



# Rediscovering Native Plants as Alternatives to Invasives

**Master Gardener Volunteers  
Cornell Cooperative Extension  
Dutchess County**

# Why target Invasive Species?

**Invasive plants** have been introduced to an area by humans, without their natural predators or diseases, and perhaps with greater seed production or photosynthesis capabilities.



**Invasive plant species** have escaped cultivation and thrived in wooded natural areas, outcompeting native species.

*Invasive plants are among the top causes of biodiversity loss across the globe.*

# **Invasive Species in NY**

**NY is one of many states taking steps to improve the environment by reducing the spread of invasive plants that cause, or are likely to cause, economic or environmental harm, or harm to health.**



# **Agriculture, forestry, parks, tourism and a richly diverse abundance of natural resources are at risk from invasive species.**

## **New York has:**

- **37,000 farms that cover about one-quarter of the State.**
- **Over 4,000 freshwater lakes**
- **Major portions of the Great Lakes Erie and Ontario**
- **70,000 miles of rivers and streams**
- **Over 2 million acres of freshwater wetlands**
- **504 separate populations of state endangered or threatened species in NY Parks and Historic Sites**
- **And all other areas of New York, including backyards.**

# **Why Do Some Species Become Invasive?**

- **In their native locations pests and diseases help keep plant and animals populations in balance.**
- **Species arriving in a new location leave their population controls behind.**
- **Some have characteristics which give them an extra advantage over native species**
  - **Fast growth rate / Long growth period**
  - **Very tolerant of a wide range of conditions**
  - **Outcompete for water, nutrients and sun**
  - **Strangle / topple other plants**
  - **Reproduce with multiple strategies, prolific seed production, high germination rate, long seed viability**
  - **Hard to eliminate**
  - **Create a monoculture**

# NY Action vs. Invasive Species

## 1. Prohibited Plant List:

- Non-native, pose clear risk to economy, environment and/or human health
- Illegal to sell, import, purchase, transport, propagate or introduce in NY
- 69 species on list – aquatics, vines, herbaceous, shrubs and trees – most considered weeds



# NY Action vs. Invasive Species

## 2. Regulated Plant List:

- Non-native, potential to harm economy, ecosystem and/or human health
- May not be introduced into free-living state, in/adjacent to public natural areas
- Legal to sell, but retailers must use special tags
- 6 species on list



# Examples of Species Prohibited in NY



**Aquatics like**  
**Yellow Flag Iris**  
*Iris pseudacorus*



**Herbaceous**  
**Perennials like**  
**Purple Loosestrife**  
*Lythrum salicaria*



**Vines like**  
**Japanese**  
**Honeysuckle**  
*Lonicera japonica*



# Examples of Species Regulated in NY



**Vines like**

**Sweet Autumn  
Clematis**

***Clematis terniflora***



**Trees like**

**Norway Maple  
*Acer platanoides***



**Grasses like**

**Silver or  
Maiden Grass**

***Miscanthus sinensis***

# Examples of invasive Shrubs



**Japanese Barberry**  
*Berberis japonica*



**Burning Bush \***  
*Euonymus alatus*  
(\*regulated)



**Multiflora Rose**  
*Rose multiflora*



**Rose Rosette Disease**

# How Can We Help?

*Home gardeners can be part of the solution, by planting alternatives to ornamental invasive plants.*



- 1. Decide what ornamental and cultural values are most important to your home landscape.**
- 2. Learn more about native species with values that can replace those invasives.**

# Ornamental Alternatives to Invasive Species



**LHPRISM Partner and  
CCE Master Gardener Volunteer Training  
November 14, 2016**

This project was contracted by the Lower Hudson Partnership for Regional Invasive Species Management using funds from the Environmental Protection Fund as administered by the New York State Department of Environmental Conservation.



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# Project

## Address LHPRISM Strategic Plan:

- Goal 4 Education and Outreach Objectives
  - b. “Identify available education resources and holes”,
  - c. “Get more professionals trained on emerging species”,
  - d. “Offer training to the average person on removal techniques”



# Goal

- Collect, create and share information on invasive terrestrial plants and insects including their identification, management and control.
- Outcomes will include educational materials and displays which can be used by CCE volunteers and also LHPRISM partners and their volunteers.



# Approach

- Team selected target terrestrial plants from “*New York State Prohibited and Regulated Invasive Plants*”, September 10, 2014.
- Ornamental and cultural characteristics of the invasive plants were analyzed.
- Recommendations were made replace those characteristics with non-invasive alternative plants.
- Choices were not limited to native species but the bulk of the alternatives are in fact, natives.
- Display boards were created based on this and CCE Putnam’s Best Management Practices project.
- This detailed presentation on each ornamental alternative was created and available for all LHPRISM partners’ use.



# Credits

This presentation was created by Cornell Cooperative Extension of Dutchess County Master Gardener volunteers:

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# Alternative Ornamentals

1. Vines
  2. Trees
  3. Shrubs
  4. Herbaceous Perennials
  5. Grasses
- Alternatives are presented in alphabetical order by Botanical name; natives then non-native species.
  - [www.BONAP.org](http://www.BONAP.org) was used for Native status.
  - Icons are used to indicate key characteristics.



# Icon Definitions



**Full Sun:** Requires a minimum of 6 hours of direct sun daily.



**Part Sun/Part Shade:** Can tolerate between 6 hours and 2 hours sun.



**Shade:** Can tolerate less than 2 hours of direct sun daily.



**Drought Tolerant**



**Native To New York**



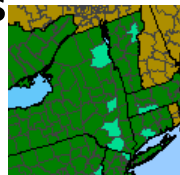
**Attracts Butterflies**



**Native To United States**  
(example from Plants.USDA.gov)



**Attracts Hummingbirds**



**Species Native to NY but Adventive in some counties** (example for *Echinacea purpurea* from BONAP.org)



**Deer Resistant**



# Vines

Both perennial and annual vine alternatives are included.

Some vines were considered but discarded due to aggressive growing tendencies (e.g. Fox Grape, Boston Ivy, Sweet Autumn Clematis and Virginia Creeper).

# Targeted Invasive Vines

Botanical Name	Common Name	DEC Classification
<i>Celastrus orbiculatus</i>	Oriental Bittersweet	prohibited
<i>Clematis terniflora</i>	Japanese Virgin's Bower	regulated
<i>Cynanchum louiseae</i> ( <i>C. nigrum</i> , <i>Vincetoxicum nigrum</i> )	Black Swallow-wort	prohibited
<i>Cynanchum rossicum</i> ( <i>C. medium</i> , <i>Vincetoxicum medium</i> , <i>V. rossicum</i> )	Pale Swallow-wort	prohibited
<i>Humulus japonicus</i>	Japanese Hops	prohibited
<i>Lonicera japonica</i>	Japanese Honeysuckle	prohibited
<i>Pueraria montana</i>	Kudzu	prohibited

# Alternatives

Botanical Name	Common Name
<i>Aristolochia macrophylla</i>	Dutchman's Pipe**
<i>Campsis radicans</i>	Trumpet Creeper**
<i>Clematis virginiana</i>	Virgin's Bower**
<i>Clematis x hybrid</i>	Clematis
<i>Hydrangea anomala</i> subsp. <i>Petiolaris</i>	Climbing Hydrangea
<i>Lablab purpureus</i>	Hyacinth Bean, annual
<i>Lonicera sempervirens</i>	Trumpet Honeysuckle**
<i>Thunbergia alata</i>	Black-eyed susan vine, annual
<i>Wisteria frutescens</i>	American Wisteria**

# Dutchman's Pipe, *Aristolochia macrophylla*

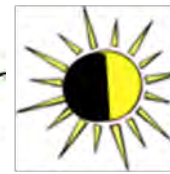


**HEIGHT:** 20-30' **SPREAD:** 10-20'

**SHAPE:** Twining vine

**FLOWER COLOR:** Insignificant

- Produces large, heart-shaped, densely overlapping, green glossy leaves
- Deciduous
- Tolerates acid to alkaline soil
- Tolerates occasional periods of dry soil
- Aggressive grower
- Zones 5-8



Cornell Woody Plants Database



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Replaces: Oriental Bittersweet, *Celastrus orbiculatus*



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# Trumpet Vine, *Campsis radicans*

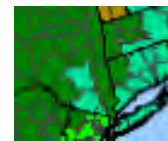


**HEIGHT:** 30-40' **SPREAD:** 5-10'

**SHAPE:** Clinging vine

**FLOWER COLOR:** Coral

- Blooms summer to fall with a profusion of coral trumpet flowers
- Puts out many tendrils
- Deciduous
- Tolerates acid to alkaline soil
- Tolerates salt spray and salty soil
- Tolerates prolong periods of dry soil
- Aggressive grower in rich soil
- Will not grow well in shade
- Zones 4-9



Cornell Woody Plants Database



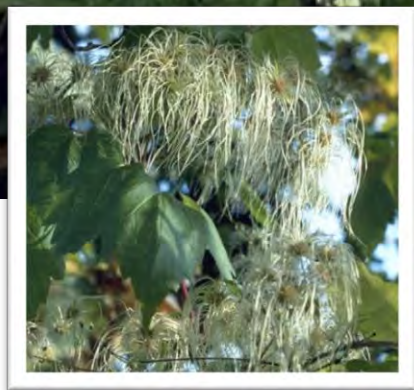
Cornell University  
Cooperative Extension  
Dutchess County

Replaces: Japanese Honeysuckle, *Lonicera japonica*  
Porcelain Berry, *Ampelopsis brevipedunculata*



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# Virgin's Bower, *Clematis virginiana*



W. D. and Dolphia Bransford,  
Lady Bird Johnson Wildflower Center

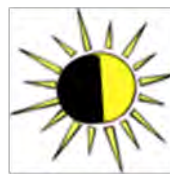
Bennie Bengston, Lady Bird Johnson Wildflower Center

**HEIGHT:** 5-18' **SPREAD:** 3-6'

**SHAPE:** Twining vine

**FLOWER COLOR:** white

- Produces bright green foliage
- Blooms late summer, followed by feathery seedheads
- Perennial
- Prefers cool roots, so shade roots with annual plantings or mulch
- Requires average, well drained soil moisture



Vine

# Trumpet Honeysuckle, *Lonicera sempervirens*



**HEIGHT:** 10-20' **SPREAD:** 3-6'

**SHAPE:** Twining vine

**FLOWER COLOR:** Orange-red

- Leafs out in early spring with blue-green leaves
- Blooms in summer with a profusion of orange-red trumpet shaped flowers
- Deciduous
- Tolerates acid to alkaline soil
- Tolerates occasional periods of dry soil
- Zones 4-9



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**Replaces:** Japanese Honeysuckle, *Lonicera japonica*  
Porcelain Berry, *Ampelopsis brevipedunculata*



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Vine

# American Wisteria, *Wisteria frutescens*



wildflower.org



© Ted Bodner

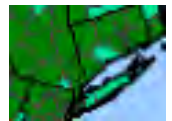
plants.usda.gov

**HEIGHT:** 15-30' **SPREAD:** 4-8'

**SHAPE:** Twining vine

**FLOWER COLOR:** Lilac-bluish

- Produces shiny, dark green leaves
- Blooms May to June with large, fragrant lilac-bluish flowers
- Deciduous
- Tolerates acid to alkaline soil, prefers slightly acidic soil
- Prefers moist, well drained soil
- Less aggressive than the Asian species
- Zones 5-9



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Replaces: Oriental Bittersweet, *Celastrus orbiculatus*



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# Clematis, *Clematis Jackmanii*

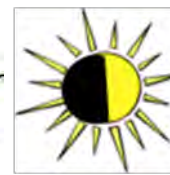


**HEIGHT:** 5-18' **SPREAD:** 3-6'

**SHAPE:** Twining vine

**FLOWER COLOR:** Violet-purple

- Produces bright green to blue-green foliage
- Blooms spring to early summer with beautiful violet-purple
- Perennial
- Prefers cool roots, so shade roots with annual plantings or mulch
- Does best in neutral or slightly alkaline soils
- Requires average, well drained soil moisture



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Replaces: Japanese Virgin's Bower, *Clematis terniflora*



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Vine

# Climbing Hydrangea, *Hydrangea anomala ssp. petiolaris*



**HEIGHT:** 60-80' **SPREAD:** 5-6'

**SHAPE:** Clinging vine

**FLOWER COLOR:** White

- Produces glossy dark green leaves
- Blooms in June/July with large, fragrant white flowers
- Winter interest with reddish-tan bark
- Deciduous
- Tolerates acid to alkaline soil
- Prefers moist, well drained soil
- Slow starter; grows quickly once established
- Needs sturdy support
- Zones 4-8



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**Replaces:** Oriental Bittersweet, *Celastrus orbiculatus*



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# Hyacinth Bean, *Lablab purpureus*



Missouribotanicalgarden.org

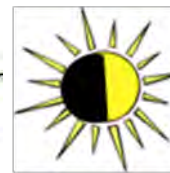


**HEIGHT:** 10-20' **SPREAD:** 3-6'

**SHAPE:** Twining vine

**FLOWER COLOR:** Rose-purple

- Blooms June to frost with fragrant rose-purple flowers
- Annual
- Tolerates acid to alkaline soil
- Tolerates occasional periods of dry soil
- Needs a sturdy support structure due to the weight of the vine at maturity; collect seed in fall for planting the following year.



Vine

# Blackeyed Susan Vine, *Thunbergia alata*



americanmeadows.com



© G.A. Cooper

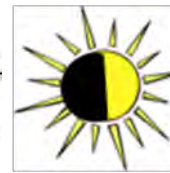
plants.usda.gov

**HEIGHT:** 3-8' **SPREAD:** 3-6'

**SHAPE:** Twining vine

**FLOWER COLOR:** Orange-yellow

- Blooms summer to fall with orange-yellow flowers with best blooming in late summer and fall after the hot summer temperatures moderate
- Annual
- Tolerates acid to alkaline soil
- Prefers moist, well drained soil
- Prefers sun to part sun with afternoon shade



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Replaces: Japanese Virgin's Bower, *Clematis terniflora*



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# Trees

Many native trees have exceptional ornamental qualities and are uniquely able to support wildlife. A few have been chosen to highlight.

## Notes:

- Tree's root style impacts their transplant success. Cautions are noted.
- Saplings should be protected from deer until taller than browse height.
- Tree information is from Cornell's Woody Plants database at
- [Woodyplants.cals.cornell.edu](http://Woodyplants.cals.cornell.edu)
- Insect information is from the National Wildlife Federation Native Plant Finder at [nwf.org/nativeplantfinder](http://nwf.org/nativeplantfinder) based on the research of Dr. Doug Tallamy



# Targeted Invasive Trees

Botanical Name	Common Name	DEC Classification
<i>Aralia elata</i>	Japanese Angelica Tree	prohibited
<i>Acer platanoides</i>	Norway Maple	regulated
<i>Frangula alnus</i> ( <i>Rhamnus frangula</i> )	Smooth Buckthorn	prohibited
<i>Robinia pseudoacacia</i>	Black Locust	regulated
<i>Rhamnus cathartica</i>	Common Buckthorn	prohibited

# Alternatives

Botanical Name	Common Name
<i>Acer pensylvanicum</i>	Striped Maple**
<i>Acer rubrum</i>	Red Maple**
<i>Acer saccharum</i>	Sugar Maple **
<i>Betula nigra</i>	River Birch**
<i>Chionanthus virginicus</i>	Fringetree**
<i>Fagus grandiflora</i>	American Beech**
<i>Juniperus virginiana</i>	Eastern Red Cedar**
<i>Liquidambar styraciflua</i>	Sweet Gum**
<i>Nyssa sylvatica</i>	Black Gum**
<i>Plantus occidentalis</i>	American Scyamore**
<i>Prunus serotina</i>	Black Cherry**
<i>Quercus alba</i>	White Oak**
<i>Quercus coccinea</i>	Scarlet Oak**
<i>Quercus palustris</i>	Pin Oak**
<i>Sassafras albidum</i>	Sassafras**
<i>Tilia americana</i>	Basswood**



# Sugar Maple, *Acer saccharum*



**HEIGHT:** 60-75' **SPREAD:** variable

**SHAPE:** upright oval to mounded, dense foliage

- Many named varieties and shapes
- Provides dense shade
- Splendid fall color
- Trouble free but stressed by drought and urban pressures
- Host plant for > 200 species
- Transplants easily



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Replaces: Norway and Sycamore Maple,  
*Acer platanoides* and *A. pseudoplatanus*





# Red Maple, *Acer rubrum*



**HEIGHT:** 40-60' **SPREAD:** variable

**SHAPE:** generally upright with rounded crown

- Many varieties available including columnar types
- Spectacular autumn color
- Host plant for > 200 species
- Easy to transplant
- Tolerates wet sites and salt spray



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Replaces: Norway and Sycamore Maple,  
*Acer platanoides* and *A. pseudoplatanus*



# Striped Maple, *Acer pensylvanicum*



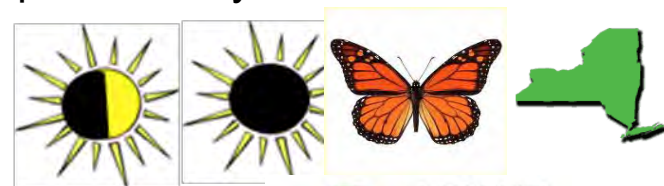
Ethan M. Dropkin

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**HEIGHT:** 15-20' **SPREAD:** 15-20'

**SHAPE:** arching branches and flat or rounded crown

- Large shrub or small tree
- Understory plant
- Yellow flowers late spring
- Bark is quite ornamental with longitudinal stripes
- Unique large leaves are golden in fall
- Trouble free but bark is thin
- Host plant for > 200 species
- Transplants easily



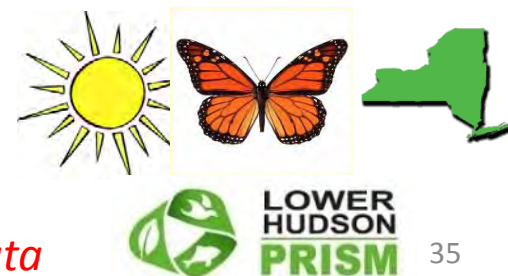
# River Birch, *Betula nigra*



**HEIGHT:** 40'-70'    **SPREAD:** 40-60'

**SHAPE:** pyramidal-oval to rounded

- Exfoliating bark gives year-round interest
- Many varieties available
- Host plant for > 300 species
- Tolerates wet sites and salt spray
- Best growth in consistently moist acid soil
- Resistant to bronze birch borer
- Susceptible to leaf miner
- Moderately difficult to transplant



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Replaces: Japanese Angelica, *Aralia elata*



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# Fringetree, *Chionanthus virginicus*

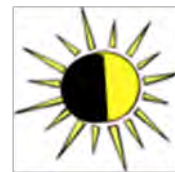


**HEIGHT:** 15-20' **SPREAD:** 15-25'

**SHAPE:** broad spreading habit

**FLOWER COLOR:** dramatic white flowers in early spring

- Beneficial showy berries
- Yellow autumn color
- Requires acid soil (pH 5.0 – 7.0)
- Tolerates salty soil and air-borne pollutants
- Late to leaf out
- Pest free



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Replaces: Common and Smooth Buckthorn,  
*Rhamnus cathartica* and *R. frangula*



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# American Beech, *Fagus grandifolia*

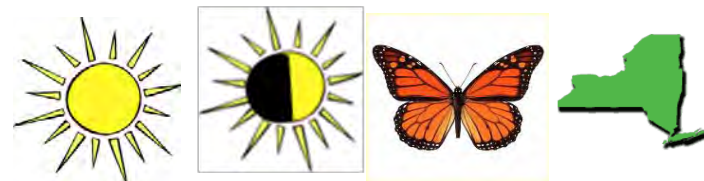


**HEIGHT:** 50-70' **SPREAD:** 50-70'

**SHAPE:** widespreading crown, low branching

- Green leaves turn golden in fall
- Silver gray branches and trunk
- Edible fruit
- Prefers consistently moist, well-drained soil
- Pest free
- Host plant for > 100 species
- Difficult to transplant except as small B&B or container grown plant

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Replaces: Norway and Sycamore Maple,  
*Acer platanoides* and *A. pseudoplatanus*



# Eastern Red Cedar, *Juniperus virginiana*



**HEIGHT:** 40-50 ft. **SPREAD:** 8-20'

**SHAPE:** Columnar to broad-pyramidal

- Prefers open, sunny areas
- Wide variety of cultivars available
- Tolerates wide range of pH and salty soil
- Host plant for > 30 species
- Susceptible to mites, bagworms and phomopsis blight
- Difficult to transplant bare root
- Somewhat deer resistant



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Alan Cressler, Peggy Romfh, Lady Bird Johnson Wildflower Center



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Replaces: Black Locust, *Robinia pseudoacacia*



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# Sweet Gum, *Liquidambar styraciflua*



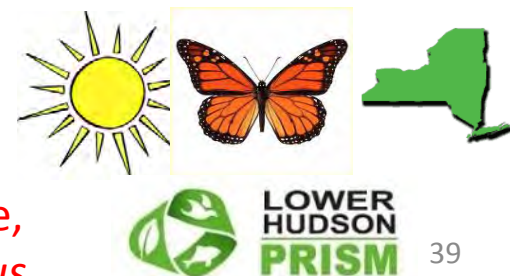
Ethan M. Dropkin



**HEIGHT:** 70-100' **SPREAD:** variable

**SHAPE:** Pyramidal when young, round with age

- Best on moist sunny sites
- Brilliant fall color
- Unique “gum ball” seed pods
- Interesting gray-brown bark
- May show occasional chlorosis on high pH sites
- Host plant for > 30 species
- Relatively pest free
- Transplant in spring



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Julie Makin, Lady Bird Johnson Wildflower Center



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**Replaces: Norway and Sycamore Maple,  
*Acer platanoides* and *A. pseudoplatanus***

# Black Gum, *Nyssa sylvatica*

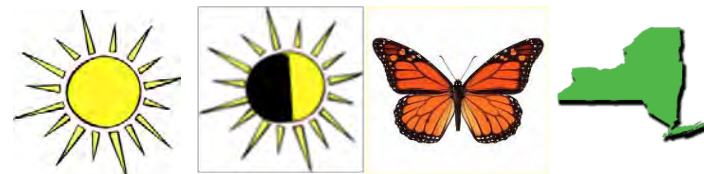


**HEIGHT:** 40-70' **SPREAD:** 20-30'

**SHAPE:** pyramidal

- Many varieties available
- Glossy dark green summer foliage
- Great fall color
- Small blue-black drupes for wildlife
- Host plant for > 30 species
- Does not tolerate high pH but does well in salty soil
- Difficult to transplant – use small sizes, B&B only in spring

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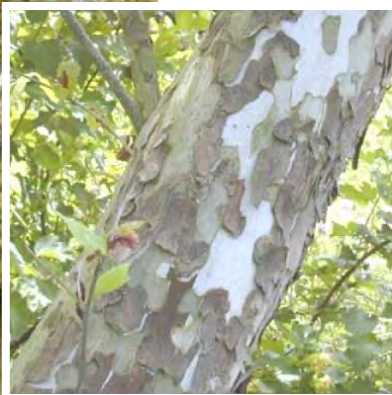
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Replaces: Norway and Sycamore Maple,  
*Acer platanoides* and *A. pseudoplatanus*





# Eastern Sycamore, *Planatus occidentalis*



**HEIGHT:** 75-100' **SPREAD:** 75-100'

**SHAPE:** wide-spreading open crown

- Requires abundant space
- Prefers deep, rich soil
- Dramatic bark patterns and textures
- Tolerates salty soils and urban conditions
- Host plant for > 30 species
- Susceptible to many diseases, especially anthracnose
- Easily transplanted



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Replaces: Black Locust, *Robinia pseudoacacia*



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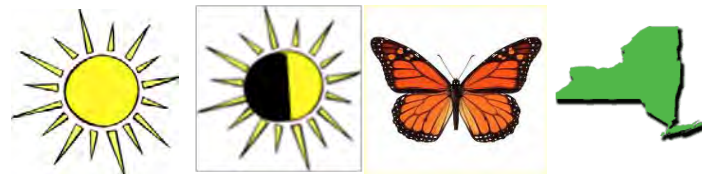
# Black Cherry, *Prunus serotina*



**HEIGHT:** 50-60'. **SPREAD:** 20-30'

**SHAPE:** Pyramidal, oval

- Bright green leaves in spring, dark green in summer, yellow in autumn
- Mature bark is gray-black and scaly
- White flowers in May
- Edible berries (red - black) used in wine and jelly and attract birds
- Host plant for > 350 species
- One of the most trouble-free cherries
- Wood is brittle, subject to breakage
- Prefers deep, fertile soils



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Paul Cox, Lady Bird Johnson Wildflower Center



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Replaces: Black Locust, *Robinia pseudoacacia*



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# White Oak, *Quercus alba*



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**HEIGHT:** 50-80' **SPREAD:** 50-80'

**SHAPE:** pyramidal to oval/rounded

- Majestic, long-lived and durable
- Dark blue-green to green leaves turn red in fall
- Bark is light ash brown
- Mature bark has small scaly plates
- Host plant for > 350 species
- Susceptible to many diseases and insects but thrives for decades
- Must be moved as a small tree B & B



# Scarlet Oak, *Quercus coccinea*



**HEIGHT:** 70-75' **SPREAD:** 40-50'

**SHAPE:** Pyramidal to rounded and open

- Glossy, dark green leaves turn scarlet in fall
- Autumn color can last 3-4 weeks
- Host plant for > 350 species
- Prefers consistently moist, well-drained soil
- Tolerates occasional periods of dry soil
- Disease and pest free
- Difficult to transplant



Cornell Woody Plants Database

# Pin Oak, *Quercus palustris*



Ethan M. Bloppkin

**HEIGHT:** 50-70 ft. **SPREAD:** variable

**SHAPE:** Pyramidal, oval with age

- Great fall color
- Interesting gray bark
- Relatively pest free
- Host plant for > 350 species
- Resistant to anthracnose;
- Preferred by orange-striped oakworm
- Requires acid (pH 5.0 to 7.0) soil, suffers iron chlorosis with high pH
- One of the easiest oaks to transplant, but still difficult



Cornell Woody Plants Database



Cornell University  
Cooperative Extension  
Dutchess County

Replaces: Norway and Sycamore Maple,  
*Acer platanoides* and *A. pseudoplatanus*



# Sassafras, *Sassafras albidum*



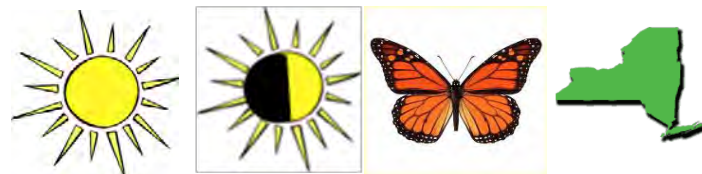
**HEIGHT:** 30-60' **SPREAD:** 25-40'

**SHAPE:** pyramidal; irregular

- Bright green foliage turns brilliant yellow, orange, red in fall
- Dark cinnamon furrowed bark
- Blue-black fruits and bright red stalks
- Host plant for > 20 species
- Relatively free of problems
- Very difficult to transplant; transplant as young plants from container or B&B in early spring; suckers

Ethan M. Dropkin

Cornell Woody Plants Database



Cornell University  
Cooperative Extension  
Dutchess County

Replaces: Japanese Angelica, *Aralia elata*



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# Basswood, *Tillia americana*



**HEIGHT:** 60-80' **SPREAD:** variable

**SHAPE:** pyramidal

- Fragrant flowers attract many bees
- Wide variety of cultivars
- Host plant for > 100 species
- Very susceptible to Japanese beetles, mites, aphids, borers
- Leaf miners and scale may also be problematic
- Creates dense shade
- Transplant in spring or fall
- Easy bare root transplanting



Cornell Woody Plants Database



Cornell University  
Cooperative Extension  
Dutchess County

Replaces: Norway and Sycamore Maple,  
*Acer platanoides* and *A. pseudoplatanus*



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# SHRUBS

## CCE Dutchess County

Ornamental Alternatives  
to Invasive Species  
October 2016





# Targeted Invasive Shrubs

# Alternatives

Botanical Name	Common Name	DEC Classification
<i>Berberis thunbergii</i>	Japanese Barberry	prohibited
<i>Elaeagnus umbellata</i>	Autumn Olive	prohibited
<i>Euonymus alatus</i>	Burning Bush	regulated
<i>Euonymus fortunei</i>	Winter Creeper	regulated
<i>Ligustrum obtusifolium</i>	Border Privet	prohibited
<i>Lonicera maackii</i>	Amur Honeysuckle	prohibited
<i>Lonicera morrowii</i>	Morrow's Honeysuckle	prohibited
<i>Lonicera tatarica</i>	Tartarian Honeysuckle	prohibited
<i>Lonicera x bella</i>	Fly Honeysuckle	prohibited
<i>Reynoutria japonica</i>	Japanese Knotweed	prohibited
<i>Reynoutria sachalinensis</i>	Giant Knotweed	prohibited
<i>Reynoutria x bohemica</i>	Bohemian Knotweed	prohibited
<i>Rosa multiflora</i>	Multiflora Rose	prohibited
<i>Rubus phoenicolasius</i>	Wineberry	prohibited
<i>Salix atrocinerea</i>	Gray Florist's Willow	prohibited

Botanical Name	Common Name
<i>Aesculus parviflora</i>	Bottlebrush Buckeye *
<i>Arctostaphylos uva-ursi</i>	Common Bearberry**
<i>Aronia arbutifolia</i>	Chokeberry **
<i>Buxus sp</i>	Boxwood
<i>Clethra alnifolia</i>	Summersweet**
<i>Corylus americana</i>	American Filbert**
<i>Fothergilla gardenii</i>	Dwarf fothergilla*
<i>Gaultheria procumbens</i>	Wintergreen**
<i>Hydrangea quercifolia</i>	Oakleaf Hydrangea*
<i>Ilex glabra</i>	Inkberry**
<i>Ilex verticillata</i>	Winterberry Holly**
<i>Itea virginica</i>	Sweetspire**
<i>Lindera benzoin</i>	Spicebush**
<i>Microbiota decussata</i>	Russian Arborvitae
<i>Myrica pensylvanica</i>	Bayberry**
<i>Physocarpus opulifolius</i>	Ninebark **
<i>Rhus aromatica</i>	Fragrant Sumac* *
<i>Rubus odoratus</i>	Flowering Raspberry**
<i>Salix discolor</i>	Pussy willow*
<i>Vaccinium corymbosum</i>	Blueberry**
<i>Weigela florida</i>	Weigela "Wine" cultiv



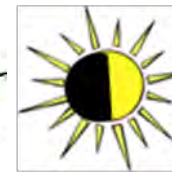
# Bottlebrush Buckeye, *Aesculus parviflora*



**HEIGHT:** 6-8' **SPREAD:** variable

**SHAPE:** very wide spreading and suckering

- Striking coarse textured foliage
- Midsummer showy white flowers
- Yellow fall color
- Smooth nut is enclosed by a bright yellow husk
- Tolerates wide range of pH
- Prefers consistently moist, well-drained soil, tolerates occasional very wet or very dry soil
- Pest and disease resistant
- Difficult to transplant; use container or R & R



Alfred F. W. Vick, Lady Bird Johnson Wildflower Center



Cornell University  
Cooperative Extension  
Dutchess County

**Replaces:** Honeysuckles, *Lonicera maackii*, *L. morrowii*, *L. tatarica*, *L. x bella*



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# Common Bearberry, *Arctostaphylos uva-ursi*



**HEIGHT:** 1 -3 inches **SPREAD:** 2-4'

**SHAPE:** Groundcover

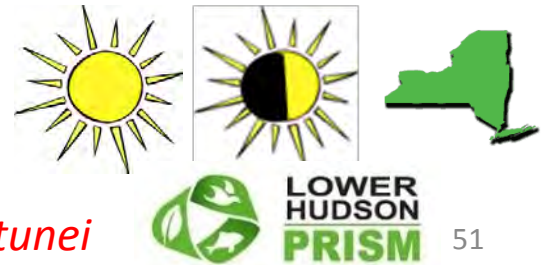
- Bright green foliage turns bronze/reddish in fall
- Bright red berries appear in August and persist into winter
- Many cultivars available
- Does well in sandy, infertile soils
- Requires acid soil pH 5.0 – 7.0
- Tolerates salt spray
- Disease free
- Transplant containerized or as large mats

Cornell Woody Plants Database.



Cornell University  
Cooperative Extension  
Dutchess County

Replaces: Winter Creeper, *Euonymus fortunei*



# Chokeberry, *Aronia arbutifolia*



**HEIGHT:** 6-12' **SPREAD:** 3-12'

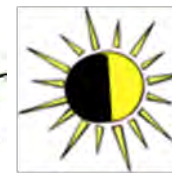
**SHAPE:** leggy quality; best when massed

White blooms in April

- Bright red fruit clusters in fall
- Brilliant red/purple fall color
- Tolerates wide range of pH
- Good for wetland reclamation sites
- Tolerates occasional very wet or dry conditions
- Tolerates salt spray
- Transplants well
- Deer love this plant

Cornell Woody Plants Database.

Note: *Aronia melanocarpa* is similar with black berries



# Summer sweet, *Clethra alnifolia*



**HEIGHT: 4-8' SPREAD: 4-8'**

## SHAPE:

- Woody, evergreen groundcover
- Requires acidic soil pH 5.0-7.0
- Tolerates salt spray
- White fragrant flowers are followed by brown capsules which persist through winter
- Wide variety of cultivars available
- Pest and disease free



Cornell Woody Plants Database



Cornell University  
Cooperative Extension  
Dutchess County

Replaces: Multiflora Rose, *Rosa multiflora*



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# American Filbert, *Corylus americana*



Image Source: Wikimedia Commons

**HEIGHT:** 10-16' **SPREAD:** 8-13'  
**SHAPE:** rounded, multi-stemmed

- March-April bloom in catkins
- Nuts in July-August enjoyed by humans and wildlife
- Good fall color
- Large, naturalizing shrub
- Spreads by suckers
- Used for hedges, erosion control, windbreak



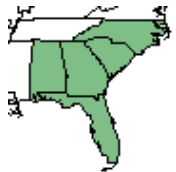
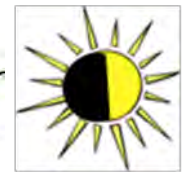
# Dwarf Fothergilla, *Fothergilla gardenii*



**HEIGHT:** 2-3' **SPREAD:** 2-3'

**SHAPE:** variable, rounded

- Fragrant, white bottlebrush flowers in May
- Blue-green leaves turn yellow-orange-red in fall
- Slow growing
- Prefers Consistently moist, well-drained soil
- Tolerates occasional periods of dry soil
- Trouble free
- Transplant B & B or from container



Cornell Woody Plants Database.



Cornell University  
Cooperative Extension  
Dutchess County

**Replaces: Japanese, Giant and  
Bohemian Knotweed, *Reynoutria* sp.**



**LOWER  
HUDSON  
PRISM**

# Wintergreen, *Gaultheria procumbens*

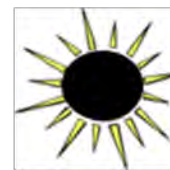
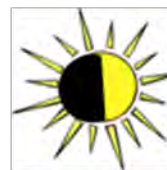


Source of Images: Wikimedia Commons

**HEIGHT:** 1-2" **SPREAD:** 1'

**SHAPE:** Groundcover

- Woody, evergreen groundcover
- White flowers in June-July give way to red berries, colorful fall foliage
- Fragrant foliage
- Thrives in well-drained, moist, acidic soil in shade





Shrub

# Oakleaf Hydrangea, *Hydrangea quercifolia*



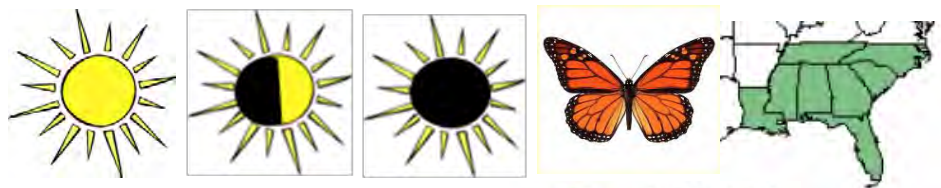
**HEIGHT:** 6-8' **SPREAD:** 6-8'

**SHAPE:** rounded

- Elongated, conical 4"-12" clusters of creamy white flowers turn dusty rose then brown and persist into winter
- Forms colonies from a shallow root system
- Outstanding reddish purple fall color
- Older stems are exfoliating to reveal a rich, brown inner bark.
- Many cultivars available
- Pest and disease free



Cornell Woody Plants Database.



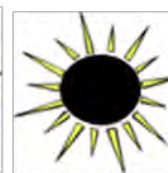
# Inkberry, *Ilex glabra*



**HEIGHT:** 6-8' **SPREAD:** 6-10'

**SHAPE:** upright-mounded

- Broadleaf evergreen
- Can form colonies
- Well suited to mass planting or as a hedge, responds well to shearing
- Glossy green foliage
- Black fruit
- Requires male for pollination
- Can get leggy in shade
- Tolerates salt spray
- Trouble-free



Cornell Woody Plants Database.



Replaces: Border Privet, *Ligustrum obtusifolium*



# Winterberry, *Ilex verticillata*



**HEIGHT:** 6-8' **SPREAD:** 6-12'

**SHAPE:** upright, mounded

- Inconspicuous flowers attract bees
- Bright red fruits appear while leaves are still green and persist throughout winter
- Yellow fall color; deciduous
- Requires male for pollination
- Many cultivars available
- Grows in both wet and dry sites; good naturalizer



Cornell Woody Plants Database.

Replaces: *Honeysuckles*, *Lonicera maackii*, *L. morrowii*, *L. tatarica*, *L. x bella*

Shrub

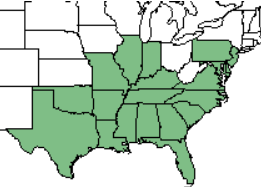
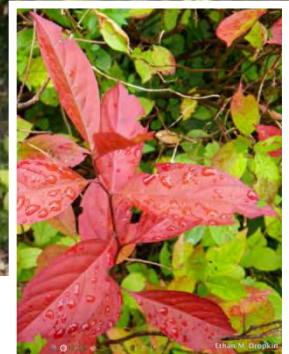
# Virginia Sweetspire, *Itea virginica*



**HEIGHT:** 3-5' **SPREAD:** 3-5'

**SHAPE:** rounded - mounded, irregular habit

- Cascading white fragrant flowers
- Stunning fall color
- Requires acidic soil pH 5.0-7.0
- Tolerates salt spray
- Natural habitat is shaded stream banks; good for rain gardens
- Colonizing and irregular shrub
- Most effective in massed plantings
- Requires little to no maintenance



Cornell Woody Plants Database.

Replaces: Multiflora Rose, *Rosa multiflora*

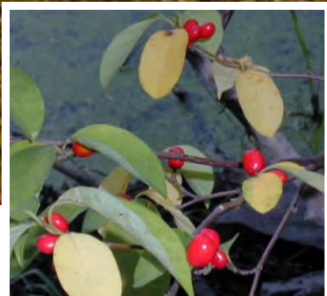
# Spicebush, *Lindera benzoin*



**HEIGHT:** 6-12' **SPREAD:** 6-12'

**SHAPE:** rounded

- Dense clusters of tiny, pale yellow flowers bloom before the leaves from buds along the stems
- Leaves and stem have identifiable spicy scent
- Bright scarlet oval drupe fruit
- Requires male for pollination
- Leaves bright green changing to golden-yellow in fall
- Difficult to transplant; slow to re-establish



Ethan M. Dropkin



Cornell Woody Plants Database.

Replaces: Honeysuckles, *Lonicera maackii*, *L. morrowii*, *L. tatarica*, *L. x bella*

# Bayberry, *Myrica pensylvanica*



**HEIGHT:** 6-8' **SPREAD:** 6-8'

**SHAPE:** rounded

Aromatic, semi-evergreen leaves

- Waxy gray/blue persist through winter
- Fruits and leaves are eaten by many winter birds
- Requires male for pollination
- Grows in wide range of soil moisture
- Tolerates salt spray
- Disease free
- Slow growing, spreads by suckers



Cornell Woody Plants Database.



# Ninebark, *Physocarpus opulifolius*



**HEIGHT:** 5-10' **SPREAD:** 6-10'

**SHAPE:** upright, spreading

**FLOWER COLOR:** yellow

- Small pink or white spirea-like flowers attract many pollinators
- Clusters of reddish fruit
- Exfoliating bark reveals layers of reddish to light brown inner bark
- Fast-growing
- Insect and disease resistant
- Tolerates a wide range of soil conditions including drought



Cornell Woody Plants Database,  
W.D. and Donphia Bransford, Lady Bird Johnson Wildflower Center



**Replaces:** Japanese Barberry, *Berberis thunbergii*

# Fragrant Sumac, *Rhus aromatica*



**HEIGHT:** 2-6' **SPREAD:** 6-10'

**SHAPE:** groundcover; irregular spreading shrub

- Yellow catkins in late winter
- Small clusters of red berries in spring may persist into winter
- Dense shrub spreads by suckering
- Leaves and twigs are aromatic
- Leaves resemble poison ivy but do not cause irritation
- Tolerates a wide range of soil conditions including drought
- Moderately difficult to plant bare root
- No serious pests or diseases

Cornell Woody Plants Database.





# Flowering Raspberry, *Rubus odoratus*

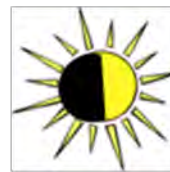


**HEIGHT:** 3-6' **SPREAD:** 6-12'

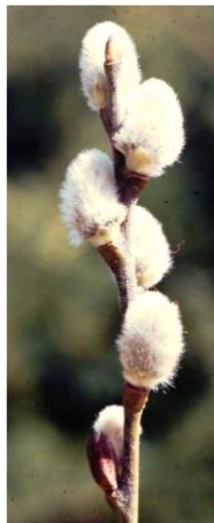
**SHAPE:** multi-stemmed canes

- 2" rose-like, fragrant flowers bloom from June thru August
- Hairy stems, not thorny
- Fruit attractive but not tasty
- Shade tolerant
- Spreads by suckers

Source of Images: Wikimedia Commons



# Pussy Willow, *Salix discolor*



**HEIGHT:** 15-25' **SPREAD:** 12-15'

**SHAPE:** multi-stemmed canes

- Large, fast-growing  
6-15' x 4-12'
- Catkins are buds, bloom March-April
- Thrives in moist to wet soil
- Dioecious – males have showiest catkins
- Hummingbirds seek catkins for nesting materials
- Great for rain gardens

Note: Images from Cornell Woody Database are of closely related European species *Salix caprea*



# Blueberry, *Vaccinium corymbosum*



**HEIGHT:** 6-12' **SPREAD:** 8-12'

**SHAPE:** spreading

- Delicate white or pink-tinged flowers in May
- Sweet, edible blue berries
- Blue-green leaves turn yellow/bronze/orange/red in fall
- Twigs turn red in winter
- Requires acid soil pH 4.5 – 5.0
- Requires consistently moist, well-drained soil



Cornell Woody Plants Database.



Replaces: Burning Bush, *Euonymus alatus*

# Boxwood, *Buxus sempervirens*

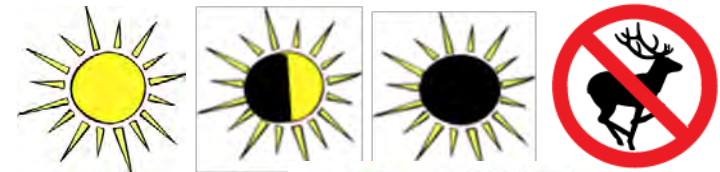


Cornell Woody Plants Database.

**HEIGHT:** 3-4' **SPREAD:** 3-4'

**SHAPE:** compact; mounded shrub

- Evergreen light blue to blue-gray foliage; foliage will turn yellow or bronze in winter depending on cultivar.
- Salt spray in winter makes foliage discoloration worse
- Slow growth rate
- Tolerates wide range of pH
- Needs consistently moist, well-drained soil
- Sensitive to mites and leaf miners
- Leaves are toxic to livestock
- Transplant B&B or from container



# Russian Arborvitae, *Microbiota decussata*



**HEIGHT:** 6-18" **SPREAD:** 3-12'

**SHAPE:** groundcover

- Woody, evergreen groundcover
- Bright green foliage turns bronze-purple in fall and winter
- Insignificant flowers and fruit
- Provides beautiful form and texture to shady areas
- Intolerant of poor drainage
- Can be hard to establish
- No serious pests or diseases



Source of Images: Cornell Woody Plants Database



# Weigela, *Weigela florida*

## “Wine” varieties



Source of Images: Proven Winners

**HEIGHT & SPREAD:** varies by cultivar

**SHAPE:** rounded

- Small to midsize, e.g.  
“Wine & Roses” 4x5’  
“Spilled Wine” 2x3’
- Blooms profusely May-June, scattered re-bloom can occur
- Burgundy foliage, pink flowers
- Branches on mature shrubs tend to arch toward the ground
- Pest and disease free



# Herbaceous Perennials

## CCE Dutchess County

Ornamental Alternatives  
to Invasive Species  
October 2016



Cornell University  
Cooperative Extension  
Dutchess County



# Targeted Invasive Perennials

# Alternatives (page 1 of 2)

Botanical Name	Common Name	DEC Classification
<i>Anthriscus sylvestris</i>	Wild Chervil	prohibited
<i>Cirsium arvense</i> ( <i>C. setosum</i> , <i>C. incanum</i> , <i>Serratula arvensis</i> )	Canada Thistle	prohibited
<i>Dipsacus laciniatus</i>	Cut-leaf Teasel	prohibited
<i>Euphorbia cyparissias</i>	Cypress Spurge	prohibited
<i>Euphorbia esula</i>	Leafy Spurge	prohibited
<i>Ficaria verna</i> ( <i>Ranunculus ficaria</i> )	Lesser Celandine	prohibited
<i>Iris pseudacorus</i>	Yellow Iris	prohibited
<i>Lespedeza cuneata</i>	Chinese Lespedeza	prohibited
<i>Lysimachia vulgaris</i>	Garden Loosestrife	prohibited
<i>Lythrum salicaria</i>	Purple Loosestrife	prohibited
<i>Silphium perfoliatum</i>	Cup-plant	prohibited

Botanical Name	Common Name
<i>Achillea milliflorum</i> **	Yarrow**
<i>Alchemilla mollis</i>	
<i>Asclepias incarnata</i>	Swamp Milkweed**
<i>Asclepias tuberosa</i>	Butterfly Weed**
<i>Baptisia australis</i>	Blue False Indigo**
<i>Baptisia tinctoria</i>	Yellow Wild Indigo**
<i>Chelone glabra</i>	White Turtlehead**
<i>Chrysogonum virginianum</i>	Golden Star**
<i>Echinacea purpurea</i>	Purple coneflower**
<i>Echinops bannaticus</i>	
<i>Eryngium amethystinum</i>	Sea Holly
<i>Eutrochium maculatum</i>	Joe Pye Weed**
<i>Euphorbia polychroma</i>	
<i>Helenium autumnale</i>	Sneezeweed**
<i>Helianthus maximiliani</i>	Maximilian Sunflower**
<i>Helianthus salicifolius</i>	Willow-Leaved sunflower**
<i>Heliopsis helianthoides</i>	False Sunflower or Oxeye Sunflower**





# Targeted Invasive Perennials

# Alternatives (page 2 of 2)

Botanical Name	Common Name	DEC Classification
<i>Anthriscus sylvestris</i>	Wild Chervil	prohibited
<i>Cirsium arvense</i> (C. setosum, C. incanum, <i>Serratula arvensis</i> )	Canada Thistle	prohibited
<i>Dipsacus laciniatus</i>	Cut-leaf Teasel	prohibited
<i>Euphorbia cyparissias</i>	Cypress Spurge	prohibited
<i>Euphorbia esula</i>	Leafy Spurge	prohibited
<i>Ficaria verna</i> ( <i>Ranunculus ficaria</i> )	Lesser Celandine	prohibited
<i>Iris pseudacorus</i>	Yellow Iris	prohibited
<i>Lespedeza cuneata</i>	Chinese Lespedeza	prohibited
<i>Lysimachia vulgaris</i>	Garden Loosestrife	prohibited
<i>Lythrum salicaria</i>	Purple Loosestrife	prohibited
<i>Silphium perfoliatum</i>	Cup-plant	prohibited

Botanical Name	Common Name
<i>Iris versicolor</i> **	Blue Flag Iris**
<i>Liatris spicata</i> **	Gayflower or Blazing Star**
<i>Ligularia dentata</i>	Leopard Plant
<i>Lobelia cardinalis</i>	Cardinal Flower**
<i>Lobelia siphilitica</i>	Great Blue Lobelia or Blue Cardinal Flower**
<i>Monarda fistulosa</i>	Wild Bee Balm
<i>Packera aurea</i>	Golden Groundsel or Golden Groundwort
<i>Rudbeckia laciniata</i>	Green-headed Coneflower**
<i>Rudbeckia hirta</i>	Black-eyed Susan**
<i>Sedum ternatum</i>	Sedum or Stonecrop*
<i>Senna hebecarpa</i>	Wild Senna**
<i>Solidago sp.</i>	Goldenrod**
<i>Symphotrichum novae-angliae</i>	New England Aster**
<i>Verbena hastata</i>	Swamp Verbena or Blue Vervain**
<i>Vernonia noveboracensis</i>	New York Ironweed**
<i>Zizia aptera</i>	Heart Leaved Meadow Parsnip**
<i>Zizia aurea</i> **	Golden Alexanders**



# YARROW, *Achillea millefolium*

**HEIGHT:** 18" – 24"

**BLOOM TIME:** June - September

**FLOWER COLOR:** White



Jon Hixson, Lady Bird Johnson Wildflower Center

- Flat heads are perfect landing pads for butterflies
- Can spread aggressively by rhizomes and self-seeding
- Ideal for cutting, dries well, pleasing fragrance
- Prefers lean, dry to medium, well-drained sandy loams



Replaces: Wild Chervil, *Anthriscus sylvestris*

Herbaceous Perennial

# SWAMP MILKWEED, *Asclepias incarnata*

Albert F.W. Vick, Lady Bird Johnson Wildflower Center



**HEIGHT:** 2 – 4 feet

**BLOOM TIME:** June-October

**FLOWER COLOR:** Pink

- Can withstand flooding even during growing season
- Important food for Monarch and Queen butterfly and other insects
- Deep pink flowers clustered at the top of a tall, branching stem
- Will tolerate heavy clay

R. W. Smith, Lady Bird Johnson Wildflower Center



Herbaceous Perennial

# BUTTERFLY WEED, *Asclepias tuberosa*



**HEIGHT:** 12 – 30”

**BLOOM TIME:** June - August

**FLOWER COLOR:** Orange

- Large clusters of bright orange flowers
- Average well-drained soil
- Self-seeds
- Important plant for monarch larvae

Sally and Andy Wasowski, Lady Bird Johnson Wildflower Center



# BLUE FALSE INDIGO, *Baptisia australis*

**HEIGHT:** 36" - 48"

**BLOOM TIME:** May – June

**FLOWER COLOR:** Indigo blue



Joyce Tomaselli CCEDC

- Showy plant when in bloom and has attractive seed pods
- Drought resistant and will grow in poor soil
- Will naturalize, leave in place once established
- Toxic to animals
- Deer and rabbit resistant



Herbaceous Perennial

# Yellow Wild Indigo, *Baptisia tinctoria*



Alan Cressler, Lady Bird Johnson Wildflower Center

**HEIGHT:** 2-4 ft.

**BLOOM TIME:** May to September

**FLOWER COLOR:** yellow

- Busy perennial, black seed pods in fall
- Develops deep extensive root system that tolerates erosion.
- High CaCO<sub>3</sub> tolerance
- Tolerates rabbits, dry clay or shallow rocky soil



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Dutchess County

Replaces: Chinese Lespedeza, *Lespedeza cuneata*



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PRISM

# WHITE TURTLEHEAD, *Chelone glabra*



R.W. Smith, Lady Bird Johnson Wildflower Center

**HEIGHT:** 2 feet – 4 feet

**BLOOM TIME:** August - October

**FLOWER COLOR:** White/Lavender

- White (often lavender-tinged) tubular, flowers resemble turtle heads
- Best grown in moist to wet, rich, humusy soils in part shade
- Use in bog gardens and alongside streams
- May spread by rhizomes



Replaces: Yellow Flag Iris, *Iris pseudacorus*



# **GOLDEN STAR, *Chrysogonum virginianum***



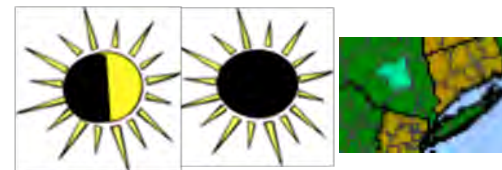
Alan Cressler, Lady Bird Johnson Wildflower Center

**HEIGHT:** 6" - 8"

**BLOOM TIME:** Spring – Early Summer

**FLOWER COLOR:** Golden Yellow

- A long blooming, native groundcover
- Perfect for woodland garden
- Prefers moist, well-drained soil, tolerates full sun only if moist
- Brightens a shady spot
- Easy to grow, but can be aggressive, spreads by stolons or rhizomes but can be easily controlled





Herbaceous Perennial

# PURPLE CONEFLOWER, *Echinacea purpurea*



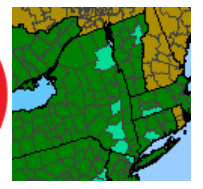
**HEIGHT:** 2 feet – 5 feet

**BLOOM TIME:** June - August

**FLOWER COLOR:** Dark Pink

- Excellent, long-blooming flower
- Dried flower heads attract birds, esp. goldfinches
- Great for cutting
- A must for the perennial garden

Alan Cressler, Lady Bird Johnson Wildflower Center



Replaces: Cut-leaf Teasel, *Dipsacus laciniatus*

# JOE PYE WEED, *Eutrochium maculatum*



Alan Cressler, Lady Bird Johnson Wildflower Center

**HEIGHT:** 4 feet – 6 feet

**BLOOM TIME:** Late summer

**FLOWER COLOR:** Pink

- Tiny flowers form 12"-18" pink domes
- Prefers moist soils. Good for borders, cottage gardens, meadows, native plant gardens, wild/naturalized areas or water margins
- Tolerates clay soil
- Butterflies love this flower



Replaces: Yellow Flag Iris, *Iris pseudacorus* and  
Purple Loosestrife, *Lythrum salicaria*



# SNEEZEWEED, *Helenium autumnale*



R. W. Smith, Lady Bird Johnson Wildflower Center

**HEIGHT:** 3 feet – 5 feet

**BLOOM TIME:** August - September

**FLOWER COLOR:** Yellow

- Bright cheerful daisy-like flowers
- Prefers moist clay soil
- A great plant for the late summer garden
- Despite its name, it presents no problems for most allergy sufferers
- Easy to grow, requires a damp site
- High salt tolerance



Herbaceous Perennial

# MAXIMILIAN SUNFLOWER, *Helianthus maximiliani*



R. W. Smith, Lady Bird Johnson Wildflower Center

W. D. and Dolphia Bransford, Lady Bird Johnson Wildflower Center

**HEIGHT:** 3 feet - 10 feet  
**BLOOM TIME:** August - September  
**FLOWER COLOR:** Yellow

- 3" blooms of eye-popping color
- Many flowers on own stalks
- Adds dramatic height to the back of borders
- Thrives in a wide range of soils
- Can form large colonies
- Produces many seeds, valuable plant for wildlife



Herbaceous Perennial

# Willow-Leaved Sunflower, *Helianthus salicifolius*



A. Dietr , Lady Bird Johnson Wildflower Center



Julie Makin, Lady Bird Johnson Wildflower Center

**HEIGHT:** 8'-10'

**SPREAD:** 1' - 3'

**BLOOM TIME:** Sept – Oct

- Blooms August to Frost
- Long, narrow, drooping leaves
- Tolerates Clay Soil
- Good for Cut Flowers



Herbaceous Perennial

# FALSE SUNFLOWER or OXEYE SUNFLOWER, *Heliopsis helianthoides*



Thomas L. Muller, .  
Lady Bird Johnson  
Wildflower Center

**HEIGHT:** 36"

**BLOOM TIME:** June to August

**FLOWER COLOR:** Yellow

- Yellow daisy-like flowers all summer
- Clump forming, but fans to about 3'
- Great cut flower for arrangements
- Deadhead to prevent reseeding
- Hardy, easy to grow; excellent beginner plant
- Good choice for clay soil and dry spots



R. W. Smith, Lady Bird Johnson Wildflower Center



Herbaceous Perennial

# Blue Flag Iris, *Iris versicolor*



John Hixson, Lady Bird Johnson Wildflower Center



Bennie Bengston, Lady Bird Johnson Wildflower Center

**HEIGHT:** 2-3 ft.

**BLOOM TIME:** May - August

**FLOWER COLOR:** Blue-purple with yellow sepals

- Several flowers on 2-3 ft. scapes in late spring, early summer, attractive strap like foliage overtops scapes all summer
- Good for freshwater wetlands and pond margins
- Spreads steadily by rhizomes which can be submerged up to 6"
- Cut dead foliage to avoid pest and disease problems
- Wear gloves when handling the poisonous rhizomes



Herbaceous Perennial

# GAYFEATHER or BLAZING STAR,

## *Liatris spicata*



Julie Makin, Lady Bird Johnson Wildflower Center

**HEIGHT:** 18" - 30"

**BLOOM TIME:** July - August

**FLOWER COLOR:** Purple

- Bright purple spikes shoot out of grassy leaves blooms from top down
- Easily grown in many soil types
- Stunning as cut flowers
- Corms multiply close to original, forming dense group
- Good for rain gardens, tolerates drought, clay soil



Cornell University  
Cooperative Extension  
Dutchess County

Replaces: Cut-leaf Teasel, *Dipsacus laciniatus* and  
Purple Loosestrife, *Lythrum salicaria*



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Herbaceous Perennial

# CARDINAL FLOWER, *Lobelia cardinalis*



R. W. Smith,  
Lady Bird Johnson  
Wildflower Center



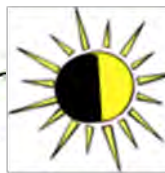
Steven Faucette, Lady Bird Johnson Wildflower Center

**HEIGHT:** 24" - 48"

**BLOOM TIME:** July - September

**FLOWER COLOR:** Scarlet Red

- Intense scarlet red flowers
- Needs moisture, great rain garden plant
- Will naturalize



Replaces: Yellow Flag Iris, *Iris pseudacorus* and Garden and Purple Loosestrife, *Lysimachia vulgaris*, *Lythrum salicaria*

Herbaceous Perennial

# GREAT BLUE LOBELIA or BLUE CARDINAL FLOWER. *Lobelia siphilitica*



Bransford, W.D. and Dolphia, Lady Bird Johnson Wildflower Center



Faucette, Steven, Lady Bird Johnson Wildflower Center

**HEIGHT:** 18" - 24"

**BLOOM TIME:** August - September

**FLOWER COLOR:** Blue-Violet

- Pretty blue spires give a strong vertical line to gardens
- May self-sow profusely
- Carefree plant for moist to wet areas
- All parts of plant are poisonous if ingested
- Tolerates dense shade, great for woodland gardens, wet woods, stream banks, marshes, and meadows



Replaces: Purple Loosestrife, *Lythrum salicaria* and Yellow Flag Iris, *Iris pseudacorus*

Herbaceous Perennial

# WILD BEE BALM, *Monarda fistulosa*



Thomas L. Muller,  
Lady Bird Johnson  
Wildflower Center

**HEIGHT:** 2 – 4 feet

**BLOOM TIME:** July – September

**FLOWER COLOR:** Lavender

- Great naturalizing wildflower
- Easy to grow
- Needs good air circulation
- Has mildew resistance
- Tolerates poor soil and Black Walnut



Replaces: Purple Loosestrife, *Lythrum salicaria*

Herbaceous Perennial

# GOLDEN GROUNDSEL, GOLDEN GORUNDWORT, *Packera aurea*



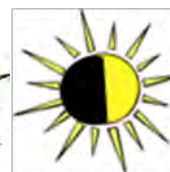
**HEIGHT:** 6-30"

**BLOOM TIME:** April

**FLOWER COLOR:** Yellow

- Yellow daisy-like flowers on 12-24" stems
- Thrives in moist shady locations
- Mulch and keep soil moist
- Good for rain gardens, sides of streams or ponds, or bog gardens
- Also sold as *Senecio aureus*

W. D. and Dolphia Bransford, Lady Bird Johnson Wildflower Center



Cornell University  
Cooperative Extension  
Dutchess County

Replaces: Garden Loosestrife, *Lysimachia vulgaris*



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Herbaceous Perennial

# BLACK-EYED SUSAN, *Rudbeckia hirta*

Sally and Andy Wasowski, Lady Bird Johnson Wildflower Center



R. W. Smith, Lady Bird Johnson Wildflower Center

**HEIGHT:** 36"

**BLOOM TIME:** July – September

**FLOWER COLOR:** Yellow w/Dark Eyes

- Long blooming cheerful rays of yellow to bring back childhood memories
- Deadhead to keep from reseeding and encourage repeat blooms
- An easy care plant for the sunny garden, appreciates good air circulations and well-drained soil
- Tolerates deer, clay soil and air polluti



Replaces: Garden Loosestrife, *Lysimachia vulgaris*

Herbaceous Perennial

# GREEN-HEADED CONEFLOWER, *Rudbeckia laciniata*



W. D. and Dolphia Bransford, Lady Bird Johnson Wildflower Center



R.W. Smith, Lady Bird Johnson Wildflower Center

**HEIGHT:** 3 – 7 feet

**BLOOM TIME:** Summer

**FLOWER COLOR:** Yellow with green cone

- Tall, stately native wildflower
- Makes great cut flowers
- Attracts bees, butterflies, and birds
- Perfect for soggy soils along stream banks and pond edges
- Deer sometimes nibble on it
- Spreads easily by underground stems, appropriate for large areas



Replaces: Cup-Plant, *Silphium perfoliatum* and Garden Loosestrife, *Lysimachia vulgaris*

Herbaceous Perennial

# SEDUM or STONECROP, *Sedum ternatum*



Alan Cressler,  
Lady Bird Johnson  
Wildflower Center

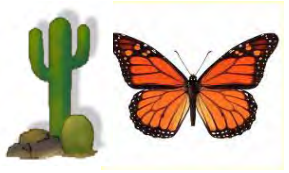
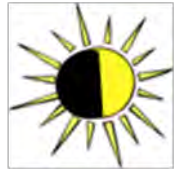
**HEIGHT:** 2" - 6"

**BLOOM TIME:** Late Spring to Summer

**FLOWER COLOR:** Varied

- Great ground cover - easy to grow
- Succulent perennial with fleshy, flat or rounded leaves
- Average to dry soil
- Color and form vary

R. W. Smith, Lady Bird Johnson  
Wildflower Center



Replaces: Cyprus Spurge and Leafy Spurge,  
*Euphorbia cyparissias* and *E. esula*

Herbaceous Perennial

# Wild Senna, *Senna hebecarpa*



George H. Bruso, Lady Bird Johnson Wildflower Center

**HEIGHT:** 2-5 ft.

**BLOOM TIME:** July, August

**FLOWER COLOR:** yellow

- Interesting accent in rear borders, cottage, wildflower or native gardens
- Horizontal root system allows plant to withstand wind and storms
- Black seed pods in fall attract large birds
- Good for restoration projects



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Dutchess County

**Replaces:** Chinese Lespedeza, *Lespedeza cuneata*  
and Knotweed, *Reynoutria* sp.



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Herbaceous Perennial

# GOLDENROD, *Solidago* sp.



W.D. and Dolphia Bransford, Lady Bird Johnson Wildflower Center

**HEIGHT:** 30" - 36"

**BLOOM TIME:** September - October

**FLOWER COLOR:** Yellow

- Many showy species
- Exceptional for areas with clay or wet soil
- Perfect for rain gardens
- Nice for cut arrangements
- Spreads by rhizomes



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Cooperative Extension  
Dutchess County

Replaces: Garden Loosestrife, *Lysimachia vulgaris*



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# NEW ENGLAND ASTER, *Symphotrichum novae-angliae*



Stefan Bloodworth, Lady Bird Johnson Wildflower Center

**HEIGHT:** 36" - 72"

**BLOOM TIME:** August to October

**FLOWER COLOR:** Blue to Purple

- Purple petals w/yellow eyes brighten the fall garden
- Attractive in borders, cottage, butterfly, and rain gardens
- A native flower that will naturalize
- Pinch back before mid-July to encourage bushiness and control height



Replaces: Purple Loosestrife, *Lythrum salicaria*



Herbaceous Perennial

# SWAMP VERBENA, BLUE VERVAIN,

## *Verbena hastata*

R. W. Smith, Lady Bird Johnson  
Wildflower Center

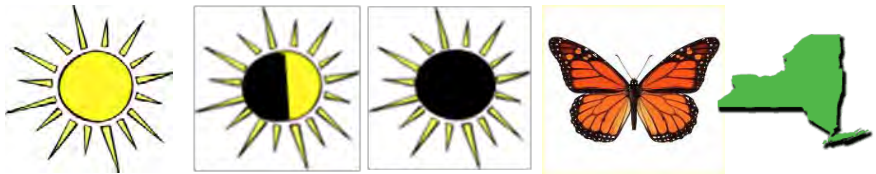


**HEIGHT:** 2-5 ft.

**BLOOM TIME:** July - September

**FLOWER COLOR:** Purplish blue

- Stout-stemmed with numerous, showy pencil-like flower spikes branched like a candelabra
- Moist soil
- Attracts birds
- Special value to native bees, Common Buckeye butterfly



Mariann Watkins, Lady Bird Johnson Wildflower Center

Replaces: Purple Loosestrife, *Lythrum salicaria*

Herbaceous Perennial

# NEW YORK IRONWEED, *Vernonia noveboracensis*

**HEIGHT:** 4 feet – 6 feet

**BLOOM TIME:** August – September

**FLOWER COLOR:** Purple

- Deep purple 1” heads on 3”– 4” clusters
- Ideal rain garden plant
- Excellent background plant
- Likes moist to wet soils, but tolerates wide range
- Tolerates clay soil



Stefan Bloodworth,  
Lady Bird Johnson  
Wildflower Center

W. D. and Dolphia Bransford, Lady Bird Johnson Wildflower Center



Replaces: Purple Loosestrife, *Lythrum salicaria*

Herbaceous Perennial

# HEART LEAVED MEADOW PARSNIP,

*Zizia aptera*



**HEIGHT:** 1-3 ft. .

**BLOOM TIME:** May, June

**FLOWER COLOR:** bright yellow

- Tolerates most light conditions
- Prefers moist soil
- Plants occur singly or in clumps
- Good cut flower
- Food source for Black Swallowtail butterfly larva



Sally and Andy Wasowski, Lady Bird Johnson Wildflower Center



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Replaces: Lesser Celandine, *Ficaria verna*



# GOLDEN ALEXANDERS, *Zizia aurea*



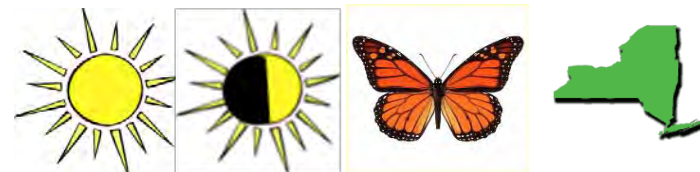
Norman G. Flaigg, Lady Bird Johnson Wildflower Center

**HEIGHT:** 1-3 ft.

**BLOOM TIME:** April - August

**FLOWER COLOR:** Yellow

- Conspicuous blooms have fruity fragrance
- Erect branching reddish stems
- Good cut flower
- Dry seed heads add summer interest



# LADY'S MANTLE, *Alchemilla mollis*



Unknown author, Cornell Plantations

**HEIGHT:** 16" -18"

**BLOOM TIME:** June - August

**FLOWER COLOR:** Yellow

- Clouds of chartreuse flowers float above the foliage
- Ruffled leaves catch water droplets that glisten in the sun
- Great cut flower, and dried flower
- Tolerates frost
- Prefers alkaline soil, requires well-drained soil



# GLOBE THISTLE, *Echinops ritro*



**HEIGHT:** 3 feet – 4 feet

**BLOOM TIME:** July - early August

**FLOWER COLOR:** Blue

- Unusual spiny globes on erect stems
- A flower Dr. Seuss could have made
- Prickly leaves may require hand protection
- Great for mid to back border
- Tolerates poor soil, avoid rich soil
- Tap root difficult to divide, transplant
- Tolerates rabbits

GardenIng.Cornell.edu





Herbaceous Perennial

# Sea Holly, *Eryngium amethystinum*



Image Source: Wikimedia Commons

**HEIGHT:** 24-30”

**BLOOM TIME:** July-August

**FLOWER COLOR:** Deep Blue

- Blue globes combined with unusual spiky, silvery green bracts and leaves will dress up any rock garden
- Tolerant of salt
- Makes fresh and dried arrangements special
- A real conversation piece for the perennial garden



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Replaces: Canada Thistle, *Cirsium arvense* and  
Cut-leaf teasel, *Dipsacus laciniatus*



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# CUSHION SPURGE, *Euphorbia polychroma*



From Missouri Botanical Garden



**HEIGHT:** 12" – 15"

**BLOOM TIME:** Spring

**FLOWER COLOR:** Chartreuse

- A vibrant cushion of flowers
- Cut back after flowering to keep compact
- Sap is a skin irritant



Herbaceous Perennial

# LEOPARD PLANT, BIG LEAF LIGULARIA

## *Ligularia dentata*



Unknown, Cornell Plantations.

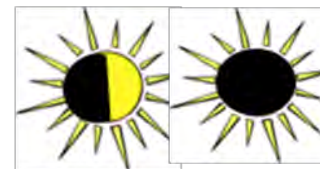


**HEIGHT:** 3' - 4'

**BLOOM TIME:** July - September

**FLOWER COLOR:** Yellow-Orange

- Wand-like yellow-orange daisy-like flowers rise 3 to 4 feet above huge, leathery foliage
- Mounding habit.
- Mulch and keep soil moist. Will wilt if not kept moist
- Protect from strong winds
- Good for rain gardens, sides of streams or ponds, or bog gardens



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Replaces: Garden Loosestrife, *Lysimachia vulgaris*



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# Grasses

## CCE Dutchess County

Ornamental Alternatives  
to Invasive Species  
October 2016



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# Targeted Invasive Grasses

Botanical Name	Common Name	DEC Classification
<i>Glyceria maxima</i>	Reed Manna Grass	prohibited
<i>Imperata cylindrica</i> ( <i>I. arundinacea</i> , <i>Lagurus cylindricus</i> )	Cogon Grass	prohibited
<i>Miscanthus sinensis</i>	Chinese Silver Grass	regulated
<i>Opismenus hirtellus</i>	Wavyleaf Basketgrass	prohibited
<i>Phragmites australis</i>	Common Reed Grass	prohibited
<i>Phyllostachys aurea</i>	Golden Bamboo	prohibited
<i>Phyllostachys aureosulcata</i>	Yellow Groove Bamboo	prohibited

# Alternatives

Botanical Name	Common Name
<i>Bouteloua gracilis</i>	Mosquito Grass or Blue Grama**
<i>Calamagrostis brachytricha</i>	Feather Reed Grass
<i>Muhlenbergia capillaris</i>	Pink Muhlygrass**
<i>Panicum virgatum</i>	Switchgrass**
<i>Schizachyrium scoparium</i>	Little Bluestem**
<i>Sporobolus heterolepis</i>	Prairie Dropseed**
<i>Tridens flavus</i>	Purpletop Tridens**



# MOSQUITO GRASS or BLUE GRAMA, *Bouteloua gracilis*



**HEIGHT:** 18"

**BLOOM TIME:** June - August

**FLOWER COLOR:** Brownish purple

- A low growing native grass that resembles a mass of mosquito larvae
- Changes color to provide year-round interest
- Ideal for rock gardens
- Very easy care

Sally and Andy Wasowski, Lady Bird Johnson Wildflower Center



# PINK MUHLYGRASS, *Muhlenbergia capillaris*



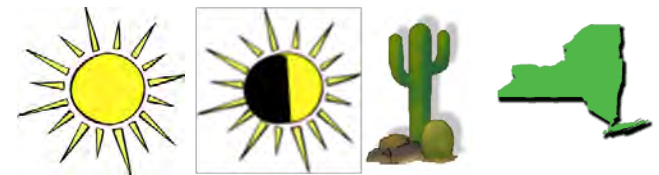
**HEIGHT:** 2-3 feet

**BLOOM TIME:** September - November

**FLOWER COLOR:** Pink tinged

- Clump-forming, warm season, perennial grass
- Noted for its attractive summer foliage and spectacular clouds of fall flowers
- Does not spread by rhizomes
- Zone 5-9

Sally and Andy Wasowski, Lady Bird Johnson Wildflower Center



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# SWITCHGRASS, *Panicum virgatum*



**HEIGHT:** 3-6 feet

**BLOOM TIME:** July

**FLOWER COLOR:** Pink tinged

- Tall leafy grass
- Large open clusters on wiry stalks
- Flower panicles hover over the foliage like an airy cloud.
- Changes color to provide year-round interest
- Zone 5-9

Sally and Andy Wasowski, Lady Bird Johnson Wildflower Center





# Little Bluestem, *Schizachyrium scoparium*



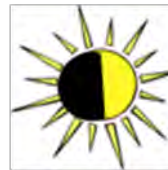
**HEIGHT:** 3 feet

**BLOOM TIME:** fall

**FLOWER COLOR:** white

- Very ornamental bunchgrass with fine-textured foliage, forms very dense mounds
- Blue-green stems in August become radiant mahogany-red with white, shining seed tufts in the fall
- readily reseeds, not for small gardens

Sam C. Strickland, Lady Bird Johnson Wildflower Center



# PRAIRIE DROPSEED, *Sporobolus heterolepis*



**HEIGHT:** 2-3 feet

**BLOOM TIME:** August - October

**FLOWER COLOR:** Pink and brown tinted

- Clump forming
- Fine textured medium-green leaves turn golden to light bronze in winter
- Open, branching flower panicles
- Slow growing and slow to establish
- Zone 3-9



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Kathryn E. Bolin, Lady Bird Johnson Wildflower Center



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# PURPLETOP TRIDENS, *Tridens flavus*



Extension.umass.edu

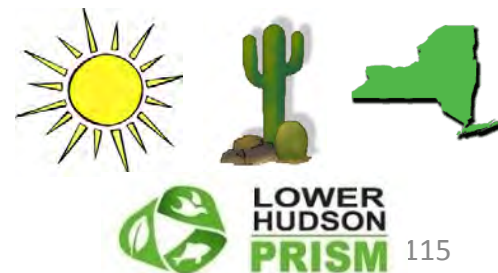
R. W. Smith, Lady Bird Johnson Wildflower Center

**HEIGHT:** 2-4''

**BLOOM TIME:** July - October

**FLOWER COLOR:** Brown to rose-purple

- Densely tufted grass with thin blades
- Slender, dense, spike-like inflorescences
- May self-seed
- Zone 5-9



# FEATHER REED GRASS, *Calamagrostis brachytricha*

**HEIGHT:** 36" - 42"

**BLOOM TIME:** September - November

**FLOWER COLOR:** Pink-tinged

Forms clumps of stiff upright leaves and pinkish plumes

Use as an accent or in groups

This one's tough! Tolerates clay soil, black walnut trees, and pollution but likes moist soil

Perennial

