



Pinxterbloom Azalea (WCS)

NC PIEDMONT LANDSCAPING

A Native Plant Guide Provided by the *North Carolina Native Plant Society*



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Sourwood Tree (TLM)

Table of Contents

Plant Hardiness Zones for the Piedmont.....	1
Why Native Plants.....	2
Landscaping for the Piedmont.....	3
Featured Plants.....	4

Trees

American Hornbeam (<i>Carpinus caroliniana</i>)	6
Eastern Redbud (<i>Cercis canadensis</i>).....	7
American Fringetree (<i>Chionanthus virginicus</i>)	8
Flowering Dogwood (<i>Cornus florida</i>)	9
American Holly (<i>Ilex opaca</i>).....	10
Blackgum (<i>Nyssa sylvatica</i>).....	11
Sourwood (<i>Oxydendrum arboreum</i>)	12
White Oak (<i>Quercus alba</i>)	13

Shrubs

Red Chokeberry (<i>Aronia arbutifolia</i>).....	14
Buttonbush (<i>Cephalanthus occidentalis</i>)	15
Large Witch-aldler (<i>Fothergilla major</i>).....	16
Common Winterberry (<i>Ilex verticillata</i>)	17
Virginia Sweetspire (<i>Itea virginica</i>)	18
Northern Spicebush (<i>Lindera benzoin</i>)	19
Pinxterbloom Azalea (<i>Rhododendron periclymenoides</i>).....	20
Smooth Black Haw Viburnum (<i>Viburnum prunifolium</i>)	21

Ferns

Northern Maidenhair (<i>Adiantum pedatum</i>)	22
Southern Lady Fern (<i>Athyrium asplenoides</i>).....	23
Cinnamon Fern (<i>Osmundastrum cinnamomeum</i>).....	24
Christmas Fern (<i>Polystichum acrostichoides</i>).....	25

Grasses and Sedges

Splitbeard Bluestem (<i>Andropogon ternarius</i>)	26
Eastern Narrowleaf Sedge (<i>Carex amphibola</i>)	27

Flowering Perennials

Black Cohosh (<i>Actaea racemosa</i>).....	28
Eastern Bluestar (<i>Amsonia tabernaemontana</i>).....	29
Green-and-gold (<i>Chrysogonum virginianum</i>).....	30
Lobed Tickseed (<i>Coreopsis auriculata</i>).....	31
Hollow Joe-Pye Weed (<i>Eutrochium fistulosum</i>).....	32
Smooth Oxeye (<i>Heliopsis helianthoides</i>)	33
American Alumroot (<i>Heuchera americana</i>)	34
Carolina Phlox (<i>Phlox carolina</i>)	35
Slender Mountain-Mint (<i>Pycnanthemum tenuifolium</i>).....	36
Orange Coneflower (<i>Rudbeckia fulgida</i>)	37
Bluestem Goldenrod (<i>Solidago caesia</i>).....	38
Heartleaf Aster (<i>Symphyotrichum cordifolium</i>)	39

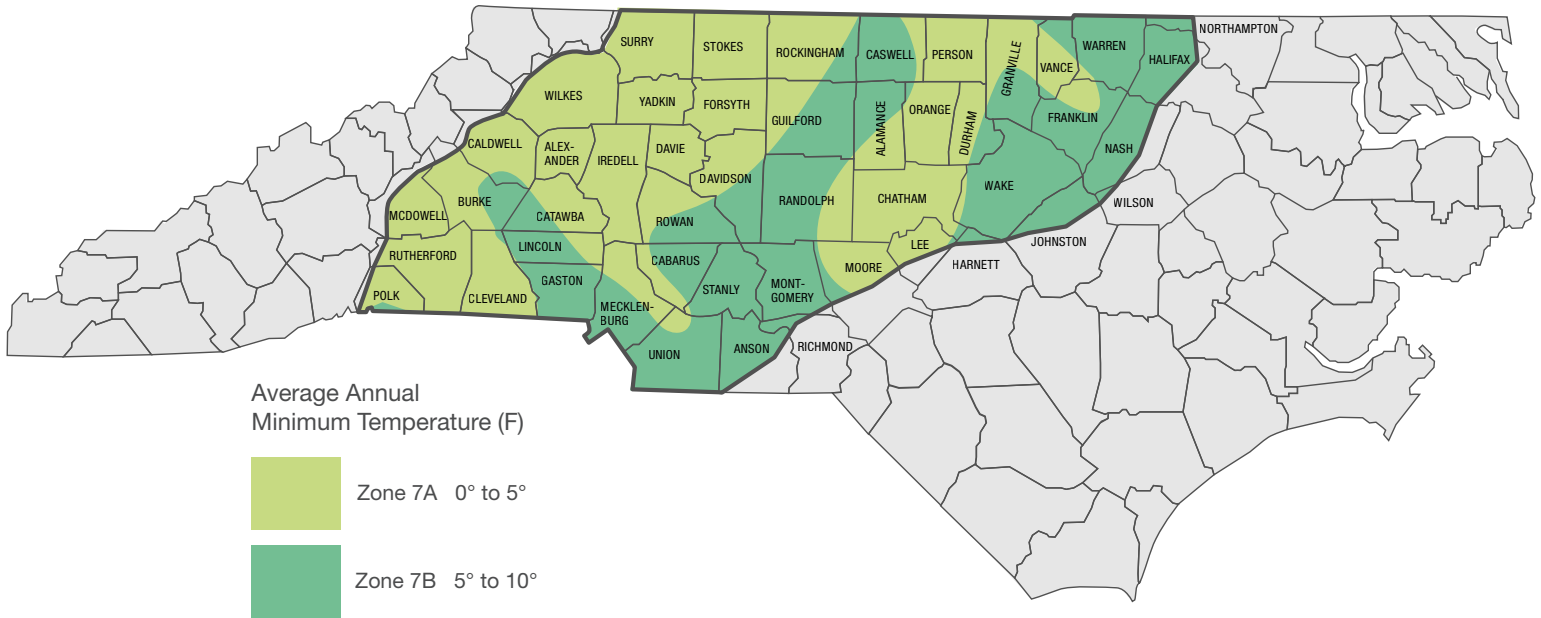
Invasive Plant Species	40
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Carolina Phlox (WCS)

Plant Hardiness Zones for the Piedmont

The U.S. Department of Agriculture Plant Hardiness Zone Map is the standard by which gardeners and growers can determine which plants are likely to thrive at a location. Plant hardiness zones are based on a region's average extreme weather temperatures over a 30-year time frame.



Why Native Plants?

The natural Piedmont landscape supports a diversity of beautiful and fascinating native plants. Native plants have adapted to the region's varying conditions, ranging from broad rolling hills to steeper sunny, dry, south- and west-facing slopes and cooler north-facing slopes with their associated temperatures, rainfall, and soil characteristics.

Incorporating native plants into the home landscape is essential for maintaining the integrity of local native plant communities and the wildlife they support. Yards and gardens with native plants can help connect fragmented habitat by serving as biological corridors and creating more productive ecosystems.



Native wildlife relies on native plants for food and cover, providing shelter from the elements and predators. These plants also give wildlife protection while feeding, breeding, nesting, and traveling. Native plants support local food webs. Native shrubs and trees are especially important in supporting a high level of biodiversity.



Once established, native plants typically do not need irrigation or fertilizer if properly matched with site conditions. Watering as needed the first year promotes a healthy root system.



Using a variety of native plants instead of potentially invasive non-native plants will increase ecosystem function and stability in your landscape. Invasive non-native plants reduce the number of species that exist in a natural landscape, and disrupt local food webs.

Landscaping for the Piedmont

This guide is for anyone interested in adopting nature-friendly gardening in the Piedmont region of North Carolina. It features 34 plants that are native to the region, are visually attractive, and support wildlife. Each profile includes details on plant appeal, growing conditions, and where it can be found growing in the region.

The guide is offered by **The North Carolina Native Plant Society** to encourage homeowners to supplement their landscape with plants that are native to their region. Understanding a plant's natural habitat will aid homeowners in choosing and locating the plant in the most favorable conditions for successful growth. We encourage communities and individuals to maximize the use of naturally occurring native plants ('wild-type' species). Be aware that cultivars and hybrids of native plants may vary significantly from the wild species (in leaf color, flower structure, and fruit size), which can affect their usefulness to native wildlife. Visit our website homepage ncnps.org and click on **Nurseries** for sources of native plants.

Some References to Help Plan Your Native Landscape:

The Southeast Native Plant Primer, Larry Mellichamp & Paula Gross, Timber Press, 2020.

Planting in a Post-Wild World: Designing Plant Communities for Resilient Landscapes, Claudia West & Thomas Rainer, Timber Press, 2015.

Bringing Nature Home: How You Can Sustain Wildlife with Native Plants, Douglas W. Tallamy, Timber Press, 2009.

FEATURED PLANTS

* TYPE – D (Deciduous), E (Evergreen)

** SUN – Full (Full Sun), P.S. (Part Shade), S (Shade)

SCIENTIFIC NAME	COMMON NAME	HEIGHT	WIDTH	TYPE*	SUN**	ZONE
Trees						
<i>Carpinus caroliniana</i>	American Hornbeam	20'–30'	20'–35'	D	P. S. / S	3–9
<i>Cercis canadensis</i>	Eastern Redbud	20'–30'	25'–35'	D	Full / P. S.	4–9
<i>Chionanthus virginicus</i>	American Fringetree	12'–30'	12'–20'	D	Full / P. S.	3–9
<i>Cornus florida</i>	Flowering Dogwood	15'–30'	15'–35'	D	Full / P. S.	5–9
<i>Ilex opaca</i>	American Holly	40'–60'	10'–20'	E	Full / P. S. / S	5–9
<i>Nyssa sylvatica</i>	Blackgum	30'–100'	20'–35'	D	Full / P. S.	3–9
<i>Oxydendrum arboreum</i>	Sourwood	20'–35'	10'–15'	D	Full / P. S. / S	5–9
<i>Quercus alba</i>	White Oak	50'–135'	50'–80'	D	Full / P. S.	3–8
Shrubs						
<i>Aronia arbutifolia</i>	Red Chokeberry	6'–10'	3'–5'	D	Full / P. S. / S	4–9
<i>Cephalanthus occidentalis</i>	Buttonbush	5'–8'	3'–6'	D	Full / P. S.	5–9
<i>Fothergilla major</i>	Large Witch-alder	6'–12'	6'–10'	D	Full / P. S.	4–8
<i>Ilex verticillata</i>	Common Winterberry	3'–15'	3'–12'	D	Full / P. S. / S	3–9
<i>Itea virginica</i>	Virginia Sweetspire	4'– 8'	3'–6'	D	P. S.	5–9
<i>Lindera benzoin</i>	Northern Spicebush	8'–15'	6'–15'	D	P. S.	5–9
<i>Rhododendron periclymenoides</i>	Pinxterbloom Azalea	4'–10'	4'–5'	D	P. S.	4–8
<i>Viburnum prunifolium</i>	Smooth Black Haw Viburnum	12'–20'	6'–15'	D	Full / P. S.	3–9

SCIENTIFIC NAME	COMMON NAME	HEIGHT	WIDTH	TYPE*	SUN**	ZONE
Ferns						
<i>Adiantum pedatum</i>	Northern Maidenhair Fern	1'-3'	1'-3'	D	P. S. / S	3-8
<i>Athyrium asplenoides</i>	Southern Lady Fern	2'-3'	2'-3'	D	P. S. / S	5-9
<i>Osmundastrum cinnamomeum</i>	Cinnamon Fern	2'-6'	2'-4'	D	P. S. / S	4-9
<i>Polystichum acrostichoides</i>	Christmas Fern	1'-3'	1'-3'	E	P. S. / S	3-9
Grasses and Sedges						
<i>Andropogon ternarius</i>	Splitbeard Bluestem	2'-5'	2'-3'	D	Full / P. S.	6-10
<i>Carex amphibola</i>	Eastern Narrowleaf Sedge	1'-1.5'	1'-1.5'	E	P. S. / S	3-9
Flowering Perennials						
<i>Actaea racemosa</i>	Black Cohosh	4'-7'	2'-4'	D	P. S. / S	3-8
<i>Amsonia tabernaemontana</i>	Eastern Bluestar	2'-3'	2'-3'	D	Full / P. S.	3-9
<i>Chrysogonum virginianum</i>	Green-and-gold	.5'-1'	1'-1.5'	D/E	P. S. / S	5-9
<i>Coreopsis auriculata</i>	Lobed Tickseed	1'-2'	1'-2'	D/E	Full / P. S.	4-9
<i>Eutrochium fistulosum</i>	Hollow Joe-Pye Weed	4'-8'	2'-4'	D	Full	4-8
<i>Heliopsis helianthoides</i>	Smooth Oxeye	3'-5'	1'-3'	D	Full / P. S.	3-9
<i>Heuchera americana</i>	American Alumroot	1'-3'	1'-1.5'	E	Full / P. S.	4-9
<i>Phlox carolina</i>	Carolina Phlox	1'-5'	1'-2'	D	Full / P. S.	5-9
<i>Pycnanthemum tenuifolium</i>	Slender Mountain-mint	2'-3'	2'-3'	D	Full / P. S.	4-8
<i>Rudbeckia fulgida</i>	Orange Coneflower	2'-3'	1'-2'	D	Full	3-9
<i>Solidago caesia</i>	Blue Stem Goldenrod	1'-3'	1'-3'	D	Full / P. S.	4-8
<i>Symphyotrichum cordifolium</i>	Heartleaf Aster	1'-4'	1'-2'	D	Full / P. S.	3-8



CWC

AMERICAN HORNBEAM

Carpinus caroliniana

A slow-growing, deciduous, small to medium-sized understory tree with an attractive globular form, found naturally in areas with moist soil and able to withstand periodic flooding. Alternate leaves have a double-toothed edge and pointed tips. Bark is smooth, gray to bluish-gray, and heavily fluted with long, sinewy ridges. In early spring, flowers appear in separate male and female catkins. Female catkins on the same plant produce clusters of ribbed nutlets enclosed by a distinctive 3-lobed leafy bract. The overlapping, clustered bracts are ornamental for a few weeks in late summer. Fall color ranges from yellow to orange-red to brown. Also known as Ironwood due to the density of the wood and Musclewood due to the sinewy longitudinal ridges along the trunk.

HIGHLIGHTS: Attracts birds, butterflies,
& small mammals
Shade-tolerant
Flowers in March & April
Fruits in September &
October

LIGHT EXPOSURE: Part shade to full shade

SOIL: Moist to wet

HEIGHT & WIDTH: H: 20'–30' W: 20'–35'

FORM: Multi or single trunked,
round-topped crown

ZONE: 3–9



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EASTERN REDBUD

Cercis canadensis

A fast-growing, deciduous, understory tree with the trunk often divided close to the ground, slightly zigzag stems, and smooth, alternate, broadly heart-shaped leaves. Magenta-pink pealike blooms hang in small clusters along branches, and mature trunks in early spring before leaves emerge. Flowers are slightly fragrant and have both male and female parts. Seeds develop in a two-to-three-inch flattened pod that often persists throughout the winter. Bark is brownish black and develops into rough scales with age. Leaves may appear off color with spots by late summer and fall color is usually yellow. Often found growing beneath taller trees, on the edges of forests, and along the borders of fields throughout North Carolina.

HIGHLIGHTS: Attracts birds, butterflies, & native bees

Fast growing

Blooms from March into May

Fruits from June to November

LIGHT EXPOSURE: Full sun to part shade

SOIL: Occasionally dry to moist

HEIGHT & WIDTH: H: 20'–30' W: 25'–35'

FORM: Small tree, rounded crown

ZONE: 4–9



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LLG



JLV



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AMERICAN FRINGETREE

Chionanthus virginicus

A small deciduous understory tree that may grow in shapes from shrubby to tree-like, often with a wide-spreading crown. Found in a variety of habitats including rich forests, dry woods, streamsides, and wetland margins. Leaves are opposite, simple, and oblong. One of the last trees to show new leaves in spring. Fragrant showy flowers appear in billowy clusters on branchlets and each blossom is white with four very thin, drooping petals. Plants are usually either male or female. If pollinated, female plants will set small, dark blue olive-like fleshy fruits that are eaten by birds. Leaves turn yellow in autumn. American Fringetree is at its best in moist, fertile soil with at least 3 to 4 hours of sun.

HIGHLIGHTS: Attracts birds, bees, butterflies, & small mammals
 Slow growing
 Flowers in April and May
 Fruits from July to September



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LIGHT EXPOSURE: Full sun to part shade

SOIL: Occasionally dry to moist

HEIGHT & WIDTH: H: 12'-30' W: 12'-20'

FORM: Multi or single trunked, open habit

ZONE: 3-9



TLM



JLW



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FLOWERING DOGWOOD

Cornus florida

A small deciduous understory tree with spreading horizontal branches that give it a layered effect. New twigs curve downward and then upward. The inconspicuous flowers are greenish yellow and surrounded by four white showy petal-like bracts. Flowers have both male and female parts and open before the leaves emerge. Leaves are opposite with veins arching toward the tip and smooth to wavy edges. The glossy red mature fruits form clusters of three or more that ripen in the fall and are quickly consumed by birds. Fall leaf color is a deep red to reddish purple. As the tree ages, the bark becomes broken into small squarish and rectangular, gray-brown blocks. Found in oak-hickory and mixed pine-hardwood forests across the state.

HIGHLIGHTS: Attracts birds, bees, butterflies, & small mammals

Blooms from late March into April

Fruits in September and October

LIGHT EXPOSURE: Full sun to part shade

SOIL: Occasionally dry to moist

HEIGHT & WIDTH: H: 15'-30' W: 15'-35'

FORM: Layered branches, flat-topped crown

ZONE: 5-9



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AMERICAN HOLLY

Ilex opaca

A slow-growing pyramidal evergreen tree found throughout the state in hardwood forests and bottomlands. It has alternate, evergreen leaves that are thick and dull dark green, with a few sharp-spined teeth. Usually branched to the ground when grown in the open and can be used for screening in a large landscape. Plants are either male or female and produce greenish-white flowers in the spring. For fruit set, the male must be the same holly species as the female and bloom at the same time. If pollinated, the female trees are heavily adorned with red fruit in late fall and persist until eaten by birds. The bark is smooth and light gray. Protect from desiccating winter sun and winds and plant in well-drained soils.

HIGHLIGHTS: Attracts birds, bees, butterflies, & small mammals
 Provides winter cover for birds
 Blooms from April to June
 Fruits from September to October



LIGHT EXPOSURE: Full sun to full shade
SOIL: Occasionally dry to moist
HEIGHT & WIDTH: H: 40'–60' W: 10'–20'
FORM: Pyramidal habit, dense leafy canopy
ZONE: 5–9



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BLACKGUM

Nyssa sylvatica

A slow- to moderate-growing deciduous tree found across the state in a variety of soil types and moisture conditions. Branches are often crooked and stand at right angles to the trunk giving a layered effect. The leaves are alternate, generally oblong to oval, and tapering to the tip. The small flowers are inconspicuous but bees are attracted to them. The trees are primarily either male or female with most plants having a few flowers of both sexes. Some plants bear many egg-shaped, ½-inch-long blue-black fruits, while others may only have a few. The bark is gray-brown and on the trunks of mature trees becomes quite blocky, resembling alligator hide. The glossy foliage turns from yellow to scarlet in autumn. A beautiful tree in autumn.

HIGHLIGHTS: Attracts birds, bees, butterflies, & small mammals
 Outstanding fall color
 Flowers from April to June
 Fruits from August to October

LIGHT EXPOSURE: Full sun to part shade

SOIL: Occasionally dry to moist

HEIGHT & WIDTH: H: 30'–100' W: 20'–35'

FORM: Straight trunk with horizontal branches

ZONE: 3–9



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JLW



LLG



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SOURWOOD

Oxydendrum arboreum

A deciduous, medium-sized understory tree found across the state in rocky woods, and in other upland forests and semi-moist acidic soils. Open-grown Sourwood is pyramidal and sometimes branched to the ground, but if grown in the shade it usually becomes more crooked and irregular in form. The glossy, finely toothed, entire leaves have a slightly sour taste, hence the common name. Small, white, bell-like flowers hang in rows from one side of long, drooping clusters that develop after the leaves are fully grown; they remain showy for 3 to 4 weeks. The fragrant blossoms attract honeybees. Bark is soft gray with deep furrow-like ridges. Leaves turn deep red in early fall, and the dangling fruit clusters may remain visible into the winter.

HIGHLIGHTS: Attracts birds, bees, butterflies, & small mammals
 Excellent fall color
 Blooms in June and July
 Fruits in September and October



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LIGHT EXPOSURE: Full sun to full shade
SOIL: Occasionally dry to moist
HEIGHT & WIDTH: H: 35'–50' W: 10'–15'
FORM: Pyramidal habit, rounded top and drooping branches
ZONE: 5–9



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WHITE OAK

Quercus alba

A majestic deciduous, slow-growing, and long-lived oak with a rounded spreading crown, found in bottomlands and upland forests. The alternate leaves have 7–11 uneven, rounded lobes; the space between the lobes varies in depth. Male flowers on catkins and inconspicuous yellowish-green female flowers on twigs appear on the same plant in early spring. Leaves emerge grayish or pinkish when unfolding but mature to dark green. The fruits are oval acorns with raised bumpy scaled caps. Host to many caterpillar species providing an essential food source for birds and their young. Fall color ranges from browns to dark red. The light-gray bark has scaly plates. Adapts to a wide variety of soil conditions with good drought tolerance for the large landscape.

HIGHLIGHTS: Attracts birds, bees, butterflies & small mammals

Flowers March to June

Acorns mature September to November

LIGHT EXPOSURE: Full sun to part shade

SOIL: Occasionally dry to moist

HEIGHT & WIDTH: H: 50'–135' W: 50'–80'

FORM: Upright rounded habit, wide-spreading branches

ZONE: 3–8





RED CHOKEBERRY

Aronia arbutifolia

A deciduous, multi-stemmed, colonizing shrub, which sends up vigorous sprouts that grow to 6' tall and branch near the top, resulting in a vase shape when young and an arching clump when older. Found across the state in swamps, bogs, and also drier thickets but adapts to many soil types. Bees readily visit the attractive clusters of white to light pink, 5-petaled flowers that appear in spring. Leaves are alternate, rough-textured, and dark green in summer. Fall leaf color is dark red or reddish-orange. Often abundant along the stems and branch tips, the stunning scarlet fruits are sour and mealy when ripe and passed over until birds are hungry in the late winter. Best fruit production occurs in full sun.

HIGHLIGHTS: Attracts birds, bees, butterflies, & small mammals
 Excellent fall color
 Blooms in March to May
 Fruits in September into November

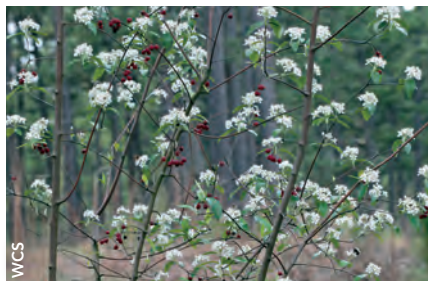
LIGHT EXPOSURE: Full sun to full shade

SOIL: Dry to wet

HEIGHT & WIDTH: H 6'–10' W 3'–5'

FORM: Upright, spreading-suckering

ZONE: 4–9





WCS

BUTTONBUSH

Cephalanthus occidentalis

A deciduous shrub or sometimes small tree found in freshwater wetlands, on banks, and in shallow water with full sunlight to light shade. Glossy dark-green leaves emerge later in spring and grow opposite or in whorls of three along thick twigs and cluster toward the outer canopy. This open look is ideal for underplanting. Its common name refers to the 1-inch round cluster of sweetly fragrant, nectar-rich flowers growing from the branch tips in summer. The flower clusters mature into reddish-brown hard spherical fruits consisting of multiple tiny two-seeded nutlets. Fall leaf color is typically yellow, especially vivid in full sun. It adapts to a wide range of soils except in dry areas.

HIGHLIGHTS: Attracts waterfowl & other birds, bees, butterflies, & small mammals

Flowers on new growth, prune as needed

Blooms in June to August

Fruits in August & September

LIGHT EXPOSURE: Full sun to part shade

SOIL: Occasionally dry to moist

HEIGHT & WIDTH: H: 5'-8' W: 3'-6'

FORM: Loose shrub, multi-stemmed

ZONE: 5-9



TLM



TLM



AMF



LARGE WITCH-ALDER

Fothergilla major

A medium-sized deciduous shrub found in woodlands, bluffs, and riverbanks of the upper Piedmont. Unlike its “relative” *F. gardenii*, which is a wetland species found on the Coastal Plain, *F. major* is an upland species. Ribbed oval leaves are alternate, simple, leathery, and blue-green to dark green. Fragrant bottlebrush-like white flowers are displayed at the tips of twigs as the leaves emerge. Fruit is a beaked, egg-shaped, two-seeded capsule that matures in fall, eventually bursting and explosively broadcasting the seed. The showy fall foliage is yellow-orange to red-purple. Does best in moist, acidic, organically rich soils that have good drainage. Forms a clumping, spreading colony. ‘Mount Airy’ is a popular cultivar, a cross between *F. major* and *F. gardenii*.

HIGHLIGHTS: Attracts birds, bees, & butterflies
 Outstanding fall color
 Blooms in April & May
 Fruits from July to October

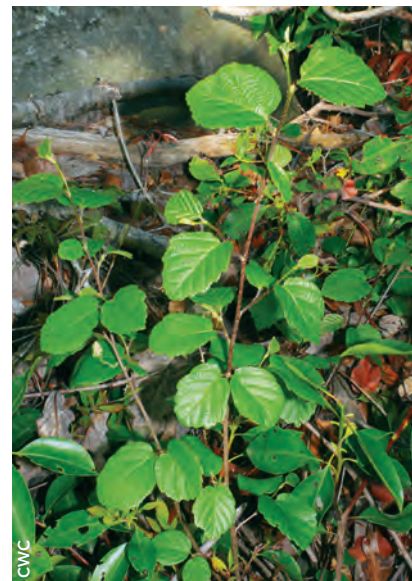
LIGHT EXPOSURE: Full sun to part shade

SOIL: Occasionally dry to moist

HEIGHT & WIDTH: H: 6’-12’ W: 6’-10’

FORM: Rounded, multi-stemmed, dense

ZONE: 4-8



COMMON WINTERBERRY

Ilex verticillata

A wetland species found in floodplain pools, swamps, and wet thickets with moderately rich to slightly acidic soils. Grows into a dense, oval, suckering shrub. Leaves are toothed and dark to light green; fall color is a dull yellow. Plants are either male or female and produce small greenish-white flowers in the spring. For fruit set, the male must be the same holly species as the female and bloom at the same time. One male winterberry is sufficient for pollinating 6–10 female plants. If pollinated, the female plants are adorned with red fruit in late fall that persists until eaten by birds. Best fruit production occurs in full sun. Prune to shape in early spring before new growth and flowers appear.



HIGHLIGHTS: Attracts birds, bees, butterflies, & small mammals
 Beautiful red berries in winter
 Blooms in April & May
 Fruits from September to November

LIGHT EXPOSURE: Full sun to full shade

SOIL: Occasionally moist to wet

HEIGHT & WIDTH: H: 3'–15' W: 3'–12'

FORM: Oval to rounded, dense, fine twiggy branches

ZONE: 3–9





VIRGINIA SWEETSPIRE

Itea virginica

A mound-shaped, deciduous shrub with slender, arching branches. Found mostly along forested stream banks and wet thickets but tolerating a wide range of soil conditions. Pendant clusters of sweetly scented white flowers open from base to tip so that the plant appears to bloom for a long time. Fruit of woody capsules are showy in the fall. Oval, dark-green leaves with finely toothed edges turn varying shades of red, orange, and gold in autumn and persist well into the winter. It can form dense colonies by root suckering. For best flowering and fall color, it should be planted where it gets several hours of sun each day. Prune soon after flowering, as this plant blooms on the previous season's wood.

HIGHLIGHTS: Attracts birds, bees, butterflies, & small mammals

Long period of striking fall color

Blooms in May & June

Fruits August to October



LIGHT EXPOSURE: Part shade

SOIL: Moist to occasionally wet

HEIGHT & WIDTH: H: 4'-8' W: 3'-6'

FORM: Rounded, multi-stemmed, arching branches

ZONE: 5-9

NORTHERN SPICEBUSH

Lindera benzoin



A deciduous understory shrub that can be found in rich forests, dry forests, and swamps. The alternate, oblong leaves have a smooth edge and produce a spicy odor when crushed. Fall leaf color is an attractive yellow. The bark is brown to gray-brown and broken twigs give off a lemon fragrance. In early spring, small, greenish-yellow flowers are found in clusters along the branch before the foliage emerges. The shrub produces bright red, shiny, oval fleshy fruit that ripens in the fall. Plants are either male or female, and a male plant must be available to pollinate female plants for fruit set. The high-fat fruits are eaten by songbirds. The caterpillar of the Spicebush Swallowtail butterfly feeds on the leaves.

HIGHLIGHTS: Attracts birds, bees, butterflies, & small mammals
 Excellent yellow fall color
 Blooms in March & April
 Fruits in August & September

LIGHT EXPOSURE: Part shade

SOIL: Occasionally dry to moist

HEIGHT & WIDTH: H: 8'-15' W: 6'-15'

FORM: Rounded, open habit in shade

ZONE: 5-9





PINXTERBLOOM AZALEA

Rhododendron periclymenoides

A picturesque, horizontal-branching, slow-growing, deciduous shrub found in hardwood or mixed forests, usually on slopes and often along forested streambanks. Vase-shaped, pink or white sometimes fragrant flowers with protruding stamens occur in large clusters, appearing before the leaves mature. Like many azaleas, the leaves are thin, oblong, and medium-green, mostly clustered at the tips of twigs. The fruit is a dry seed pod about $\frac{3}{4}$ inch long. Foliage turns yellow in fall. Best grown in acidic, organically rich, and well-drained soils of medium moisture, in high open shade. It does not grow well with wet feet. At least half a day of sunshine seems to keep it from getting leggy.

HIGHLIGHTS: Attracts bees, butterflies, & hummingbirds

Striking spring flowers

Blooms from late March into May

Fruits in September & October



LIGHT EXPOSURE: Part shade

SOIL: Occasionally dry to moist

HEIGHT & WIDTH: H: 4'-10' W: 4'-5'

FORM: Much-branched, spreading

ZONE: 4-9



SMOOTH BLACK HAW VIBURNUM

Viburnum prunifolium

A large, upright, sometimes multi-stemmed, deciduous shrub or small tree with an irregular crown, commonly found in moist woods, thickets, and on streambanks. The attractive creamy-white spring flowers open in large clusters as copper-colored leaves are emerging, and produce blue-black, berry-like fleshy fruits that often persist into winter and are eaten by wildlife. It forms a stubby trunk with rigid horizontal branches and spurlike twigs. The opposite, finely toothed medium-green leaves are twice as long as broad and turn red to bronze in fall. Viburnums set fruit better with more than one shrub for pollination. Easily grown in average, dry to medium, well-drained soil in full sun to part shade. Tolerates drought. Flower buds form in summer for the following year.



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HIGHLIGHTS: Attracts birds, bees, butterflies, & small mammals
 Blooms in March & April
 Fruits in September & October

LIGHT EXPOSURE: Full sun to part shade

SOIL: Dry to moist

HEIGHT & WIDTH: H: 12'–20' W: 6'–15'

FORM: Single trunk or multi-stemmed, stiffly branched

ZONE: 3–9



WCS



WCS



TLM



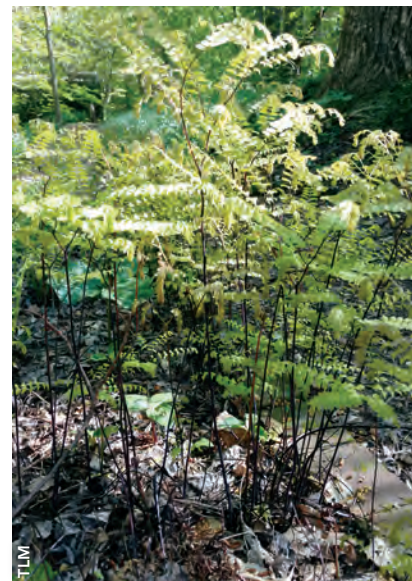
NORTHERN MAIDENHAIR

Adiantum pedatum

Northern Maidenhair, fancifully named because of a resemblance to long, spread-out hair, is a beautiful, delicate fern, thriving in rich, moist forests with less acidic soils. The bright green, deciduous leaf, up to 2' across, rises from a long, deep purple or black leaf stalk and forms two branches, each with leaflets fanning out into a nearly horizontal semicircle. The leaflets are divided into fan-shaped to oblong sub-leaflets with ragged edges. Spore-bearing parts are tucked under the sub-leaflet margins. Reddish fiddleheads (inedible) unfold in early spring. This fern spreads slowly by creeping, branching rhizomes, over time forming large colonies. *Adiantum* means “unwetted” because the foliage sheds rain; it’s a joy to behold a colony of Northern Maidenhair dotted with silvery raindrops.

HIGHLIGHTS: Attractive, delicate shape
Easily divided with spade
or sharp knife
Used for shelter by birds
& other small animals

LIGHT EXPOSURE: Part sun to shade
SOIL: Moist; alkaline to somewhat acidic
HEIGHT & WIDTH: H 1'–2' W to 2'
FORM: Clumping, spreading over time
ZONE: 3–8





SOUTHERN LADY FERN

Athyrium asplenoides

A common clump-forming, deciduous fern found in moist hardwood forests and bottomlands. The elongate, triangular-shaped, medium green leaves grow to 3' in height and width. Leaves are divided into leaflets up to 8" long, with the longest leaflets at or near the base of the leaf; the leaflets become gradually shorter toward the often-lax leaf tip. The leaflets are further divided into toothed segments, giving the fern a lacy look. The leaf's midrib is brown to reddish, and the stem below the leaf has scattered brownish scales. Elongated, curved reproductive structures containing spores are located on the back of the frond. Easy to grow and very reliable, it makes a bold statement in woodland gardens.

HIGHLIGHTS: Lacy, delicate shape
Somewhat drought tolerant
Used as shelter by birds
& other small animals

LIGHT EXPOSURE: Part sun to shade

SOIL: Moist to average

HEIGHT & WIDTH: H 20"-36" W 2'-3'

FORM: Compact, clumping perennial

ZONE: 5-9





CINNAMON FERN

Osmundastrum cinnamomeum

Cinnamon Fern grows in many wetlands but is also found in damp forests and even wet roadside ditches. Striking throughout the growing season, this fern grows up to 5' tall and forms a broad clump. The deciduous, bright-green sterile leaves have 20 or more deeply lobed leaflets, longest at or near the bottom of the leaf and gradually tapering to very short at the leaf's tip. Woolly cinnamon hairs are found at the leaflet base, on the stem below the leaf, and the large, inedible fiddleheads. The separate, shorter, cinnamon-colored fertile fronds have leaflets with clustered grape-like structures that open to release spores. Fertile fronds wither by early summer, while the sterile fronds turn a striking yellow-bronze color in autumn.

HIGHLIGHTS: Good fall color (yellow to bronze)
Tolerates seasonal drought
Long-lived, forms a colony
Woolly hairs used for nesting material

LIGHT EXPOSURE: Sun to part shade

SOIL: Wet to moist; acidic

HEIGHT & WIDTH: H 2'-5' W 3'-5'

FORM: Erect, clumping

ZONE: : 4-9





CHRISTMAS FERN

Polystichum acrostichoides

This handsome, clumping, evergreen fern grows in a variety of habitats, from damp woods, moist slopes, and bottomlands to drier, rockier forests. Each narrow, elongated, dark-green leaf is divided into leathery leaflets, with bristly, toothed margins and an upward-pointing lobe at the base, reminiscent of the shape of a Christmas stocking. The fertile fronds are more upright than the arching sterile fronds, with brown spore-bearing parts densely packed on the upper leaflets of the fertile fronds. Fiddleheads (inedible) appear in early spring and are covered with stout, silvery scales, contrasting with the deep green of last year's now-prone leaves. Removing spent fronds before new ones emerge may weaken the plant—leave them attached for mulch.

HIGHLIGHTS: Easily grown & transplanted
 Provides winter color
 Used as shelter by birds & other small animals
 Plant on slopes to reduce erosion

LIGHT EXPOSURE: Part sun to shade

SOIL: Moist to dryish, well-drained; acidic to neutral

HEIGHT & WIDTH: H 1'–2.5' W 1'–2'

FORM: Arching, vase-shaped whorl, clumping

ZONE: 3–9





SPLITBEARD BLUESTEM

Andropogon ternarius

A warm-season, clumping perennial grass found in pine-oak and pine-oak-hickory woodland edges, wooded openings, and fields. Thrives in poor soils that are coarse, rocky, or sandy. The flat leaves are long and very narrow and often densely hairy, with a waxy silver appearance. By late summer, stiff bluish-green stems rise from the clump to grow numerous pairs of elongate flower clusters. From late summer through fall, the fluffy seed heads display silvery-white tufts, while the stems turn copper, red, and bronze. This grass grows best in full sun but can tolerate some shade. The deep fibrous root system helps stabilize soil and withstand drought. Due to its relatively high seedling vigor, it may be best used in naturalized areas.

HIGHLIGHTS: Attracts birds, butterflies & small mammals

Graceful V-shaped seed heads in fall

Flowering & fruiting
September to October

LIGHT EXPOSURE: Full sun to part shade

SOIL: Dry to moist

HEIGHT & WIDTH: H 2'-5' W 2'-3'

FORM: Clumping perennial

ZONE: : 6-10





Eastern Narrowleaf Sedge

Carex amphibola

A robust perennial sedge found in deciduous floodplain forests, slopes above streams or creeks, and moist upland deciduous woodlands. The shiny, narrow, semi-evergreen leaves are upright with triangular stems and grow in fountain-shaped, compact mounds. In late spring green scaly flower spikes top the gracefully shaggy foliage. The male pollen-bearing flower clusters are located above the female flower clusters on the same stem. This deer-resistant sedge thrives in shaded sites with moist soil and also provides winter interest and erosion control. Best used as a groundcover or edging plant for a shade garden. Serves as a larval host for some types of Skipper caterpillars and seeds are eaten by birds and turtles.

HIGHLIGHTS: Attracts birds, butterflies, & turtles

Good native replacement for Liriope

Flowering & fruiting late April to June

LIGHT EXPOSURE: Part shade to full shade

SOIL: Occasionally dry to moist

HEIGHT & WIDTH: H 1'–1.5' W 1'–1.5'

FORM: Clumping, semi-evergreen

ZONE: 3–9





BLACK COHOSH

Actaea racemosa

An upright, deciduous perennial found in openings of a variety of rich hardwood forests. Numerous small, creamy white, fragrant flowers appear in long narrow erect clusters rising well above the foliage on wiry stems in spring to mid-summer. A close-up of the flower shows dozens of white spokes (male) around a central "peg" (female). Flowers open from the bottom upward extending the bloom for two weeks or more, and produce small, dry seed pods after blooms have faded. The large horizontal leaves are alternate and divided into coarsely toothed leaflets. Site where it will receive a bit of morning sun as flower stalks tend to bend toward bright light when plants are grown in full shade.

HIGHLIGHTS: Attracts birds, butterflies, bees & other pollinators
 Adds vertical interest
 Blooms from May to July
 Fruits shortly after blooming

LIGHT EXPOSURE: Part shade to full shade

SOIL: Occasionally dry to moist

HEIGHT & WIDTH: H: 4'-7' W: 2'-4'

FORM: Erect, clumping

ZONE: : 3-8





EASTERN BLUESTAR

Amsonia tabernaemontana

A deciduous perennial found in rich hardwood to mixed floodplain forests, where it grows best in moist, loamy soils in full sun to part shade. It has an erect, vase-shaped growth habit that becomes more striking with age, and features clusters of soft, light-blue flowers in spring. Each of the flowers has a slender tube and five narrow and spreading lobes that form a star shape. Attractive, narrow, beanlike pods form after flowering. The alternate, narrow, oval to lance-shaped leaves turn golden-yellow in the fall. When a handful of plants grows together in a clump, it creates a pleasing light-blue display when in bloom. Cut back stems after flowering to promote bushy growth.

HIGHLIGHTS: Attracts birds, butterflies, bees & other pollinators
 Drought-tolerant once established
 Blooms mainly in April
 Fruits August & September

LIGHT EXPOSURE: Full sun to part shade

SOIL: Occasionally dry to moist

HEIGHT & WIDTH: H: 2'-3' W: 2'-3'

FORM: Rounded, clumping

ZONE: 3-9





GREEN-AND-GOLD

Chrysogonum virginianum

A semi-evergreen, low-growing perennial found in moist to dry deciduous forests and wooded rocky slopes. The deep green leaves are opposite, bluntly toothed, and hairy, with clusters of star-shaped yellow flowers blooming atop the tight clump of foliage. Each flower has five rounded, slightly notched yellow petals and a center tuft of yellow disk flowers. After flowering, fruits form as dark brown to black, oval, flattened nutlets. It has one of the longest flowering periods among spring-blooming native plants. Blooms usually become sparse or stop in the heat of the summer, with a light rebloom occurring in fall. The plant can be highly variable, from upright to creeping. Best grown in well-drained soil; avoid over-watering.

HIGHLIGHTS: Attracts birds, butterflies, bees & other pollinators
 Long bloom period
 Flowering late March to June
 Fruits shortly after blooming



LIGHT EXPOSURE: Part shade to full shade

SOIL: Occasionally dry to moist

HEIGHT & WIDTH: H: 1' W: 1'-1.5'

FORM: Low growing, clumping, or spreading

ZONE: : 5-9



LOBED TICKSEED

Coreopsis auriculata

A semi-evergreen, low-growing perennial found in wood edges, thickets, and forest openings, often on slopes or at bases of slopes. It typically grows in a dense, bushy, slowly spreading clump up to 2' tall. The daisy-like flower heads are almost 2" across, bright yellow with a center of yellow disk flowers and 8 toothed petals. They are mostly solitary, on long leafless stalks. Fruits are single, dark-brown seeds. The hairy, opposite leaves are oval and dark green, and usually have a pair of small side lobes at the leaf base, hence the common name Lobed Tickseed or Mouse-eared Tickseed. Leaves persist through most of the winter. Plants form colonies via runners. Shear in mid-summer to promote a fall rebloom.



HIGHLIGHTS: Attracts birds, butterflies, bees & other pollinators
 Flowering April to June
 Fruiting shortly after flowering
 Resistant to deer browse

LIGHT EXPOSURE: Full sun to part shade

SOIL: Occasionally dry to moist

HEIGHT & WIDTH: H: 1'– 2' W: 1'– 2'

FORM: Low growing, clumping, or spreading

ZONE: 4–9





HOLLOW JOE-PYE WEED

Eutrochium fistulosum

A tall deciduous perennial found in freshwater marshes, stream margins, bottomlands, and wet roadside ditches. The lance-shaped, toothed leaves are in whorls of 3–7 around the hollow stem, which has a pale waxy coating. The stems are mostly unbranched, green below with purple markings, turning more uniformly purple above. The flower cluster is a large, fuzzy dome made up of pale pink to purplish, honey-scented disk flowers that appear in late summer. Seeds are small, with tufts of bristly hair for wind distribution. Cut back in early June to produce a bushier, somewhat delayed but more floriferous plant. These plants need plenty of space and water and should not be allowed to dry out. Divide clump in spring or fall.

HIGHLIGHTS: Attracts birds, butterflies, bees & other pollinators
 Long bloom season
 Flowering late July to October
 Fruiting shortly after flowering

LIGHT EXPOSURE: Full sun

SOIL: Moist to wet

HEIGHT & WIDTH: H: 4'–8' W: 2'–4'

FORM: Tall, erect, clump-forming

ZONE: : 4–8





SMOOTH OXEYE

Heliopsis helianthoides

Found in moist soils of bottomlands, meadows, and roadside ditches but sometimes occurs in upland sites such as glades, powerline clearings, and wooded borders with less acidic soils. A deciduous perennial with oval, opposite leaves that have toothed margins and a sandpapery texture. The yellow daisy-like flower heads have domed, deep-golden central disks and yellow-orange petals with slightly notched tips. Blooms are produced in great quantities on thin stems above the foliage, with fruits maturing into the fall. Plants spread to form a tight clump and flower through late summer. Remove spent flowers to extend bloom season. Plant stems may be cut back by 1/3 to 1/2 in late May to reduce overall plant height if desired.

HIGHLIGHTS: Attracts birds, butterflies, bees & other pollinators
 Grows in a range of soils
 Flowering and fruiting May to October

LIGHT EXPOSURE: Full sun to part shade

SOIL: Occasionally dry to moist

HEIGHT & WIDTH: H: 3'-5' W: 1'-3'

FORM: Erect, clumping

ZONE: 3-9





AMERICAN ALUMROOT

Heuchera americana

A clump-forming evergreen perennial found in dryish locations in rocky open woodlands and along ledges and crevices of bluffs. The leaves emerge in a dense spiral from a short central crown and can be green or variegated in shades of purple, bronze, or cream. They are 3–5” wide, heart-shaped with rounded, toothed lobes. Foliage is evergreen in warm winter climates, with fall colors in shades of purple, red, and yellow. The tiny, bell-shaped flowers are greenish or creamy with a pinkish tint and emerge on mostly leafless stalks above the foliage. Fruit is a dark red oval capsule. In the South, it prefers shade in the afternoon. Divide clumps every 3–5 years in the spring to rejuvenate plants.

HIGHLIGHTS: Attracts specialized bees & other pollinators
 Good deer-resistant groundcover
 Blooms from April to June
 Fruits shortly after blooming

LIGHT EXPOSURE: Full sun to part shade

SOIL: Moist (not wet) to dry

HEIGHT & WIDTH: H: 1’–3’ W: 1’–1.5’

FORM: Low, clumping

ZONE: : 4–9



CAROLINA PHLOX

Phlox carolina

This phlox species grows in many habitats, from somewhat moist to rich places, in open to medium-growth forests, wooded borders, and road banks, mostly in partial sun. Flower colors are in the cool range of lavender to pink or occasionally white, held in baseball-size rounded clusters at the top of stems. Each flower has a long tube and 5 flaring lobes; the small, round fruit capsules mature in late summer. The leaves are 1.5–4" long, bright-green, oval to lance-shaped, and leathery, with untoothed edges. Carolina Phlox provides a splash of color after most spring blooms have finished and continues to bloom intermittently until frost. It is somewhat resistant to powdery mildew. Plants may self-sow but are not aggressive.



HIGHLIGHTS: Attracts birds, butterflies, bees & other pollinators
Blooms from May to July
Fruits shortly after flowering

LIGHT EXPOSURE: Full sun to part shade

SOIL: Occasionally dry to moist

HEIGHT & WIDTH: H: 1'–5' W: 1'–2'

FORM: Erect, clumping, compact

ZONE: 5–9





SLENDER MOUNTAIN-MINT

Pycnanthemum tenuifolium

This fine-textured, deciduous plant can be found in wet meadows, moist spots in powerline clearings, edges of moist woods, bogs, and other mostly sunny spots with some moisture. It usually grows in colonies, producing an extensive white patch when in full bloom. The main stems develop short side branches along most of their length, with narrow, almost needle-like leaves. Small whitish flowers with a touch of pink in rounded flat-topped clusters mature into small black seeds eaten by numerous animals. Fall color is dull yellow to brown. All parts of the plant have a minty aroma when crushed. Like most mints it can spread, so give it plenty of space or keep cut back. A pollinator magnet.

HIGHLIGHTS: Attracts birds, butterflies, bees & other pollinators
 Blooms from June to August
 Fruits from September to October

LIGHT EXPOSURE: Full sun to part shade

SOIL: Occasionally dry to moist

HEIGHT & WIDTH: H: 2'-3' W: 2'-3'

FORM: Mounding, fine-textured

ZONE: : 4-8





ORANGE CONEFLOWER

Rudbeckia fulgida

This perennial Black-eyed Susan grows from moist to dry edges, powerline cuts, and openings in woodlands, but blooms later than the annual *Rudbeckia hirta*, also called Black-eyed Susan. The flower heads may be up to 3” wide, with purplish-brown center disks surrounded by golden petals that may have a dark blotch at their base. Flowering is among the latest of the black-eyed Susans and continues for almost 3 months. Fruits resemble thistle seeds and are relished by goldfinches. Leaves at the base of the stem form an evergreen rosette, making a good winter ground cover. The stem leaves are alternate, toothed, and rough-hairy. This plant spreads moderately by underground runners; to keep it in check, don’t overwater.

- HIGHLIGHTS:** Attracts birds, butterflies, bees & other pollinators
 Blooms and fruits August to October
 Somewhat deer resistant
 Seed heads provide winter interest

- LIGHT EXPOSURE:** Full sun
SOIL: Moist to dry
HEIGHT & WIDTH: H: 2’-3’ W: 1’-2’
FORM: Spreading
ZONE: 3-9





BLUESTEM GOLDENROD

Solidago caesia

A delicate goldenrod found in moist woodlands, the edges of bottomlands, and in generally rich, shaded, upland soils. While most goldenrods have flowers at the end of the stems, the flowers of Bluestem Goldenrod occur along the upper stems where the leaves attach. Fruit is an oblong nutlet dispersed by wind. The dark-green, alternate, lance-shaped leaves are sometimes toothed and may be hairy or smooth; leaves are shorter near the tip of the stems. The stems arch and often branch; they tend to have a waxy surface and may be blue-purple or just plain green. One of the few goldenrods that bloom well in light shade. Its nectar and pollen can attract a wide variety of insects.

HIGHLIGHTS: Attracts birds, butterflies, bees & other pollinators
 Blooms and fruits August to October
 Fine-textured delicate look
 Somewhat deer resistant



LIGHT EXPOSURE: Full sun to part shade

SOIL: Moist

HEIGHT & WIDTH: H: 1'-3' W: 1'-3'

FORM: Arching, branched clump

ZONE: 4-8



HEARTLEAF ASTER

Symphyotrichum cordifolium

Heartleaf Aster grows in moist, rich soils of hardwood forests and slopes, streambanks, and shady roadsides, especially in less acidic soil. Stout flowering stalks with narrow foliage tower above the dark green heart-shaped, toothed basal foliage. The flower clusters are elongate and rather triangular in outline, with smallish heads containing white to blue-purple petals and yellow center disks that fade to red. The blooms add a coolness to the lingering heat of early fall. Pinching back stems several times before mid-July will help control plant height and promote bushiness. Often abundantly self-seeds in the garden if not deadheaded. It does not tolerate poorly drained locations. Also known as Blue Wood Aster and previously known as *Aster cordifolius*.



HIGHLIGHTS: Attracts birds, butterflies, bees & other pollinators
 Blooms and fruits
 September to October
 Somewhat deer resistant

LIGHT EXPOSURE: Full sun to part shade

SOIL: Moist to occasionally dry

HEIGHT & WIDTH: H: 1'-4' W: 1'-2'

FORM: Upright, clumping

ZONE: 3-8



Invasive Plants

Non-native species that displace native plant communities

To give native plants a chance to thrive, first remove any non-native invasive plants from your yard. The nursery trade has introduced some invasive plants, like Bradford Pear, while others, such as Japanese Stilt-grass, have been introduced unintentionally.

Unfortunately, many non-native invasive plants are still available at nurseries. Learning how to recognize and avoid them is one way you can help curb their spread. Also, understanding an invasive plant's life cycle will aid in choosing the best way to eliminate it.

The North Carolina Native Plant Society lists plants that are invasive in our state; another useful source that includes information on invasive plant control is the N.C. Invasive Plant Council, at nc-ipc.weebly.com. Look for the link to our Invasive Plant List at ncwildflower.org.

Listed are a few common invasive plants found in Piedmont landscapes.

Trees:

Bradford Pear, *Pyrus calleryana*
Mimosa, *Albizia julibrissin*
Princess Tree, *Paulownia tomentosa*
Tree-of-Heaven, *Ailanthus altissima*

Shrubs:

Autumn Olive, *Elaeagnus umbellata*
Burning Bush, *Euonymus alatus*
Bush Honeysuckles, *Lonicera fragrantissima* & *L. maackii*
Butterfly Bush, *Buddleja davidii*
Leatherleaf Mahonia, *Berberis bealei*
Nandina, *Nandina domestica*
Privets, *Ligustrum japonicum*, *L. sinense* & *L. vulgare*

Vines:

Asian Wisteria, *Wisteria floribunda* & *W. sinensis*
English Ivy, *Hedera helix*
Japanese Honeysuckle, *Lonicera japonica*
Oriental Bittersweet, *Celastrus orbiculatus*
Periwinkle, *Vinca major* & *V. minor*
Porcelain-berry, *Ampelopsis glandulosa*
Sweet Autumn Clematis, *Clematis terniflora*
Wintercreeper, *Euonymus fortunei*

Grasses:

Chinese Silver Grass, *Miscanthus sinensis*
Japanese Stilt-grass, *Microstegium vimineum*



Cinnamon Fern (TLM)



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ncnps.org

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Special thanks to the Coastal Landscapes Initiative
and North Carolina Sea Grant for inspiration. go.ncsu.edu/coastal-landscapes