



# *Plant This Not That*



A guide to the benefits of growing native plants *Not* invasive plants in Union County, New Jersey.

## Introduction

When selecting plants for the garden or yard, the major line of thought goes towards the ornamental appeal of the plant. Very little thought is paid to possible ecological consequences of introducing that plant into a new environment. Consequences like displacement, foreign diseases, and disproportionate competition are just some of the many outcomes of inadvertently planting an invasive plant species.

An invasive plant is a plant that is not native to the land and does not belong here. These plants have few, if any, natural controls like insects or disease that might keep their populations in check.

Invasive plants can cause serious ecological damage and threaten the health of many native species.

Native plants, or plants that belong to an area, are adapted to the existing soil and weather conditions, are better at controlling soil erosion, take up storm water more effectively, attract native wildlife, and can increase the biodiversity of an ecosystem. They should always be planted in lieu of invasive plants.

This booklet is designed to educate homeowners and gardeners alike of the benefits of planting native plants rather than invasive plants. Although there are many, many invasive plants present in New Jersey, this booklet focuses on just a few of the more commonly chosen species and provides some native substitutes.

*“Through this, my Girl Scout Gold Award,  
I hope to encourage residents  
to ‘Plant This, Not That!’”*

– Natalie Salinaro, *Girl Scout Gold Award*

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### On the Cover

Pictured from left to right: the Dense Blazing Star (*liatris spicata*), a tall, flowering perennial native to this area is preferred over the invasive Purple Loosestrife (*Lythrum salicaria*). Please see pages 4 and 5 to learn more.

# Plant This Grass

## NATIVE

### Switchgrass

*Panicum virgatum*

Switchgrass is a warm-season grass with a purplish seedhead. Its fall color, a pale yellow, persists throughout the winter.



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- Perennial
- 3-6 feet
- Light Requirements: sun, part shade
- Soil Requirements: dry to moist and tolerates sandy, sandy loam, medium loam, clay loam, clay, limestone-based
- Water Use: medium

**Why?** Switchgrass provides cover and nesting material for many songbirds and gamebirds. It attracts butterflies and birds and is very deer resistant.

# Not That Grass

## INVASIVE

### Chinese Silvergrass

*Miscanthus sinensis*

Chinese silvergrass is a short inconspicuous grass with silvery tips and feathery pink or silver flowers. It is an invasive species, originating in Southeast Asia.



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- Perennial
- 1-2 feet
- Light Requirements: prefers full sun
- Soil Requirements: grows in a variety of soils including well-drained and nutrient poor

Chinese silvergrass displaces many native species and form large patches due to its ability to grow in areas not suitable for agriculture like roadsides and steep embankments.

**Why?**

# Plant This Perennial

## NATIVE

### Dense Blazing Star

*Liatris spicata*

Dense blazing star is a taller shrub with purple flower spikes, often described as fuzzy or feathery.



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- Perennial
- 3-4 feet
- Blooms July-September
- Light Requirements: sun
- Soil Requirements: moist, well-drained soils
- Water Use: medium

## Why?

Dense blazing star's fragrant flowers and nectar attract butterflies, bees, and other insects.

# Not That Perennial

## INVASIVE

### Purple Loosestrife

*Lythrum salicaria*

Purple loosestrife is a small bush with magenta flowers spikes, rounded at the base. It is an invasive species, originating in Eurasia: Great Britain and southern Europe to Russia, Japan, and China.



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- Perennial
- 4-10 feet
- Blooms June-September
- Readily adaptable to soil and light

Purple loosestrife outcompetes and displaces many native plants. It provides some food for animals, but is a much lower source of nutrition compared to the native plants. It also reduces coverage and habitat land for waterfowl.

## Why?

# Plant This Shrub

## NATIVE

### Fragrant Sumac

*Rhus aromatica*

Fragrant sumac is a deciduous shrub with blue-green leaves that turn an assortment of colors including orange, red, purple, and yellow in the autumn. It has dark-red berries and yellow flowers.



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- Perennial
- 6-12 feet
- Blooms April-June
- Light Requirements: tolerates sun, part shade, shade
- Soil Requirements: dry or moist rocky soils  
Tolerates sandy, sandy loam, medium loam, clay loam, clay, rocky, caliche type, limestone-based
- Water Use: low

## Why?

*Fragrant sumac is very deer and drought resistant, as well as generally disease and pest-free. Its berries provide winter food for many small animals. It also attracts birds, butterflies, and bees.*

# Not That Shrub

## INVASIVE

### Morrow's Honeysuckle

*Lonicera morrowii*

Morrow's honeysuckle is a small deciduous shrub with hairy stalks and red-orange berries. It is an invasive species, originating in Japan and Korea.



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- Perennial
- Up to 7 feet
- Blooms April-May
- Light Requirements: shade tolerant

*Morrow's honeysuckle displaces many native plants. Its berries and seeds cannot match the nutritional value of native honeysuckle. It encourages nest predation because it cannot provide enough protection for nesting birds.*

## Why?

# Plant This Shrub

## NATIVE

### Possumhaw

*viburnum nudum*

Possumhaw is a dense deciduous shrub with clusters of white flowers and pink or red fruit.



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- Perennial
- 6-12 feet
- Blooms June-July
- Light Requirements: tolerates sun, part shade, shade
- Soil Requirements: wet or dry, acidic
- Water Use: medium

## Why?

Possumhaw's fruit attracts gamebirds, songbirds, shorebirds, and mammals. It does very well in wet soils, more than other viburnums.

# Not That Shrub

## INVASIVE

### Winged Burning Bush

*Euonymus alatus*

Winged burning bush, also called winged euonymus, is a deciduous shrub earning its name from its intense red fall foliage. It is an invasive species, originating from Japan and China.



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- Perennial
- 5-10 feet, can grow up to 20 feet
- Blooms late spring
- Light Requirements: tolerates heavy shade

The winged burning bush grows in impenetrable, dense thickets displacing many native plants.

## Why?

# Plant This Shrub

## NATIVE

### Summer Sweet

*Clethra alnifolia*

Summer sweet, also called sweet pepperbush, is a small deciduous shrub with many clusters of white flowers.



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- Perennial
- 3-12 feet
- Blooms July-August
- Light Requirements: tolerates sun, part shade, shade
- Soil Requirements: moist, wet, acidic
- Water Use: high

## Why?

Summer sweet is remarkably free of disease, insect, or physiological problems. It has high salt-spray tolerance and is an excellent addition to coastal gardens. Its berries and flowers attract birds, bees, butterflies, and hummingbirds.

# Not That Shrub

## INVASIVE

### Butterfly Bush

*Morus alba*

Butterfly bushes are medium sized shrubs that have a range of colorful flowers. They attract many butterflies, moths, and hummingbirds. This is an invasive species, originating in China.



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- Perennial
- 2-15 feet
- Blooms early spring to first frost
- Light Requirements: full sun, part sun
- Soil Requirements: sand to loam
- Water Use: dry to medium

Butterfly bushes can produce a million seeds in one season—carried by animal or by wind. It displaces many native species, creating dense thickets. Although this bush does attract many pollinators, the pollinators prefer native plants.\*

## Why?

\*Please note that some nurseries and breeders claim that they sell sterile butterfly bushes—this is almost never the case. "Sterile" plants have historically often reverted back to the pollen producing original version.

# Plant This Shrub

## NATIVE

### Virginia Sweetspire

*Itea virginica*

Virginia sweetspire is a small deciduous shrub with small white flowers and reddish purple fall foliage.



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- Perennial
- 3-8 feet
- Blooms April-June
- Light Requirements: part shade
- Soil Requirements: moist, acidic. Will tolerate sandy, sandy loam, medium loam, clay loam, and clay
- Water Use: high

## Why?

Virginia sweetspire is a plant used often for erosion control, and, as it can tolerate swamp-like areas, is perfect to plant by a river. It also provides cover and nectar for animals.

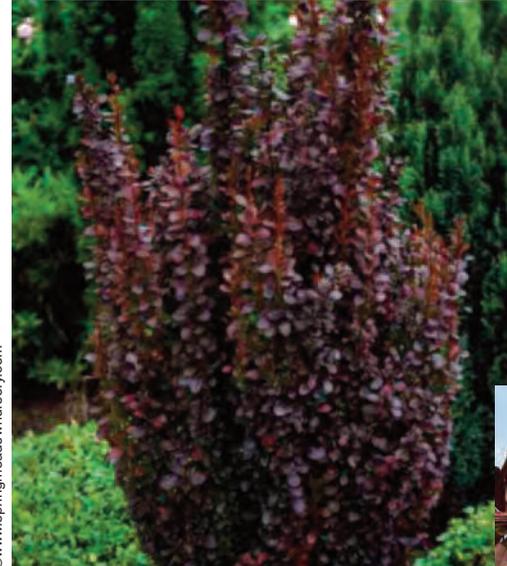
# Not That Shrub

## INVASIVE

### Japanese Barberry

*Berberis thunbergii*

Japanese Barberry is a spiny deciduous shrub with oval shaped leaves that range from green, bluish green, or even dark reddish purple. It blooms with pale yellow flowers and has bright red berries. It is an invasive species, originating in Japan.



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- Perennial
- 2-8 feet
- Blooms April-May
- Light Requirements: tolerates full sun or deep shade

Japanese Barberry forms dense thickets, which displaces many native plant species. It alters the pH of the soil and can alter nitrogen levels and the depth of the litter layer in forests. Few animals chose to feed on the berries. Research shows a link between Lyme disease & Japanese barberry.

## Why?

\*Please note that some nurseries and breeders claim that they sell sterile Japanese Barberry—this is almost never the case. "Sterile" plants have historically often reverted back to the pollen producing original version.

# Plant This Tree

## NATIVE

### Red Maple

*Acer rubrum*

Red maple is a large deciduous shade tree with red flowers and a brilliant autumn foliage.



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- Perennial
- 50-100 feet
- Blooms March-April
- Light Requirements: sun, part shade
- Soil Requirements: very tolerant of most soils, prefers slightly acidic, moist conditions
- Water Use: high

### Why?

Red maple is an important tree for small mammals, birds, and insects. It has a special value to honey bees.

# Not That Tree

## INVASIVE

### Norway Maple

*Acer platanoides*

Norway maple is a large deciduous tree with dark green broad leaves that turn yellow in the fall. It has milky sap. It is an invasive species originating in Europe and Western Asia.



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- Perennial
- Up to 90 feet
- Light Requirements: tolerant of wide range of light conditions
- Soil Requirements: tolerant of wide range of soil conditions

Norway maples cast a deep shade on the forest floor, preventing other plants from growing and displacing native species. They can decrease nutrient availability in the soil.

### Why?

# Plant This Tree

## NATIVE

### White Fringetree

*Chionanthus virginicus*

White fringetree is a showy deciduous tree with large white blossoms. It can have dark blue fruit and has dark green leaves. White fringetree is one of the last trees to bear leaves in the spring and often appears dead until then.



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- Perennial
- 15-30 feet
- Blooms April-May
- Light Requirements: part shade
- Soil Requirements: loose, moist, sandy
- Water Use: high

## Why?

White fringetree's berries, twigs, and foliage are used by many animals for food and shelter.

# Not That Tree

## INVASIVE

### Callery Pear

*Pyrus calleryana*

Callery pear is a large, sometimes thorny tree with white flowers and hard, woody fruits. Its leaves are dark green and leathery but turn scarlet or purple in the fall. It is an invasive species, originating in China and Vietnam.



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- Perennial
- 30-50 feet
- Blooms early spring
- Light Requirements: prefers full sun but will tolerate shade
- Water Use: will tolerate drought

Callery pear forms dense thickets that make it difficult for native plants to grow. It produces an impressive amount of seeds, spread by birds and small animals alike. This tree has no natural controls like insects or diseases.

## Why?

# Plant This Groundcover

## NATIVE

### Christmas Fern

*Polystichum acrostichoides*

Christmas fern is an evergreen fern with glossy green fronds. It grows in clusters and is a good groundcover.



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- Perennial
- 1-2 feet
- Light Requirements: part shade, shade and does not tolerate too much sun
- Soil Requirements: moist, acid, humus-rich. Tolerates sandy, sandy loam, medium loam, acid based. Does not tolerate clay soils or standing water—must have good drainage
- Water Use: medium

**Why?** Christmas fern offers exceptional cover for many small animals.

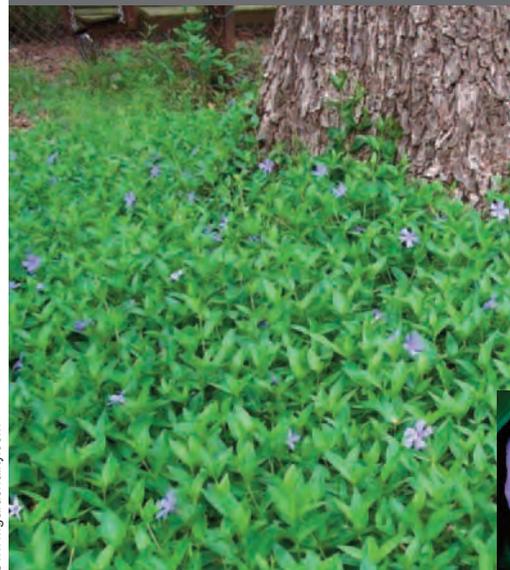
# Not That Groundcover

## INVASIVE

### Common Periwinkle

*Vinca minor*

Common periwinkle is an evergreen vine that usually grows as a mat on the forest ground. It has dark green leaves and its flowers range in color from blue to lavender to white. This is an invasive species, originating in Europe.



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- Perennial
- 3-6 inches
- Blooms midspring-summer
- Light Requirements: sun, heavy shade
- Soil Requirements: tolerant of a variety of soil conditions but prefers well-drained and rich

Common periwinkle grows rapidly and forms dense mats along the forest floor, displacing many native species.

**Why?**

# Plant This Shrub

## NATIVE

### Red Bearberry

*Arctostaphylos uva-ursi*

Red bearberry is a trailing, small evergreen shrub that can be used as a groundcover with leathery leaves that change from dark green to red-dish-purple in autumn. It has pink or white flowers and bright red berries.



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- Perennial
- 3-5 feet—spreads up to 15 feet
- Blooms March-June
- Light Requirements: tolerates sun, part shade, shade
- Soil Requirements: dry or moist sandy, rocky, acidic. Soil should not be fertilized
- Water Use: low

**Why?** Red Bearberry is very heat, cold, and drought resistant. It attracts butterflies and hummingbirds. Its berries are favored by animals and are edible. Native Americans cooked with them as well as used them for treatment of kidney diseases and urinary tract infections.

# Not That Vine

## INVASIVE

### English Ivy

*Hedera helix*

English Ivy is an evergreen vine with dark green leaves with white veins. It can also produce small clusters of pale yellow-green flowers under certain conditions after years. It is an invasive species, originating in Europe, western Asia, and northern Africa.



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- Perennial
- Light Requirements: tolerates a range of light conditions
- Soil Requirements: slightly acidic, moist but not too wet

English ivy girdles and kills trees and branches. Its weight makes host trees susceptible to collapse. On the ground, it is dense, displacing other native plants. It hosts pathogens that are dangerous to many trees and other native plants.

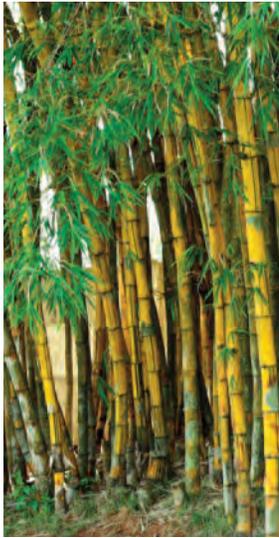
**Why?**

# Do Not Plant This

## Beware the Bamboo!

### Common bamboo

*Bambusa vulgaris*



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### Golden bamboo

*Phyllostachys aurea*



©www.headmagnet.com

### Arrow bamboo

*Pseudosasa japonica*



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- Bamboo is a reedy like grass that grows like crazy. It has woody stems and green, limp leaves. This is an extremely invasive species, originating in Asia.
- Light Requirements: full sun, shade
- Soil conditions: will tolerant almost all soil conditions but prefers acidic loam

## Why?

Bamboo is the fastest growing woody grass in the world, growing up to 3 inches a day. They form intensely dense thickets that are impossible to get through, thus displacing many native species. They spread vigorously and often can get out of control. Once bamboo is planted, it is almost impossible to eradicate.

## Eradication Methods

Educate yourself about which plants are invasive and which native. The best method of prevention and control is not planting an invasive species in the first place. However, if you do discover an invasive species, here are some methods to eradicate the plant.

### MECHANICAL

#### Hand pulling

Pull as soon as plants are long enough to grasp and before they can produce seeds.

#### Frequent mowing/cutting

Most effective when combined with herbicide treatment

<http://www.njisst.org/eradication/InvasivePlantEradicationStrategies.pdf>

### HERBICIDE

#### Basal Bark Method

"Prepare a mixture of 25% triclopyr plus 75% horticultural oil and apply to the basal parts of the shrub to a height of about a foot from the ground. Thorough wetting is necessary for good control; spray until run-off is noticeable at the ground line."

#### Cut Stem Method

"Cut stems at or near ground level and immediately apply a 25% solution of glyphosate or triclopyr mixed in water to the cut stump surface, making sure to cover the entire surface."

**Glyphosate**—non-selective herbicide, will kill or harm other plants that come into contact with spray.

**Triclopyr**—selective herbicide, will only kill broadleaf plants. Can be used in grasslands or where desirable grasses grow.

### WARNING: READ LABELS CAREFULLY AND FOLLOW ALL INSTRUCTIONS

- Recommended personal protective gear and clothing
- Can cause groundwater contamination

For a full overview of eradication regulations and tips, go to:

<http://www.njisst.org/eradication.htm>

## GLOSSARY

**Annual:** living only one year or growing season.

**Perennial:** having a life cycle lasting more than two years.

**Deciduous:** shedding the leaves annually, as certain trees and shrubs.

**Displacement:** taking up or over areas usually reserved for native plant species, leaving the native plants nowhere to grow.

**Girdle:** the choking of a tree branch, often by a vigorously wrapped vine.

**Loam:** a rich soil containing a mixture of sand, silt, and clay.

**Mesic:** growing in conditions of medium water supply.

**Monoculture:** a single, homogeneous culture without diversity or dissension.

## Resources

**Please be sure to carefully research all plants before adding them to your garden. For more information regarding a plant's native status, go to:**

<http://plants.usda.gov/java/>

<http://www.wildflower.org/plants/>

<http://npsnj.org/>

**For a full overview of eradication regulations and tips, go to:**

<http://www.njisst.org/eradication.htm>

**Contact the NJ Invasive Species Strike Team**

(908) 722-1200

<http://www.njisst.org/observation.htm>

## Support our local parks by participating in the Union County Adopt-A-Park Program.

Residents can learn more about native and invasive plants  
and help to remove invasives from our parks.

For more info visit our website: <http://ucnj.org/>

## Nearby Nurseries

Listed below are just a few nurseries throughout Union County that carry some of the native plants mentioned in this booklet.

### Amberg Perennial Farm and Garden Center

2100 Lamberts Mill Rd  
Scotch Plains, NJ  
(908) 233-0873

### Hall's Garden Center

700 Springfield Ave  
Berkeley Heights, NJ  
(908) 665-0331

### Parker Gardens

1325 Terrill Rd  
Scotch Plains, NJ  
(908) 322-5552

### Schieferstein Farm

393 Madison Hill Rd  
Clark, NJ  
(732) 388-3273

### Williams Nursery

524 Springfield Ave  
Westfield, NJ  
(908) 232-4076