hybridization and production of sterile cultivars shows real potential to reduce the impact of *M. sinensis*.

#### LIISMA Invasiveness Rank

- Very Highly Invasive
- Banned on Long Island, 1/1/2016

#### Alternatives to Japanese Silver Grass

**Feather Reed Grass** - *Calamagrostis x acutiflora*

**Korean Feather Reed Grass** - *Calamagrostis brachytricha*

**Pink Muhly Grass**\*\* - *Muhlenbergia capillaris*

**Switchgrass**\*\* - *Panicum virgatum*

\* = Native to the U.S. \*\* = Native to NY State (hybrids & cultivars of native species included)

# Feather Reed Grass - *Calamagrostis x acutiflora*

Alternative to Japanese Silver Grass



**Form** - upright ornamental grass

**Hardiness Zones** - (4)5-8(9)

**Native Status** - hybrid of *C. arundinacea* and *C. epigejos*, both native to Europe

**Function in the Landscape** - accent planting; mass planting; meadow plantings; around water features; low-maintenance gardens; commercial sites; winter interest; adds motion to the garden; vertical interest

**Habit/Shape** - very upright, and tight, clump-forming habit

**Ornamental Feature(s)** - narrow plumes of vertical inflorescences appear at the beginning of summer and remain attractive through most of winter; variegated cultivars may have white or gold stripes in leaves

**Size at Maturity** - 3-6 ft. tall; clusters are 1.5-2.5 ft. wide

**Cultural Requirements** - full sun to light shade; tolerant of both clay and well-drained soils that are moist to wet; cut to ground level at end of dormant season

**Growth Rate** - fast

**Cultivars Include** - 'Avalanche', 'Karl Foerster', 'Overdam'

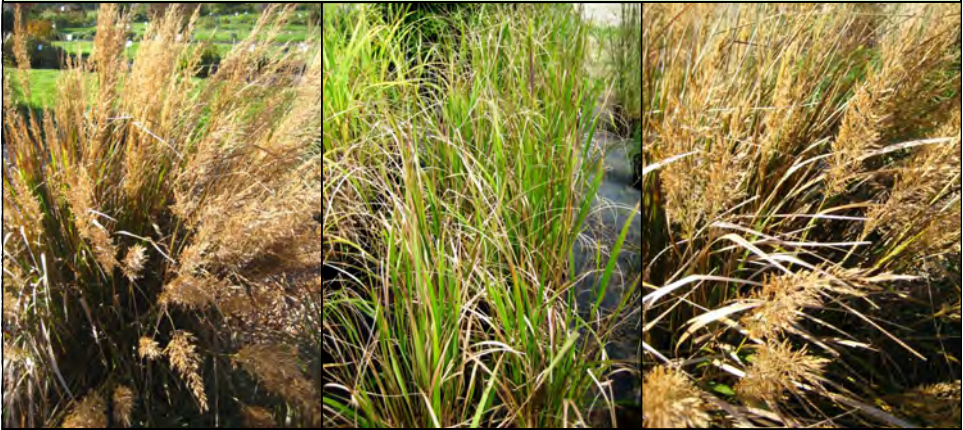
**What to Watch For** - rust in hot, wet weather; not as drought-tolerant as other grasses; seeds are essentially sterile

## Similarities to Japanese Silver Grass

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Size                       |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Cultural Requirements      |
|   | <input checked="" type="checkbox"/> Growth Rate                |

# Korean Feather Reed Grass - *Calamagrostis brachytricha*

Alternative to Japanese Silver Grass



**Form** - upright ornamental grass

**Hardiness Zones** - 4-9

**Native Status** - central to eastern Asia

**Function in the Landscape** - accent planting; mass planting; meadow plantings; around water features; low-maintenance gardens; commercial sites; winter interest

**Habit/Shape** - upright, clump-forming habit

**Ornamental Feature(s)** - soft inflorescences that resemble a fox's tail open with a purplish tint at the end of summer and turn a deep wheat color

**Size at Maturity** - 3-4 ft. tall; clusters are 2-3 ft. wide

**Cultural Requirements** - full sun to partial shade; moist to wet soils; cut to ground level at end of dormant season

**Growth Rate** - fast

**What to Watch For** - not as drought-tolerant as other grasses

## Similarities to Japanese Silver Grass

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Size                       |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input type="checkbox"/> Cultural Requirements                 |
|   | <input checked="" type="checkbox"/> Growth Rate                |

# Pink Muhly Grass - *Muhlenbergia capillaris*

*Alternative to Japanese Silver Grass*



**Form** - mounding ornamental grass

**Hardiness Zones** - 6-9

**Native Status** - East Coast from Massachusetts to Florida, and west to Texas and Indiana

**Function in the Landscape** - accent planting; mass planting; meadow plantings; low-maintenance gardens; commercial sites; winter interest

**Habit/Shape** - wiry, clump-forming, mounding grass

**Ornamental Feature(s)** - spectacular clouds of soft pink flowers appear in early autumn, like no other ornamental grass

**Size at Maturity** - 3 ft. tall; clusters are 3 ft. wide

**Cultural Requirements** - full sun; very adaptable to different soil types; tolerant of poor soils; extremely drought-tolerant; cut to ground level

at end of dormant season or in late winter to preserve winter interest

**Growth Rate** - fast

**Cultivars Include** - 'White Cloud'

**What to Watch For** - relatively pest-free

## Similarities to Japanese Silver Grass

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input type="checkbox"/> Main Ornamental Feature(s)       |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Size                  |
| <input type="checkbox"/> Habit/Shape  | <input checked="" type="checkbox"/> Cultural Requirements |
|   | <input checked="" type="checkbox"/> Growth Rate           |

# Switchgrass - *Panicum virgatum*

Alternative to Japanese Silver Grass



**Form** - upright ornamental grass

**Hardiness Zones** - 5-9

**Native Status** - throughout the U.S. and Canada, except for the West Coast

**Function in the Landscape** - accent planting; mass planting; meadow plantings; around water features; low-maintenance gardens; commercial sites; winter interest

**Habit/Shape** - elegant, upright, vase-shaped habit; dense, clump-forming grass

**Ornamental Feature(s)** - range of blue, green, gray, or red foliage depending on the cultivar; airy panicles hover over foliage beginning in mid-summer; winter interest and seeds for birds

**Size at Maturity** - 3-7 ft. tall; clusters are 1-3 ft. wide

**Cultural Requirements** - full sun; highly adaptable to different soil types; tolerant of wet and dry sites; cut to ground level at end of dormant season

**Growth Rate** - fast

**Select Cultivars** - 'Cloud 9', Dallas Blues®, 'Heavy Metal', 'Northwind', 'Shenandoah', 'Ruby Ribbons'

**What to Watch For** - may flop over in too much shade

## Similarities to Japanese Silver Grass

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Size                       |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Cultural Requirements      |
|   | <input checked="" type="checkbox"/> Growth Rate                |

## INVASIVE

### Amur Corktree - *Phellodendron amurense*



#### Ornamental History

Amur Corktree (*Phellodendron amurense*) is a medium to large, deciduous shade tree native to China and Japan. It has pinnately compound leaves and a coarse, spreading crown. *P. amurense* is a relatively uncommon shade tree, valued for its deeply furrowed bark on older specimens, its unique clusters of bluish-black fruits, and its clear yellow fall color. *P. amurense* has been promoted for its tolerance to drought and urban pollutants, but has not performed as well as promised. It has been planted in parks, along streets, at large residences, and at various arboreturns.

#### Ecological Threat

*P. amurense* can invade old fields, roadsides, and urban areas. *P. amurense* also has the ability to invade relatively pristine forested woodlands where few other invasive plants exist. *P. amurense* is quite adaptable to many different soil types. It reduces natural regeneration of native trees by reducing light availability to the forest understory and by reportedly utilizing phytochemicals to alter soil microbiology and produce an allelopathic effect. Thousands of seeds are produced by female trees which are eaten and dispersed by birds.

#### LIISMA Invasiveness Rank

- Highly Invasive
- Banned on Long Island, 1/1/2013

#### Alternatives to Amur Corktree

**Honeylocust\*** - *Gleditsia triacanthos* var. *inermis*

**Kentucky Coffeetree\*\*** - *Gymnocladus dioica*

\* = Native to the U.S. \*\* = Native to NY State (hybrids & cultivars of native species included)



# Honeylocust - *Gleditsia triacanthos* var. *inermis*

Alternative to Amur Corktree



**Form** - medium to large, deciduous, tree

**Hardiness Zones** - 4-9

**Native Status** - Appalachians and central U.S., from Pennsylvania to Nebraska, south to Alabama

**Function in the Landscape** - commercial sites; tree for light shade; specimen tree; street tree; parks and natural areas

**Habit/Shape** - irregular, open crown, which is often spreading

**Ornamental Feature(s)** - compound leaves provide a feathery appearance and dappled light; dark brown fissured bark with age; early, bright yellow fall color

**Size at Maturity** - 25-75 ft. tall; 25-75 ft. wide depending on cultivar

**Cultural Requirements** - full sun; highly adaptable to different soil

conditions; drought-tolerant; tolerant of high pH soils; salt-tolerant; tolerates compacted, poor soils

**Growth Rate** - fast

**Cultivars Include** - Skyline®, Shademaster®, 'Moraine', Halka™

**What to Watch For** - honeylocust plant bug; webworm; pods

## Similarities to Amur Corktree

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Size                       |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Cultural Requirements      |
|   | <input checked="" type="checkbox"/> Growth Rate                |

# Kentucky Coffeetree - *Gymnocladus dioicus*

*Alternative to Amur Corktree*



**Form** - medium to large, deciduous, tree

**Hardiness Zones** - 3-8

**Native Status** - New York, Pennsylvania, and the Midwest

**Function in the Landscape** - commercial sites; tree for light shade; specimen tree; street tree; parks and natural areas

**Habit/Shape** - irregular, open crown, which is often spreading

**Ornamental Feature(s)** - large compound leaves provide an almost tropical feel; deeply furrowed bark and coarse branch structure provide winter interest

**Size at Maturity** - 60-75 ft. tall; 40-50 ft. wide

**Cultural Requirements** - full sun; highly adaptable to different soil conditions; drought-tolerant; tolerant

of high pH soils; tolerates compacted, poor soils

**Growth Rate** - slow to medium

**Cultivars Include** - Prairie Titan®, 'Stately Manor'

**What to Watch For** - choose male fruitless cultivars if large, brown, hanging seedpods of females will cause a litter problem; relatively pest-free

## Similarities to Amur Corktree

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
|   | <input checked="" type="checkbox"/> Size                       |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Cultural Requirements      |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input type="checkbox"/> Growth Rate                           |

# INVASIVE Yellow-groove (“Running”) Bamboo - *Phyllostachys aureosulcata*



Photos courtesy of A. Senesac (left), J. Lehrer (center), and M. Jordan (right)

## Ornamental History

There are approximately 75 species in the Asian genus *Phyllostachys*, many of these plants, including *P. aureosulcata*, were introduced for utilitarian purposes by the United States government in the early 20<sup>th</sup> century. They have become popular landscape ornamentals and sources for food and building materials. Species of *Phyllostachys* are referred to as “running bamboo” due to their rapid spread via underground rhizomes, often far from the parent plant. In addition to the very cold hardy *P. aureosulcata*, several other species of *Phyllostachys* are used ornamentally in New York, including *P. aurea* (golden bamboo) and *P. nigra* (black bamboo). Ornamental *Phyllostachys* are valued for their dense growth habit, fast growth rate and attractive color and texture, and are used as screening, hedges, or specimen plants.

## Ecological Threat

Running bamboo species such as *P. aureosulcata* spread rapidly via underground rhizomes. When not managed these plants can quickly dominate a site as they exclude all other plant material and create a monoculture. The presence of large bamboo stands can displace native vegetation through crowding at the ground level and shading from above. In cultivated settings running bamboo has been reported to cause property damage such as damage to pool liners, decks, cesspools and foundations. While the harm caused by yellow groove bamboo to sites where it is established is indisputable, there is currently no conclusive evidence that supports the spread of the species over wide gaps in space from cultivated sites into natural areas. All current populations appear to be remnants of past cultivation or the result of direct spread into unmanaged areas from adjacent cultivated areas.

### LIISMA Invasiveness Rank

- Not assessable (If assessable, rank = Highly Invasive)\*

### Alternative to Running Bamboo

Clumping Bamboo - *Fargesia* spp.

\*The ranking protocol is applicable only to non-native species which escape from cultivation and establish new occurrences in natural/minimally managed areas. Currently populations in NYS appear to be remnants of past cultivation or the result of direct spread into unmanaged areas from adjacent cultivated areas.

# Clumping Bamboo - *Fargesia* spp.

Alternative to Running Bamboo



Photos courtesy of Noah Bell, Bamboo Garden, [www.bamboogarden.com](http://www.bamboogarden.com)

**Form** - V- or U-shaped clump

**Hardiness Zones** - 5-8 depending on species

**Native Status** - Introduced from East Asia

**Function in the Landscape** - Most often used as hedge or screen; also used as a specimen plant

**Habit/Shape** - clumping, vase-like shape

**Ornamental Feature(s)** - dense foliage provides fine texture, and effective for screening or hedging

**Size at Maturity** - 5-15 ft, depending on species

**Cultural Requirements** - most thrive in part shade, prefer well-drained soil

**Growth Rate** - medium

**Species and Cultivars Include** – *F. apircirubens* 'White Dragon'; *F. denudata* 'Xian I'; *F. dracocephala* 'Rufa'/'Green Panda™'; *F. murielae* 'New Umbrella', 'Super Jumbo'; *F. murielae* 'Vampire'; *F. nitida* 'Nanping', 'Great Wall™'; *F. robusta* 'Pingwu'/'Green Screen™', 'Wolong', 'Campbell'; *Fargesia* sp. 'Juihaigou' (various forms, including 'Red Dragon and Genf', 'Scabrida')

**What to Watch For** - relatively pest free

### Similarities to Running Bamboo

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input type="checkbox"/> Size                                  |
| <input type="checkbox"/> Habit/Shape  | <input checked="" type="checkbox"/> Cultural Requirements      |
|   | <input type="checkbox"/> Growth Rate                           |

## INVASIVE

### Japanese Black Pine - *Pinus thunbergii*



#### Ornamental History

*Pinus thunbergii* is an ornamental pine, native to the coastal regions of Japan and Korea. Its picturesque, wind-swept habit has helped to make it a staple in seashore gardens as a specimen tree or a windbreak. Certain cultivars have been selected for their deep green needles and white, candle-like buds. Studies have shown *P. thunbergii* to be one of the most salt-tolerant pine trees that are available in the U.S. horticulture trade. Popularity of this pine has waned, however, because of its susceptibility to the pine wood nematode, which is spread by certain tree-boring beetles. Locally destructive outbreaks have caused established *P. thunbergii* to experience rapid wilting and death.

#### Ecological Threat

*Pinus thunbergii* is most notorious for invading Long Island's coastal habitats, but it can also spread into shrub lands, old fields, and roadsides. This pine acts as a pioneer tree species and may colonize areas where other trees are absent. It can also grow among native Pitch Pine (*Pinus rigida*). The possibility of *P. thunbergii* and *P. rigida* hybridizing has been suggested, but no known studies have been undertaken to investigate this question. *P. thunbergii* may produce seeds when only 6 years old. The seeds of *P. thunbergii* are dispersed by wind or birds and mammals that have not recovered their hoarded caches of seeds.

#### LIISMA Invasiveness Status

- Moderately Invasive
- Not Recommended for Planting

#### Alternatives to Japanese Black Pine

Limber Pine\* - *Pinus flexilis*

Japanese White Pine - *Pinus parviflora*

Pitch Pine\*\* - *Pinus rigida*

\* = Native to the U.S. \*\* = Native to NY State (hybrids & cultivars of native species included)

# Limber Pine - *Pinus flexilis*

*Alternative to Japanese Black Pine*



**Form** - medium-sized conifer

**Hardiness Zones** - 4-7

**Native Status** - Rocky Mountains of western North America, from Alberta to Mexico

**Function in the Landscape** - specimen tree; evergreen screen; coastal plantings

**Habit/Shape** - dense, pyramidal to rounded habit

**Ornamental Feature(s)** - beautiful blue-gray to blue-green needles in bundles of five; long needles and flexible shoots give a soft texture

**Size at Maturity** - 30-50 ft. tall; 20-35 ft. wide

**Cultural Requirements** - full sun to partial shade; moist to dry soil; tolerant of poor, rocky soils; some salt-tolerance; shows good resistance to windburn

**Growth Rate** - slow to medium

**Cultivars Include** - 'Vanderwolf's Pyramid', 'Extra Blue', 'Glauca'

**What to Watch For** - mites, scale, white pine blister rust, Armillaria root rot

### Similarities to Japanese Black Pine

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input type="checkbox"/> Main Ornamental Feature(s)       |
| <input type="checkbox"/> Function in the Landscape                                | <input checked="" type="checkbox"/> Size                  |
| <input type="checkbox"/> Habit/Shape  | <input checked="" type="checkbox"/> Cultural Requirements |
|   | <input checked="" type="checkbox"/> Growth Rate           |

# Japanese White Pine - *Pinus parviflora*

*Alternative to Japanese Black Pine*



**Form** - medium-sized conifer

**Hardiness Zones** - 4-7

**Native Status** - introduced from Japan

**Function in the Landscape** - specimen tree; evergreen screen; coastal plantings

**Habit/Shape** - open, wide-spreading, flat-topped habit

**Ornamental Feature(s)** - commonly sold trees have beautiful blue-gray, glaucous, foliage; needles are short, often twisted, with white stomatal lines in bundles of five that form tufts at the ends of branches

**Size at Maturity** - 25-50 ft. tall; 25-50 ft. wide

**Cultural Requirements** - full sun; adaptable to various soils as long as drainage is good; tolerant of poor soils; salt-tolerant

**Growth Rate** - slow

**Cultivars Include** - Glauca Group

**What to Watch For** - adelgids, bark beetles, mites, scale, white pine weevil, pine sawflies, ozone sensitive

### Similarities to Japanese Black Pine

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input type="checkbox"/> Main Ornamental Feature(s)       |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input type="checkbox"/> Size                             |
| <input type="checkbox"/> Habit/Shape  | <input checked="" type="checkbox"/> Cultural Requirements |
|   | <input type="checkbox"/> Growth Rate                      |

# Pitch Pine - *Pinus rigida*

*Alternative to Japanese Black Pine*



**Form** - medium to large conifer

**Hardiness Zones** - 4-7

**Native Status** - East Coast from Canada to Georgia, west to Kentucky

**Function in the Landscape** - specimen tree; woodland plantings; coastal plantings; reclamation

**Habit/Shape** - open, irregular habit

**Ornamental Feature(s)** - green needles in bundles of three; deeply ridged and furrowed, reddish-brown bark

**Size at Maturity** - 40-60 ft. tall; 30-50 ft. wide; smaller in exposed locations

**Cultural Requirements** - full sun; moist, to very dry sites; acidic soils; tolerant of extremely poor, dry, sandy soils; salt-tolerant

**Growth Rate** - medium

**What to Watch For** - mites, scale, pinewood nematode, tip moths, bark beetles

## Similarities to Japanese Black Pine

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input type="checkbox"/> Size                                  |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Cultural Requirements      |
|   | <input checked="" type="checkbox"/> Growth Rate                |



## INVASIVE

### Callery Pear - *Pyrus calleryana*



#### Ornamental History

Callery Pear (*Pyrus calleryana*) is often called 'Bradford' Pear, after its most common cultivar. *P. calleryana* is native to China and is valued for its ability to tolerate drought, pollution, and compacted soils. These qualities, along with its fast growth rate and profuse bloom of snowy white flowers in early spring, has made it ubiquitous in the landscape. *P. calleryana* lines the streets and driveways of many housing developments, highways, and downtown areas throughout the Northeast. The 'Bradford' cultivar has become unpopular in recent years, as older trees have succumbed to severe trunk splitting, posing a serious threat to traffic, pedestrians, and all beneath its dense crown. Numerous other cultivars have been introduced that have much better structure and remain quite popular.

#### Ecological Threat

The invasive potential of *P. calleryana* is just beginning to be realized. Plantsman Michael Dirr comments about *P. calleryana*, "I am not sure about invasive status but this species in the broadest sense concerns me." *P. calleryana* invades roadsides, old fields, and shrublands, where it can form dense thickets. It is currently unknown if or how *P. calleryana* affects ecosystem processes or native vegetation in New York.

#### LIISMA Invasiveness Rank

- Moderately Invasive
- Not Recommended for Planting

#### Alternatives to Callery Pear

**Downy\*\***, **Apple\*\***, or **Allegheny\*\* Service-berry** - *Amelanchier arborea*; *A. x grandiflora*; *A. laevis*

**Hybrid Dogwood** - *Cornus x rutgersensis*

**Green Hawthorn\*** - *Crataegus viridis*

**Loebner** or **Star Magnolia** - *Magnolia x loebneri*; *M. stellata*

\* = Native to the U.S. \*\* = Native to NY State (hybrids & cultivars of native species included)

**Downy, Apple, or Allegheny Serviceberry - *Amelanchier arborea*; *A. x grandiflora*; *A. laevis* Alternative to Callery Pear**



**Form** - small, deciduous, flowering tree or large shrub

**Hardiness Zones** - 4-9

**Native Status** - *A. arborea*: Maine to Iowa, south to Florida and Louisiana; *A. x grandiflora*: naturally occurring hybrid of *A. arborea* and *A. laevis*; *A. laevis*: Newfoundland to Georgia, west to Michigan

**Function in the Landscape** - specimen flowering tree on small or large lots; woodland plantings; beneath overhead utility wires; mixed shrub border; foundation planting; wildlife gardens

**Habit/Shape** - upright, sometimes multi-stemmed, with an open, irregular rounded crown

**Ornamental Feature(s)** - beautiful snow white flowers announce the arrival of spring in mid-April; edible berries ripen in June and are loved by birds; ornamental fall color ranging

from yellow to pale orange to red; young smooth gray bark provides winter interest

**Size at Maturity** - 15-25 ft. tall; 15-20 ft. wide

**Cultural Requirements** - full sun or partial shade; adaptable to wet or dry soils; soils must be acidic

**Growth Rate** - medium

**Cultivars Include** - *A. x grandiflora*: 'Autumn Brilliance'

**What to Watch For** - use disease resistant cultivars

**Similarities to Callery Pear**

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Size                       |
| <input type="checkbox"/> Habit/Shape  | <input type="checkbox"/> Cultural Requirements                 |
|   | <input checked="" type="checkbox"/> Growth Rate                |

# Hybrid Dogwood - *Cornus x rutgersensis*

Alternative to Callery Pear



**Form** - small, deciduous, flowering tree

**Hardiness Zones** - 4-9

**Native Status** - hybrid of *C. florida*, *C. kousa*, and/or *C. nuttallii* which are native to East Coast, Korea, and West Coast, respectively

**Function in the Landscape** - specimen flowering tree on small or large lots; woodland plantings; mixed shrub border; foundation planting

**Habit/Shape** - low-branching, sometimes multi-stemmed, with an open or dense rounded crown

**Ornamental Feature(s)** - lovely cream to bright white or pink floral bracts open in spring after *C. florida*; reddish-maroon fall foliage

**Size at Maturity** - 10-25 ft. tall; 10-25 ft. wide

**Cultural Requirements** - full sun or partial shade; moist, well-drained soil

with high organic matter content; not tolerant of prolonged drought or saturated soil

**Growth Rate** - medium to fast

**Cultivars Include** - The Stellar® series; the Jersey Star® series

**What to Watch For** - much more resistant to dogwood anthracnose and borer than other dogwoods; mulch to maintain even soil moisture

Similarities to Callery Pear	
<input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine)	<input checked="" type="checkbox"/> Main Ornamental Feature(s)
<input checked="" type="checkbox"/> Function in the Landscape	<input checked="" type="checkbox"/> Size
<input type="checkbox"/> Habit/Shape	<input type="checkbox"/> Cultural Requirements
	<input checked="" type="checkbox"/> Growth Rate

# Green Hawthorn - *Crataegus viridis*

*Alternative to Callery Pear*



**Form** - small, deciduous, flowering tree

**Hardiness Zones** - 4-7(8)

**Native Status** - East Coast, from Maryland to Florida, west to Texas and Illinois

**Function in the Landscape** - specimen flowering tree on small or large lots; beneath overhead utility wires; commercial sites; wildlife gardens; winter interest

**Habit/Shape** - low-branching, small, dense tree with upright, spreading branches

**Ornamental Feature(s)** - beautiful clusters of white flowers cover the tree in mid-May; bright red fruits produced in large quantities appear in fall and persist through much of winter, providing food for birds; trunk exfoliates on older trees, revealing light-orange inner bark

**Size at Maturity** - 20-25 ft. tall; 20-25 ft. wide

**Cultural Requirements** - full sun; moist to dry soils; drought-tolerant

**Growth Rate** - medium

**Cultivars Include** - 'Winter King'

**What to Watch For** - thorns commonly present; less susceptible to rust than other hawthorns

## Similarities to Callery Pear

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Size                       |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Cultural Requirements      |
|   | <input checked="" type="checkbox"/> Growth Rate                |

**Loebner or Star Magnolia - *Magnolia x loebneri*; *M. stellata***

*Alternative to Callery Pear*



**Form** - small, deciduous, flowering tree or large shrub

**Hardiness Zones** - 4-8(9)

**Native Status** - *M. x loebneri*: hybrid of *M. kobus* and *M. stellata*, which are both native to Japan

**Function in the Landscape** - specimen flowering tree on small or large lots; mixed shrub border; foundation planting

**Habit/Shape** - dense, oval to rounded crown; low-branching and often multi-stemmed

**Ornamental Feature(s)** - large, delicate, fragrant, white flowers announce the arrival of spring in mid-April; thick, leathery green leaves emerge after

**Size at Maturity** - *M. x loebneri*: 20-30 ft. tall; 25-35 ft. wide; *M. stellata*: 15-20 ft. tall; 10-15 ft. wide

**Cultural Requirements** - full sun; moist, organically-rich well-drained soil; in cooler climates, site in a location protected from wind and avoid southern exposures

**Growth Rate** - *M. x loebneri*: medium; *M. stellata*: slow

**Cultivars Include** - *M. x loebneri* 'Leonard Messel', 'Merrill'; *M. x stellata* 'Centennial', 'Rosea', 'Royal Star', 'Water Lily'

**What to Watch For** - early spring frosts can damage sensitive flower buds

**Similarities to Callery Pear**

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
|   | <input checked="" type="checkbox"/> Size                       |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input type="checkbox"/> Cultural Requirements                 |
| <input type="checkbox"/> Habit/Shape  | <input type="checkbox"/> Growth Rate                           |

## INVASIVE

### Black Locust - *Robinia pseudoacacia*



#### Ornamental History

Black Locust (*Robinia pseudoacacia*) is a deciduous shade tree, which is actually native to the southeastern U.S. However, it has spread outside its native range and now inhabits areas of Canada and much of the U.S. It was once planted for land reclamation purposes because it can survive in the worst of soils, including those that are alkaline, sandy, or compacted. Black locust was also planted as a source of lumber. *R. pseudoacacia* fixes atmospheric nitrogen and can thrive in the most nutrient-poor soils. It is also occasionally planted as an ornamental in parks and residential landscapes. In late spring, fragrant white flowers bloom which are attractive to bees. A number of different cultivars have been developed which have a better form than the species. Gold-foliaged cultivars have also been developed, including 'Frisia.'

#### Ecological Threat

*R. pseudoacacia* can invade roadsides, urban areas, old fields, and forest edges. *R. pseudoacacia* is capable of nitrogen fixation and likely by altering the soil nitrogen levels, facilitates the introduction of other non-native species. In locations where *R. pseudoacacia* has shaded out the forest understory, such as the Pine Barrens of New Jersey, natural fire regimes may also be disrupted. An individual tree can produce hundreds of seed pods with thousands of seeds. *R. pseudoacacia* can also reproduce vegetatively through root suckering and form dense stands. The leaves, seeds, and bark of *R. pseudoacacia* are also toxic to livestock.

#### LIISMA Invasiveness Rank

- Very Highly Invasive
- Banned on Long Island, 1/1/2013

#### Alternative to Black Locust

**Honeylocust\*** - *Gleditsia triacanthos* var. *inermis* (gold cultivars)

\* = Native to the U.S. \*\* = Native to NY State (hybrids & cultivars of native species included)

# Honeylocust - *Gleditsia triacanthos* var. *inermis* (gold cultivars)

Alternative to Black Locust



**Form** - medium, deciduous, tree

**Hardiness Zones** - 4-9

**Native Status** - Appalachians and central U.S., from Pennsylvania to Nebraska, south to Alabama

**Function in the Landscape** - commercial sites; tree for light shade; specimen tree; street tree; parks and natural areas

**Habit/Shape** - irregular, open crown, which is often spreading or vase-shaped

**Ornamental Feature(s)** - compound leaves provide a feathery appearance and dappled light; bright, lime-green new growth on gold cultivars; dark brown fissured bark with age; early, bright yellow fall color

**Size at Maturity** - 30-35 ft. tall; 30-35 ft. wide depending on cultivar

**Cultural Requirements** - full sun;

highly adaptable to different soil conditions; drought-tolerant; tolerant of high pH soils; salt-tolerant

**Growth Rate** - fast

**Cultivars Include** - 'Sunburst'

**What to Watch For** - golden cultivars may be more susceptible than other cultivars to pest problems; honeylocust plant bug; webworm; colors on yellow types may fade in summer

### Similarities to Black Locust

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input type="checkbox"/> Size                                  |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Cultural Requirements      |
|   | <input checked="" type="checkbox"/> Growth Rate                |

## INVASIVE

### Rugosa Rose - *Rosa rugosa*



#### Ornamental History

Rugosa Rose (*Rosa rugosa*), sometimes called Saltspray Rose or Beach Rose, is native to China, Korea, and Japan. It is a disease-resistant, low-maintenance rose capable of tolerating drought, salt, extreme cold, and poor, sandy soils. Brightly colored flowers cover the plant in summer, which are followed by attractive rose hips. It is fast-growing and often suckers to produce colonies. Many cultivars are available with double or single white, pink, or mauve flowers.

#### Ecological Threat

*R. rugosa* has the potential to invade coastal areas, old fields, and roadsides. Seeds are produced abundantly which are eaten and dispersed by birds and mammals. The rose hips are also buoyant and can be dispersed by water. Dense stands of *R. rugosa* may form on dunes where no previous shrubs were present. However, more information is needed in order to determine whether these dense stands were originally planted or represent feral populations. *R. rugosa* also has an extensive root system which can sucker profusely and may impact shoreline dynamics.

#### LIISMA Invasiveness Rank

- Moderately Invasive
- Not Recommended for Planting

#### Alternatives to Rugosa Rose

**Bush Cinquefoil\*\*** - *Potentilla fruticosa*

**Beach Plum\*\*** - *Prunus maritima*

**Shrub Roses** - *Rosa* spp.

**Virginia Rose\*\*** - *Rosa virginiana*

\* = Native to the U.S. \*\* = Native to NY State (hybrids & cultivars of native species included)



# Bush Cinquefoil - *Potentilla fruticosa*

*Alternative to Rugosa Rose*



**Form** - small, deciduous flowering shrub

**What to Watch For** - relatively pest-free

**Hardiness Zones** - 2-7

**Native Status** - northern half of U.S. and Canada

**Function in the Landscape** - foundation plantings; commercial sites; mixed border; mass plantings

**Habit/Shape** - bushy, rounded shrub

**Ornamental Feature(s)** - uniquely shaped bluish-green leaves; covered in bright yellow, white, pink, or red flowers from June until frost

**Size at Maturity** - 2-4 ft. tall; 2-4 ft. wide

**Cultural Requirements** - partial shade to full sun; adaptable to many different soils; drought-tolerant; tolerant of wet sites; tolerant of extreme cold; not heat-tolerant

**Growth Rate** - slow

## Similarities to Rugosa Rose

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input type="checkbox"/> Main Ornamental Feature(s)       |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Size                  |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Cultural Requirements |
|   | <input type="checkbox"/> Growth Rate                      |

# Beach Plum - *Prunus maritima*

Alternative to *Rugosa Rose*



**Form** - medium to large, deciduous, flowering shrub

**Hardiness Zones** - 3-7

**Native Status** - East Coast from Canada to Virginia

**Function in the Landscape** - seashore planting; beach erosion control; mass planting; mixed border; commercial sites; foundation plantings

**Habit/Shape** - irregular shrub with upright branches

**Ornamental Feature(s)** - light pink flowers cover the stems in spring; plum colored edible fruits ripen in August; good plant for sustainable, wildlife-friendly landscapes

**Size at Maturity** - 4-15 ft. tall; 4-15 ft. wide; smaller along the seashore

**Cultural Requirements** - full sun; well-drained soil; highly salt-tolerant; tolerant of soils with little organic

matter; will grow in pure sand; drought-tolerant

**Growth Rate** - fast

**What to Watch For** - tends to sucker and form colonies; prune after spring flowering to maintain shape and size; a number of pest problems including brown rot, plum curculio, tent caterpillar, and black knot

### Similarities to *Rugosa Rose*

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input type="checkbox"/> Main Ornamental Feature(s)       |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Size                  |
| <input type="checkbox"/> Habit/Shape  | <input checked="" type="checkbox"/> Cultural Requirements |
|   | <input checked="" type="checkbox"/> Growth Rate           |

# Shrub Roses - *Rosa* spp.

*Alternative to Rugosa Rose*



**Form** - small, deciduous, woody flowering shrub

**Hardiness Zones** - 5-9

**Native Status** - hybrid

**Function in the Landscape** - spring, summer, and fall color; accent planting; mass planting; shrub border; low-maintenance gardens; commercial sites

**Habit/Shape** - landscape shrub rose; compact, multi-stemmed, mounding habit

**Ornamental Feature(s)** - red, pink, or yellow single or double flowers depending on the cultivar; season-long flowers from May until first frost

**Size at Maturity** - 3-4 ft. tall; 3-4 ft. wide

**Cultural Requirements** - full sun; well-drained soil; drought-tolerant; this low-maintenance rose is self-cleaning and doesn't need deadheading

**Growth Rate** - medium

**Cultivars Include** - The Knock Out® Rose series

**What to Watch For** - more resistant to black spot than most roses; Japanese beetles; rust; powdery mildew; downy mildew

### Similarities to Rugosa Rose

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Size                       |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input type="checkbox"/> Cultural Requirements                 |
|   | <input checked="" type="checkbox"/> Growth Rate                |

# Virginia Rose - *Rosa virginiana*

Alternative to Rugosa Rose



**Form** - small to medium, deciduous, woody flowering shrub

**Hardiness Zones** - 3-7(8)

**Native Status** - Newfoundland to Virginia and west to Missouri

**Function in the Landscape** - summer color; accent planting; mass planting; shrub border; low-maintenance gardens; coastal plantings; commercial sites

**Habit/Shape** - landscape shrub rose; dense, multi-stemmed, mounding habit

**Ornamental Feature(s)** - covered with single pink flowers with yellow centers during the summer; red rose hips persist through the winter

**Size at Maturity** - 4-6 ft. tall; 4-6 ft. wide

**Cultural Requirements** - full sun; best in sandy, well-drained soils; salt-tolerant

**Growth Rate** - medium

**What to Watch For** - will sucker and spread very quickly; very disease resistant

## Similarities to Rugosa Rose

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Size                       |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Cultural Requirements      |
|   | <input checked="" type="checkbox"/> Growth Rate                |

## INVASIVE

### Common Periwinkle - *Vinca minor*



#### Ornamental History

Common Periwinkle (*Vinca minor*) is native to Europe. It forms a low-growing, ever-green ground cover that thrives even in deep shade. Its long-lasting, lavender-blue flowers in early spring make it quite an attractive addition to the garden. It suppresses weeds and will grow moderately-fast in moist, well-drained soil with high organic matter content. It can also tolerate poor soils, but its growth rate will be reduced. *V. minor* is also commonly used in container gardening.

#### Ecological Threat

*V. minor* may invade woodlands, old fields, and roadsides, where it can form extensive stands through vegetative growth. The number of native species in these areas is reduced, although perhaps not significantly. The origin of many naturalized stands of *V. minor* may be from old planting sites because seed set on *V. minor* is rare.

#### LIISMA Invasiveness Rank

- Moderately Invasive
- Not Recommended for Planting

#### Alternatives to Common Periwinkle

**Barrenwort** - *Epimedium x perralchicum*; *E. x versicolor*

**Creeping Mazus** - *Mazus reptans*

**Creeping Phlox\*** - *Phlox stolonifera*

**Dwarf Sweetbox** - *Sarcococca hookeriana* var. *humilis*

\* = Native to the U.S. \*\* = Native to NY State (hybrids & cultivars of native species included)

**Barrenwort - *Epimedium x perralchicum*; *E. x versicolor***

*Alternative to Common Periwinkle*



**Form** - evergreen to semi-evergreen, herbaceous, flowering groundcover

**Hardiness Zones** - 5-8(9)

**Native Status** - hybrids of species from Japan, Iran, and Northern Africa

**Function in the Landscape** - groundcover; low-maintenance gardens; beneath trees with heavy shade

**Habit/Shape** - low-growing, evergreen to semi-evergreen groundcover

**Ornamental Feature(s)** - glossy, bright evergreen leaves are tinged with red in winter and when new; delicate yellow flowers in early spring held above the leaves

**Size at Maturity** - 4-12 in. tall; 12 in. wide

**Cultural Requirements** - partial shade to deep shade; best in moist, well-drained soil with high organic matter

content; drought-tolerant

**Growth Rate** - slow to establish, but fast growth rate afterwards

**Cultivars Include** - *E. x perralchicum*: 'Frohnleiten'; *E. x versicolor*: 'Neosulphureum', 'Sulphureum'

**What to Watch For** - relatively pest-free; clip old foliage to the ground in late winter/early spring so emerging flowers are more visible

**Similarities to Common Periwinkle**

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
|   | <input checked="" type="checkbox"/> Size                       |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Cultural Requirements      |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Growth Rate                |

# Creeping Mazus - *Mazus reptans*

*Alternative to Common Periwinkle*



**Form** - herbaceous, semi-evergreen, flowering groundcover

**Hardiness Zones** - 5-8

**Native Status** - introduced from the Himalayas

**Function in the Landscape** - edging; steppable groundcover; rock gardens; low-maintenance gardens; container plants; turf grass substitute; commercial sites

**Habit/Shape** - very low-growing groundcover

**Ornamental Feature(s)** - bright green leaves form a dense, ground-hugging carpet; tiny orchid-like lavender flowers cover the plant in spring and sporadically throughout the season

**Size at Maturity** - 1-2 in. tall; 24 in. wide

**Cultural Requirements** - full sun to mostly shade; moist, well-drained soils

**Growth Rate** - fast

**Cultivars Include** - 'Alba', has white flowers

**What to Watch For** - relatively pest-free

## Similarities to Common Periwinkle

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input type="checkbox"/> Size                                  |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Cultural Requirements      |
|   | <input checked="" type="checkbox"/> Growth Rate                |

# Creeping Phlox - *Phlox stolonifera*

*Alternative to Common Periwinkle*



**Form** - evergreen, herbaceous, flowering groundcover

**Hardiness Zones** - 3-8

**Native Status** - East Coast, from Maine to Georgia

**Function in the Landscape** - spring color; woodland plantings; front of perennial border; edging; groundcover beneath shade trees

**Habit/Shape** - low-growing groundcover

**Ornamental Feature(s)** - purple flowering cultivars are covered in a dense carpet of violet blooms April-May

**Size at Maturity** - 4-12 in. tall; 12 in. wide

**Cultural Requirements** - partial to full shade; moist, well-drained soil

**Growth Rate** - slow

**Cultivars Include** - 'Blue Ridge', 'Sherwood Purple'

**What to Watch For** - dieback during drought

### Similarities to Common Periwinkle

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Size                       |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Cultural Requirements      |
|   | <input type="checkbox"/> Growth Rate                           |



## Dwarf Sweetbox - *Sarcococca hookeriana* var. *humilis*

*Alternative to Common Periwinkle*



**Form** - small, broadleaf evergreen shrub or groundcover

**Hardiness Zones** - (5)6-8

**Native Status** - introduced from western China

**Function in the Landscape** - groundcover beneath large, shady trees; woodland plantings

**Habit/Shape** - dense, evergreen, woody groundcover

**Ornamental Feature(s)** - lustrous dark to lighter green leaves all year long; insignificant flowers in winter/early spring have a sweet fragrance

**Size at Maturity** - 12-24 in. tall

**Cultural Requirements** - partial to full shade; acidic soils; drought tolerant once established

**Growth Rate** - slow to medium

**What to Watch For** - leaves become off-colored in full sun or high pH soils; possible host of boxwood blight

### Similarities to Common Periwinkle

- |  |  |
|--|--|
| <input type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
| <input checked="" type="checkbox"/> Function in the Landscape          | <input type="checkbox"/> Size                                  |
| <input checked="" type="checkbox"/> Habit/Shape                        | <input checked="" type="checkbox"/> Cultural Requirements      |
|  | <input checked="" type="checkbox"/> Growth Rate                |

## INVASIVE Japanese and Chinese Wisteria - *Wisteria floribunda*; *W. sinensis*



### Ornamental History

Japanese Wisteria (*Wisteria floribunda*) and Chinese Wisteria (*W. sinensis*) are ornamental vines native to eastern Asia. The long, beautiful, violet-blue racemes of flowers make these vines spectacular in the spring and also a best-seller. They grow extremely vigorously, and can be grown on supportive, large structures, such as arbors, fences, and rooftops. They develop thick, twisted, woody trunks with age. Numerous cultivars have been developed and are widely sold.

### Ecological Threat

Asian Wisterias can invade a number of habitats including forest edges, open woodlands, riparian areas, roadsides, and coastal areas. When growing on or over trees, Asian Wisterias can decrease light availability to native plants below. They can also become so large and heavy, that the added weight makes trees susceptible to storm damage and breakage. Their roots are in symbiotic relationship with nitrogen-fixing bacteria which likely gives them a competitive advantage. Asian Wisterias spread mainly vegetatively, although seed pods are produced in limited numbers. *W. floribunda* and *W. sinensis* are also known to hybridize.

### LIISMA Invasiveness Rank

- Moderately Invasive
- Not Recommended for Planting

### Alternatives to Asian Wisterias

**Climbing Hydrangea** - *Hydrangea anomala* subsp. *petiolaris*

**Japanese Hydrangea-vine** - *Schizophragma hydrangeoides*

**American Wisteria\*** - *Wisteria frutescens*

\* = Native to the U.S. \*\* = Native to NY State (hybrids & cultivars of native species included)

# Climbing Hydrangea - *Hydrangea anomala* subsp. *petiolaris*

Alternative to Japanese and Chinese Wisteria



**Form** - deciduous, woody, flowering vine

**Hardiness Zones** - 4-7(8)

**Native Status** - introduced from Japan and China

**Function in the Landscape** - climbing vine for brick or stone walls, arbors, or trees

**Habit/Shape** - climbs as well as protrudes out from the structure it is holding onto

**Ornamental Feature(s)** - flat-topped, lacecap-like, showy white flowers last for up to 6 weeks in summer; glossy dark green leaves reveal exfoliating cinnamon-colored bark in wintertime

**Size at Maturity** - climbs up to 80 ft. high

**Cultural Requirements** - full sun to mostly shade; moist, well-drained soil; needs structure for clinging

rootlets to climb

**Cultivars Include** - 'Skylands Giant'

**Growth Rate** - slow to establish, but fast growth rate afterwards

**What To Watch For** - Japanese beetle feeding on foliage

## Similarities to Asian Wisterias

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
|   | <input checked="" type="checkbox"/> Size                       |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Cultural Requirements      |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Growth Rate                |

# Japanese Hydrangea-vine - *Schizophragma hydrangeoides*

*Alternative to Japanese and Chinese Wisteria*



**Form** - deciduous, woody, flowering vine

**Hardiness Zones** - 5-7(8)

**Native Status** - introduced from Japan

**Function in the Landscape** - climbing vine for brick or stone walls, arbors, or trees

**Habit/Shape** - climbing, flowering vine

**Ornamental Feature(s)** - showy white flat-topped, inflorescences in early summer fade to bronze; toothed, heart-shaped deep green leaves

**Size at Maturity** - climbs up to 30 ft. high

**Cultural Requirements** - partial shade to mostly shade; moist, well-drained soil with high organic matter content

**Growth Rate** - slow to establish, but fast growth rate afterwards

**Cultivars Include** - 'Moonlight', 'Roseum'

**What to Watch For** - relatively pest-free

### Similarities to Asian Wisterias

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
|   | <input checked="" type="checkbox"/> Size                       |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input type="checkbox"/> Cultural Requirements                 |
| <input checked="" type="checkbox"/> Habit/Shape                                   | <input checked="" type="checkbox"/> Growth Rate                |

# American Wisteria - *Wisteria frutescens*

*Alternative to Japanese and Chinese Wisteria*



**Form** - deciduous, woody, flowering vine

**Hardiness Zones** - 5-9

**Native Status** - East Coast from Virginia to Florida, west to Texas

**Function in the Landscape** - climbing vine for walls, arbors, fences, or trellises

**Habit/Shape** - climbing, flowering vine

**Ornamental Feature(s)** - lovely, lavender flowers in hanging racemes appear in spring; limited amount of sporadic reblooming on new growth later in the season; flowers may be lightly scented

**Size at Maturity** - can climb over 30 ft. high

**Cultural Requirements** - full sun for best flowering; moist to wet soil with high organic matter content

**Growth Rate** - fast, but not as aggressive as Asian Wisterias

**Cultivars Include** - 'Amethyst Falls'

**What to Watch For** - relatively pest-free

## Similarities to Asian Wisterias

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Form (tree, shrub, perennial, grass, or vine) | <input checked="" type="checkbox"/> Main Ornamental Feature(s) |
| <input checked="" type="checkbox"/> Function in the Landscape                     | <input checked="" type="checkbox"/> Size                       |
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|   | <input checked="" type="checkbox"/> Growth Rate                |