



*Plant This*

*Not That*



*A guide to the benefits of  
growing native plants*

*Not  
invasive plants in  
Union County,  
New Jersey.*



A Service of the Union County  
Board of County Commissioners

**UNION COUNTY**  
*We're Connected to You!*

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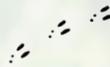
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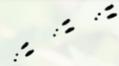
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# GLOSSARY

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

**Biodiversity:** the number of biological species that exist in a given region. An area that is “biodiverse” is generally thought to have a wide variety of native species.

**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.

**Greenway:** A linear piece of open space consisting of contiguous or non-contiguous parcels of land.

**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.

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

## Plants with these symbols attract:



Bees



Birds



Butterflies



Hummingbirds

Plants with this symbol provide wildlife cover:



Plants with this symbol are deer-resistant:

### 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 salicria*). Please see pages 4 and 5 to learn more.

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## Why Should We Plant Native Species?

When selecting plants for the garden or yard, most homeowners consider only the ornamental appeal of the plant. Little thought is paid to the possible ecological consequences of introducing invasive plants into a new environment. Invasive plants are generally non-native to the country, region or ecosystem in which they are planted or have spread to.

These plants have few if any, checks and balances, such as insects, fungi, herbivores or even disease, in their new location. Left unmanaged or unchecked, invasive plant populations can become monocultures, competing with and displacing existing native vegetation. Further, these plants provide little or no wildlife value and therefore can dramatically decrease the biodiversity of a site.

When property owners include native species in their gardens or yard plantings, they can create a sort of “greenway” effect, attracting pollinators, birds and other species of wildlife to their oasis. Planting a diverse number of native trees, shrubs, wildflowers and grasses will in turn result in a more diverse number of native insects, birds and other herbivores that will depend on these plants for nectar, seeds, fruits, other food and winter habitat.

This booklet, originally designed and written as a Girl Scout Gold Award project by Natalie Salinaro, a Union County resident, can help you get started with your native plantings. We’ve provided pictures and information about several common invasive plants along with some great native alternatives. We encourage you to visit the websites and organizations listed on page 24 for more detailed information and resources and hope that you will take this first step towards creating a better, more healthy ecosystem right in your own backyard!

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

– Natalie Salinaro, Girl Scout Gold Award

# REMEMBER WHAT YOU ARE PROTECTING

New Jersey is home to 2,000 native plants, 327 migrant and resident birds, 90 mammals, 44 reptiles, 35 amphibians, 421 marine and freshwater fish, 180 damselflies and dragonflies and 151 butterflies. This list includes 424 threatened and endangered species, some which are imperiled worldwide. This abundant biodiversity is a result of extremely diverse habitats, stretching from the Highlands through the Piedmont, into the Pinelands (a globally unique ecosystem) and through the shore regions.

Invasive species threaten the future of our natural heritage as well as our economy\*. By planting native vegetation and eradicating invasive plants in your yard, you can do your part to help increase biodiversity throughout Union County and New Jersey!

\* *NJ Invasive Species Strike Team* - **[NJISST.org](http://NJISST.org)**

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# 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.



www.wildflower.org



©www.wildflower.org



- 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. The seeds provide food for turkeys, doves and other songbirds. Switchgrass also serves as a host plant to several butterfly species, provides winter interest in the garden, its deep roots help to control soil erosion and it is deer resistant.

# Not That Grass



## 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.



- 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 is often planted as an ornamental along roadways, at fast food restaurants and in yards.*

## Why?

# Plant This Perennial

NATIVE

## Dense Blazing Star

### *Liatris spicata*

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



Drew Avery

Drew Avery



- 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. Blazing Star is deer resistant.

# 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.



www.galvbay/invasives.org

www.flickr.com/photos/harryhunt

- 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. The European leaf-eating beetle, a biological control for this plant, has been released in recent years by the NJ Department of Agriculture to successfully manage this invasive.*

## 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.



www.wildflower.org

www.wildflower.org



- 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



www.amc.nh.org

## 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.



www.gobotany.newenglandwild.org

- 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

## American Cranberry Bush

*Viburnum opulus*  
*Var. americanum*

Attracts birds and butterflies.  
Good fall color. Flower is showy  
and snow-white. Fruit is red and  
abundant



County of Union, NJ



County of Union, NJ



- Perennial
- 8-12'
- Bloom April-May
- Moist, well drained soils

- Light Requirements: full sun to partial shade
- Soil Requirements: tolerates wide range of soils
- Water Use: medium

## Why?

Attracts birds, butterflies and other wildlife. Good fall color. Flower is showy. Fruit is edible and showy. Salt tolerant.

# Not That Shrub

INVASIVE

## Winged Burning Bush

*Euonymus alatus*

Winged burning bush, also called winged euonymus, bears twigs have corky ridges is a deciduous shrub. Burning Bush earns its name from its intense red fall foliage. An invasive species, originating from Japan and China.



<https://plantexplorer.longwoodgardens.org>

- 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

## Buttonbush

### *Cephalanthus occidentalis*

Deciduous shrub with round, showy, white flowers which appear pincushion-like. Flower heads mature into hard spherical ball-like fruits.



- Perennial
- 5-12 feet
- Blooms June

- Full sun to part shade
- Soil Requirements: wet but can also tolerate drier soils
- Water Use: high

## Why?

Buttonbush is a multi-stemmed shrub whose branches often become twisted with age giving it an interesting shape and winter interest. Flowers are showy and fragrant and attract a wide variety of bees and butterflies. The leaves of buttonbush are a larval host for some butterflies and often turn shades of red in the fall. Great in low spots in the garden or at the edge of a pond. Deer resistant.

# Not That Shrub

INVASIVE

## Butterfly Bush

*Buddleia* spp

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.



- 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. \**

*\*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.*

## Why?

# Plant This Shrub

NATIVE

## Oakleaf hydrangea

*Hydrangea quercifolia*

Oakleaf hydrangea has deeply lobed leaves that resemble oak tree leaves and is a coarsely textured shrub with an open crown and white flowers.



www.wildflower.org

www.blythewoodpalms.com



- Perennial
- 3-12 feet
- Blooms June-July
- Full sun to part shade

- Soil Requirements: moist, fertile, well-drained but will tolerate drier conditions
- Water Use: medium

## Why?

Young stems are covered in a felt-like light brown bark, and the larger stems have attractive cinnamon-tan-orange bark that shreds and peels in thin flakes as the shrub matures. Leaves turn rich shades of red, bronze and purple in autumn that persist in winter accompanying the persistent dried flower-heads. Provides good cover for wildlife. Somewhat deer resistant.

# 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.



www.springmeadownursery.com

www.therampantgardner.co.uk

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

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

## Why?

*\*Please note that some nurseries and breeders claim to 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.



www.gardensenses.blogspot.com



www.wildflower.org



- 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. An invasive species originating in Europe and Western Asia.



www.extension.iastate.edu

www.cas.vanderbilt.edu

- 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 Fringe Tree

*Chionanthus virginicus*

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



www.wildflower.org

www.wildflower.org



- Perennial
- 15-30 feet
- Blooms April-May

- Light Requirements: part shade
- Soil Requirements: loose, moist, sandy
- Water Use: high

## Why?

White fringe tree's berries, twigs, and foliage are used by many animals including birds, bees and other pollinators for food and shelter. Serves as a host plant to the fawn sphinx and the rustic sphinx moths. When boiled, the bark was often used by Native Americans as a topical treatment for skin irritations, cuts and infections.

# 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.



- 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 and its branches are prone to ice and storm damage.

## Why?

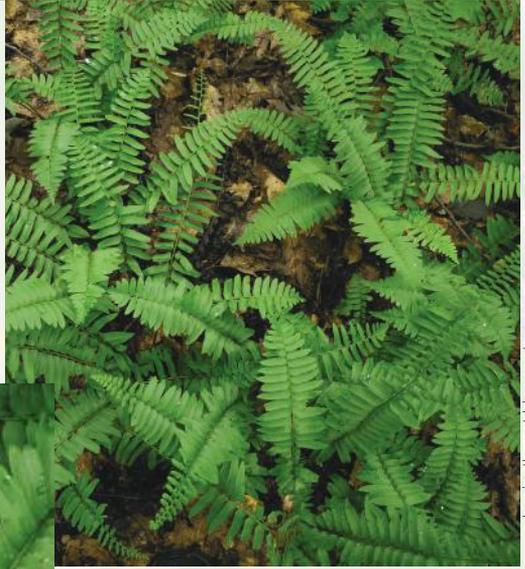
# Plant This Groundcover

NATIVE

## Christmas Fern

*Polystichum acrostichoides*

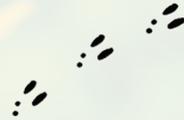
Christmas fern is an evergreen fern with glossy green fronds. It grows in clusters and is a good groundcover.



www.boxingtheneet.blogspot.com



www.boxingtheneet.blogspot.com



- 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



Missouri Botanical Garden

## 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.



Missouri Botanical Garden

- 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?

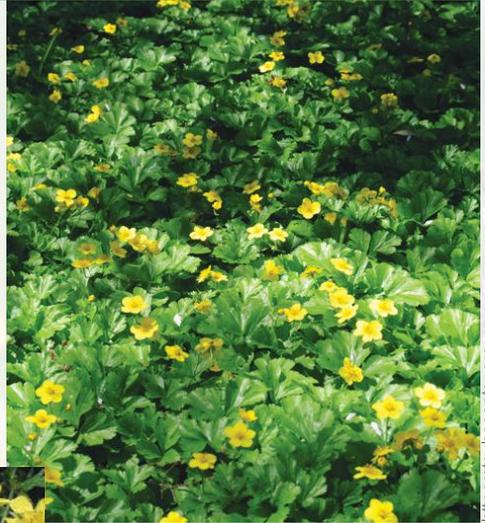
# Plant This Groundcover

NATIVE

## Barren Strawberry

*Waldsteinia fragarioides*

Strawberry-like plant grown primarily as a ground cover with yellow flowers. It is a mat-forming plant (to 6" tall) and spreads by runner-like rhizomes creeping just below the soil surface. 5-petaled yellow flowers which bloom singly or in clusters in spring and trifoliate leaves with wedge-shaped leaflets (each 1-2" long). Flowers and leaves appear on separate stalks. Foliage is evergreen, but tends to bronze up in cold winter climates.



- Perennial
- 6" tall
- Blooms April-July
- Full sun to part shade

- Soil Requirements: Tolerates a wide range of soils. Prefers humusy, slightly acidic soils.
- Water Use: medium

## Why?

Best as a ground cover for small areas, in rock gardens or as a woodland edge plant and can also be used as a good substitute for grass in transitional areas. Tolerates light foot traffic. Attracts pollinators.

# Not That Groundcover

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.

Chris Evans, U. of Illinois



Chuck Barger, U. of Georgia

- 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*



## Golden bamboo

*Phyllostachys aurea*



## Arrow bamboo

*Pseudosasa japonica*



- 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

## HERBICIDE

Some invasive plant populations may require a stronger approach and herbicide application might be the best option. Landscapers who apply herbicide should be trained and licensed to do so, however. Below are some recommended methods of application.

### 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>**

# 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:**

**USDA: Natural Resources Conservation Service**  
[plants.USDA.gov/java/](http://plants.USDA.gov/java/)

**Ladybird Johnson Wildflower Center**  
[wildflower.org/plants/](http://wildflower.org/plants/)

**The Native Plant Society of New Jersey**  
[NPSNJ.org/](http://NPSNJ.org/)

**NJ Invasive Species Strike Team**  
[NJISST.org](http://NJISST.org)

For a full overview of eradication regulations and tips, go to:  
[NJISST.org/eradication.htm](http://NJISST.org/eradication.htm)



**Support our county parks by participating in the  
Union County Adopt-A-Park Program.**

**Residents can learn more about native and invasive plants  
and help to manage invasives in our parks.**

**For more information:  
[UCNJ.org/plant-this-not-that](http://UCNJ.org/plant-this-not-that)**

## 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 Road  
Scotch Plains, NJ  
(908) 233-0873  
**GardenNJ.com**

**Dreyers Farm**

831 Springfield Avenue  
Cranford, NJ  
(908) 276-1290  
**DreyerFarms.com**

**Schieferstein Farm**

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

**SchiefersteinFarm.wordpress.com**

**Hall's Garden Center**

700 Springfield Avenue  
Berkeley Heights, NJ  
(908) 665-0331  
**HallsGarden.com**

**Williams Nursery**

524 Springfield Avenue  
Westfield, NJ  
(908) 232-4076  
**WilliamsNursery.com**

For a list of native plant nurseries throughout  
the tri-state area, go to **NPSNJ.org**



