

PIEDMONT NATIVES

Vision:

To bring native plant landscapes to the forefront of design, development, and installation in our community.

Mission:

To promote stewardship of the Virginia Piedmont by landscaping our developed environments in an ecologically diverse and cost-efficient manner.

> Symphyotrichum novae-angliae Rusted Patch Bumblebee

PREFACE

Each of us has followed different paths to find this guide to Piedmont Native Plants. Some of us are gardeners or landscapers, farmers or scientists, locavores or nature enthusiasts. I diverged on many roads in order to arrive here, currently working as a water resource specialist for the County of Albemarle.

When I inspected my first stormwater facility in 2005, I noticed that many of the plants in these facilities were not faring well, especially plants of Asian or European origin. While researching successful stormwater facilities, I discovered native plants. I created native plants lists for homeowners, believing that thriving native plants would decrease long-term costs and ensure success. But I lacked a way to educate more people.

I shared my 'best plant' lists whenever possible, and met Lonnie Murray, a fellow native plant enthusiast and chair of Albemarle County's Natural Heritage Committee. We assembled a volunteer group of native plant experts including Phil Stokes, Virginia Native Plant Society (VNPS), Ruth Douglas, VNPS, Tim Williams, respected local amateur botanist, and Doug Coleman, Wintergreen Nature Foundation. In 2011, this group went live with the Piedmont Native Plant Database, with the help of Elaine Pack, web analyst. This repository of native plants was established through the following criteria: native, commercially available, grown with relative ease (in the right place), and aesthetically pleasing.

In 2012 we held our first native plant symposium with over 100 in attendance. Soon afterwards, we founded the Piedmont Natives partnership with Nicola McGoff, Thomas Jefferson Soil & Water Conservation District, Betty Truax, VNPS, and James Barnes, Piedmont Environmental Council. This partnership enthusiastically agreed to create a printed guide of the best native plants from our database; our goal was to provide an outstanding resource for folks to study, use and carry with them to nurseries when buying plants.

As we moved from concept to content for this guide, Anne Henley, Liriodendron, Celia Vuocolo, Piedmont Environmental Council, and Janet Davis, Hill House Farm & Nursery, joined the partnership. We further narrowed our list of native plants for this guide to include natives that provide beauty, overlapping bloom times from March to November, grow in a wide variety of situations, and most importantly, support ecological function here in the Piedmont.

Ecological function is the interconnection of plants and pollinators, caterpillars and birds, food and people. Devin Floyd has helped me understand these interconnections. By using native plants, we enhance our gardens, our outdoor living spaces, our Piedmont. We reverse the trend toward extinction of some of our pollinators and find exquisite beauty in the insects and creatures that live in our landscapes.

The creativity of Jody Lewis, guide designer, and the support of my supervisor, Greg Harper, and my director, George Shadman, were essential for the creation of this guide. A special thanks to all of them. I would like to conclude with the statement Doug Tallamy signed my copy of *Bringing Nature Home* with "Garden as if your life depended on it!"

Repp Glaettli

INTRODUCTION

Welcome to Piedmont Native Plants: A Guide for Landscapes and Gardens. This publication tells the story of Piedmont and Blue Ridge native plants. It recommends native plants that will add aesthetic beauty to your gardens and landscapes. It lays the groundwork for quilting together our disconnected habitats and empowers you to do it in your own backyard!

There are four main goals of this guide:

- 1. Introduce the beauty of Piedmont native plants to new audiences.
- 2. Support nurseries in stocking the 'bestall-around' Piedmont native plants (found in the Recommended Plant chapter and Index).
- 3. Cultivate an understanding of both the cultural and natural history of Piedmont native plants.
- 4. Illustrate where best to grow Piedmont native plants based on site conditions and surrounding plants.



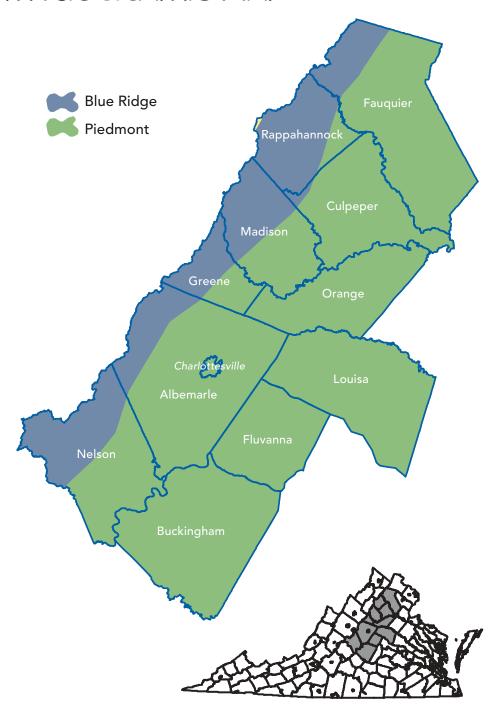
This guide contains over 120 photos of recommended native trees, shrubs, vines, grasses, and perennial wildflowers in order to illustrate the attractiveness of Piedmont native plants. There are an additional 50 plants in the index that do not include photos. Rather than a comprehensive list of native plants for the Piedmont region, this guide recommends Piedmont native plants chosen for their aesthetics, availability, ease of maintenance, and known habitat contributions. It is recommended that you ask for the straight species, or better yet, a local ecotype, but not a cultivar at this time. Regardless of the size of your space, whether it is a balcony garden, an English garden, a shady spot in the backyard, or a relandscape of your entire yard, the addition of native plants will have a positive impact in the Piedmont.

Benefits of Piedmont Native Plants:

- Maintain the unique ecological character of the Piedmont Region.
- Create attractive, soothing, and easy to maintain landscaping options.
- Support the habitat needs of pollinators, beneficial insects, birds, and other wildlife.
- Enhance soil stabilization and the protection of water resources.
- Promote regional economic vitality through the production and sale of Piedmont native plants.

We hope that you will join us to 'Go Native' and grow Piedmont native plants!

PHYSIOGRAPHIC MAP



CONTENTS

PREFACE	1
INTRODUCTION	3
PIEDMONT NATIVE PLANT HERITAGE	6
HABITAT AND LIVING LANDSCAPE DESIGN	8
KEY TO USING THIS GUIDE	12
RECOMMENDED PLANTS FOR THE PIEDMONT	14
Wildflowers	14
Groundcovers	30
Grasses	40
Vines	46
Ferns	50
Shrubs	56
Short Trees	66
Tall Trees	74
Edibles	82
RIGHT PLANTS, RIGHT PLACE	92
DEMONSTRATION GARDENS	104
INDEX	111
RESOURCES	122
LIST OF CONTRIBUTORS	123
PEEEDENICES	125

PIEDMONT NATIVE PLANT HERITAGE

In this guide, Piedmont native plants are defined as plants that evolved in this region before influences of European settlements at Jamestown began to shape and change the landscape. There is strong evidence that the Monacan Nation and other indigenous peoples living on the lands that are now Virginia have contributed to the alteration of the landscape by cultivating and relocating species over the last 14,000 years. Historically, the eastern part of the United States was covered with an expansive mixed hardwood forest with scattered open areas.

Plants included in this guide were selected from the Digital Atlas of the Virginia Flora website, and occur naturally within the region included in this publication.

Virginia and Plants

Virginians have a long history of importing plants from distant lands. Some of these plants were used for agriculture, while others were used to remind transplanted people of their homeland. As world trade and discovery increased, exotic plants became trophies to be collected in landscapes and gardens. The post World War II movement led to the advent of the middle class, home ownership, subdivisions, and turf landscaped yards. These yards became a prominent symbol of status and economic security. While lawns may appear neat and tidy, they offer very little ecological value. Manicured yards offer virtually no shelter or forage for wildlife and provide meager support for rainwater absorption and stormwater mitigation. Around the same time that subdivisions and urban development began to increase, farming rapidly

modernized. Farming practices focused solely on maximizing production and, as a result, every square inch of land was utilized. Naturally vegetated hedgerows were cleared, which reduced the transition area between fields and woodlands, or wilder areas and eliminated critical habitat. The intersection of field and forest plant communities, often called "edge habitat," usually has greater diversity than either of the two plant communities alone, and as a result, adds incredible value to wildlife.

Virginians Return to Native Plants

Over the past few decades there has been a renewed interest in native plants. This shift began with a cultural awakening to the loss of Virginia's ecological heritage. The beautiful wildflowers and natural places that Virginians had grown up with as children were rapidly disappearing, and along with them the bees, butterflies, birds and other species that dwelled in these wild spaces. However, as far back as the mid-1800's, botanists and naturalists were aware of the increasing loss of "wildflowers" and their habitats. Their concern gave rise to activism, and native plant and wildflower preservation societies began to take shape around the country. These societies began to explore natural areas and investigated native plant communities wherever they could find them; in their neighbor's back field, state parks, or roadside hedgerows.

The Virginia Wildflower Preservation Society (VWPS) officially formed in 1982. VWPS originally focused on the rescue and relocation of native plants, but in the 1990s, it changed its mission to preserving native plant habitats and its name to the

Virginia Native Plant Society. Since this group's formation, other groups have emerged around the Commonwealth as advocates of native plants. On the state level, the Department of Conservation and Recreation formed the Virginia Natural Heritage program in the 1990's. This program is dedicated to preserving Virginia's biodiversity through sciencebased conservation. These groups and programs strive to educate their members and the greater public about the importance of preserving native flora and fauna. This wave of native plant knowledge has continued to grow in wisdom and strength.

Living Landscape Benefits

Living landscapes are diverse and dynamic systems that benefit the vitality of nature and people by sustaining the healthy ecosystems that support our farms. In 2011, Forbes magazine identified our region as the epicenter of the locavore, or local consumption movement. Locavores are consumers who strive to

eat food or purchase products that are locally produced. This cultural movement has given rise to community organized ventures that promote local food in the Virginia Piedmont, like the Buy Fresh Buy Local campaign, local food hubs, and continued popularity of farmers markets. Interest in local food has inspired Virginians to take a closer look at how they connect to the world and ecosystems around them.

This guide is an introduction to creating and developing a successful living landscape. It provides a basic understanding of how habitats, plant communities and ecosystems can be incorporated into your garden and landscape design plans. You will also find a list of places you can visit that inspire and demonstrate successful incorporation of native plants into the designed landscape. This guide will provide readers with a baseline knowledge of the Virginia Piedmont's native plants in hopes that through this knowledge we can all become better stewards of our living landscapes.





HABITAT & LIVING LANDSCAPE DESIGN

What is habitat? We are taught that habitat is a series of components (space, food, shelter, and water) and how they interact with each other. On paper this seems fairly straightforward, but what does habitat look like in the real world? And how do we create it?

Perhaps the best way to answer these questions is to rustle up some old memories from eighth grade science class. Picture that vintage ecosystem diagram from your textbook: organisms, both plant and animal, working together. Each one with a specific job, layer on top of layer, working in unison. And within each niche of that ecosystem there are components functioning together to create habitats.

Habitat can range in size from microscopic, to a corner of your yard, or to the size of Shenandoah National Park. For the creatures that live in these habitats, like the bacteria, swallowtail butterfly, and

black bear, these habitats provide what they need for survival and the propagation of their species. Quite often these habitats overlap and we see the bacteria, swallowtail, and bear all operating within the same system. This is our goal: to create functional habitats that support interconnectivity of a diversity of flora and fauna – a goal that can be attained in your own backyard.

In this guide you will find the necessary information to establish habitat, beginning with the powerful building blocks that can create space, provide shelter and food, and influence the water cycle native plants. Most of our traditional garden plants originally came from other countries, and more importantly, other ecosystems. They have not evolved with our local ecosystems, and as a result, are not as readily used by wildlife and do not provide the same ecosystem services as their native counterparts.



Many of the beautiful butterfly species that emerge in the spring and summer come from caterpillars whose survival depends on a 99% native plant diet. In recent years, backyard bird feeding and bird watching activities have exploded in popularity. Although many common songbirds do visit bird feeders for seeds, grain or suet, ultimately these songbird species must have insects to rear their young. Fledglings require a diet high in insect protein in the spring and summer months. As a result, 96% of bird fledglings' diet is caterpillars, the same caterpillars that depend on native plants for their existence. Many of these concepts were described by Dr. Doug Tallamy in his seminal book Bringing Nature Home. Adding natives to your landscape helps to reestablish these important food webs and provides real structure for pollinator and songbird populations.

Constructing habitat in your backyard begins with viewing your land as a

unified, functioning space. Noting the way different aspects interact with each other can set you on the right course for understanding your land's natural functions. Taking stock of the surrounding land use and its relation to your property is another important step, and should factor into your landscape plans. Reestablishing habitat corridors within fragmented landscapes is exceptionally important. If your property lies between two forest tracts, for example, creating healthy edge habitat or reforesting a section of your property to link the tracts could be very beneficial to wildlife. Or perhaps you are in an area devoid of any quality habitat, in which case, your yard can act as an oasis against the surrounding harsh land use.

After looking at your property as a unit (using an aerial photo might be helpful), ask yourself these questions: What is already there? Are there any wild spaces? Is there an area that birds or other wildlife might already be using? Are there areas



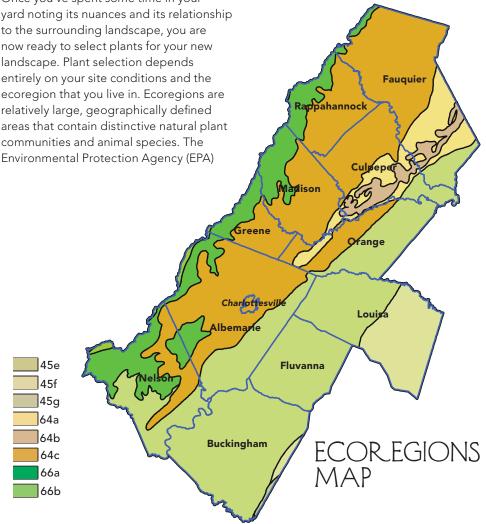
with erosion or flooding issues? Managing an existing habitat may be a simpler task than creating one from scratch. View your property as a whole and then identify ways to restore and create habitat.

Deeper Concepts: Going To the Next Level

This guide provides the basic elements to successfully incorporate Piedmont native plants into your landscape, but the concepts run deeper.

Once you've spent some time in your yard noting its nuances and its relationship to the surrounding landscape, you are now ready to select plants for your new landscape. Plant selection depends entirely on your site conditions and the ecoregion that you live in. Ecoregions are relatively large, geographically defined areas that contain distinctive natural plant communities and animal species. The

has drawn maps to delineate boundaries of ecoregions. What differentiates one ecoregion from another is the underlying geographical phenomena such as geology, hydrology, soil, and vegetation, among others. Understanding which ecoregion your property is located in helps you understand the plant community distributions you will need to identify before selecting plants for your biodiverse garden. A map and description of each Piedmont ecoregion can be found on the following pages.



45e

45f 45a

64b

66a

Northern Inner (45e)

Soils: clay-rich and acidic

Plant Community: oak-pine-hickory

Northern Outer (45f)

Soils: acidic, nutrient-poor clay soils Plant Community: oak, pine, hickory

Triassic Uplands (45g)

Soils: clay, low-base, and moderately acidic, pockets of high-base soils

Plant Community: oak, pine, hickory

Triassic Lowlands (64a)

Soil: moderate-base, pockets of acidic, mostly clay, nutrient rich

Plant Community: hickory, redbud, cedar, hackberry

Diabase & Conglomerate Uplands (64b)

Soil: basic, nutrient-rich, fine and shallow

Plant Community: hickory, ash, hackberry, redbud, cedar and spicebush, all in various stages of succession

Piedmont Uplands (64c)

Soils: greatly diverse

Plant Communities: Blue Ridge edge border - white and northern red oak; Southern boundary – pine and hickory; Northern extent - maturing oak transitioning into beech and maple

Northern Igneous Ridges (66a)

Soils: low fertility, acidity, stoniness, and steepness

Plant Community: White and red oaks

Northern Sedimentary & Metasedimentary Ridges (66b)

Soils: Stoniness, steepness, low fertility, and acidity

Plant Community: White & red oaks



Learning about your ecoregion's native plant communities (a collection of associated plants within a specific geographical unit) can also help you to determine how to approach creating habitat in your yard. Viewing our state's wild areas will give you an idea of what the ecosystems historically looked like in your area, see page 104 for Native Plant Demonstration Sites.

Remember that an ecosystem is a composite of layers of living things. As such, your landscape design should mimic this concept. Layering plants with different heights creates ecological niches and eliminating areas lacking cover in your yard will make your site a safer place for diversity. Layers can also enhance the visual aesthetic and add interesting texture. Incorporating small brush piles, bird nest boxes and water features, and leaving snags (dead trees) will also help to provide shelter and nesting sites for birds, pollinators, reptiles, amphibians, and small mammals.

As you begin to restore the natural processes of your land, remember to enjoy yourself! Delight in learning the names of newfound woodland spring flowers and appreciate the brilliant blooms of a native wildflower summer meadow. Our native plants are our ecological heritage and we should celebrate their comeback.

KEY TO USING THIS GUIDE

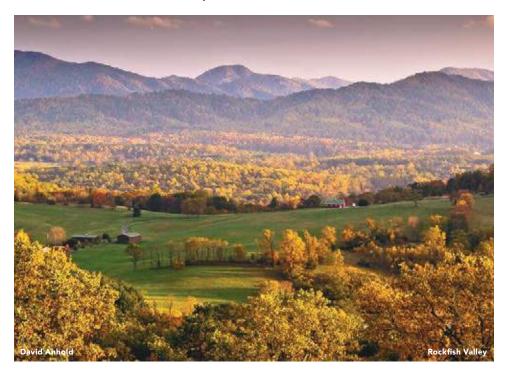
Plants are organized within each section according to bloom times from spring to autumn due to the importance of having something in flower throughout each season. Continuous blooming is important to gardens for both aesthetics and to support pollinators and other wildlife.

Bees of all types are our greatest pollinating force. Honey bees, native bees and bumblebees are separated out from pollinators in the Wildlife Benefits section for each plant. Honey bees will keep visiting the same species of flower over and over while bumblebees prefer a greater diversity of species all in one location. Wasps have been included with native bees. Bees and wasps get a reputation from a very few rotten apples like yellow jackets, some non native hornets and African bees. Generally

speaking, solitary bees and wasps are almost always non-aggressive while on flowers.

Soil types vary considerably throughout Virginia. The soil pH given is a loose approximation of where the plant grows in nature. Many of these plants will grow outside their pH level, but will end up having stunted growth, which may be a good thing depending on your application or other heights in you garden. Experimentation is encouraged.

Contact your local county Cooperative Extension Office at www.ext.vt.edu/offices or your local Soil and Water Conservation District to learn how to get your soil tested. For more information on soils visit: USDA Soil Survey (websoilsurvey.nrcs. usda.gov/app/WebSoilSurvey.aspx).



Scientific Name | Common Name





- HEIGHT: (at maturity)
- BLOOM COLOR:
- **BLOOM DATE:**
- SOIL: (Type, pH)
- NATURAL HABITAT:

Additional Information

Wildlife benefits

Conditions Defined:

LIGHT REQUIREMENTS



Full Sun: 6 + hours of sun



Part Shade: 2-6 hours of sun



Shade: 2 hours or less of sun

MOISTURE REQUIREMENTS



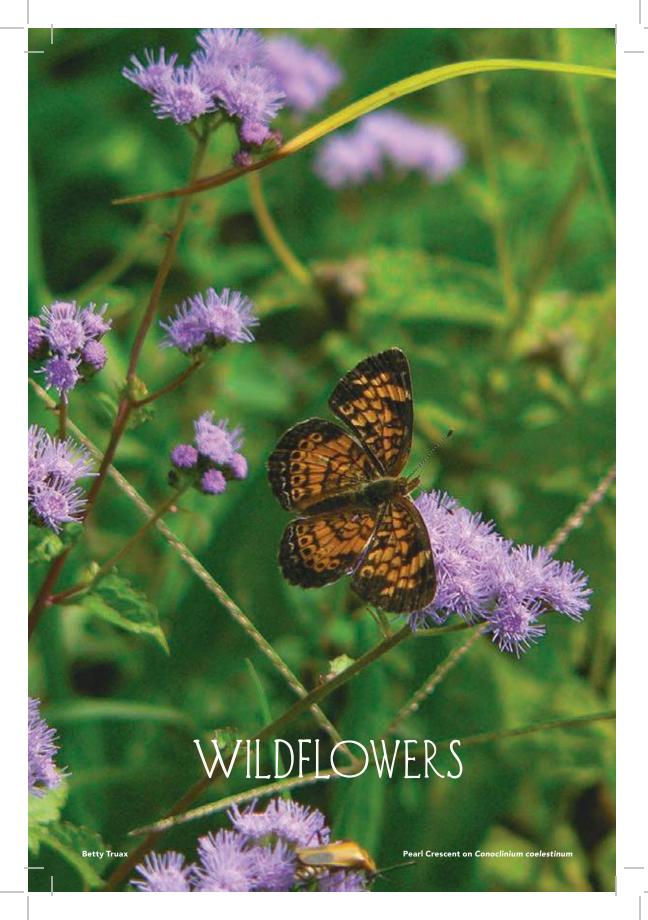
Dry, no signs of moisture



Moist, looks and feels damp



Met, saturated



Aquilegia canadensis | Wild Columbine







Flowers attract bumblebees, butterflies, hummingbirds. Native Columbines host 12 species of native caterpillars.

- HEIGHT: 1 2 ft
- BLOOM COLOR: Red and yellow
- BLOOM DATE: Mar May
- SOIL: Adapatable, rocky; pH moderate-base
- NATURAL HABITAT: Forests, outcrops

After an initial burst of blooms in the spring, it may produce occasional blooms in the summer. In the right conditions will self-seed readily. Semi-evergreen.

Geranium maculatum | Wild Geranium, Cranesbill







Flowers attract honey bees, bumblebees, other pollinators. Seeds attracts game birds, song birds. Native Geraniums host 23 species of native caterpillars.

- HEIGHT: 1/2 2 ft
- BLOOM COLOR: White, pink, purple
- BLOOM DATE: Apr June
- SOIL: Dry Adaptable, rich, well drained; pH acid-base
- NATURAL HABITAT: Mountain coves, wooded riversides, forests

Thrives in garden environments. Palmate leaves are attractive.

Penstemon canescens | Gray Beardtongue







Flowers attract native bees, bumblebees, butterflies, hummingbirds. Native Penstemons host eight species of native caterpillars.

- HEIGHT: 1/2 3 ft
- BLOOM COLOR: White, purple, pink
- BLOOM DATE: May July
- SOIL: Adaptable, rocky, well drained; pH acid-moderate
- NATURAL HABITAT: Forests, barrens, clearings, roadsides

Thrives in rock gardens and rocky slopes.

Coreopsis verticillata | Threadleaf Coresopsis







- HEIGHT: 1/2 3 ft
- BLOOM COLOR: Yellow, orange
- BLOOM DATE: May July
- SOIL: Sandy, rocky, loam, well drained; pH acid-moderate
- NATURAL HABITAT: Woodlands, barrens, clearings, road banks

Deadheading will repeat bloom. Drought tolerant once established.

Flowers attract native bees, butterflies. Native Coreopsis host six species of native caterpillars.

Betty Truax

Rudbeckia hirta | Black Eyed Susan





Flowers attract native bees, butterflies, pollinators. Foliage attracts game birds, song birds. Native Rudbeckia host 16 species of native caterpillars including Common Sulpher, Cloudless Sulphur, Silvery Checkerspot butterflies.

- HEIGHT: 1 3 ft
- BLOOM COLOR: Golden yellow
- BLOOM DATE: May July
- SOIL: Adaptale, rich, well-drained; pH acid-moderate
- NATURAL HABITAT: Fields, roadsides, clearings

Recommended for restoration of disturbed areas and prairies. Drought tolerant once established. Good cut flower. Cultivars are generally not hardy.

Asclepias tuberosa | Butterfly Weed





Flowers attract honey bees, native bees, butterflies, pollinators, hummingbirds. Native milkweeds host 12 species of native caterpillars including Monarch butterflies.

- HEIGHT: 1 3 ft
- BLOOM COLOR: Neon orange, yellow, red
- BLOOM DATE: May Aug
- SOIL: Rocky, poor, well-drained; pH moderate
- NATURAL HABITAT: Woodlands, fields, roadsides

Good drainage is essential. Does not transplant well, has long taproot. Drought tolerant once established. All parts of this plant are toxic.

Heliopsis helianthoides | Ox Eye







Flowers attract honey bees, native bees, bumblebees, butterflies, pollinators. Native Heliopsis hosts two species of native caterpillars.

- HEIGHT: 1 5 ft
- **BLOOM COLOR: Yellow**
- BLOOM DATE: May Oct
- SOIL: Loam, clay, rocky; pH moderate-base
- NATURAL HABITAT: Open forests, woodlands, clearings, meadows, roadsides

Long bloom time. Good cut flowers. Drought tolerant once established. May need to be staked in semishady conditions.

Monarda fistulosa | Wild Bergamot



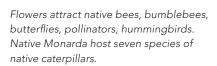


HEIGHT: 1 – 4 ft



- BLOOM COLOR: Pale lavender, white, red, pink
- BLOOM DATE: June Sept
- SOIL: Adaptable, rocky, rich; pH moderate-base
- NATURAL HABITAT: Upland forests, woodlands, clearings, forest edges, meadows, fields, roadsides

Works well at the middle or back of the garden with sufficient sun. Can spread quickly. Obligate species in local meadows. Pairs well with little bluestem. Tea made from the leaves has an Earl Grey-like flavor.



Asclepias incarnata | Swamp Milkweed





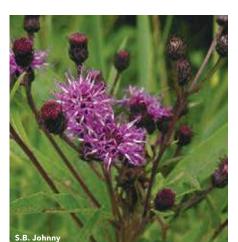


Flowers attract honey and native bees, bumblebees, butterflies, & hummingbirds. Native MIlkweeds host 12 species of native caterpillars, including Monarch butterflies.

- HEIGHT: 1 5 ft
- BLOOM COLOR: Pink, ruby
- BLOOM DATE: July Sept
- SOIL: Rich, tolerates clay; pH moderate
- NATURAL HABITAT: Open swamps, wet meadows

Fragrant blooms. Elegant seed pods filled with silky down. Do not let plant dry out in the spring.

Vernonia noveboracensis | New York Ironweed



Flowers attract native bees, butterflies. Native Ironweeds host 16 species of native caterpillars.

HEIGHT: 3 – 7 ft



- BLOOM DATE: July Sept
- SOIL: Rich; pH acid-moderate
- NATURAL HABITAT: Floodplain forests, swamps, riverbanks, wet meadows, fields

Can be cut back in early summer to control height and promote increased blooms. Great plant for use in border gardens.



Pycnanthemum | Mountain Mints

(pig-'nan'-the-mum)



With their silvery green foliage and prolific summer blooms, the Mountain Mints should be a cornerstone for any pollinator garden. They consistently attract the greatest number and diversity of insect pollinators in the Piedmont region. A 2013 Penn State Extension Office study found that P. muticum had one of the longest bloom times, topping out at ten weeks.

As a member of the mint family, Pycnanthemum do have a minty aroma and grow in hearty clumps, which can form large masses in an open landscape. While this attribute is beneficial when the intended goal is to restore a naturalized area, in a small garden Pycnanthemum will need to be placed in a well-structured design where plant-to-plant competition will help to keep it in check.

Flowers attract greatest diversity and number of pollinators. Rarely bothered by leaf-chewing insects. Native Mountain Mints host three species of native caterpillars and support beneficial insects. Spreads by underground rhizomes forming small colonies; good for soil stabilization. Prune if necessary in spring.

- HEIGHT: 1 4 ft
- BLOOM COLOR: White, some with occassional magenta speckles
- BLOOM DATE: June Aug
- SOIL: Well-drained; pH acid-base



Pycnanthemum incanum Hoary Mountain Mint



SOIL: Loam, sand, rocky, well drained; pH acid-base

NATURAL HABITAT: Forests, barrens, clearings, roadsides, meadows

Fuzzy grayish leaves add interest near upper leaves.



Pycnanthemum muticum Short Toothed Mountain Mint



SOIL: Rich

NATURAL HABITAT: Wet meadows, clearings

Flowers best in Full Sun; least drought tolerant of the four. Strong spearmint fragrance.



Pycnanthemum tenuifolium Narrow Leaf Mountain Mint



SOIL: Loam mix

NATURAL HABITAT: Meadows, clearings, roadsides, riverside, outcrops

Similar to Virginia Mountain Mint, but no fuzz on stem, less of a mint fragrance.



Pycnanthemum virginianum Virginia Mountain Mint



SOIL: Moist; rich, sand, loam, clay

NATURAL HABITAT: Spring marshes, wet meadows, clearings

During drought plant may lose lower leaves. May have magenta speckles on flowers.

Eupatorieae tribe | Boneset, Joe Pye, Mistflower & Thoroughwort

formerly Eupatorium ('yUp'-a-tor-E-um)

If you are looking for large clusters of fluffy flowers in purple, white, or blue that are pollinator magnets with late summer blooms, consider this group of plants. The Eupatorieae tribe, formerly known as Eupatorium, has been divided into three genuses, Conoclinium, Eutrochium, and Eupatorium. Mistflowers (Conoclinium) and thoroughworts (Eupatorium) are sun adoring plants, while bonesets and white snakeroot (Eupatorium) will do well in a shade garden. Eutrochium, or Joe Pye Weeds, are recommended as a native alternative for butterfly bush because they are so successful at attracting butterflies as well as other pollinators. Aside from providing important nectar and

pollen, Eutrochium fistulosum is also highly valued by bees for its stems, which are often used by cavity nesting native queen bees to create a bee nursery. Most of our native bees are solitary and do not form colonies, like honeybees. The stem is hollowed out by the queen, and one by one, the queen lays her eggs in the stem, forming compartments between each one with mud or plant material; the eggs hatch, pupate and remain all winter until emerging in spring. Flowers attract native bees, butterflies, pollinators. Seeds attract songbirds. Native Eupatorium hosts 40 species of native caterpillars including striking Tiger moth, Clymene.

HEIGHT: 1 – 5+ ft

BLOOM DATE: July – Oct

SOIL: Rich, loam with sand, rock, well drained; pH acid-moderate



Conoclinium coelestinum Mistflower



NATURAL HABITAT: Floodplain forests, swamps, meadows, clearings

BLOOM COLOR: Pink, lavender, blue

Great plant to use in a garden bed. If it is happy, it may crowd other plants. May not bloom in full shade.



Eupatorium hyssopifolium Hyssopleaf Thoroughwort

00

NATURAL HABITAT: Woodlands, barrens, ditches, clearings, roadsides

BLOOM COLOR: White

Does well in dry border areas. Flowers have the appearance of babies' breath and adds interest throughout the winter.



Eupatorium perfoliatum Boneset

wet meadows, fields, ditches



NATURAL HABITAT: Floodplain forests,

BLOOM COLOR: White

The fibrous root system frequently forms small colonies. Flowers are fragrant and its perfoliate leaves set it apart from the others listed here.



Eutrochium fistulosum



meadows, ditches BLOOM COLOR: Purple, pink

forests, swamps, riverbanks, wet

Can large colonies; give it room. Flowers are fragrant, and can reach 8 feet tall. Stems are used by native bees.



Eutrochium purpureum Sweet Joe Pye Weed



NATURAL HABITAT: Wet meadow. barrens, floodplain forests

BLOOM: Pink, purple

Nice architectural form of seven feet can make a nice background. Flowers have a vanilla scent. Is a great replacement for Butterfly Bush.

Lobelia cardinalis | Cardinal Flower







Flowers attract native bees, bumblebees, butterflies, pollinators, hummingbirds. Native Lobelia host four species of native caterpillars.

- HEIGHT: 1 1/2 8 ft
- **BLOOM COLOR: Red**
- BLOOM DATE: July Oct
- SOIL: Loamy, sandy loam, or gravelly soil with organic material; pH acid-base
- NATURAL HABITAT: Floodplain forests, swamps, wet meadows, ditches

In winter, keep base leaves clear of leaf litter. Water during droughts; roots need to remain moist. Deer browsing damages young plants. Tends to be biennial or short-lived, but self-seeds if happy. All parts of the plant are toxic.

Liatris pilosa | Blazing Star, Grassleaf Gayfeather







- **BLOOM COLOR: Lavender**
- BLOOM DATE: Aug Nov
- SOIL: Poor-average loam with sand, gravel, clay; pH acid-moderate
- NATURAL HABITAT: Dry woodlands, shale barrens, clearings, roadsides

Looks good when planted together with the yellow, fall-blooming native plants. Attracts migrating Monarch butterflies in the Fall.



Flower attracts bees, butterflies, hummingbirds. Native Blazing Stars host four species of native caterpillars.





Solidago | Goldenrods (sol-i-'dA'-gO)

There are a multitude of Goldenrod species to choose from, so there is a Solidago for just about every type of garden situation. Flowers and foliage attract beneficial insects including honey bees, native bees, butterflies, and pollinators. Insects attract songbirds and gamebirds. Solidago support the greatest number of caterpillars of any of the Piedmont wildflowers - it hosts 112 species! Its golden plumes arrive in late summer and continue into fall, making it one of our best autumn butterfly and bee plants.

Goldenrods and ragweeds both bloom at the same time and the hay fever caused by ragweed is often blamed on goldenrod. The heavy pollen of Solidago, however, can only be transported by insects,

while the tiny pollen molecules of ragweed's green flowers are pollinated by the wind, and can aggravate seasonal allergies.

Goldenrod is a classic prairie species and can be seen dotting summer fields across the Piedmont. Solidago species vary considerably in height, condition requirements, and bloom structure; therefore, many appear quite different from the common field goldenrods that most of us are used to seeing. Many goldenrods can spread by rhizomes and have chemical properties that can negatively affect the root growth of other other species, such as maples. Many goldenrod species can be well-behaved, eye-catching and a nice addition to the late summer garden.

- BLOOM DATE: Aug Oct
- BLOOM COLOR: Pale to bright yellow
- SOIL: pH acid-base.



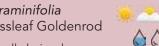
Euthamia graminifolia Flattop/Grassleaf Goldenrod

SOIL: Sand, well-drained

HIEGHT: 1 - 5 ft

NATURAL HABITAT: Roadsides, riverbanks

Has multiple, fine-texture flower clusters which are widespreading. Can be aggressive. Do not plant near crops such as radish or lettuce, or near maple trees.

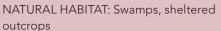




Solidago flexicaulis Zigzag Goldenrod

SOIL: Rich, well-drained

HEIGHT: 1 – 4 ft



Flower cluster are in the leaf axils. Deadhead plant to avoid excessive seedlings. Great plant for a woodland garden. Deer resistant.



Solidago nemoralis Gray Goldenrod

SOIL: Poor loam with sand, clay, gravel

HEIGHT: 1 – 4 ft

NATURAL HABITAT: Barrens, roadbanks

Flower cluster is wandlike. Effective groundcover in harsh conditions and in rock gardens, butterfly gardens, and meadow plantings.

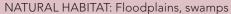


Solidago rugosa

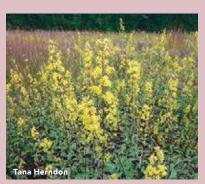
Wrinkleleaf Goldenrod

SOIL: Loam with sand, clay, gravel

HEIGHT: 1 - 8 ft



Flower cluster varies with age of plant. Leaves have indented veins. Works well in wild gardens and meadows.



Solidago speciosa Showy Goldenrod

SOIL: Loam, clay

HEIGHT: 1 - 6.5 ft

NATURAL HABITAT: Roadbanks

This late bloomer is considered one of the prettiest wildflowers for a butterfly flower garden or meadow. It attract hummingbirds.



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Symphyotrichum | Asters ('sym-fi'-O-tricum)

When the season is almost over for most garden plants, Asters shine as the latest flowering genus with a kaleidoscope of petal colors ranging from sky blue to deep purple, pink to white, with centers of gold to scarlet. Not only do Asters give gardens one last gasp of beauty, they also play an important role in our landscapes by supporting beneficial insects, like pollinators. Of all the native wildflowers in the Piedmont. Asters may be the best food source for migrating and overwintering Monarch butterflies, honey bees, native bees, bumblebees and other

pollinators! Native Symphyotrichum are host plants for 112 species of native Lepidoptera (moths and butterflies) caterpillars. Some of these butterflies include Pearl and Tawny Crescent, and Silvery and Harris' Checkerspot. The foliage also attracts gamebirds. However, their showiness and importance does not end with the coming of winter. For example, New England Aster offers amazing color and structure in its large button-like seed heads. Asters are highly variable and, as such, there are species for shade, sun, wet, average, and dry conditions.



Symphyotrichum laeve Smooth Aster

HEIGHT: 1 - 3 ft

BLOOM COLOR: Pale blue

NATURAL HABITAT: Forests, woodlands, barrens, clearings

Good garden bed plant. Lower leaves drop in early autumn while upper leaves remain until frost. Good for erosion control.



Symphyotrichum lateriflorum Calico Aster

BLOOM HEIGHT: 1 - 4 ft

BLOOM COLOR: White, gold centers

NATURAL HABITAT: Forests, swamps, meadows, roadsides

Great plant for moist woodland garden. Likes disturbed areas. Adaptable to various soils.







Symphyotrichum novae-angliae

New England Aster

HEIGHT: 1 – 8 ft

BLOOM COLOR: Purple

NATURAL HABITAT: Meadows, roadsides

Two month bloom time. Little Bluestem or Joe Pye can provide structure to prevent 'top flop'. Can spread rapidly.



Symphyotrichum oblongifolium

Aromatic Aster

HEIGHT: 0.5 – 3 ft

BLOOM COLOR: Violet

NATURAL HABITAT: Rock outcrops

Groundcover; can be mowed at 4 in. Spreads by underground stolons. Great plant for habitat restoration.



Symphyotrichum puniceum

Purplestem Aster

HEIGHT: 0.5 – 8 ft

BLOOM COLOR: Purple

NATURAL HABITAT: Swamps, floodplains, forests, meadows

Great tall plant for back of garden or raingarden.



Eurybia divaricata

White Wood Aster

HEIGHT: 0.5 - 3 ft

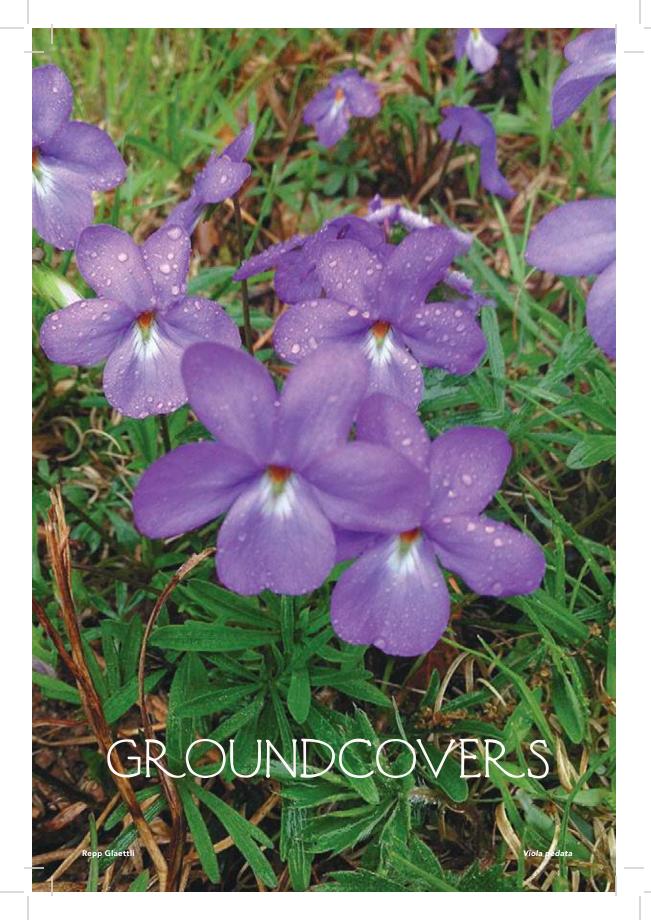
BLOOM COLOR: White, yellow centers

NATURAL HABITAT: Forests, outcrops, floodplain

Works well in masses in rich, woodland gardens. Blooms as early as August.







Antennaria plantaginifolia | Pussy Toes







Flowers attract early native bees, pollinators. Seeds and foliage attract gamebirds including Bobwhite Quail. Native Pussytoes host 6 species of native caterpillars including American Painted Lady.

- HEIGHT: 3 6 in
- BLOOM COLOR: White
- BLOOM DATE: Mar May
- SOIL: Clay, sandy, rocky, poor, welldrained; pH acid-base
- NATURAL HABITAT: Forests, clearings, meadows, road banks

Soft and fuzzy plants that tend to form colonies. Male and female flowers are borne on separate plants. Can mow at four inches after flowering. Drought tolerant.

Geum fragarioides | Barren Strawberry



Flowers attract early native bees, bumblebees. Native Geums host two species of native caterpillars.





- HEIGHT: 3 8 in **BLOOM COLOR: Yellow**
- BLOOM DATE: Mar May
- SOIL: Adaptable, loam, clay, rich, well drained; pH acid-base
- NATURAL HABITAT: Upland forests, rocky woodlands, bluffs, stream banks

Barren strawberry is evergreen to a temperature of fifteen degrees Fahrenheit. Spreads slowly by rhizomes to make an excellent, nonaggressive groundcover.

Chrysogonum virginianum | Green and Gold







Flowers attract early native bees, pollinators. Foliage supports pollinators.

- HEIGHT: 6 12 in
- BLOOM COLOR: Yellow, Gold
- BLOOM DATE: Mar June
- SOIL: Adaptable, rocky, well drained; pH acid-moderate
- NATURAL HABITAT: Upland forests, woodlands

Blooms sporadically throughout the summer if kept moist. Tolerates light foot traffic. Recommended by the National Park Service as one replacement for the invasive English Ivy.

Packera aurea | Golden Ragwort



Flowers attract early native bees and pollinators. Native Packera host 17 species of native caterpillars.







BLOOM COLOR: Yellow

HEIGHT: 6 – 24 in

- BLOOM DATE: Mar June
- SOIL: Loam, clay, rich; pH acid-base
- NATURAL HABITAT: Floodplain forests, seeps, stream banks, moist meadows

Powerful bloomer. Can be used as Daisy-like cutflower. Give room in wetter conditions. May need more moisture when planted in full sun. Foliage has a mild liver toxicity when ingested.

Erigeron pulchellus | Robins Plantain

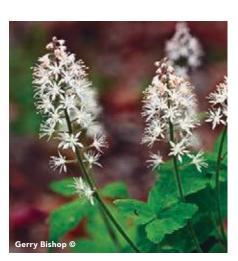


Flowers attract native bees, bumblebees, butterflies, pollinators. Native Erigeron host 15 native caterpillars.

- HEIGHT: 4 24 in
- BLOOM COLOR: Light pink, light violet
- BLOOM DATE: Apr June
- SOIL: Adaptable, rocky, well drained; pH acid-base
- NATURAL HABITAT: Forests, woodlands, clearings

Forms small colonies, via rhizomes, that can withstand light foot traffic. Can be mowed at four inches. Keep rosette of leaves from being covered by autumn leaf litter. Do not confuse with other more weedy plants in the genus, often called fleabane.

Tiarella cordifolia | Foamflower



Flowers attract native bees, butterflies, pollinators.





BLOOM DATE: Apr - June

SOIL: Loam, rich; pH acid-base

NATURAL HABITAT: Cove forests, slope forests, shaded rock outcrops

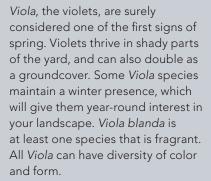
Clouds of foamy white to pink flowers give these plants their common name. Spreads quickly when conditions are suitable by above ground runners called stolons. Not drought tolerant, but will also rot in un-drained soils. Semi-evergreen heart-shaped leaves.





Viola | Violets

('vE'-ola)



Species vary in their preference to moisture and drainage, which presents a better opportunity to get the right violet for your space. Violets are not considered a valuable source.



of nectar, but they are a host for 27 species of caterpillars including the Greater and Lesser Fritillary butterflies. Flowers attract native bees, bumblebees, butterflies, and pollinators. Seeds and foliage attract gamebirds including bobwhite.

Violets will seed freely around your yard but are easily pulled up if you want to tame their numbers.

Both flowers and leaves are edible, and considered delicious by many. Use them in salads, jellies or to decorate cakes. Do not eat blooms that have been treated with chemicals.

- BLOOM DATE: Mar July
- SOIL: Adaptable; well drained: pH acid-base



Viola pubescens Yellow Downy Violet

HEIGHT: 4 - 18 in



BLOOM COLOR: Yellow with purple veins

NATURAL HABITAT: Rich, floodplain, slope forests

Yellow forest violets produce small bud-like flowers that never open and self-pollinate. Prefers richer soils.



Viola pedata Bird's Foot Violet

HEIGHT: 3 - 6 in



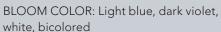
NATURAL HABITAT: Sandy forests, clearings, roadbanks, shale barren

Leaves are deeply divided into three to five palmate lobes, giving it a much different look than other violets. Ants help to distribute seeds. Does not tolerate poorly drained and heavy soils.



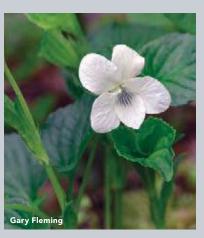
Viola sororia Common Blue Violet. Confederate Violet

HEIGHT: 2 – 6 in



NATURAL HABITAT: Forests, fields, pastures, roadsides

Will tolerate full sun if provided with enough moisture. Can be moved at four inches to allow this important plant to survive in lawns.



Viola striata Striped Violet, Cream Violet

HEIGHT: 6 - 12 in

BLOOM COLOR: White with purple veins

NATURAL HABITAT: Upland forests, floodplain forests

Taller and longer blooming than many other Violas. Ants help to distribute seeds. Does not need pollinators for reproduction. It aggressively forms a thick ground cover but is too tall to invade lawns.



Phlox divaricata | Woodland Phlox







Flowers attract native bees, bumblebees, butterflies, hummingbirds. Native Phlox host eight native caterpillars including Swallowtail butterflies, Clearwing, Hummingbird moths.

- HEIGHT: 6 18 in
- BLOOM COLOR: Ghostly blueish lavender
- BLOOM DATE: Apr May
- SOIL: Adaptable, rich, well drained; pH acid-base
- NATURAL HABITAT: Floodplain forests

The haunting blue color, lowered maintenance, and plant longevity make this a great addition to any partial shad garden. Phlox is Greek for fire or flame - its twisted flower bud resembles a flame. Semi-evergreen.

Phlox subulata | Moss Phlox



Flowers attract butterflies. Native Phlox host eight native caterpillars.



- HEIGHT: 3 6 in
- BLOOM COLOR: White, pink, lavender
- BLOOM DATE: Apr May
- SOIL: Adaptable, well drained; pH moderate-base
- NATURAL HABITAT: Dry woodlands, exposed outcrops

Can be planted at the top of retaining walls to beautifully cascade over with spring blooms. Great rock garden plant; mat-forming, evergreen groundcover. There are many cultivars, straight species may tolerate more growing conditions.

Iris cristata | Dwarf Crested Iris





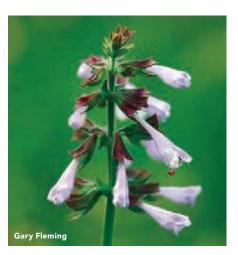


Flowers attract native bees, bumblebees, hummingbirds. Native Iris host 12 native butterflies and moths.

- HEIGHT: 6 12 in
- BLOOM COLOR: Violet, light blue, white
- BLOOM DATE: Apr May
- SOIL: Adaptable, rich, well drained; pH acid-base
- NATURAL HABITAT: Woodlands, bluffs, stream banks

Spreads quickly by rhizomes across the soil surface to form mat. Do not mulch, and carefully clear leaf litter in late winter. Drought tolerant and can be grown in full sun with adequate moisture.

Salvia lyrata | Lyre-leaf Sage



Flowers attract native bees, bumblebees, butterflies, hummingbirds. Native Salvia host five species of native caterpillars.



- HEIGHT: 12 30 in
- BLOOM COLOR: Light blue, violet
- BLOOM DATE: Apr May
- SOIL: Adaptable, well drained; pH acid-base
- NATURAL HABITAT: Fields, roadsides, clearings, forests, floodplains

Basal leaves are semi-evergreen often with a purplish tinge in winter. Tolerates mowing a four inches after seed is produced. Tolerates drought and temporary flooding.

Oenothera fruticosa | Common Sundrops







Flowers attract native bees, butterflies, hummingbirds. Seeds attract songbirds, gamebirds. Native Oenotherae host 16 species of native caterpillars.

- HEIGHT: 12 30 in
- **BLOOM COLOR: Yellow**
- BLOOM DATE: Apr Aug
- SOIL: Adaptable, gravel, well drained; pH acid-base
- NATURAL HABITAT: Forests, outcrops, clearings, ditches, fields, roadsides

Contrary to another one of its common names, Narrowleaf Evening Primrose, the flowers open in the morning and last a few days. Can become weedy especially in good soils. Drought tolerant.

Eragrostis spectabilis | Purple Lovegrass



Foliage provide pollinator habitat. Native Eragrostis host three species of native caterpillars including the Zebulon skipper.

HEIGHT: 12 - 24 in



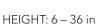
- BLOOM COLOR: pale to bright purple
- BLOOM DATE: Aug Oct
- SOIL: Sand, rocky, poor, well drained; pH moderate-base
- NATURAL HABITAT: Barrens, clearings, fields, roadsides

Best used in groupings or masses as the large, airy inflorescences create a purple haze visual effect. Naturally occurs with Hyssopleaf Thoroughwort and lovely in combination with its pollinator habitat value. Effective as erosion control. Drought tolerant.

Juncus tenuis | Path Rush



Seeds attract songbirds, gamebirds. Native Juncus host six species of native caterpillars.

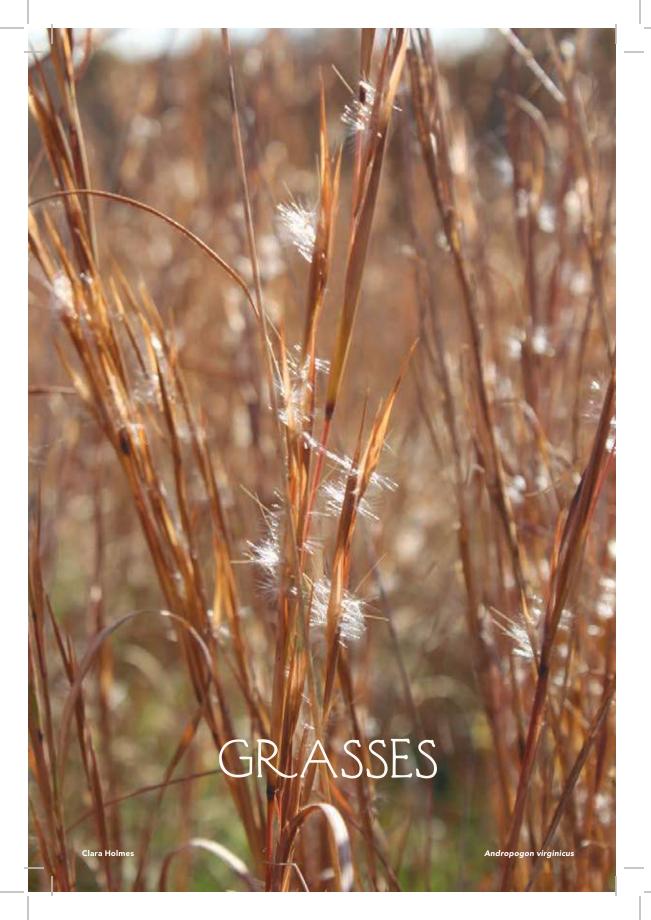




- BLOOM COLOR: Green to straw
- BLOOM DATE: June Sept
- SOIL: Adaptable, rocky, poorly drained; pH acid-base
- NATURAL HABITAT: Fields, clearings, roadsides, paths

Often seen along the Appalachian Trail. Can tolerate foot traffic on paths. Ideal for streambanks, raingardens. More tolerant of drought than many other rushes.





Avenella flexuosa | Wavy Hairgrass







Seeds attract songbirds. Foliage provides cover and nesting for songbirds and gamebirds including Bobwhite Quail.

HEIGHT: 18-24 in

BLOOM COLOR: Green

BLOOM DATE: Apr - Aug

SOIL: Adaptable, rocky, well drained; pH acid-moderate

NATURAL HABITAT: Mountain forests, woodlands, barrens, outcrops

Graceful feathery flowers. Cut stems can be used in floral arrangements. Cool season clumping grass can be used en mass on slopes. Green in spring and fall. Notable for being tolerant of shade, drought, salt.

Danthonia spicata | Poverty Oatgrass



Native Oatgrasses host various native caterpillars including Leonard's Skipper and Indian Skipper butterflies.



BLOOM COLOR: Straw

BLOOM DATE: May – July

SOIL: Sand, rocky, shallow, compacted, poor, well drained; pH acid-moderate

NATURAL HABITAT: Forests, woodlands, barrens, outcrops, clearings, old fields, pastures, roadsides

Interesting structure. Tufts of curly leaves provide winter interest. Being evaluated as an alternative turf. Valuable for stabilization of disturbed soils. Does well in a naturalized garden.

Carex | Sedges

('cair'-ex)

Carex, the sedges, are the unsung heroes of the "ornamental grass" world. Sedges are part of the Graminoid family which also includes grasses and rushes. Often overlooked as a landscape plant, sedges make a great backdrop for your flowering plants, adding both visual interest and contrast. In the wild, sedges are found in a wide array of habitats, which means that there are sedges for almost every landscape situation. All included here can be found in forests. Most of the sedge listed need full sun to part shade. These carex

are adaptable to most soil materials and pH conditions, but differ in the amount of soil moisture they need.

Offering unique value to wildlife, Carex display interesting, sometimes elaborate, structural flowers that bloom mainly between late April and June. Seeds provide food for turtles, songbirds, upland game birds, and wetland birds. Carex are the larval host for various moths and butterflies, including 36 species of skippers including Black Dash, Dion Skipper, Duke's Skipper, Dun Skipper, and Long Dash butterflies.

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Carex appalachica Appalachian Sedge

HEIGHT: 1 - 24 in

BLOOM COLOR: Rich green to yellow

SOIL: Adaptable, well drained

NATURAL HABITAT: Forests, rock outcrops, seeps, mound swamps, floodplains

Grows well among the roots of big shady trees and can take full shade. Groundcover. Does not tolerate wetness. Similar to Rosy Sedge and Eastern Star Sedge.



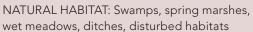


Carex comosa Bottlebrush Sedge

HEIGHT: 2 - 4 ft

BLOOM COLOR: Yellow to kelly green

SOIL: Mucky, slightly sandy



Highly ornamental seedhead that can be used in raingardens and other wetland settings. Skipper butterflies are responsible for a great amount of the pollination that occurs in the wetland habitats. Salt tolerant.



Carex pensylvanica

Pennsylvania Sedge

HEIGHT: 1 - 12 in

BLOOM COLOR: Neon green to washout tan

SOIL: Dry; thin

NATURAL HABITAT: Barrens, grassy

balds, clearings

Soft appearance, easy to grow, spreads well. Excellent groundcover. Foodplant of a diverse array of grasshoppers and leafhoppers, both of which also provide birds with a food source.



Carex platyphylla

Silver or Broadleaved Sedge

HEIGHT: 1 – 12 in

BLOOM COLOR: Green satin, powder blue

SOIL: Adaptable, thin, rocky, rich; pH acid-base

NATURAL HABITAT: Upland forests,

mountain coves

Seeds attract songbirds, gamebirds. Native Carex host about 35 species of native caterpillars, mainly Skipper butterflies. Beautiful groundcover with its broad powder-blue leaves. Native alternative to hostas. One of a few plants to tolerate both dry soil and full shade.



Elymis hystrix | Bottlebrush Grass







Native Elymus host 31 species of native caterpillars including Northern Pearly Eye butterflies, several Skipper species.

- HEIGHT: 2 4 ft
- BLOOM COLOR: Green to tan
- BLOOM DATE: May Aug
- SOIL: Loam, rocky, rich; pH moderate-base
- NATURAL HABITAT: Forests, woodlands, and barrens

Adds beautiful texture to shady areas in fall and winter. Light and airy seedheads work well in cut flower arrangements. Good for erosion control, dry shade. Reseeds effectively. Tolerates Black Walnuts, drought, air pollution.

Schizachyrinum scoparium | Little Bluestem







Seeds attracts songbirds in the winter. Supports a great number of insect families and the food web that preys upon them, including Bobwhite Quails. Native Little Bluestem hosts six species of native caterpillars.

- HEIGHT: 1 4 ft
- **BLOOM COLOR: Silver gray**
- BLOOM DATE: Aug Oct
- SOIL: Adaptable, well drained, poor; pH moderate-base
- NATURAL HABITAT: Open forests, woodlands, barrens, outcrops, riverside prairies, dry clearings, fields, meadows, roadsides

Attractive grass through autumn and winter. Upright clumping, blue-green, with silvery seedheads. Will boost the biodiversity of installations by attracting insect variety and density. Excellent for inhospitable conditions.

Muhlenbergia capillaris | Muhly Grass







Provides habitat for skinks and other beneficial fauna. Native Mulhy Grasses host four species of native caterpillars.

- HEIGHT: 1 3.5 ft
- BLOOM COLOR: White to rose purple
- BLOOM DATE: Late Aug Oct
- SOIL: Adaptable, rocky, well drained; pH base
- NATURAL HABITAT: Open woodlands, barrens, outcrops, clearings, roadsides

Probably one of the loveliest grasses. Its seed heads form clouds of misty pink in fall. Especially lovely when covered in dew. Adds splashes of purple to any native landscape. Highly ornamental and adaptable to a variety of applications.

Andropogon virginicus | Broomsedge



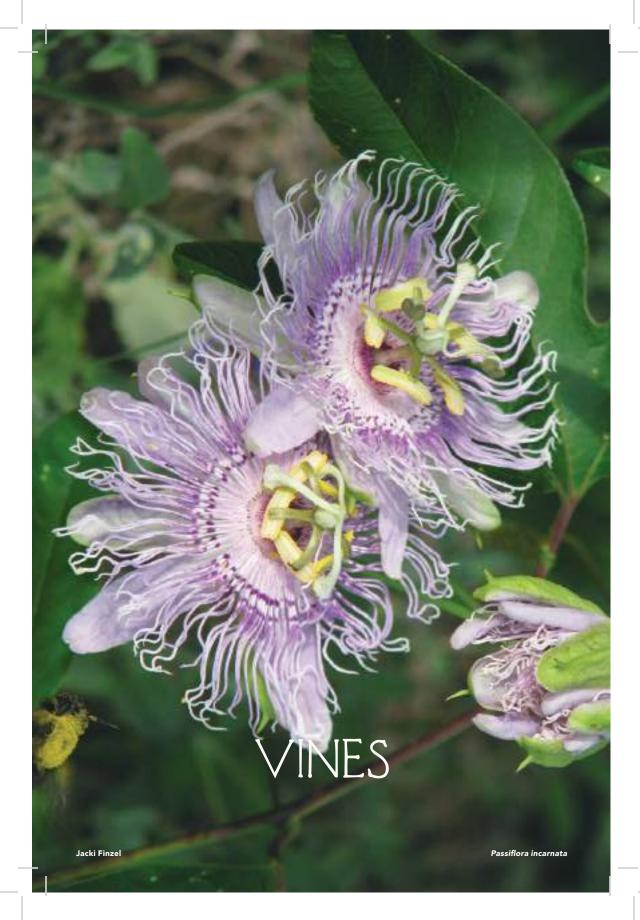




Native Andropogons host 11 species of native caterpillars including Northern Pearly Eye, Zabulon Skipper butterflies.

- HEIGHT: 1 3 ft
- BLOOM COLOR: Green to copper brown
- BLOOM DATE: Sept Oct
- SOIL: Adaptable, poor; pH acid-base
- NATURAL HABITAT: Old fields, pastures, roadsides, clearings, woodlands, barrens, hardpan forests, depression ponds

Incredible fall and winter color. Works well behind shorter wildflowers and combined with Little Bluestem. Clump forming. Valuable for stabilization of disturbed soils. Tolerates poor soil, salt.



Lonicera sempervirens | Coral Honeysuckle





Flowers attract butterflies, hummingbirds. Fruits attract songbirds. Native Honeysuckle host 33 species of native caterpillars including the Spring Azure butterflies, Hummingbird Clearwing, and Snowberry Clearwing moths.

- HEIGHT: 18 ft
- COLOR: Bloom Scarlet, orange, yellow
- BLOOM DATE: Mar July
- SOIL: Sand, adaptive, well drained; pH acid-base
- NATURAL HABITAT: Forests, floodplain, clearings, fencerows

Very showy scentless flowers with long bloom period. Semi-evergreen, nonaggressive vine. Tolerates walnut tree juglone, which is toxic to most plants.

Vitis riparia | Fox or Riverbank Grape



Flowers attract honeybees, native bees, bumblebees. Native Grapes host 72 species of native caterpillars. Sweet edible fruit.





- COLOR: Bloom Greenish-yellow Fruit - Edible, dark blue
- BLOOM DATE: Apr June Fruit: Aug – Sept
- SOIL: Loam, sand, gravel; pH moderate
- NATURAL HABITAT: Riverbanks floodplain, riverside prairies, forests clearings

Sweet edible fruit. Climbs by tendrils on trees, shrubs, and fences. Can smother and kill shrubs and small trees. Resistant to root diseases. This has allowed it to help save French wine production by grafting French grapes on to its root stock.

Parthenocissus quinquefolia | Virginia Creeper





Flowers attract native bees. Fruits attract songbirds. Foliage provides cover for birds. Native Parthenocissus hosts 32 species of native caterpillars.

COLOR: Bloom - Green: Fruit – blue-black

HEIGHT: 60 ft

BLOOM DATE: May - July

SOIL: Adaptable; pH acid-base

NATURAL HABITAT: Forested to open habitats; rock outcrop to floodplains

Outstanding wine-red autumn color. Grows well on walls, arbors, or fences. Used as a groundcover for erosion control for shaded areas and on slopes. It can be pruned to control growth. Berries are toxic and sometimes fatal if eaten by humans. Tolerates air pollution.

Passiflora incarnata | Purple Passionflower or Maypop







Flowers attract native bees. Native Passiflora host five species of native caterpillars including Gulf and Variegated Fritillary, Zebra Longtail butterflies

- HEIGHT: 6 30 ft
- COLOR: Bloom Blue, purple, white; Fruit - Yellow, edible
- BLOOM DATE: May Aug
- SOIL: Adaptable, rich, well drained; pH acid-base
- NATURAL HABITAT: Fence rows, roadsides, fields, forest borders

Fruit is edible by humans. The vines may be trained onto a trellis or fence or grown as a mass where it can be contained or mowed. Control by regularly removing suckers.

Clematis viorna | Vase Vine, Leather Flower









Flowers attract native bees, pollinators. Foliage toxic to mammals. Native Clematis host six species of native caterpillars. Slow growing as a young plant.

- HEIGHT: 6 10 ft
- **BLOOM COLOR: Pink**
- BLOOM DATE: May Sept
- SOIL: Loam, clay, rocky; well drained; pH acid-base
- NATURAL HABITAT: Forests, barrens, rock outcrops, floodplains

Can be woven into shrubs, trees, terraces, green walls. Leathery flower adds interest into the Fall. Smoke from burning Vase Vine can be toxic.

Clematis virginiana | Virgin's Bower



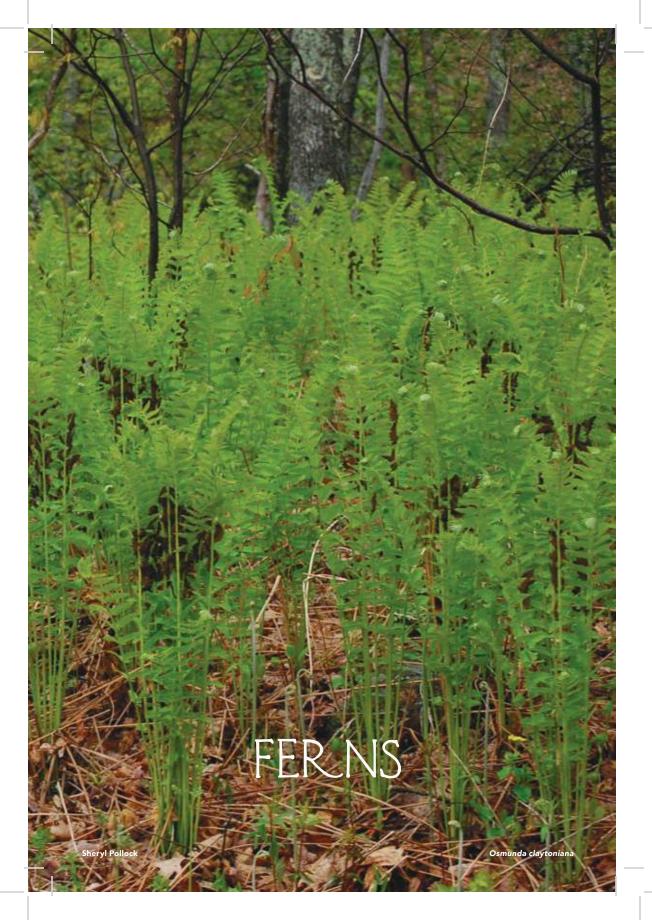




Flowers attract native bees, pollinators. Foliage toxic to mammals. Valuable cover for pollinators, songbirds. Native Clematis host six species of native caterpillars.

- HEIGHT: 6 20 ft
- BLOOM COLOR: White, cream
- BLOOM DATE: July Sept
- SOIL: Loam, silt, rich; pH acid-base
- NATURAL HABITAT: Forests, floodplains, fields, fence rows, roadsides

Fragrantly flowering vine grows rapidly with twisting petioles while it climbs a fence or an arbor. Seedheads provide winter interest. Smoke from burning Virgin's Bower can be toxic.



Adiantum pedatum | Northern Maidenhair Fern







Provides cover for various herps such as salamanders, toads, and lizards.

- HEIGHT: 1 1.5 ft
- **EVERGREEN: No**
- GROWTH PATTERN: Small colonies of plants are often produced from rhizomes; root system is fibrous
- SOIL: Loam, rich, loose, well drained; pH acid-base
- NATURAL HABITAT: Cove forests, slope forests, floodplain forests

Very beautiful delicate fronds. An essential for shade gardens. Good companion for Iris cristata. Protect from wind.

Asplenium platyneuron | Ebony Spleenwort







Plant juice is eaten by small insects and fronds are utilized by small mammals.

- HEIGHT: .5 1.5 ft
- **EVERGREEN: Yes**
- **GROWTH PATTERN: Can range** from individual fronds to small asymmetrical clumps
- SOIL: Loam, sand, rocky; pH acid-moderate
- NATURAL HABITAT: Forests. old fields, clearings, woodlands, outcrops

Very small dainty evergreen upright fern. Grows well in humus rich soil. Well drained. Does not grow well in clay.

Athyrium asplenoides | Southern Ladyfern







Native Athyriums host three species of native caterpillars.

- HEIGHT: 2-3 ft
- **EVERGREEN: No**
- GROWTH PATTERN: Slow growing clumps; small colonies of plants are often produced from rhizomes
- SOIL: Loam, rich, loose, well drained; pH acid-moderate
- NATURAL HABITAT: Forests, mound swamp forests

Beautiful upright feathery fronds. Makes a nice groundcover plant on the north or east side of buildings. Circumboreal, Protect from wind.

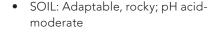
Dennstaedtia punctilobula | Hay Scented Fern

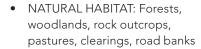




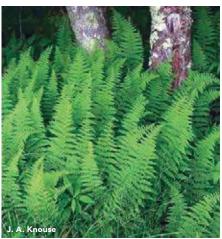












Foliage grown en mass provides cover for wildlife. Information about floral-faunal relationships is limited. Native Dennstaedtia host 3 species of native caterpillars.

Dryopteris intermedia | Evergreen Wood Fern 🗻









Foliage is considered toxic to mammals. Native Dryopteris host three species of native caterpillars.

- HEIGHT: 1 3 ft
- **EVERGREEN: Yes**
- GROWTH PATTERN: Forms crown, does not spread
- SOIL: Rich, rocky; pH acidmoderate
- NATURAL HABITAT: Hardwood forests, cove forests

Attractive fancy frond, clumping. Tolerates dry soil moisture in shade areas.

Dryopteris marginalis | Marginal Wood Fern







EVERGREEN: Yes

- **GROWTH PATTERN: Clonal** colonies of plants are occasionally formed from the rhizomes / asymmetric clump
- SOIL: Rich, rocky, well drained; pH acid-base
- NATURAL HABITAT: Rocky forests, boulder fields, rock outcrops





Foliage is considered toxic to mammals. Native Dryopteris host three species of native caterpillars.

Onoclea sensibilis | Sensitive Fern





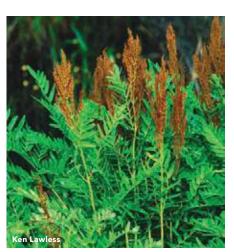


Foliage is considered toxic to mammals. Native Ococleas host three species of native caterpillars.

- HEIGHT: 1.5 2 ft
- **EVERGREEN: No**
- **GROWTH PATTERN: Spreads** from rhizomes
- SOIL: Adaptable, rich, well drained; pH acid-base
- NATURAL HABITAT: Floodplain forests, swamps, marshes

Sensitive fern gets its name from the tendency of the fronds to wither from first frost. Creates a mobile colony. Not drought tolerant.

Osmunda spectabilis | Royal Fern



It is believed Native Osmundas host six species of native caterpillars including the Osmunda Borer moth.





HEIGHT: 2-5 ft **EVERGREEN: No**

- **GROWTH PATTERN: Forms** symmetric clump, grows slowly from rhizome stem
- SOIL: Sand, rich, rocky, gravelly; pH acid-base
- NATURAL HABITAT: Swamps, wet flatwoods, bogs, fens, floodplain forests, wetlands

Foliage can provide cover when grown en mass. One of the most widespread of all living species and is found on every continent except Australia. Tolerates periods of standing water, however does not tolerate moving water or drought.

Osmundastrum cinnamomeum | Cinnamon fern









Foliage can provide cover when grown en mass. It is believed Native Osmundastrums host six species of native caterpillars including the Osmunda Borer moth.

- HEIGHT: 2-4 ft
- **EVERGREEN: No**
- **GROWTH PATTERN: Frequently** forms large clumps and spreads by rhizomes
- SOIL: Rich, sand; pH acid-base
- NATURAL HABITAT: Upland forests, well drained alluvial forests, seepage swamps, mountainous forests, swamps

Has very large, cinnamon-colored fertile fronds in early spring.

Polystichum acrostichoides | Christmas Fern



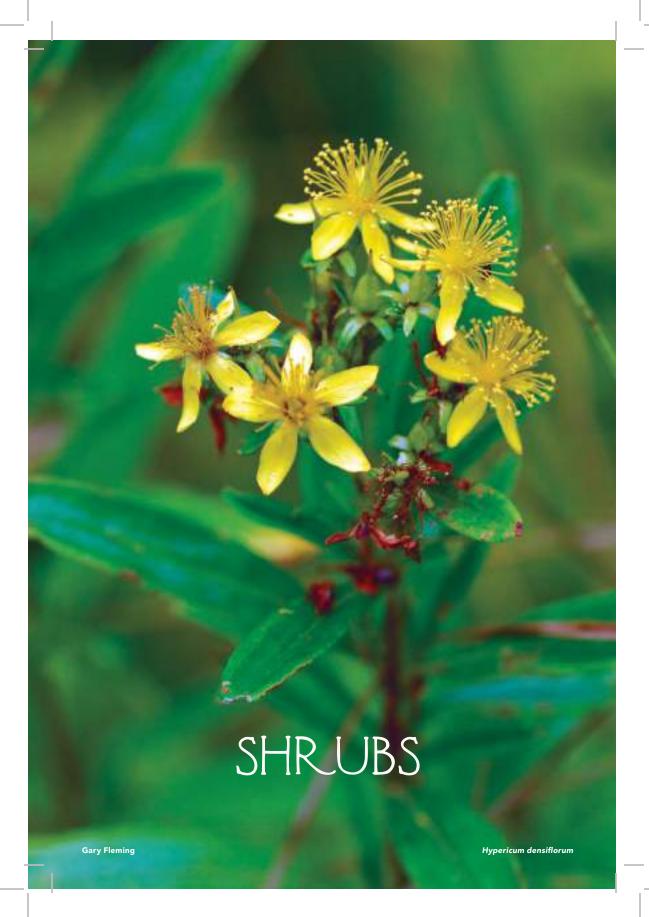




Young fronds attract gamebirds. Overall, the value of this fern to wildlife is limited. Native Polystichums host three species of native caterpillars.

- HEIGHT: 2 3 ft
- **EVERGREEN: Yes**
- **GROWTH PATTERN: Forms** asymmetric clump
- SOIL: Loam, rocky; pH acid-base
- NATURAL HABITAT: Forests

Fronds were formerly used for Christmas decorations. Very easy to grow. Can grow in Full Sun with enough moisture. Looks appealing in masses.



Lindera benzoin | Northern Spicebush



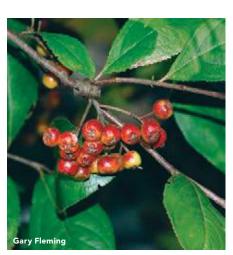


Flowers attract native bees, pollinators. Fruits attract over 20 species of song and gamebirds. Native spicebushes host nine species of native caterpillars including Spicebush Swallowtail butterflies.

- HEIGHT: 3 15 ft
- COLOR: Bright yellow flowers; showy yellow fall leaves; neon red fruit
- BLOOM DATE: Mar Apr
- SOIL: Rich, loam, well drained; pH acid-base
- NATURAL HABITAT: Upland forests, floodplain forests, swamps

This attractive shrub is one of the first to bloom. Entire shrub has sweet, spicy fragrance. Historically used as a substitute for allspice. Need male and female plants for cross pollination to produce fruit. Salt tolerant.

Aronia arbutifolia | Red Chokeberry



Fruits persist into winter, because it has an astringent taste that birds don't prefer. Native Chokeberries host 26 species of native caterpillars including Coral Hairstreak, Striped Hairstreak butterflies.

- HEIGHT: 1 13 ft
- COLOR: Salmon to scarlet purple fall leaves; white flowers; red fruit
- BLOOM DATE: Mar Apr
- SOIL: Adaptable, well drained; pH acid-base
- NATURAL HABITAT: Swamps, wet flatwoods, pond borders, upland forests

Drought tolerant. Shrubs sucker to form small, non-aggressive colonies. Berries can be used to make jam. Salt tolerant.





Rhododendron periclymenoides | Pinxter Azalea





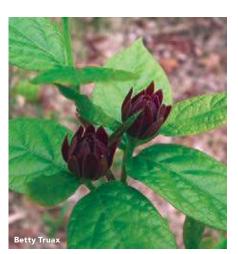


Flowers attract bumblebees, butterflies, hummingbirds. Native Rhododendrons host 50 species of native caterpillars including Gray Comma, Striped Hairstreak, Brown Elfin butterflies.

- HEIGHT: 4 6 ft
- COLOR: Dull yellow fall leaves; pale to rich pink-violet flowers
- BLOOM DATE: Mar May
- SOIL: Hardpan clay, thin rocky, nutrient poor, well drained; pH acid
- NATURAL HABITAT: Upland forests, wet flatwoods, bottomlands

Striking clusters of trumpet shaped flowers. Deciduous, open airy growth habit; often suckers to form dense stands. Discovered by the Rev. Banister and named Pinxter, Dutch for Pentecost, or the seventh Sunday after Easter. Does not tolerate standing water.

Calycanthus floridus | Sweetshrub



Native Calycanthus host two species of native caterpillars.





- COLOR: Yellow fall leaves; maroon flowers; yellowish green fruit
- BLOOM DATE: Mar June

HEIGHT: 3 – 9 ft

- SOIL: Sand, loam, gravel, rich, well drained; pH acid-base
- NATURAL HABITAT: Swamps, floodplain forests, mountain coves

Produces cut flowers prized for their intense fragrance. Leaves, twigs and bark are also fragrant and can be dried with the flowers for use in potpourri. Colonizes, but growth and spreading are slow. A good companion to paw paw tree. Salt tolerant.

Ilex verticillata | Winterberry





Flowers attract native bees and pollinators. Fruits attract more than 48 species of song and gamebirds. Native Ilex host 34 species of native caterpillars.

- COLOR: Yellow fall leaves; inconspicuous white flowers; rusty-red fruit
- BLOOM DATE: Apr May
- SOIL: Rich; pH acid
- NATURAL HABITAT: Swamps, ponds, floodplain forests, upland forests

Deciduous holly species. Berries provide good winter food source for wildlife, but are poisonous to humans. Need male and female plants for cross pollination to produce fruit. Suckering nature provides effective hillside stabilization. Tolerates air pollution.

Philadelphus inodorus | Scentless Mock Orange







- COLOR: Yellow fall leaves; showy white flowers
- BLOOM DATE: Apr May
- SOIL: Loam, sand; pH acid-base
- NATURAL HABITAT: Forests, mountain coves

A lovely shrub for a shady area. Provides a profusion of large white blooms, even in shade. It is a good companion for sweet shrub and paw paw tree. Spreads slowly over time to form a colony. Faintly scented.



Flowers attract native bees, pollinators. Native Mock Oranges host four species of native caterpillars.

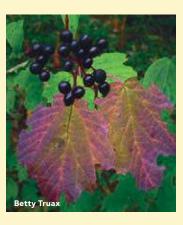
Viburnum | Viburnum (VI-BURN-um)

Native Viburnum have spectacular fall foliage and colorful berries. These versatile shrubs are found in forests. and various habitats.

They offer many benefits to wildlife. Blooming in the early spring, Viburnum provide an important early season nectar source for many native bees, mason bees, bumblebees, and other pollinators. These ornamental shrubs are also the host plant for numerous Lepidoptera species of native caterpillars including Spring and Summer Azure butterflies.

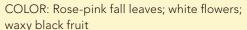
After the blooms subside, Viburnum produce highly nutritious berries loaded with lipid fats that are prized by both song and game birds. Often holds berry throughout the winter providing food in a time of scarcity. This assists the birds with weight gain prior to their fall migration.

There is a Viburnum suitable for nearly every landscape and they appear in nearly every ecosystem type. All listed here grow in foresttype habitats. Viburnum can be incorporated into a hedgerow or as an individual specimen.



Viburnum acerifolium Mapleleaf Viburnum

HEIGHT: 2 - 6 ft

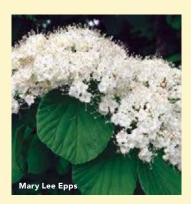


SOIL: Rocky, sandy, well drained. pH acid

NATURAL HABITAT: Forest edge

Also known as Dockmackie, it has been cultivated since 1736 for its attractive flowers and foliage. Good companion for Azaleas and Mountain Laurel. Does not tolerate poorly drained soils.





Viburnum dentatum Southern Arrowwood

HEIGHT: 3 - 15 ft



COLOR: Yellow to reddish purple fall leaves; white flowers; blueish black fruit

SOIL: Adaptable, rocky; pH acid-moderate

NATURAL HABITAT: Floodplains, swamps, fens

Don't plant near entrances, blooms have an unpleasant smell. Host plant Baltimore Checkerspot caterpillars. Salt tolerant.



Viburnum lantanoides Hobblebush

HEIGHT: 6 - 15 ft

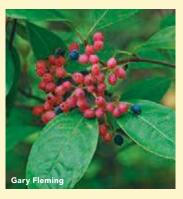


COLOR: Bronze-red or purple leaves; white to pink flowers; red to black fruit

SOIL: Gravel, sandy, loam: pH acid-moderate

NATURAL HABITAT: Boulder fields, swamps

Decorative, long lasting flowers adorn this highly adaptable species. A nice groundcover for erosion control on slopes. Pollution tolerant and rarely bothered by deer. Does well at higher elevations.



Viburnum nudum

Southern Wild Raisin. Possum Haw

HEIGHT: 5 – 20 ft



COLOR: Red, purple fall leaves; creamy white flowers; pink to red to dark blue fruit

SOIL: Loam, sand, organic-rich, nutrientpoor; pH acid

NATURAL HABITAT: Swamps, bogs

Transplants well because of shallow roots. Hosts the Baltimore Checkerspot caterpillar. Salt tolerant. Deer resistant. Edible berries taste like raisins.





Euonymus americanus | Strawberry Bush











Flowers attract native bees, pollinators. Seeds attract gamebirds and songbirds. Native Euonymus hosts six species of native caterpillars.

- HEIGHT: 6 10 ft
- COLOR: Dark red fall leaves; yellowish green flowers; electric red, fushia fruit
- BLOOM DATE: May June
- SOIL: Adaptable, rocky, rich, well drained; pH acid-base
- NATURAL HABITAT: Forests, floodplains, swamp mounds, wet flatwoods, sandhill woodlands

A favorite addition to flower arrangements, the distinctive showy red capsules burst open in fall to expose the fruit. Can be grown as an understory tree. Tolerates poor drainage and moderate droughts once established. Deer candy although mildly toxic.

Ceanothus americanus | New Jersey Tea



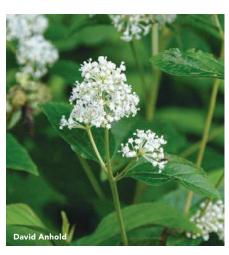




BLOOM DATE: May - June

- SOIL: Adaptable, poor; pH acid-base
- NATURAL HABITAT: Dry forests, woodlands, clearings

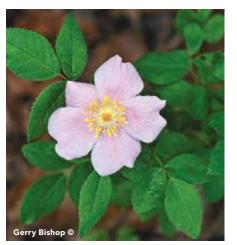
New Jersey Tea was known as Red Root when American Colonists used it as a substitute after the Boston Tea Party of 1771. C. americanus is a major pollinator pillar of the Piedmont shrubs.



Flowers attract native bees, butterflies, pollinators. Foliage attracts gamebirds. Native New Jersey Tea hosts several species of native caterpillars including Spring and Summer Azure butterflies.

Rosa carolina | Carolina Rose





Flowers attract native and bumble bees. Fruits attract quail, gamebirds. Native Roses host 122 species of native caterpillars.

- HEIGHT: 1 6 ft
- COLOR: Yellowish-orange fall leaves; pink flowers; bright red fruit
- BLOOM DATE: May June
- SOIL: Adaptable; pH acid-moderate
- NATURAL HABITAT: Upland forests, barrens, clearings, pastures, roadsides

Strong, old-fashioned, rose fragrance. Disease resistant. Tolerates hot dry weather. Attractive edible rose hips were used by sailors to cure scurvy. Somewhat prickly stems.

Hydrangea arborescens | Wild Hydrangea

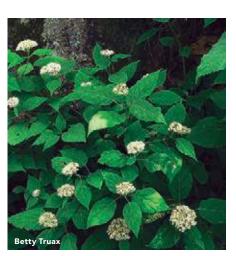






- COLOR: Pale yellow fall leaves; dull white flowers; pale chartreuse fruit
- BLOOM DATE: May July
- SOIL: Adaptable, rocky, rich, poor drainage; pH acid-moderate
- NATURAL HABITAT: Rocky forests, boulder fields, stream banks, cliffs, outcrops

Forms colonies by spreading runners. Grows well in dry shade conditions. Showy Panicles. (see "Right Plants, Right Place" for cultivar info).



Flowers attract native bees, bumblebees, pollinators. Native Hydrangeas host 5 species of native caterpillars.

Physocarpus opulifolius | Ninebark



Flowers attract native bees, butterflies, pollinators. Fruits and seeds attract song and gamebirds. Native Ninebarks host 40 species of native caterpillars.

HEIGHT: 3 - 10 ft



- BLOOM DATE: May July
- SOIL: Adaptable, rocky; pH moderate-base
- NATURAL HABITAT: Woodlands, barrens, outcrops, riversides, cliffs, swamps

The bark continually molts in thin strips, exposing new layers, as if it had "nine lives." Dirr (1997) observes that "the species is adaptable to all conditions, probably even nuclear attacks, and once established, requires a bulldozer for removal.

Hypericum prolificum | Shrubby St. John's Wort





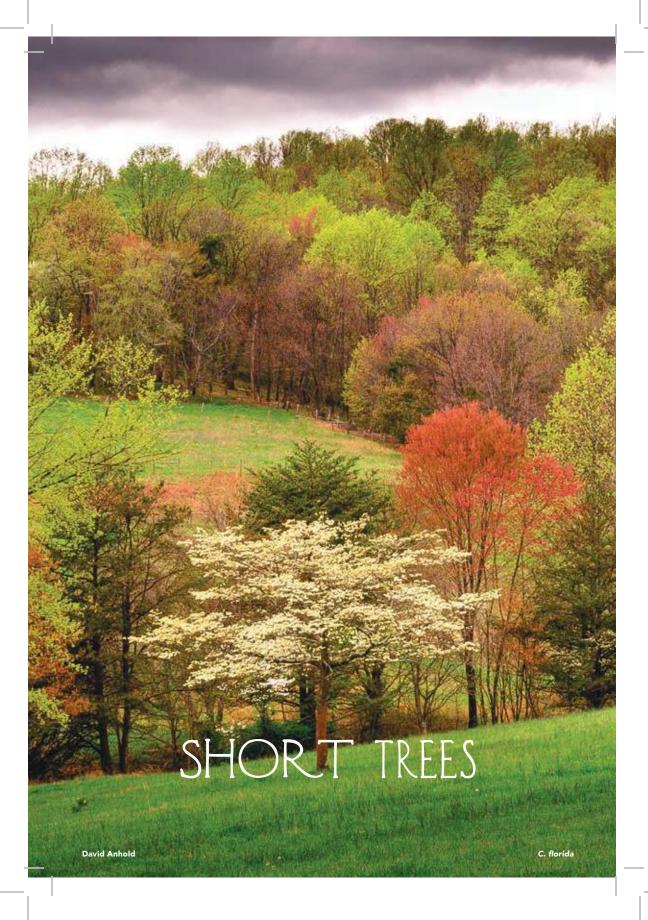


- COLOR: Green fall leaves; yellow flowers
- BLOOM DATE: June Oct
- SOIL: Adaptable, rocky, rich; pH acid-base
- NATURAL HABITAT: Open forests, rocky woodlands, barrens, clearings, riverside prairies, outcrops, floodplain forests

Decorative waxy blue-green foliage has long lasting flowers that adorn this highly adaptable species. Excels in rich garden conditions forming a dense round form. Effective as a groundcover and for erosion or slope stabilization.



Flowers attract native bees, bumblebees, pollinators. Native St. John's Worts host 20 species of native caterpillars including the Gray Hairstreak butterflies.



Carpinus caroliniana | American Hornbeam, Ironwood







Seeds, buds, or catkins attract songbirds, gamebirds. Native Carpinus host 2 species of native caterpillars including Mourning Cloak, Red Spotted Purple.

- HEIGHT: 25 33 ft
- AUTUMN COLOR: Yellow, orange, red
- BLOOM / FRUIT INFO: Mar Apr, yellowish-green; Fruit brown ribbed nutlet
- SOIL: Adaptable, deep, rich; pH acid
- NATURAL HABITAT: Forests, floodplain forests, swamps, stream banks

Attractive bluish gray bark. Trunk is heavily fluted giving it the nickname Muscle Tree. Ornamental ribbed nutlets ripen in late summer, dispersing through winter. Slow grower. Not drought tolerant.

Amelanchier arborea | Downy Serviceberry







Flowers attract honey bees, native bees, bumblebees, pollinators. Fruits attract over 40 bird species of songbirds including Cedar Waxwings, Baltimore Orioles. Native Amelanchier host 119 species of native caterpillars including Red Spotted Purple, Coral Hairstreak, Striped Hairstreak butterflies.

- HEIGHT: 20 30 ft
- AUTUMN COLOR: Orange and gold speckled with red and green
- BLOOM / FRUIT INFO: March May, showy white; blue-black berries
- SOIL: Adaptable, rocky, well drained; pH acid-moderate
- NATURAL HABITAT: Forests, woodlands, barrens, seeps

Excellent choice for urban landscapes; small stature, fragrant blossoms, pollution tolerant. "Serviceberry" comes from the collection of flowers for church services. Another name, Shadblow, comes from bloom times coinciding with the shad running. Alternative to Bradford Pear.

Cornus florida | Flowering Dogwood







Flowers attract native bees, pollinators. Fruits attract songbirds, gamebirds. Native Dogwoods host 115 species of native caterpillars including Summer and Spring Azure butterflies.

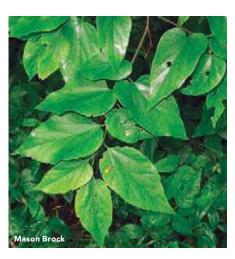
- HEIGHT: 12 20 ft
- AUTUMN COLOR: Red to maroon to purple
- BLOOM / FRUIT INFO: Mar May, showy, white to pinkish blooms; red drupes
- SOIL: Loam, clay, rocky, well drained; pH acid-moderate
- NATURAL HABITAT: Forests, clearings, old fields, floodplains

Wood used for many items that must be hard, strong, and shock resistant, such as tool handles, golf clubs, and knitting needles. Exposure to heat, drought, pollution, or salt increases susceptibility to disease/pests. Full sun conditions may require extra moisture.

Celtis tenuifolia | Dwarf Hackberry







Wind pollinated. Fruits attract songbird, gamebirds. Nesting site for hummingbirds. Native Hackberries host 41 species of native caterpillars including Mourning Cloak, Comma, Hackberry, and Tawny Emperor, Question Mark, American Snout butterflies.

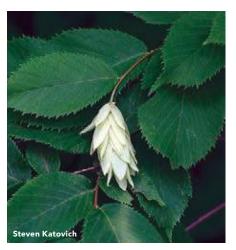
- HEIGHT: 12 26 ft
- **AUTUMN COLOR: Light** golden yellow
- BLOOM / FRUIT INFO: Apr -May, white; salmon, waxy-black, magenta drupes
- SOIL: Adaptable, rich, rocky; pH acid-base
- NATURAL HABITAT: Ridges, open forests, woodlands, fence rows, clearings

Wonderful gray, corky bark offers ornamental value for this resilient landscape tree. Hackberry trees are host to perhaps the greatest diversity of butterfly caterpillars in the Piedmont region. Tolerant of drought and salt. Life span of 150-200 years.

Ostrya virginiana | Hop Hornbeam, Ironwood







Wind pollinated. A nutlet inside the hop-like papery sack is winter food for both songbirds and gamebirds. Native Ostrya host 91 species of native caterpillars including Eastern Tiger Swallowtail, Red Spotted Purple, Striped Hairstreak butterflies.

- HEIGHT: 15 40 ft
- AUTUMN COLOR: Lemon yellow, yellowish brown, red
- BLOOM / FRUIT INFO: Apr May, brown, green; green catkins
- SOIL: Adaptable, well drained; pH acid-moderate
- NATURAL HABITAT: Upland forests, rocky woodlands, boulder fields

Grows well on hilltops and under Oak trees. The fruits resemble hops used in beer brewing. The papery sacks often persist, and augment the attractive exfoliating bark, to provide decorative winter interest.

Cercis canadensis | Redbud



Flowers attract honey bees, native bees, bumblebees, pollinators. Seeds attract gamebirds such as Bobwhite. Native Redbuds host 19 species of native caterpillars including Henry's Elfin butterfly.



- HEIGHT: 15 40 ft
- AUTUMN COLOR: Yellow to yellow-green
- BLOOM / FRUIT INFO: Apr May, magenta-pink; pods green, deep purple, brown
- SOIL: Adaptable, rich, rocky; pH moderate-base
- NATURAL HABITAT: Forests, old fields, roadsides

Individual blooms look like tiny hummingbirds and are edible. Attractive heart shaped leaves, often have brilliant fall color to complement nearby Dogwoods colors. Tolerates poor soils and drought once established. Protect from strong winds.

Chionanthus virginicus | Fringetree





Flowers attract honey bees, native bees, bumblebees, butterflies. Fruit attracts over 75 bird species. Native Chionanthus host 8 species of native caterpillars.

- HEIGHT: 10 25 ft
- AUTUMN COLOR: Yellow
- BLOOM / FRUIT INFO: Apr May, creamy-white; dark blue to black drupes
- SOIL: Adaptable, rocky, well drained; pH acid-base
- NATURAL HABITAT: Forests, barrens, swamps, wetlands

Another name for this tree is Old Man's Beard because of the showy fragrant flowers dangling from 6 inch stalk which resemble a beard. Often grown as a large, multistem shrub. Female trees produce fruit, but need males for pollination. Slow grower. Tolerates air pollution.

Ilex opaca | American Holly



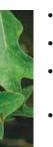
Fruits attract at least 18 species of songbirds and gamebirds. Folige provides cover and nesting habitat for songbirds. Native Ilex host 34 species of native caterpillars.

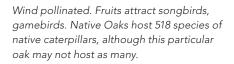


- HEIGHT: 20 40 ft
- AUTUMN COLOR: Evergreen
- BLOOM / FRUIT INFO: Blooms Apr -June, greenish-white; fruit red berries
- SOIL: Sand, loam, well drained; pH acid-moderate
- NATURAL HABITAT: Upland, floodplain forests

Broad leaved pyramid-shaped evergreen is good for screening, hedges or as a speciman. Provides a great stock of garland and winter interest. Male and female trees are needed for berry production. Newly established plants flower after 4-7 years.

Quercus ilicifolia | Bear Oak









- HEIGHT: 5 15 ft
- AUTUMN COLOR: Reddish-purple
- BLOOM / FRUIT INFO: Apr June; reddish spikes; brown acorns
- SOIL: Sandy, rocky, poor, well drained; pH acid-moderate
- NATURAL HABITAT: Oak and oak-pine forests, shale barrens, sandy areas

A fire-adapted oak species that is typically multistem; long lived root systems support several generations of sprouts. Grows well on hill sides. Intolerant of dense shade.







Magnolia tripetala | Umbrella Magnolia







Flowers attract beetles. Native Magnolia host 21 species of native caterpillars.

- HEIGHT: 15 40 ft
- AUTUMN COLOR: Pale yellow
- BLOOM / FRUIT INFO: May June, creamy white; September, rosy red
- SOIL: Rich, organic loam or rocky soils; pH moderate
- NATURAL HABITAT: Upland forests

Lovely understory tree often having several trunks and narrow crown. "Umbrella" leaves, 12-30 inches, are wide at the tip and taper at the stem. Best observed looking up from underneath to enjoy the striking shape. Interesting flowers with unpleasant odor.

Magnolia virginiana | Sweetbay Magnolia







Flower attracts beetles. Seeds attract songbirds, gamebirds. Native Magnolia host 21 species of native caterpillars.

- HEIGHT: 20 60 ft
- AUTUMN COLOR: Green to ruddy yellow
- BLOOM / FRUIT INFO: Apr July, creamy white; conelike pods split to reveal red seeds
- SOIL: Clay, loam, rich; pH acid-moderate
- NATURAL HABITAT: Floodplain forests, swamps

Flowers have sweet, lemony scent. Magnolias evolved over 25 million years before bees; trees are pollinated and eaten by beetles. Can reach up to 60 feet tall. Tolerates poorly drained soils. Aging trees aren't shade tolerant.



Juniperus virginiana | Red Cedar



Fruits attract songbirds. Foliage provides nesting and shelter. Native Junipers host 37 species of native caterpillars including Olive Hairstreak.

- HEIGHT: 40 60 ft
- AUTUMN COLOR: Evergreen
- BLOOM DURATION/COLOR, FRUIT **DURATION/COLOR:** Mar – May males tan, females seafoam; Aug – Oct, waxy coated berry-like blue cone
- SOIL: Adaptable, well drained; pH acid-base
- NATURAL HABITAT: Forests, barrens, old fields, fencerows

Aromatic, rot/insect-resistant wood used for fence posts, outdoor furniture, chests, closet linings. Adaptable tree with significant tap root. Tolerates air pollution, drought, erosion. Fast growing visual/wind screen.

Fagus grandifolia | American Beech







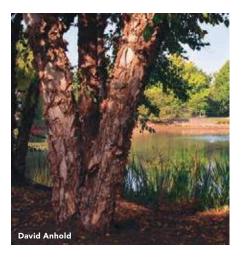
- BLOOM DURATION/COLOR. FRUIT DURATION/COLOR: Apr, yellow green catkins; Oct, brown nut
- SOIL: Loam, poor, well drained; pH acid-moderate
- NATURAL HABITAT: Forests, floodplains, ravines, bluffs

Slow growth rate and shallow root system; difficult to grow other plants under beech. Wood is used for flooring, furniture, and other wood products. High density, desirable fuelwood that burns well.



Nuts attract songbirds, gamebirds. Older tree trunk hollows provide nesting for songbirds. Native Beech host 124 species of native caterpillars.

Betula nigra | River Birch



Seeds attract songbirds, gamebirds. Native Birch host 413 species of native caterpillars including Mourning Cloak butterflies.

HEIGHT: 40 - 70 ft



- AUTUMN COLOR: Yellow
- BLOOM DURATION/COLOR, FRUIT DURATION/COLOR: Mar – Apr, red male catkins, Mar - June, light green female catkins; May – June, reddish brown nutlet
- SOIL: Adaptable, rich; pH acid-moderate
- NATURAL HABITAT: Floodplains, stream banks

River birch sap can be fermented to make birch beer or vinegar. The wood is used to manufacture inexpensive furniture, woodenware, wooden shoes, basket materials, toys, staves, and fuel. Exfoliating paper-like bark.

Pinus echinata | Shortleaf Pine



Seeds and foliage attract songbirds, gamebirds including the Bobwhite Quail. Native Pines host 191 species of native caterpillars.



- HEIGHT: 80 100 ft
- AUTUMN COLOR: Evergreen
- BLOOM DURATION/COLOR, FRUIT DURATION/COLOR: April, red, yellow male, light green to red female; September, brown pinecone
- SOIL: Adaptable, rocky, well drained; pH moderate
- NATURAL HABITAT: Upland forests, old fields, woodlands

Forms a deep taproot and is best planted as a young tree. Adaptable to nutrient-deficient soils. Yellow-orange wood is fine-grained and hard with less resin than other pines.

Betula lenta | Sweet Birch



Attracts both songbirds and gamebirds. Native Birch host 413 species of native caterpillars including Mourning Cloak butterflies

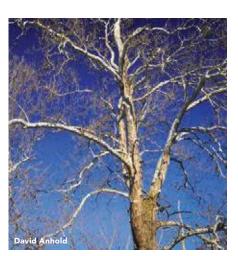
HEIGHT: 50 - 80 ft

AUTUMN COLOR: Yellow

- BLOOM DURATION/COLOR, FRUIT DURATION/COLOR: Apr – June, June – July
- SOIL: Rich, loamy, clay rocky, well drained; pH acid-base
- NATURAL HABITAT: Rocky forests and woodlands, rock outcrops, boulder fields

Uses include medicinal, food flavoring, cosmetic ingredient, and tea. Waterproof bark has been utilized on the outside of dwellings, canoes, baskets, dishes, and buckets. Wood is strong and has been used for tools, commercial flooring, furniture, and fuel.

Platanus occidentalis | Sycamore



Seeds attract winter songbirds. Older tree trunk hollows provide nesting for Barred and Screech Owls, Wood Ducks, songbirds. Native Sycamore host 42 species of native caterpillars.

- HEIGHT: 75 100 ft



- BLOOM DURATION/COLOR, FRUIT DURATION/COLOR: Apr, inconspicuous; Oct, green then brown fruit
- SOIL: Adaptable, rocky; pH moderate-base
- NATURAL HABITAT: Floodplain forests, swamps, stream banks

Large, fast-growing tree with distinctive, exfoliating, green/gray/ brown mottled bark. Tolerates air pollution. Best planted in open areas where the large leaves won't accumulate under other plants.

Querus | Oaks (Cor-cus)

Oaks (Quercus) are arguably the most revered tree in our eastern forest system; this tree is embedded in our folklore, Native American legends, and U.S. history. It was the tree that built our ships, homes, furniture. and fueled our fires. For thousands of years, the oak tree has supported both Native American peoples and European colonists. However, humans are not the only species to benefit from the mighty oak. The Quercus genus provides fatty forage in the form of acorns for white-tailed deer. squirrels, wild turkey, and black bear seeking to increase their weight before winter. Quercus tend to bloom in April to supply acorns of various shapes. Oaks make up our major habitat, forest, while some fill other niche habitats. The Quercus

selected here all are sun loving trees that prefer dry to moist soils with a pH between acid and moderate, while soil materials may differ. Most all listed here tolerate partial shade. Oaks also provide ample nesting opportunities for native bees, pollinators, birds, and small mammals. Quercus host the greatest number of caterpillar species of any plant grown on the east coast. These 518 species of native caterpillars include Horace's Duskywing, Juvenal's Duskywing, Red Spotted Purple, Banded Hairstreak, Sleepy Duskywing, Southern Hairstreak, Striped Hairstreak, White M Hairstreak, Edwards' Hairstreak, Red Banded Hairstreak. If you can only plant one tree in your backyard, let it be an oak!



Ouercus alba

White Oak

HFIGHT: 100 - 130 ft

AUTUMN COLOR: Purplish-red to violet-purple

COLOR: Green or reddish

SOIL: Adaptable, rich, well drained

Tolerates shade when young and bottomlands, ponds, swamps. Tolerates drought, when established. Difficult to transplant, large taproot. Slow

growing, lives up to 600 years. Commercial wood uses.



Quercus coccinea

Scarlet Oak

HEIGHT: 80 – 115 ft

AUTUMN COLOR: Scarlet to red fall color

COLOR: Inconspicuous yellowish-green

SOIL: Adaptable, poor, rocky

Tolerates shade when young. Not tolerant of adverse conditions. Rapid grower, for oaks. One of the last trees to change color in autumn.



Quercus marilandica

Blackjack Oak

HEIGHT: 30 - 115 ft

AUTUMN COLOR: Red, brown

COLOR: Yellowish-green

SOIL: Hardpan clay typically over deep sands

Doesn't tolerate shade. Slow growing. Commercial wood uses.



Quercus montana

Chestnut Oak

HEIGHT: 80 - 115 ft

AUTUMN COLOR: Yellow, brown

COLOR: Yellow-green or reddish

SOIL: Adaptable, thin, rocky

Touted for urban and exposed sites. Long lived, slow growing, acorns favorite of turkeys. High cavity habitat value compared to other Oaks.



Quercus phellos

Willow Oak

HEIGHT: 80 - 115 ft

AUTUMN COLOR: Yellow, brown

COLOR: Yellow-green

SOIL: Adaptable, well drained

Tolerates floodplains, swamps and old fields. Rapid grower,

for oaks, easily transplanted, but prefers well drained soils. Commercial wood uses.

Nyssa sylvatica | Black Gum, Black Tupelo



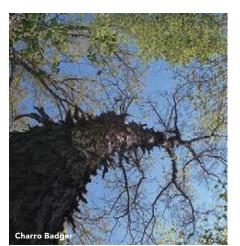


Flowers attract honey bees, native bees. Fruits attract songbirds, gamebirds. Native Nyssa host 25 species of native caterpillars.

- HEIGHT: 40 60 ft
- AUTUMN COLOR: Red, yellow
- BLOOM DURATION/COLOR, FRUIT DURATION/COLOR: Apr, greenish white; Sept - Oct, purplish blue stone fruit
- SOIL: Adaptable, rocky, well drained; pH acid-moderate
- NATURAL HABITAT: Forests, woodlands, swamps

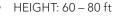
Although flowers are inconspicuous, their nectar is used by bees to make highly-prized tupelo honey. One of the earliest native trees to color in the autumn. Interesting horizontal to pendulous branches.

Carya ovata | Shagbark Hickory

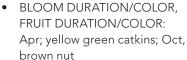


Nuts attract gamebirds, waterfowl. Native Hickory host 233 species of native caterpillars including Hickory and Banded Hairstreak butterflies.









- SOIL: Adaptable, deep, well drained; pH acid-moderate
- NATURAL HABITAT: Forests, floodplains, barrens

Edible nuts have a sweet taste. Highly ornamental as older bark peels or "shags" into long plates. Large taproot forms when trees are young; difficult to transplant.

Pinus rigida | Pitch Pine

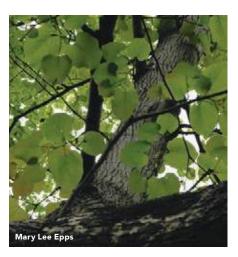


Seeds attract songbirds, gamebirds. Native Pines host 191 species of native caterpillars.

- HEIGHT: 40 60 ft
- AUTUMN COLOR: Evergreen
- BLOOM DURATION/COLOR, FRUIT DURATION/COLOR: Apr -May, light green, yellow, red; Sept - Oct, brown pinecone
- SOIL: Sand, rocky, poor, well drained; pH acid
- NATURAL HABITAT: Forests, cliffs, outcrops, seepage swamps, bogs

An irregular, attractive tree becoming gnarled with age. Highly resinous, the knots were used as torches. A fireadapted species several sprouts grow from the stumps.

Tilia americana | Basswood

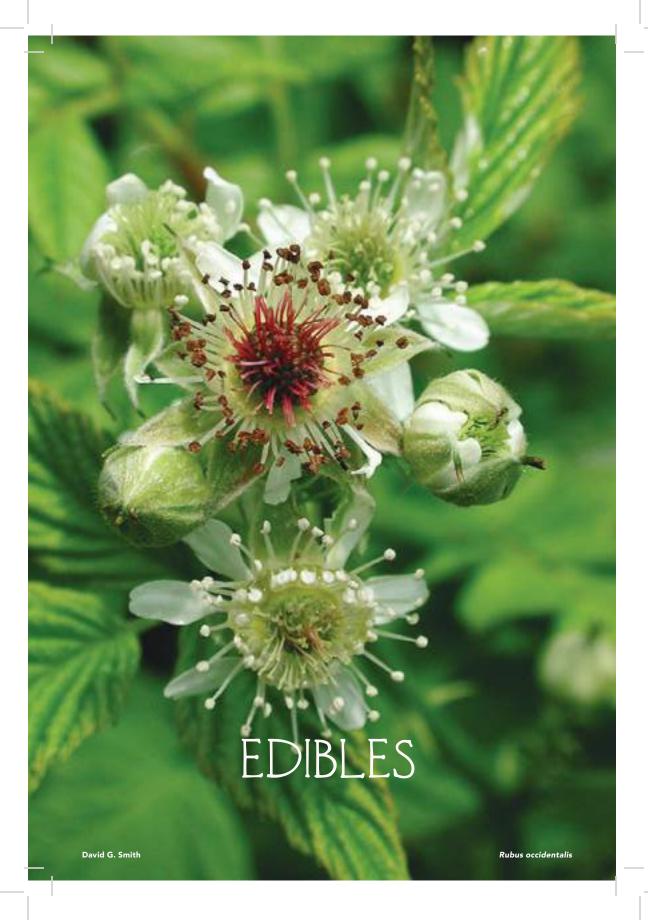


Flowers attract honey bees, bumblebees, pollinators. Seeds attract songbirds, water fowl. Native Tilia host 150 species of native caterpillars.



- HEIGHT: 70 80 ft
- AUTUMN COLOR: Pale yellow
- BLOOM DURATION/COLOR, FRUIT DURATION/COLOR: June, yellow-white; Aug, gray-tan wooly nut-like drupe
- SOIL: Adaptable, rocky, well drained; pH acid-base
- NATURAL HABITAT: Cove forests, forests, slopes

Lovely, fragrant flowers; honey bees use the nectar to make desirable honey. Grows best in soils with adequate nitrogen. Relatively soft wood that is valued for hand carving. Tolerates partial shade when young.

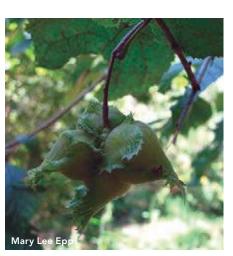


DISCLAIMER

Before eating any wild plant, be sure to confirm your ID to the species level with a proper key, or with the guidance of an expert. Never put something in your mouth unless you are absolutely sure what it is (advice to live by). Also avoid collecting on roadsides, which can be contaminated or sprayed with toxic chemicals. There is always a small inherent risk in trying new things, including having an allergic reaction, and it is your responsibility to do your own research and determine if it is safe to eat any of these species. We strongly encourage connecting with other foragers in your area so

that you can share good advice and recipes. Often older citizens that live in rural areas are an invaluable resource for good information about edible natives. Never apply identification information or edibility advice outside the region you learned it, as that can lead to dangerous mistakes. People have been eating wild plants for three million years plus. Foraging can be perfectly safe if you know what you are doing. Learn to forage safely and responsibly, and experience the culinary delight that only native foods can provide!

Corylus americana | American Hazelnut



Wind pollinated. Nuts attract gamebirds including Bobwhite Quail. Native Corylus host 124 species of native caterpillars.



- BLOOM: Feb Mar, light green-red
- FRUIT / TASTE: Light green-brown, nutty; Sept – Oct
- SOIL: Adaptable, rocky, well drained; pH moderate
- NATURAL HABITAT: Upland forests, floodplain forests, woodlands, old fields

Nice orange, peach fall color. Nuts are smaller than store bought, but very sweet and delicious. More disease resistant than their non-native counterparts.

Amelanchier canadensis | Canadian Serviceberry







Flowers attract native bees. Berries and twigs attract over 40 bird species such as Cedar Waxwings, Towhees, Baltimore Orioles. Native Amelanchier host 151 species of native caterpillars including Red Spotted Purple butterflies.

- HEIGHT: 26 ft
- BLOOM: Mar Apr, white
- FRUIT / TASTE: Red to deep purple; blueberry like Juneberry; May - June
- SOIL: Adaptable; pH acid-moderate
- NATURAL HABITAT: Swamps, wet flatwoods, upland forests

Uses include eaten raw, dried, frozen; muffins, puddings, pies, cobblers, smoothies, wine. Another common name for this tree is Pioneerberry because it was utilized by early American settlers. Tolerates salt, phosphorus, poor soils.

Prunus americana | American Plum







Flowers attract honey bees, native bees, bumblebees, pollinators. Native Prunus host 429 species of native caterpillars including Eastern Tiger Swallowtail, Red Spotted Purple, Viceroy, Coral Hairstreak, Striped Hairstreak butterflies.

- HEIGHT: 10 35 ft
- BLOOM: Mar Apr, white with yellow stamen
- FRUIT / TASTE: Yellow-reddish plum, sour-sweet; July - Aug
- SOIL: Loam, rich; pH acid-moderate
- NATURAL HABITAT: Forests. old fields, shrubby clearings, fence rows

Has lovely and fragrant flowers in spring. Attractive sour fruits can make an incredibly delicious jam. May be best if cooked first. Naturally suckers to form a prickly hedge.

Sassafras albidum | Sassafras



Flowers attract native bees, pollinators.
Fruits attract songbirds, gamebirds including
Bobwhite Quail. Native Sassafras host 36
species of native caterpillars including
Spicebush Swallowtail butterflies.

• HEIGHT: 20 – 40 ft



- FRUIT DURATION/COLOR/TASTE: Black drupes on red stem, rootspicy, root beer-like
- SOIL: Adaptable, well drained; pH acid-moderate
- NATURAL HABITAT: Forests, woodlands, old fields, fence rows

Warning! Roots contain known carcinogen. Leaves are perfectly safe and can be used for tea, and as a thickener for Cajun food. Interesting mitten-shaped leaves and fabulous fall color.

Asimina triloba | Paw Paw



Flowers attract Flesh Flies, Blowflies and Carrion Beetles because flowers smell of death. Rotting meat or roadkill at base of tree increases pollination rate. Native Paw Paws host 12 species of native caterpillars including Zebra Swallowtail butterflies.



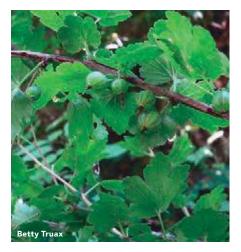
- HEIGHT: 40 50 ft
- BLOOM: Mar May, maroon
- FRUIT / TASTE: Pale green, turns blackish as it ripens, a tropic mix of banana, mango, and custard; Aug – Oct
- SOIL: Loam, rich; pH moderatebase
- NATURAL HABITAT: Floodplain, forests, flatwoods, swamps

Subtropical berry is used as a banana replacement in many prepared foods including breads, ice cream, cookies. It was George Washington's favorite dessert, chilled. Tree is slow grower.

Ribes rotundifolium | Appalachian Gooseberry







Flowers attract native bees, pollinators. Native Ribes host 92 species of native caterpillars including Gray Comma, Green Comma butterflies.

- HEIGHT: 3 6 ft
- BLOOM: Apr May, Yellowish-
- FRUIT / TASTE: Green-purple, tartsweet, floral; June - Sept
- SOIL: Adaptable, rich, rocky; pH moderate-base
- NATURAL HABITAT: Forests, boulder fields, woodlands barrens, shrub balds, seepage swamps

Green translucent berries with a slight floral fragrance. A perfect summer snack. Other Virginia Ribes are better known as currants. Attractive bark. Tolerates drought.

Fragaria virginiana | Virginia Strawberry







Flowers attract native bees, pollinators. Fruits attract songbirds, gamebirds, Box Turtles. Native Strawberries host 75 species of native caterpillars including Painted Lady butterflies.

- HEIGHT: 3 7 in
- BLOOM: Apr June, white
- FRUIT / TASTE: Red, sweet, rich; May - June
- SOIL: Loam, clay, rich, well drained; pH moderate-base
- NATURAL HABITAT: Forests, woodlands, old fields, clearings, meadows, pastures, roadsides

Flavor more intense than cultivated strawberries, but berries are smaller. Makes an excellent groundcover. Do not confuse with non edible yellow flowered Indian Strawberry.

Vaccinium angustifolium | Lowbush Blueberry







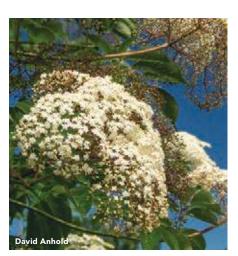
- BLOOM: May June, white
- FRUIT / TASTE: Waxy midnight blue, sweet-sour; July - Nov
- SOIL: Sand; pH acid-moderate
- NATURAL HABITAT: Forests, woodlands, boulder fields, outcrops, swamps, mound bogs

Outstanding blood red autumn color. Fruits best in full sun. Can be grown as a woody groundcover.



Flowers attract honey bees, native bees, bumblebees, pollinators. Fruits attract songbirds, gamebirds, Box Turtles. Native Blueberries host 286 species of native caterpillars including Spring Azure butterflies.

Sambucus canadensis | Elderberry



Flowers attract honey bees, native bees, pollinators. Fruits attract songbirds, gamebirds including Cedar Waxwing, and Box Turtles. Native Sambucus host 40 species of native caterpillars.





- BLOOM: Late Apr July, showy white
- FRUIT / TASTE: Black, bittersweetearthy; July - Aug
- SOIL: Loam, rich; pH acid-base
- NATURAL HABITAT: Fields, clearings, ditches, roadsides, floodplain forests, swamps

Warning! Unripe fruits and all other parts of the plant are toxic except for the ripe berries. Can be used in sauce, jam, wine. Elderberry syrup is traditionally used to soothe sore throats in many parts of the world.

Rubus | Berries (Ru bes)

The Rubus genus are commonly known as blackberries, raspberries, and dewberries. They are an essential part of the edible landscape and an ever present element in all full sun ecosystems, however most listed here will tolerate Partial Shade, but may not be as productive with berries. Rubus come in different sizes, shapes, textures, and colors. Rubus are a close relative of the rose and most have prickles, with the notable exception of a few species. For example, Rubus odorata has no prickles, maple shaped leaves and large fuchsia flowers, while the others listed here have white flowers, all bloom from late spring to summer. With over 40 different native species to choose from, they can be an attractive landscape plant, a semi-evergreen groundcover like Rubus hispidus, or a thorny but edible hedgerow.

Flowers attract honey bees, native bees, bumblebees, butterflies, and pollinators. Native Rubus host about 151 species of native caterpillars including Striped Hairstreak butterflies. Foliage provides materials and structure for native bees to nest. Berries attract songbirds and gamebirds when they ripen between June and July. These berries are not just for the birds. They have flavors that run the spectrum from tart to floral to sweet. There are a multitude of ways to eat the berries including raw, dried, or frozen; in muffins, puddings, pies, cobblers, smoothies, or wine. Whether you're an ornamental gardener, nature lover, or forager, there's a Rubus on the following list that will work for you.



Rubus hispidus Bristly or Swamp Dewberry

HEIGHT: 4 in

BERRY COLOR/DESCRIPTION: Reddishpurple, small, tart, flavorful

SOIL: Loam, sand, poor; pH acid

NATURAL HABITAT: Bog, fens, seeps, swamps, flatwoods, floodplain forests, upland forests, shaded old fields

Beautiful semi-evergreen groundcover in partial shade. Prickles are minor on this Rubus. Attractive maroon leaves in fall.



Plant is prickly and can be pruned often.

Rubus allegheniensis

Blackberry

HEIGHT: 2-10 ft

BERRY COLOR/DESCRIPTION: Black, flavorful

SOIL: Clay, sand, rock, poor; pH acid-base

NATURAL HABITAT: Forests, woodlands, barrens, clearings, old fields, pastures, road banks



May yield two crops in one year.

Rubus occidentalis

Black Raspberry

HEIGHT: 3 – 8 ft



SOIL: Loam, rocky, rich, well drained; pH acid-base

NATURAL HABITAT: Upland forests, alluvial forests, woodlands



Fruits are seedy and have a delightful, slight rose like fragrance. Prickless. Mature plant has papery bark.

Rubus odoratus

Purple Flowering Raspberry

HEIGHT: 3 – 6 ft

BERRY COLOR/DESCRIPTION: Pinkpurple, flavorful

SOIL: Clay, loam, rich; pH moderate-base

NATURAL HABITAT: Mountain cove, seeps, outcrops



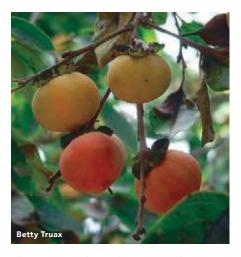
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Diospyros virginiana | American Persimmon





Flowers attract honey bees, native bees, bumblebees, pollinators. Fruits attract songbirds including Cedar Waxwings and gamebirds including Bobwhite Quail. Native Persimmons host 44 species of native caterpillars including Luna moths.

- HEIGHT: 30 50 ft
- BLOOM: May June, greenish yellow
- FRUIT / TASTE: Waxy orange, sweet; Sept – Dec
- SOIL: Adaptable, rocky; pH acid-base
- NATURAL HABITAT: Old fields, fence rows, roadsides, swamp forests, woodlands, upland forests

Sweet with a more complex flavor than most Asian persimmons. Good in breads and pudding. Shouldn't be eaten before the first frost as the skin may be astringent. Flavor and astringency vary widely between trees.

Allium cernuum | Nodding Onion





Flowers attract native bees, bumblebees, pollinators. Native Allium host 20 species of native caterpillars.

- HEIGHT: 8 30 in
- BLOOM: June Aug, white-purple
- FRUIT / TASTE: Onion-like
- SOIL: Rocky; well-drained; pH acid-base
- NATURAL HABITAT: Shale barrens, outcrops, meadows

Umbels of flowers downward facing direction evolved to protect nectar from rain and to discourage other insects than bees to enter. Leaves can be cut and used like chives.

Solidago odora | Sweet Goldenrod





Flowers attract honey bees, native bees, butterflies, pollinators. Insects attract songbirds, gamebirds. Native Goldenrods host 112 species of native caterpillars. Supports beneficial insects.

- HEIGHT: 1 5 ft
- BLOOM: July Oct, yellow
- FRUIT / TASTE: Leaf anise-like taste
- SOIL: Adaptable, sand, poor; pH acid-moderate
- NATURAL HABITAT: Forests, woodlands, barrens, clearings, old fields, roadsides

Was used as a tea substitute by American Colonists after the Boston Tea Party of 1771. It became known as 'Liberty tea' and was exported to China.

Cunila origanoides | Dittany, Wild Oregano





Flowers attract native bees, butterflies.

- HEIGHT: 0.5 1.5 ft
- BLOOM: Aug Oct, lavender
- FRUIT / TASTE: Leaf oregano-like
- SOIL: Adaptable, thin, rocky; pH acid-base
- NATURAL HABITAT: Forests, woodlands, shale barrens, outcrops

Herb replacement for Oregano. FDA has not given it 'as safe' status. Pregnant woman should avoid. First frost causes a phenomenon called Frost Flower, where a two inch ribbon projection comes out near the base of the stem.

RIGHT PLANTS, RIGHT PLACE

The biggest challenge for any wouldbe gardener is how to get started. Learning about our Piedmont native plants, habitats, plant communities, and ecosystems can be daunting. Deciding which plant to put where or which plants work best together can further muddy the picture for any gardener. Luckily, there are many experienced tradespeople in our area to help; some have contributed to this guide and others can be found at the Piedmont Natives resource page online.

With a little determination, you can create gardens that will grow well for years to come. What is needed is an examination of your site and then planting to your existing conditions. Do you have full sun or dry shade? Is there a wet spot in your yard? What type of soil do you have? Is your soil heavy clay, rocky, or average? If you're unsure of your soil or garden conditions, Virginia Tech will analyze a

sample for a small fee. They are able to determine your soil type, measure your soil's pH (a measure of acidity) and your soil's fertility. They will also send you suggestions for amending your soil for turf or agricultural crops; however, they do not have recommendations for native plants at the time of this printing. For native plants, we recommend choosing native plants that best suit your existing conditions, and using organic soil amendments such as compost or aged manures instead of chemical fertilizers.

The Dirt on Soil

Healthy soil is alive; a single teaspoon of soil can contain billions of microbes. Most gardeners can classify soils into three main soil types: clay, sandy and loam. Loam soils have roughly equal amounts of sand, silt, and clay with a healthy dose of organic matter. Loam is generally considered the



ideal soil type. We encourage you to grow natives in whatever type of soil conditions are present at your site. Choose native plants based on your existing conditions, for there is almost always a native plant for any condition. For example, many asters grow well in heavy clay soils while rhododendrons, blueberry bushes, and bird's-foot violets love acidic, rocky, or sandy soil.

Undisturbed soil is organized into horizons with a layer of humus and topsoil, then a subsoil of loam or clay and finally, bedrock underneath. Unfortunately, during construction of homes the upper layers are removed and the topsoil and humus sold off site. New homes and grass are then placed on relatively un-amended hard subsoil. If you live in a recently built subdivision and you've had trouble getting anything to grow in your yard, then this could be your problem. The good news

is that various Piedmont native plants grow naturally in similar thin, infertile or disturbed sites, so choosing suitable native plants can immediately solve the problem. Another solution is to add compost and other organic material over time to help rebuild your soil and recreate the soil food web.

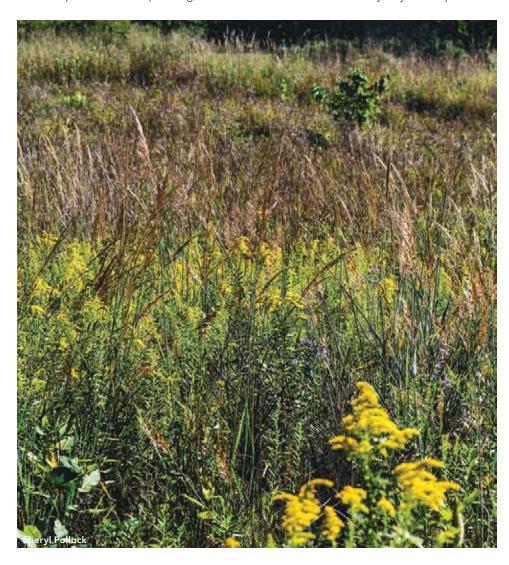
Lastly, it can be significant work to maintain good soil conditions, particularly when they are compromised. Protecting the health of the soil is a big part of what biodiversity gardening is all about. When nutrients like phosphorus and nitrogen wash into local streams, it causes algae blooms and can create serious problems for the health of streams, rivers, and the Chesapeake Bay. So, when you Go Native, remember that part of the goal is to protect soil health and keep those nutrients where they belong – in the soil!



Where To Start

This guide lists many Piedmont Natives that are both easy to grow as well as beautiful, whether used in formal arrangements or naturalized settings. Here are several steps to keep in mind as you incorporate Piedmont natives in your landscape:

- 1. Reduce the amount of turf in your landscape whenever possible, adding more space for native plantings. Mowed
- turf only absorbs roughly 50% of rainfall, while garden areas catch, filter, and use virtually all rainfall, lessening the negative effects of stormwater runoff.
- 2. Consider your entire landscape: where can you add more layers of plants in your existing gardens? Think high and low. Perhaps you can add an understory layer beneath more mature trees, rather than mulch. Or maybe you can plant



- a hedgerow of native shrubs along a property border that birds will find irresistible. How about growing a native vine along a fence or stone wall, or incorporating more flowering ground covers around your trees or shrubs?
- 3. Avoid using pesticides whenever possible, especially insecticides. Native plants are essential for creating habitat for insects and pollinators; using insecticides can eliminate these very insects, negatively impacting the balance in your landscape.
- 4. Choose areas of your property for naturalizing where your garden is more free and less tidy. Collect your fallen leaves and use them as mulch in your gardens, especially shredded leaves. Pile up any limbs and brush rather than burning or hauling them away and let them compost naturally. Preserve dead tree snags when possible for additional habitat and bird roosts. Think of these areas as "insect hotels" and "bird buffets."
- 5. Avoid sprinkling natives around in the landscape or garden bed. Instead, plant them in clusters of three or more. Pollinators are attracted to large swaths of color and will be more likely to visit your plants if they are grouped together.
- 6. Try to provide plants that bloom throughout the growing season. For example, select early spring, spring-summer, late summer, and fall bloomers. This will help to provide nectar for pollinators throughout the entire warm months of the year.
- 7. Be sure to include at least one of the "Noteworthy Natives" (highlighted pages) in your landscape, especially if you have limited space. These particular native plants offer exceptional habitat benefits.



A Thought About Cultivars

Some native plant enthusiasts have a negative perception of cultivars. Cultivars can either be selected from naturally occurring populations that exhibit different traits from the straight species, or they are bred from selected varieties of a plant to isolate a desired trait such as a bigger flower or a shorter height. A problem can arise when breeding a native plant for aesthetics, because the habitat benefit of the plant can become altered or diminished. Dr. Tallamy has recently begun research to determine whether cultivars can function as a host plant for native caterpillars as well as the straight species. For example, cultivars that produce partially or mostly sterile flowers are less beneficial because the sterile flowers do not provide adequate amounts of nectar or pollen to the insects that visit them. The showier-blooming Wild Hydrangea cultivars fall into this category; while these shrubs provide

other ecosystem services such as soil stabilization, the flowers no longer meet the core habitat needs essential for insect diversity.

Site Specific Native Plants

Below are unique or challenging garden and landscape conditions with a list of site specific native plants that our research shows are best adapted to those growing conditions. These groupings of plants are not meant to be natural Plant Community restoration plan lists, however there may be some similarities. Plant Community restoration is touched on throughout this Guide, however Plant Communities require a greater magnifying lens and complexity than we were able to cover.

PILLAR POLLINATOR PLANTS

Perhaps the most important Piedmont native plants that you can include in

your garden are ones which support our insect pollinators. Continuous and overlapping flowers add aesthetic appeal to a landscape while meeting the habitat needs of critical insects; countless bees, beetles, butterflies and other species will prosper, providing pollination services in nearby gardens and local agriculture.

Keep in mind that insect and other wildlife species need food and nesting habitat throughout the year; choose a variety of native plant species whenever possible to achieve species diversity, temporal diversity (varying bloom times), and altitude diversity (differing heights of plants).

Many of the native plants listed below are naturally found in meadows and open sites. Although creating a true meadow requires some sophisticated planning, you can create some of the essential elements



of a meadow in your yard, garden or in pots on your patio. Keep in mind that a healthy, balanced meadow consists largely of native grasses, with a wide variety of native wildflowers interspersed. Planting the following natives in your landscape will enrich the diversity of insect life and invite an array of other life into your garden.

POLLINATOR SUPPORTING PLANTS Spring

- Cercis canadensis / Redbud
- Lonicera sempervirens / Coral Honeysuckle*
- Penstemon digitalis / Foxglove Beardtongue*
- Salix occidentalis / Dwarf Upland Willow, Sage Willow
- Vaccinium arboreum / Lowbush Blueberry

Spring-Summer

- Baptisia tinctoria / Yellow Wild Indigo*
- Ceanothus americanus / New Jersey Tea
- Coreopsis lanceolata / Lanceleaf Coreopsis
- Heliopsis helianthoides / Ox Eye*
- Hydrangea arborescens / Wild Hydrangea
- Monarda fistulosa / Wild Bergamot*
- Tilia americana / Basswood

Summer

- Asclepias incarnata / Swamp Milkweed
- Liatris pilosa / Blazing Star
- Pycnanthemum muticum / Short Toothed Mountain Mint*



Summer- Autumn

- Conoclinium coelestinum / Mistflower
- Eupatorium hyssopifolium / Hyssop Thoroughwort
- Eutrochium purpureum / Sweet Joe Pye Weed

Autumn

- Solidago nemoralis / Grey Goldenrod
- Symphyotrichum novae-angliae / New **England Aster**
- *likely to bloom up to three months

TURF REPLACEMENT

In lieu of mowing and caring for a lawn; which is not only time consuming, but also contributes to our "carbon footprint"; replace all or part of your turf with any of these lovely natives. These plants withstand light foot traffic and require much less time for maintenance.

- Antennaria plantaginifolia / Field Pussy Toes
- Carex appalachica / C. rosea / Appalachian Sedge
- Carex pensylvanica / Pennsylvania Sedge
- Danthonia spicata / Poverty Oatgrass
- Deschampsia flexuosa / Wavy Hair Grass
- Eragrostis spectabilis / Purple Lovegrass
- Festuca subverticillata / Nodding Fescue
- Geum fragarioides / Appalachian Barren Strawberry
- Phlox subulata / Moss Phlox
- Salvia lyrata / Lyre Leaved Sage
- Viola sororia / Common Blue Violet

DRY SHADE

Planting areas where trees already grow present their own challenges. In addition to shade, you have to contend with tree roots and dry conditions. The native





plants on this list are particularly adapted to similar situations and will thrive in your dry shade garden with minimal care.

- Ageratina altissima / White Snakeroot
- Carex flaccosperma / Thinfruit Sedge
- Chrysogonum virginianum / Green and Gold
- Eurybia divaricata / White Wood Aster
- Geranium maculatum / Wild Geranium
- Iris cristata / Dwarf Crested Iris
- Phlox divaricata / Woodland Phlox
- Polystichum acrostichoides / Christmas Fern
- Solidago caesia / Bluestem Goldenrod

DRY SUN, HELL STRIP, ROCK GARDEN

There are a range of plants adapted to living in very thin soils, often on bare rock in places that are highly exposed. These

places bake in the sun during summer and are exposed to high winds and cold during the winter. If you have a sunny hillside where little will grow, try a rock garden with some of these plants. In urban areas, similar extreme conditions can occur on roof tops, or in "hellstrips", that strip or curb between your yard and the street or parking area that is often compacted, dry, and difficult to cultivate. Note that plants near roadsides also need salt tolerance.

- Allium cernuum / Nodding Onion
- Antennaria neglecta / Field Pussytoes
- Asclepias syriaca / Common Milkweed
- Asclepias tuberosa / Butterfly Weed
- Asclepias verticillata / Whorled Milkweed
- Ceanothus americanus / New Jersey Tea
- Celtis tenuifolia / Dwarf Hackberry
- Eragrostis spectabilis / Purple Lovegrass

- Euthamia graminifolia / Grass leaved or Flattop Goldenrod*
- Liatris pilosa / Blazing Star
- Monarda punctata / Spotted beebalm*
- Oenothera fruticosa / Sundrops
- Packera anonyma / Small's Ragwort
- Panicum virgatum / Switch Grass
- Phlox subulata / Moss Phlox*
- Pycnanthemum tenuifolium / Narrow Leaf Mountain Mint
- Quercus ilicifolia / Bear Oak
- Salvia lyrata / Lyre Leaf Sage
- Solidago nemoralis / Gray Goldenrod*
- Symphyotrichum laevis / Smooth Aster*
- Symphyotrichum oblongifolium / Aromatic Aster*

SCREENING

Homeowners frequently ask what native plants are useful for creating a "living wall," one that blocks an undesirable view, and adds privacy or protection. In our region, farmers commonly refer to these as "hedgerows" or "fence rows". The mainstream landscape industry relies heavily on the exotic Leyland Cypress to fill this need. However, many native plants not only create useful screens, but also provide essential habitat simultaneously. Try the natives on the following list rather than the overused exotic plants.

- Arundinaria gigantea / Great Southern Cane (native bamboo)
- Cornus racemosa / Grey Dogwood
- Ilex glabra / Inkberry
- Ilex opaca / American Holly
- Ilex verticillata / Winterberry



^{*}indicates salt tolerance

- Juniperus virginiana / Eastern Red Cedar
- Lonicera sempervirens / Coral Honeysuckle
- Magnolia virginiana / Sweetbay Magnolia
- Pieris floribunda / Mountain Fetterbush
- Pinus strobus / White Pine
- Rhododendron maximum / Great laurel
- Sorghastrum nutans / Indian Grass
- Thuja occidentalis / White Cedar
- Viburnum dentatum / Arrowwood Viburnum
- Viburnum prunifolium / Blackhaw Viburnum

RAINGARDENS

A raingarden area is technically defined as a depression where water collects after a rain event, the amount of time water stands depends on soil type. Sand drains quickly, while clay can cause water to stand.

Native plants that grow in raingarden sites are able to withstand the inundation of water followed by drought condition dryness. In nature, plants that most resemble this type of habitat are often found in floodplains. The following group of plants is useful in our home garden and landscapes where we find similar alternating wet and dry conditions.

- Andropogon glomeratus / Bushy Bluestem
- Athyrium asplenioides / Southern Lady Fern
- Carex vulpinoidea / Fox sedge
- Cornus amomum / Silky Dogwood
- Conoclinium coelestinum / Blue Mistflower
- Hamamelis virginiana / Witch Hazel
- Hibiscus moscheutos / Crimsoneyed Rosemallow
- Ilex verticillata / Winterberry Holly





- Iris virginica / Blue Flag Iris
- Lindera benzoin / Spicebush*
- Monarda didyma / Scarlet Beebalm
- Juncus tenuis / Slender Rush
- Onoclea sensibilis / Sensitive Fern
- Packera aurea / Golden Ragwort
- Sambucus canadensis / Elderberry*
- Scirpus cyperinus / Woolgrass
- Solidago rugosa / Wrinkleleaf Goldenrod
- Symphyotrichum lateriflorum / Calico Aster
- Viburnum dentatum / Arrowwood*

AQUATIC (PONDS /WATER GARDENS)

Invasive plants can be serious problems in waterways, luckily there are a large selection of native plants appropriate for a pond, a home water garden, or the aquatic bench of a stormwater retention pond. Note that several of these plants

are suitable for smaller water gardens or rain gardens.

- Juncus effusus / Soft Rush (6")*
- Mimulus ringens / Monkeyflower (1")*
- Asclepias incarnata / Swamp Milkweed (3")
- Chelone glabra / Turtlehead (1")*
- Orontium aquaticum / Golden Club (12")
- Lobelia siphilitica / Blue Lobelia (1")*
- Sagittaria latifolia / Arrowhead, Swamp Potato (24")
- Hibiscus moscheutos / Crimsoneyed Rosemallow (3")*
- Saururus cernuus / Lizard's Tail (12")
- Symplocarpus foetidus / Skunk Cabbage (1")
- Iris versicolor / Southern Blue Flag (6")*
- Pontederia cordata / Pickerelweed (12")*
- Rosa palustris / Swamp Rose (12")
- Nuphar advena / Spatterdock, Yellow Pond Lily (36")

^{*}indicates salt tolerance

- Cephalanthus occidentalis / Buttonbush (12'')*
- Salix sericea / Silky Willow (6")

() indicates maximum depth of water tolerated * indicates can also be used in Raingardens

SLOPE SOLUTIONS & EROSION CONTROL

Development typically creates impervious surfaces and steep slopes that often go unplanted or under-planted, exacerbating erosion problems. Traditionally, homeowners had few plant choices for slopes or for controlling erosion and keeping soil in place; the choices were generally limited to invasive species like English Ivy, Periwinkle or Crown Vetch.

The native plants listed below are good choices for planting on slopes and to help reduce or control erosion.

- Andropogon virginicus / Broomsedge
- Andropogon glomeratus / Bushy Bluestem
- Asclepias tuberosa / Butterfly Weed
- Carex pensylvanica / Pennsylvania Sedge
- Chamaecrista fasciculata / Partridge Pea
- Eragrostis spectabilis / Purple Lovegrass
- Hypericum prolificum / Shrubby St. John's Wort
- Lonicera sempervirens / Coral Honeysuckle
- Rosa carolina / Carolina Rose
- Schizachyrium scoparium / Little Bluestem
- Symphyotrichum laeve / Smooth Blue Aster

DEER RESISTANT NATIVES

White tail deer are well-adapted to our developed landscapes and often cause a great deal of damage in both dormant and growing seasons. Many native plants are resistant to deer browse. The first line of defense is to choose native plants that are consistently distasteful to deer. These characteristics include: fragrant, hairy and leathery plants. Additionally, applying a deer repellent spray, available commercially, can further reduce any deer browsing when used according to the manufacturer's label directions. Unfortunately, the best defense is a deer fence.

The following plants have earned their spot on this list as deer resistant natives.

- Carex species / Native Sedges
- Dennstaedtia punctilobula / Hayscented Fern
- Heliopsis helianthoides / Oxeye
- Juniperus virginiana / Eastern Red Cedar
- Liatris species / Native Blazing StarsLindera benzoin / Spicebush
- Monarda species / Native Beebalm and Bergamot
- Penstemon species / Native Beardtongue
- Physocarpus opulifolius / Ninebark
- Pycnanthemum species / Native Mountain Mints
- Schizachyrium scoparium / Little Bluestem
- Symphyotrichum oblongifolium / Aromatic Aster



NATIVE PLANT DEMONSTRATION SITES

There are some great examples in our region of how native plants can be incorporated into our everyday surroundings. Many of these practices qualify for funding assistance from your local conservation district. These designs range from:

- Homeowner installed, VCAP funded rain garden, turf to natives or stream buffer
- 2. Schoolyard pollinator garden next to their vegetable garden
- 3. Municipal improvement projects, such as a streetscape overhaul
- Designed landscape to mimic nature's habitat of a meadow, a rock outcrop, a woodland, or forest floodplain
- Community Garden, where a few native plant enthusiasts are able to pool their resources and create something special.

Community Gardens not only provide food, habitats and beauty to communities, they are also great places to meet your neighbors, learn about gardening or teach people in your community, and instill pride. If your community doesn't already have one, you can be the one to get the ball rolling or volunteer in a public garden nearby. Go Native, Grow Piedmont Plants.

Albemarle County

DESIGNED MEADOW

Owner:

Martha Jefferson Hospital

Address:

500 Martha Jefferson Dr. Charlottesville, VA 22911

Location:

Southeast of Peter Jefferson Pkwy and State Farm Blvd, surrounding pond



Why Visit:

Impressive design with a picturesque layout and a walking path through the middle.

NATURALIZED MEADOW

Owner:

County of Albemarle Parks and Recreation

Address:

3690 Burnley Station Rd. Charlottesville, VA 22911

Location:

Preddy Creek Park – east and south of parking area

Why Visit:

This meadow has been surveyed and has a long diverse plant list of local meadow ecotypes.

NATIVE PLANT GARDEN

Owner:

Piedmont Virginia Community College

Address:

501 College Dr. Charlottesville, VA 22902

Location:

Surrounding on Campus Community Garden

Why Visit:

This garden incorporates food and native plants while being maintained by students and staff.

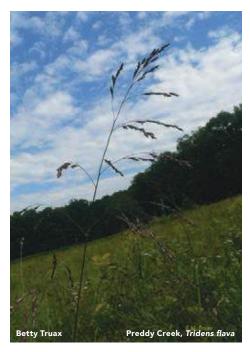
HABITAT RAINGARDEN

Owner:

Albemarle County Public Schools

Address:

1407 Crozet Ave. Crozet, VA 22932



Location:

Crozet Elementary School

Why Visit:

This garden, designed by 2nd grade students, has been adopted as part of the curriculum at the school

Buckingham County

NATURAL FLOODPLAIN

Owner:

Virginia Department of Conservation and Recreation

Address:

104 Green Hill Dr. Gladstone, VA 24553

Location:

James River State Park – along floodplain

Why Visit:

Prime location to visit vast spring blooming ephemeral flowers.

NATURALIZED FOREST

Owner:

Virginia Department of Forestry

Address:

1685 Francisco Rd. Dillwyn, VA 23936

Location:

Appomattox-Buckingham State Forest

Why Visit:

A vast area "managed to develop diverse timber stands that support biodiversity."

City of Charlottesville

DESIGNED MEADOW

Owner:

Ludwig Kuttner

Address:

955 2nd St. SE Charlottesville, VA 22902 **Location:** IX Art Park, between east corner of the main building and 2nd St. SE

Why Visit:

Approximately 150 species of native plants have been or will be installed to further the advancement of biodiversity in urban areas.

RAINGARDEN AND SHADE GARDEN AND BIORETENTION BASIN

Owner: Albemarle County Office Building

Address:

401 McIntire Road Charlottesville, VA 22902

Location:

Between lower parking lot and field house, rear of building near loading dock, between lower parking lot and McIntire Ave.

Why Visit:

Experimental raingarden, shade tolerant plants with labels, and a bioretention basin beautifully designed – something always in bloom from March to November at this campus.





POLLINATOR HABITAT GARDEN

Owner: Charlottesville City Public Schools

Address:

1000 Belmont Avenue Charlottesville, VA 22902

Location:

Clark Elementary School, right of the Monticello Ave. entrance in a fenced-in area.

Why Visit:

A compact garden designed to emulate the intersection meadow, forest and rock outcrop habitats.

Culpeper County

BIORETENTION BASIN AND RIPARIAN BUFFER

Owner:

Culpeper County Public Schools

Address:

16332 Cyclone Way Culpeper, VA 22701

Location:

Eastern View High School, on the left as you drive over the painted crosswalk on Cylone Way.

Why Visit:

Good mix of natives, well maintained, easy access and centrally located.

Fauquier County

NATURALIZED FOREST

Owner:

Virginia Department of Forestry

Address:

Lee Ridge Road Warrenton, VA 20186

Location:

Whitney State Forest

Why Visit:

Contributes to the conservation of biological diversity of the forest and the landscape in which it resides.

NATURALIZED FOREST, RIPARIAN AND **MEADOW AREAS**

Owner:

Fauquier County Parks and Recreation

Address:

10066 Rogues Road Midland, VA 22728

Location:

Crockett Park

Why Visit:

Native plants are both planted and naturalized throughout the park.



NATURALIZED FOREST, RIPARIAN AND MEADOW AREAS

Owner: Virginia Department of Conservation and Recreation

Address:

11012 Edmonds Lane Delaplane, VA 20144

Location:

Sky Meadows State Park

Why Visit:

Great views and a look at higher elevation native plants.

Fluvanna County

TREE BUFFER

Owner:

Fluvanna County Parks and Recreation Department

Address:

1730 Thomas Jefferson Parkway Palmyra, VA 22963

Location:

Pleasant Grove Park, right of main road into park, between the field and the trees that run along east Route 53.

Why Visit:

This location has both a native meadow and pollinator garden planned to restore the natural history of the park.

Greene County

PARTIAL SHADE NATIVE PLANT LANDSCAPE

Owner:

Greene County Public Schools

Address:

234 Monroe Dr. Stanardsville, VA 22973

Location:

William Monroe Middle School

Why Visit:

Installed by the fourth grade Environment Club in 2012



BIOSWALE

Owner: Greene County Parks and Recreation

Address:

End of Jeri Allen Way Monroe, VA 24574

Location:

Greene County Park, 38.274688, -78.417901

Why Visit:

Many native plants on the other side of the structure, a real community effort.

Louisa County

RAINGARDEN

Owner:

Ernestine Chaleki

Address:

92 Lakeshore Run Mineral VA 23117

Location:

Raingarden, side of the house by the garage.

Why Visit:

This 150 square foot raingarden collects 530 square feet of impervious surface and is a great example of a small Best Management Practice (BMP) that is easy and practical for homeowners.

Orange County

STREAM DAYLIGHTING USING NATIVE RIPARIAN MEADOW MIX

Owner:

Lake of the Woods Association

Address:

102 Lakeview Parkway Locust Grove, VA 22508



Location:

Lake of the Woods

Why Visit:

Close to Culpeper, Fredericksburg and many Civil War battlefield sites.

TREE BUFFER

Owner: Orange County Public Schools

Address:

500 West Baker St. Gordonsville, VA 22942

Location:

Gordon-Barbour Elementary

Why Visit:

Community planting of native trees, 2014

Madison County

RAINGARDEN

Owner:

Madison County Public Schools

Address:

186 Mountaineer Lane Madison, VA 22727

Location:

William Wetsel Middle School

Why Visit:

Small but effective raingarden with all native plants

Nelson County

PARTIAL SHADE AND OVERLOOK GARDENS

Owner:

The Wintergreen Nature Foundation

Address:

3421 Wintergreen Drive Roseland, VA 22967

Location:

Surrounding Trillium House and nearby overlook

Why Visit:

Knowledgeable staff, great views and tremendous variety of plants and hikes.

NATIVE LANDSCAPE

Owner:

Devil's Backbone Brewery

Address:

200 Mosbys Run Roseland, VA 22967

Location:

Beer Garden coming soon!

Why Visit:

Take in a newly created native landscape while enjoying a malted beverage.

Rappahannock County

POND BUFFER, DAM AND MEADOW PLANTINGS

Owner:

Town of Little Washington

Address:

485 Gay St. Washington, VA 22747

Location:

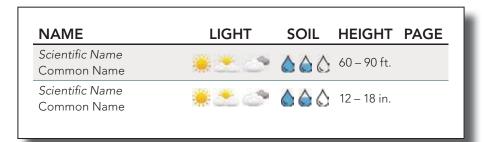
Avon Hall, west side of the Warren Ave. entrance into Little Washington--pond dam and riparian buffer below large oak tree, visible from road

Why Visit:

Discover how native plantings have helped restore water quality at the Town of Little Washington's pond site. Avon Hall is located next to a Master Naturalists nature trail with signage and native plant labels.



INDEX



Conditions Defined:

LIGHT REQUIREMENTS



💓 Full Sun: 6 + hours of sun



Part Shade: 2-6 hours of sun

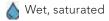


Shade: 2 hours or less of sun

MOISTURE REQUIREMENTS







NAME	LIGHT	SOIL	HEIGHT	PAGE
Acer rubrum Red Maple		& &	60 – 90 ft	
Adiantum pedatum Northern Maidenhair Fern	* 0		12 – 18 in	51
Ageratina altissima White Snakeroot		≙ ∆	4 – 5 ft	
Allium cernuum Nodding Onion	* *	≙ ∆	6 – 30 in	90
Amelanchier arborea Downy Serviceberry, Shadblow	. *	≙ △	20 – 30 ft	67
Amelanchier canadensis Juneberry, Downy Serviceberry	* *	△ △ △	26 ft	84
Andropogon glomeratus Bushy Bluestem	* *	& &	24 in	
Andropogon virginicus Broomsedge	* *	≙ ∆	1 – 3 ft	40, 45
Antennaria neglecta Field Pussytoes	* *	۵	6 – 12 in	
Antennaria plantaginifolia Common or Plantain Leaved Pussytoes	**	≙ ∆	3 – 12 in	Cover, 13, 31
Aquilegia canadensis Wild Columbine	. *	≙ ∆	12 – 24 in	15
Aronia arbutifolia Red Chokeberry	* *	66	6 – 10 ft	57, 72
Arundinaria gigantea Great Southern Cane	****	& &	5 – 15 ft	
Asclepias incarnata Swamp Milkweed	* *	& &	1 – 5 ft	19
Asclepias syriaca Common Milkweed		& &	2 – 4 ft	98
Asclepias tuberosa Butterfly Weed	*	۵	1 – 3 ft	9, 17
Asclepias verticillata Whorled Milkweed		۵	6 – 18 in	
Asimina triloba Paw Paw	*	& &	40 – 50 ft	85
Asplenium platyneuron Ebony Spleenwort	*	≙ ∆	6 – 18 in	51

NAME	LIGHT	SOIL	HEIGHT	PAGE
Athyrium asplenioides Southern Ladyfern	* * *		2 – 3 ft	52
Avenella flexuosa Wavy Hairgrass		≙ ∆	18 – 24 in	41
Baptisia tinctoria Yellow Wild Indigo	* *	△ △	2 – 3 ft	
Betula lenta Sweet Birch		≙ ∆	50 – 80 ft	77
Betula nigra River Birch	*	△ △ △	40 – 70 ft	76
Calycanthus floridus Sweetshrub		△ △ △	3 – 9 ft	58
Carex amphibola Creek or Narrow Leaved Sedge	* *	△ △	6 – 18 in	
Carex appalachica Appalachian Sedge	***	≙ ∆	1 – 24 in	42
Carex comosa Bottlebrush Sedge	* *		2 – 4 ft	43
Carex flaccosperma Thinfruit Sedge	0	≙ △	6 – 12 in	
Carex pensylvanica Pennsylvania Sedge	* *	۵	1 – 12 in	43
Carex platyphylla Silver or Broadleaved Sedge	***	≙ ∆	1 – 12 in	43
Carex vulpinoidea Fox Sedge	* 🐣		8 – 28 in	
Carpinus caroliniana American Hornbeam, Ironwood, Muscle Tree	**	& &	25 – 33 ft	67
Carya ovata Shagbark Hickory	**	≙ ८	60 – 80 ft	80
Ceanothus americanus New Jersey Tea	*****	۵	3 ft	63
Celtis tenuifolia Dwarf Hackberry	* *	≙ ∆	12 – 26 ft	68
Cephalanthus occidentalis Buttonbush		66	3 – 10 ft	95, 102
Cercis canadensis Redbud	* *	△ △	12 – 30 ft	69

NAME	LIGHT	SOIL	HEIGHT	PAGE
Chamaecrista fasciculata Partridge Pea	*	≙ ∆	1 – 3 ft	39
Chelone glabra White Turtlehead	* *		2 – 3 ft	
Chionanthus virginicus Fringetree, Old Man's Beard	**	666	10 – 25 ft	70
Chrysogonum virginianum Green and Gold	* 0	≙ ∆	6 – 12 in	32
Clematis viorna Vase Vine, Leather Flower	* 3	≙ ∆	6 – 10 ft	49
Clematis virginiana Virgin's Bower	* 0		6 – 20 ft	49
Conoclinium coelestinum Mistflower	**	≙ ∆	1 – 4 ft	14, 22
Coreopsis lanceolata Lanceleaf Tickseed	* *	△ △	12 – 24 in	
Coreopsis verticillata Threadleaf Coreopsis	**	≙ ∆	6 – 36 in	16
Cornus amomum Silky Dogwood	* *		6 – 10 ft	62, 66
Cornus Florida Flowering Dogwood	* 3	≙ ∆	12 – 20 ft	68
Cornus racemosa Grey Dogwood	* *	≙ ∆	10 – 20 ft	
Corylus Americana American Hazelnut	* *	66	3 – 11 ft	83
Cunila origanoides Common Dittany, Wild Oregano	* *	۵	6 – 18 in	91
Danthonia spicata Poverty Oatgrass	***	≙ ∆	4 – 24 in	41
Dennstaedtia punctilobula Hay-scented Fern	********	≙ ∆	18 – 30 in	52
Deschampsia flexuosa Wavy Hair Grass	**	≙ ∆	18 – 24 in	
Diospyros virginiana American Persimmon	* *	66	100 ft	90
Dryopteris intermedia Evergreen Wood Fern, Fancy Fern	* 3	& &	1 – 3 ft	53
Dryopteris marginalis Marginal Wood Fern	* 💸	≙ ∆	12 – 24 in	53

NAME	LIGHT	SOIL	HEIGHT	PAGE
Elymus hystrix Bottlebrush Grass		≙ △	2 – 4 ft	44
Eragrostis spectabilis Purple Lovegrass	*	≙ ∆	12 – 24 in	38
Erigeron pulchellus Robin's Plantain	*	≙ ∆	4 – 24 in	33
Euonymus americanus Strawberry Bush, Hearts-a-bustin'	***************************************		6 – 10 ft	63
Eupatorium hyssopifolium Hyssopleaf Thoroughwort	**	≙ △	2 – 3 ft	23
Eupatorium perfoliatum Boneset	* *	≙ △	1 – 5 ft	23
Eupatorium sessilifolium Upland Boneset	*	۵	3 – 4 ft	
Eurybia divaricata White Wood Aster	* *	≙ △	6 – 36 in	29
Euthamia graminifolia Flattop or Grassleaf Goldenrod	**	≙ △	1 – 5 ft	26
Eutrochium fistulosum Trumpetweed, Hollow Joe Pye Weed	* *	△ △	2 – 8 ft	23
Eutrochium purpureum Sweet Joe Pye Weed	* *	≙ △	1 – 6.5 ft	23
Fagus grandifolia American Beech	* 🗻		100 – 115 ft	75
Festuca subverticillata Nodding Fescue	****	\(\)	2 – 3 ft	
Fragaria virginiana Virginia Strawberry	* *	≙ ∆	6 – 12 in	86
Geranium maculatum Wild Geranium, Cranesbill		≙ △	6 – 24 in	15
Geum fragarioides Appalachian Barren Strawberry	* *	& &	3 – 8 in	31
Hamamelis virginiana Witch Hazel	**	≙ △	15 – 25 ft	71
Heliopsis helianthoides Ox Eye	* *	△ △	1 – 5 ft	18, 108
Hibiscus moscheutos Crimson Eyed Rosemallow	**		3 – 7 ft	
Hydrangea arborescens Wild Hydrangea	<u>د</u> د	≙ △	3 – 10 ft	64

NAME	LIGHT	SOIL	HEIGHT	PAGE
Hypericum densiflorum Bushy St. John's Wort	* 3	≙ △	2 – 3 ft	56
Hypericum prolificum Shrubby St. John's Wort	* *	≙ ∆	1 – 5 ft	65
Ilex glabra Inkberry Holly	**	≙ △	6 – 8 ft	
llex opaca American Holly	* *	≙ △	20 – 40 ft	70
Ilex verticillata Winterberry	**	& &	5 – 15 ft	59
Iris cristata Dwarf Crested Iris	* 💸	& &	6 – 12 in	25, 37
Iris versicolor Northern Blue Flag	**	\(\)	2 – 3 ft	
Iris virginica Virginia Blue Flag	* *		2 – 3 ft	3
Juncus effusus Soft Rush	*	& &	1 – 4 ft	
Juncus tenuis Path or Slender Rush	* 🕭 💸	△ △	6 – 36 in	39
Juniperus virginiana Red Cedar	*	≙ △	40 – 60 ft	75
Liatris pilosa Blazing Star, Grassleaf Gayfeather	* *	≙ △	1.5 – 4 ft	24, 103
Lindera benzoin Northern Spicebush	****	& &	3 – 15 ft	57
Liquidambar styraciflua Sweet Gum	* *		60 – 80 ft	72
Liriodendron tulipifera Tulip-tree or Tulip Poplar	3		70 – 100 ft	
Lobelia cardinalis Cardinal Flower	* *		1.5 – 6 ft	24
Lobelia siphilitica Blue Lobelia	****	& &	1 – 4 ft	25
Lonicera sempervirens Trumpet or Coral Honeysuckle	* *	≙ ∆	18 ft	47
Magnolia tripetala Umbrella Magnolia	* 3	& &	15 – 40 ft	73
Magnolia virginiana Sweetbay Magnolia	* 🕭 💸	& &	20 – 60 ft	73

NAME	LIGHT	SOIL	HEIGHT	PAGE
Malus coronaria Sweet Crabapple	* *		10 – 25 ft	
Mimulus ringens Monkeyflower	* 🗻	6	12 – 30 in	
Monarda didyma Scarlet Beebalm		& &	1 – 3 ft	102
Monarda fistulosa Wild Bergamot	* 🐣	△ △ △	1 – 4 ft	18
Monarda punctata Spotted Beebalm		۵	2 – 3 ft	100
Muhlenbergia capillaris Muhly Grass	* 🗻	۵	1 – 3.5 ft	45
Nuphar advena Yellow Pond Lily, Cow Lily, Spatterdock	***	&	0 – 1.5 ft	
Nyssa sylvatica Black Gum, Black Tupelo	* 🗻	△ △ △	40 – 60 ft	80
Oenothera fruticosa Sundrops	* *	△ △	12 – 30 in	38
Onoclea sensibilis Sensitive Fern	<u>*</u>	& &	1.5 – 2 ft	54
Orontium aquaticum Golden Club	* *	\(\)	6 – 12 in	
Osmunda claytoniana Interrupted Fern	* 🖒	△ △ △	2 – 3 ft	50
Osmunda spectabilis Royal Fern		& &	2 – 5 ft	54
Osmundastrum cinnamomeum Cinnamon Fern	* 0		2-4 ft	55
Ostrya virginiana Hop Hornbean, Ironwood		۵	15 – 40 ft	69
Packera anonyma Smalls Ragwort	* *	≙ △	8 – 16 in	
Packera aurea Golden Ragwort		66	6 – 24 in	32
Panicum virgatum Switch Grass	* *	66	3 – 5 ft	
Parthenocissus quinquefolia Virginia Creeper	* *	△ △ △	60 ft	48

NAME	LIGHT	SOIL	HEIGHT	PAGE
Passiflora incarnata Purple Passionflower, Maypop	*	△ △ △	6 – 30 ft	46, 48
Penstemon canescens Gray Beardtongue		≙ △	6 – 36 in	16
Penstemon digitalis Foxglove Beardtongue	* *	△ △	2 – 4 ft	
Philadelphus inodorus Appalachian Mock Orange		≙ △	4 – 10 ft	59
Phlox divaricata Woodland Phlox	* *		6 – 18 in	36
Phlox subulata Moss Phlox		≙ △	3 – 6 in	36
Physocarpus opulifolius Ninebark	* *	≙ ८	3 – 10 ft	65
Pieris floribunda Mountain Fetterbush		△ △	2– 4 ft	
Pinus echinata Shortleaf Pine	*	۵	80 – 100 ft	76
Pinus rigida Pitch Pine		۵	40 – 60 ft	81
Pinus strobus White Pine	0	≙ △	50 – 80 ft	
Platanus occidentalis Sycamore		& &	75 – 100 ft	77
Polystichum acr ostichoides, var. acrostichoides Christmas fern	***	≙ ∆	2 – 3 ft	55
Pontederia cordata Pickerel Weed			2 – 3 ft	
Prunus Americana American Plum	* 🐣	≙ △	10 – 35 ft	84
Pycnanthemum incanum Hoary Mountain Mint		≙ △	1 – 6.5 ft	21
Pycnanthemum muticum Short Toothed Mountain Mint	* *	\(\(\(\) \)	0.5 – 4 ft	21
Pycnanthemum tenuifolium Narrowleaf Mountain Mint		△ △	1 – 4 ft	21
Pycnanthemum virginianum Virginia Mountain Mint	* *		0.5 – 3 ft	21

NAME	LIGHT	SOIL	HEIGHT	PAGE
Quercus alba White Oak	* *	≙ ∆	100 – 130 ft	78
Quercus coccinea Black Oak	* 🗻	≙ △	80 – 115 ft	79
Quercus ilicifolia Bear Oak	* *	۵	5 – 15 ft	71
Quercus marilandica Blackjack Oak	*	≙ ∆	30 – 115 ft	79
Quercus Montana Chestnut Oak	* *	≙ △	80 – 115 ft	79
Quercus phellos Willow Oak	* *		80 – 115 ft	74, 79
Rhododendron maximum Great Rhododendron, Rose Bay		△ △ △	6 – 10 ft	
Rhododendron periclymenoides Pinxterbloom Azalea	***	≙ △	4 – 6 ft	58
Rhododendron prinophyllum Rose Azalea	* *	& &	4 – 8 ft	
Ribes rotundifolium Appalachian Gooseberry	* 🗻		3 – 6 ft	86
Rosa Carolina Carolina Rose	* *	≙ △	1 – 6 ft	64
Rosa palustris Swamp Rose	*		4 – 6 ft	
Rubus allegheniensis Blackberry	-	& &	2 – 10 ft	89
Rubus hispidus Bristly or Swamp Dewberry	*		0.3 ft	88
Rubus occidentalis Black Raspberry	<u>**</u>	≙ ∆	3 – 8 ft	82, 89
Rubus odoratus Purple Flowering Raspberry	الله الله		3 – 6 ft	89
Rudbeckia hirta Black Eyed Susan	* *	& &	1 – 3 ft	17, 99
Sagittaria latifolia Broadleaf Arrowhead	*	&	1 – 3 ft	
Salix occidentalis Dwarf Upland Willow, Sage Willow	* *	66	1 – 9 ft	
Salix sericea Silky Willow	***	& &	10 – 12 ft	

NAME	LIGHT	SOIL	HEIGHT	PAGE
Salvia lyrata Lyre Leaf Sage	* *	≙ ∆	12 – 30 in	37
Sambucus canadensis Elderberry	* *		8 – 12 ft	87
Sassafras albidum Sassafras	* *	≙ ∆	20 – 40 ft	85
Saururus cernuus Lizard's Tail	* 🛎 💸		1 – 3 ft	
Schizachyrium scoparium Little Bluestem	* *	≙ ∆	1 – 4 ft	44
Scirpus cyperinus Woolgrass Bulrush	* 🗻	\(\(\(\) \)	3 – 5 ft	
Solidago caesia Bluestem Goldenrod	ات 🗶 💸		1 – 3 ft	
Solidago flexicaulis Zigzag Goldenrod	<u>د</u> د	666	6 – 36 in	27
Solidago nemoralis Gray Goldenrod	*	۵	6 – 30 in	27
Solidago odora Sweet Goldenrod	* 🗻	≙ ∆	1 – 3 ft	91
Solidago rugosa Wrinkleleaf Goldenrod		& &	1 – 4 ft	27
Solidago speciosa Showy Goldenrod	*	≙ ∆	1 – 4 ft	27
Sorghastrum nutans Indian Grass	· 💌	۵	3 – 8 ft	
Spiraea corymbosa Birch Leaved Spirea	* 🚨 💸	۵	1 – 4 ft	
Symphyotrichum laeve Smooth Aster		≙ ∆	1 – 3 ft	28
Symphyotrichum lateriflorum Calico Aster	*	△ △ △	1 – 4 ft	28
Symphyotrichum novae – angliae New England Aster			1.5 – 5 ft	29
Symphyotrichum oblongifolium Aromatic Aster	* *	≙ ∆	1 – 3 ft	29
Symphyotrichum puniceum Purplestem Aster		& &	1 – 5 ft	29
Symplocarpus foetidus Skunk Cabbage	* 0		18 – 30 in	

NAME	LIGHT	SOIL	HEIGHT	PAGE
Thuja occidentalis White Cedar	* *	△ △ △	30 – 60 ft	
Tiarella cordifolia Foamflower	* 0		6 – 12 in	33
Tilia Americana Basswood		≙ △	70 – 80 ft	81
Tridens flavus Redtop	**	≙ ∆	2 – 5 ft	105
Tripsacum dactyloides Eastern Gamagrass		& &	3 – 8 ft	
Vaccinium angustifolium Lowbush Blueberry	* *	66	6 – 24 in	87
Vernonia noveboracensis New York Ironweed	-	≙ ∆	3 – 7 ft	19
Viburnum acerifolium Mapleleaf Viburnum	* *	≙ ∆	2 – 6 ft	60
Viburnum dentatum Southern Arrowwood	* *	666	5 – 15 ft	61
Viburnum lantanoides Hobblebush	* 2.0		6 – 15 ft	61
Viburnum nudum Southern Wild Raisin, Possum Haw	* <u>*</u> * *	& &	5 – 20 ft	61
Viburnum prunifolium Blackhaw	* *		10 – 25 ft	62
Viola cucullata Marsh Blue Violet	. *	&	4 – 10 in	
Viola pedata Bird's Foot Violet	*	۵	3 – 6 in	30, 35
Viola pubescens Yellow Downy Violet	*	& &	4 – 18 in	34
Viola sororia Common Blue Violet	****	≙ ∆	2 – 12 in	35
Viola striata Striped Violet, Cream Violet	*	≙ △	6 – 12 in	35
Vitis riparia Fox or Riverbank Grape	* *		50 ft	47

RESOURCES

Get Involved Locally

Piedmont Natives

http://facebook.com/pages/Piedmont-Virginia-Native-Plant-Initiative

Virginia Native Plant Society: Piedmont, Jefferson Chapters

http://vnps.org/chapters/

Piedmont Landscape Association

http://www.piedmontlandscape.org

Virginia Master Naturalist Volunteers: Central Blue Ridge, Old Rag, Rivanna Chapters

http://www.virginiamasternaturalist.org/chapters-a-map-and-contacts.html

Virginia Master Gardeners Volunteers: Central VA, Fauquier, Fluvanna, Nelson, Piedmont, Rapidan Chapters

http://blogs.lt.vt.edu/mastergardener/prospective-master-gardeners

Plants, Pollinators and Wildlife

Habitat for Wildlife- Virginia Department of Game and Inland Fisheries

http://www.dgif.virginia.gov/habitat/

Doug Tallamy's Site: Bringing Nature Home http://bringingnaturehome.net

Native Plants for Wildlife Habitat and Conservation Landscaping

http://www.nps.gov/plants/pubs/chesapeake/toc.htm

Audubon at Home Top 10 Native Plant Lists http://www.audubonva.org/index.php/top-10-plant-lists

The Xerces Society for Invertebrate Conservation

http://www.xerces.org/pollinator-conservation

Butterflies and Moths of North America (BAMONA)

http://www.butterfliesandmoths.org

The Butterfly Society of Virginia

http://www.butterflysocietyofva.org

Stormwater Resources for Plants

Raingardens: Virginia Department of Forestry

http://www.dof.virginia.gov/print/water/Rain-Gardens-Technical-Guide.pdf

What Can You Do? Center for Watershed Protection

http://www.cwp.org/documents/cat_view/77-better-site-design-publications.html

Additional Plant Databases and Lists

Virginia DCR Natural Heritage: Virginia Native Plant Finders

http://www.dcr.virginia.gov/natural_heritage/np.cfm

Plant Native NoVA Guide

http://www.plantnovanatives.org/

Virginia Resources for Finding Native Plants

Virginia Native Plant Nurseries and Plant Sales

http://www.vnps.org/wp/vnps-native-plant-nurseries-and-plant-sales

Piedmont Environmental Council

http://www.pecva.org/gonative

Piedmont Landscape Association

http://www.piedmontlandscape.org/findaprofessional.html

Hill House Nursery

http://www.hillhousenativeplants.com/

The Wintergreen Nature Foundation

http://www.twnf.org/use-native-plants#. VMCBNCzKDAg

Thomas Jefferson Center for Historic Plants

http://www.monticello.org/site/house-and-gardens/thomas-jefferson-center-historic-plants

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PIEDMONT NATIVES | 123

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The Color Encyclopedia of Ornamental Grasses, Rick Darke

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Native Ferns Mosses and Grasses, William Cullina

Wildflowers of North Carolina, William S. Justice, C. Ritchie Bell, Anne H. Lindsey

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Americanvioletsociety.org

Arnold Arboretum of Harvard University arboretum.harvard.edu

Auburn University auburn.edu/academic/cosam/arboretum/index. htm

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Department of Conservation and Recreation dcr.virginia.gov/natural_heritage/nativeplants. shtml

Earth Sangha earthsangha.org Florida Native Plant Society fnps.org

The Herb Society of America herbsociety.org

Illinois Wildflowers illinoiswildflowers.info

Ladybird Johnson Wildflower Center wildflower.org/plants

Maryland State Archives MSAMaryland.gov

Michigan State University Extension mnfi.anr.msu.edu

Missouri Botanical Garden missouribotanicalgarden.org

Monticello monticello.org/site/research-and-collections/ tje/Native-Herbaceous

Mt. Cuba Center mtcubacenter.org/plant-finder National Park Servcie NPS.gov

Native Plant Center (Chesapeake Region) native plant center.net

North America Butterfly Association (NABA) nababutterfly.com

NC State University Cooperative Extension ces.ncsu.edu

Ohio State University ohioline.osu.edu

Penn State Extension extension.psu.edu

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vTree dendro.cnre.vt.edu/dendrology

The Xerces Society xerces.org





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