

TWELVE TENACIOUS INVASIVE PLANTS AND

NATIVE ALTERNATIVES FOR SOUTHERN NEW JERSEY

# WHY PLANT NATIVES INSTEAD OF NON-NATIVES?

Native plants are those that occur naturally in a region and have lived there for thousands of years – or longer. Non-native plants are those brought into an area from elsewhere. Because native plants are adapted to local soils and climate conditions (especially rain and temperature), they require less maintenance. More importantly, native plants form the base of our natural food webs. They provide food for caterpillars and other insects, which are crucial to the lives of birds and other wildlife.

Non-native plants disrupt food webs because native insects are not adapted to feed on them. In addition, non-native plants regularly take over yards, roadsides, fields, parks, and all other green areas – closing them out to native plants and even killing the natives directly by smothering or strangling them.

This brochure will help you identify the worst invasive nonnative plants in our area, so you can remove them – and avoid buying them in the first place. You will also find native plant alternatives you can add to your property to make it a more attractive, beneficial, and sustainable landscape.

## TWELVE TENACIOUS INVASIVES IN THE GALLOWAY TOWNSHIP AREA

### JAPANESE BARBERRY Berberis thunbergii





JAPANESE BARBERRY invades a variety of habitats from shaded woodlands to open fields and wetlands. Very shade-tolerant, this small deciduous shrub can form dense stands which shade out and displace native species. Japanese barberry is rapidly spread by birds that eat the berries thus dispersing the seeds. It is native to Asia and was first introduced into the U.S. in 1864 as an ornamental. It is still widely planted for landscaping and hedges. (www.invasive.org)

### **ASIAN BITTERSWEET**



Celastrus orbiculatus





ASIAN/ORIENTAL BITTERSWEET is a deciduous, climbing, woody vine that can grow to lengths of 60 ft. Commonly found in old home sites, fields and road edges, prolific vine growth allows it to encircle trees and girdle them. Vines can completely cover other vegetation and shade, outcompete and kill even large tress. It is dispersed widely by birds eating the berries and spreading the seeds. Oriental bittersweet was introduced from China around 1860 as an ornamental. It has also been shown to hybridize with American bittersweet; potentially leading to loss of genetic identity of our native bittersweet.

**ENGLISH IVY** Hedera helix





ENGLISH IVY is an evergreen vine that can grow to 100 ft. in length and can invade woodlands, fields and other upland areas and is spread by runners. Seeds can also be spread by birds. It can grow both along the ground, where it can displace native understory species, and in the tree canopy, often covering branches and slowly killing trees. English ivy is native to Europe and was introduced into North America by early settlers for ornamental purposes. It continues to be widely planted as an ornamental. (www.invasive.org)

### CHINESE & JAPANESE WISTERIA Wisteria sinensis/floribunda





CHINESE/JAPANESE WISTERIA are deciduous, woody vines capable of growing to a height of 40 ft. Fragrant, showy lavender, purple or white flowers cascade in long, dangling clusters in the spring. Chinese/Japanese wisteria can displace native vegetation and kill tees and shrubs by girdling them. The vines have the ability to change the structure of a forest by killing trees and altering the light availability to the forest floor. Native to China & Japan, it was first introduced into the U.S. in 1816 for ornamental purposes. (www.invasive.org)

### **MUGWORT** Artimisia vulgaris





MUGWORT is a perennial herb that can grow to 5 ft. Mugwort grows in meadows, along roadsides, and in agricultural fields in open sunny to partly shady areas. It forms dense colonies in open areas that restrict the growth of native species, causing a decline in species diversity. Native to Eurasia, mugwort was thought to have many medicinal and culinary uses. European settlers brought mugwort to North America for its many uses by the mid-1800s. Cultivars were developed and sold in nurseries; but these also proved to be very aggressive. (www.invasive.org)

### JAPANESE HONEYSUCKLE Lonicera japonica





JAPANESE HONEYSUCKLE is an evergreen or semi-evergreen vine that can be found either trailing or climbing to over 80 ft in length. It invades a variety of habitats, including forest floors, canopies, roadsides, wetlands and disturbed areas. Japanese honeysuckle can girdle small saplings by twining around and it can form dense mats in canopies of trees, shading everything below. A native of eastern Asia, it was first introduced into North America in 1806 in Long Island, NY. Japanese honeysuckle has been planted widely in the U.S. as an ornamental for erosion control and for wildlife habitat.

### BRADFORD (CALLERY) PEAR Pyrus calleryana





BRADFORD PEARS are a favorite tree of landscapers and nurseries; and it is hard to find a town in the U.S. where Bradford pears are not widespread. They are vulnerable to storm and ice damage and are short-lived. Birds and small mammals eat the fruits and disperse the seeds. Bradford pears form dense, thorny thickets that prevent colonization by native species. Callery pear was first introduced by the Arnold Arboretum in Massachusetts in 1908. (www.invasive.org)

### NORWAY MAPLE Acer platanoides





NORWAY MAPLE has invaded forest ecosystems throughout the northeastern U.S. Once established in a forest, it has the ability to shade out the native understory and out-compete the native tree species. Norway maple is very similar to sugar maple but can be distinguished by its milky sap. It is native to Europe and was first introduced into the U.S. in 1776. It has been, and continues to be widely sold as an ornamental. (www.invasive.org)

### MULTIFLORA ROSE Rosa multiflora





MULTIFLORA ROSE is a multi-stemmed, thorny, perennial shrub that forms impenetrable thickets in pastures, fields and forest edges. It restricts human, livestock and wildlife movement and displaces native vegetation. Multiflora rose is native to Asia and was first introduced to North America in 1866 as rootstock for ornamental roses. During the mid-1900s, it was widely planted as a "living fence" for livestock control. (www.invasive.org)

### TREE OF HEAVEN Ailanthus altissima







TREE OF HEAVEN is a fast-growing tree that attains a height of 80 ft. or more. It sends up many root sprouts, rapidly forming a dense colony. Chemicals released from the roots and leaf litter hinder the growth of other plants. Tree of heaven is native to China and was brought to Philadelphia in 1748 by a gardener. Nurseries on the East Coast sold Tree of heaven because it was pest-free, fast growing and grew in any soil. Tree of heaven is host to the Spotted Lanternfly, which is an invasive insect, also from China, that uses this tree as a host plant and then feeds on many other species of trees. (www.invasive.org)

### **AUTUMN OLIVE** Elaeagnus umbellata





AUTUMN OLIVE grows as a shrub or small tree up to 30 ft. and is covered with silvery leaves and thorns. It can grow so densely that it outcompetes other species. Native to China, Korea and Japan, Autumn olive was brought to North America in 1810 for cultivation. (www.invasive.org)

### JAPANESE KNOTWEED Fallopia japonica





JAPANESE KNOTWEED is a dense-growing shrub reaching heights of 10 ft. It commonly invades disturbed moist areas with high light, such as roadsides and stream banks. The dense patches shade and displace other plant life and reduce wildlife habitat. Japanese knotweed is native to eastern Asia and was first introduced into North America in the late 1800s. (www.invasive.org)

BE ON THE LOOKOUT FOR THE FOLLOWING INVASIVE PLANTS THAT ARE NORTH AND SOUTH OF US AND ARE LIKELY TO SPREAD INTO OUR AREA:

Porcelain-berry (Ampelopsis brevipedunculata)
Mile-a-minute (Polgonum perfoliatum)
Kudzu (Puerenia lobata)
Common buckthorn (Rhamnus cathartica)
Giant hogweed (Heracleum mantegazzianum)

### INVASIVE SPECIES

THE FOLLOWING INVASIVE SPECIES PLANTS ARE COMMONLY PURCHASED LOCALLY AND ARE FAVORED BY MANY LANDSCAPE PROFESSIONALS. THE NATIVE ALTERNATIVES ON THE NEXT PAGE ARE MUCH BETTER CHOICES!

The plants with an asterisk \* are among the most problematic in our area.

### **SHRUBS**

* <u>Autumn olive</u> (Elaeagnus umbellata)		
Butterfly bush (Buddleja davii)		
Burning bush (Euonymus alatus)		
Linden viburnum (Viburnum dilatatum)		
*Japanese barberry (Berberis thunbergii)		
Privet (Ligustrum obtusifolium, L.ovafolium, L. vugare)		
Rose of Sharon (Hibiscus syriancus)		
Japanese spirea (Spirea japonica)		
Scotch broom (Cytisus scoparius)		
<u>Forsythia</u> (Forsythia viridissma)		
Rugosa rose (Rosa rugosa)		

### TREES

*Bradford (Callery) pear (Pyrus calleryana)
*Norway maple (Acer platanoides)

### NATIVE ALTERNATIVES

Bayberry ( <i>Morella cerifera</i> )
Sweet pepperbush (Clethra alnifolia)
Black chokeberry ( <i>Photinia melanocarpa)</i>
Red chokeberry ( <i>Photinia pyrifolia</i> )
Virginia sweetspire (Itea virginica)
Black Haw viburnum (Viburnum prunifoilia)
Sweetbay magnolia (Magnolia virginiana)
Ninebark (Physocarpus opulifolius)
Witch hazel (Hamamelis virginia)
Spicebush (Lindera benzoin)
Beach plum (Prunus maritima)

.Allegheny serviceberry (*Amelanchier laevis*)

.Red maple (Acer rubrum)

### INVASIVE SPECIES

### VINES

* <u>Japanese honeysuckle</u> ( <i>Lonicera japonica</i> )	
*English ivy (Hedera helix)	
Japanese hops (Humulus japonicus)	
*Wisteria (Wisteria sinensis /floribunda)	
*Multiflora rose (Rosa multiflora)	
Porcelain berry (Ampelopsis brevipedunculata)	

### PERENNIALS & GRASSES

Purple loosestrife (Lythrum salicaria)	
Periwinkle (Vinca minor)	
Dames rocket (Hesperis matronalis)	
Common bugleweed (Ajuga reptans)	
Chinese silvergrass (Miscanthus sinensis)	
Fountain grass (Pennisetum)	
Bamboo ( <i>Phyllostachys</i> spp. and <i>Bambusa spp</i> .)	

### NATIVE ALTERNATIVES

 Coral honeysuckle (Lonicera sempervirens)
 Allegheny spurge (Pachysandra procumbens)
 Dutchman's pipe (Aristolochia durior)
 American wisteria (Wisteria frutescens)
 Summersweet <i>(Clethra <mark>alnifolia)</mark></i>
 Virginia creeper (Parthenocissus quinquefoloia)

Obedient plant ( <i>Physostegia virginiana</i> )
Barren strawberry (Waldsteinia fragarioides)
Phloxes (Phlox sp.; Obedient Plant)
Golden ragwort (Senecio packera aureus)
Indiangrass (Sorghastrum nutans)
Little bluestem (Schizachyrium scoparium)
Winged sumac (Rhus copallinum)

## CONTROLLING INVASIVE SPECIES





Covering the soil with an extra layer of organic matter can smother and inhibit weeds, as well as prevent new seeds from germinating. You can mulch with compost, bark, wood chips, newspaper, cardboard, grass clippings, straw, or most other organic matter. But make sure not to use hay, which can have a lot of unwanted seeds. You can also put ground cloth, old shower curtains, or other thick material underneath a pathway made of wood chips or gravel to prevent weeds from growing through.

### 2. HAND-DIGGING

Manual removal with a shovel, hoe, or other tool is an effective spottreatment for basically all weeds. Many weeds may come back and need to be dug again. But consistent hand-weeding will greatly reduce their populations. When young weeds are promptly dug out, they won't be able to seed and reproduce. Regularly digging up weeds with tap roots, such as dandelions or thistles, will weaken the root and eventually kill the plant.

### 3. COMPETITION

Weeds can't take hold if there's no space for them. Try planting dense groundcovers and perennial plants in ornamental beds. The shade and heavy root systems of trees and shrubs can naturally prevent weeds from growing underneath. If you're battling weeds in your lawn, make sure you use grass varieties appropriate for shade, drought, or other difficult situations where a regular lawn might not grow well, leaving openings for unwanted visitors.

#### 4. SOLARIZE

Solarizing involves covering an area of weeds with a heavy plastic sheet. This works best in full sun where the heat will collect under the sheet and literally bake the weeds. Leave the sheet in place for 4 to 6 weeks.\* You'll know it's done when the weeds underneath are clearly brown and desiccated. \* If using this method, you should only leave plastic on for the shortest time possible...an alternative method is to spread cardboard or a thick layer of newspaper and then mulch to hold it in place. This protects the soil quality.

#### 5. LIMIT TILLING AND DIGGING

Turning over the soil in your vegetable patch or other beds will bring new weed seeds to the surface. Experiment with the <u>no-till method of gardening</u>, where you try to disturb the soil as little as possible. For example, if you're seeding vegetables, only dig down as far as you need to plant the seeds instead of deeply digging or tilling the entire bed. The no-till method has also been shown to improve soil structure and fertility, as well as increase beneficial soil organisms.

### 6. VINEGAR AND SALT

Regular 5 percent household vinegar can be used on its own against weeds. It's even better mixed with <u>salt and dish soap</u>. Mix 1 gallon of white vinegar with 1 cup of table salt and 1 tablespoon of liquid dish detergent. Put the mixture into a plastic spray bottle and spray directly on targeted weeds.

### FIND OUT MORE HERE:

https://www.care2.com/greenliving/12-ways-to-get-rid-of-aggressive-weeds-without-resorting-to-roundup.html

FOR INFORMATION ABOUT MORE AGGRESSIVE CONTROL OF INVASIVE PLANT SPECIES:

Rutgers Cooperative Extension: njaes.Rutgers.edu/extension

### BEWARE!

THE FOLLOWING NON-NATIVE PLANTS ARE STILL AVAILABLE IN MANY LOCAL GARDEN MARKETS AND BIG BOX STORES...

CALLERY / BRADFORD PEAR ROSE OF SHARON

JAPANESE BARBERRY FORSYTHIA

NORWAY MAPLE PRIVET

AUTUMN OLIVE SCOTCH BROOM

ROSA RUGOSA PERIWINKLE

CHINESE & JAPANESE WISTERIA CHINESE SILVERGRASS

ENGLISH IVY FOUNTAIN GRASS

JAPANESE HONEYSUCKLE BAMBOO

BUTTERFLY BUSH HEAVENLY BAMBOO

BURNING BUSH COMMON BUGLEWEED

LINDEN VIBURNUM

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For more information, contact

THE NATIVE PLANT SOCIETY OF NEW JERSEY S.E. CHAPTER

southeast@npsnj.org www.npsnj.org