

WHAT ARE NATIVE PLANTS?

North American native plants are those that are indigenous to a region before the arrival of European settlers and possess traits that make them uniquely adapted to local conditions. They have evolved over time, adapting to factors specific to their region such as climate, moisture, soils and interactions with other plants, animals and insects. Many animals and insects depend on specific plants for their survival. Native plants play an important role in maintaining biodiversity and balance in the ecosystem.

Gloucester's native plants are species indigenous to Virginia's Coastal Plain, which is bordered by the Fall Line (The edge of the Piedmont/Coastal Plain, where various rivers cross from hard bedrock to soft sediments, is marked by a line of rapids and waterfalls—the Fall Line. ["Geology of the Fall Line"]) to the west and by the Atlantic Ocean, the Chesapeake Bay and its tributaries to the east. Many plants native to other regions such as the Piedmont and Mountain zones of Virginia, as well as those native to other states, will also perform here if used in locations that approximate their natural environments.

For the greatest ecological value, select the "true" species of local native plants, especially if planting for wildlife benefit. Cultivars are varieties that have been grown to provide plants with certain physical characteristics such as different flower color, different foliage or a compact/specific shape or size. Cultivars are suitable for gardening use, but true species provide the preferred food source for native wildlife.

"Young birds are fed native insects. Native plants support native insects that help birds feed their young."

- Felicity Ericson, GEMG Emeritus

Benefits of Native Plants

- Require little maintenance
- Add regional character and a naturalistic element to landscape
- Are better able to withstand local weather conditions such as drought, and insects and disease
- Reduce the need for chemical applications of fertilizers, herbicides and pesticides
- Prevent erosion, store and filter storm water runoff through their deep root systems
- Provide food and shelter for native butterflies, songbirds, beneficial insects and small mammals
- Reduce the potential for introducing invasive exotics
- Reduce the need for fossil-fueled lawn and garden equipment

Designing and Planting with Natives

A benefit of designing with native plants is their ability to grow under a wide variety of conditions. Assess your site for sun, shade, soil type and drainage. Understand the minimum and maximum light and moisture requirements for each species and be sure to group them with plants that have similar cultural requirements. You can incorporate a few native plants into an existing garden design or you can choose to plant an all-native design. Planting species with different bloom and/or fruiting times, as well as some evergreen species, will ensure year-round interest.

Native plants are adapted to a variety of native soils. If you choose a plant that is adapted to your existing soil, little or no soil amendment is needed. If your original topsoil has been removed, purchase similar topsoil, or simulate your own native soils by incorporating minimal amounts of manure and organic matter such as composted leaves. Native plants typically do not need fertilization and many actually prefer poor soils. They also often require less watering.

It will take time for your native plant garden to become well-established. Irrigation is critical for the first growing season, particularly the two to three weeks after planting. An inch of water a week is optimal. Pruning will be necessary for fast-growing species to maintain visual quality. Clipping spent flowers and branch tips will encourage plant fullness and longer bloom times for perennials.

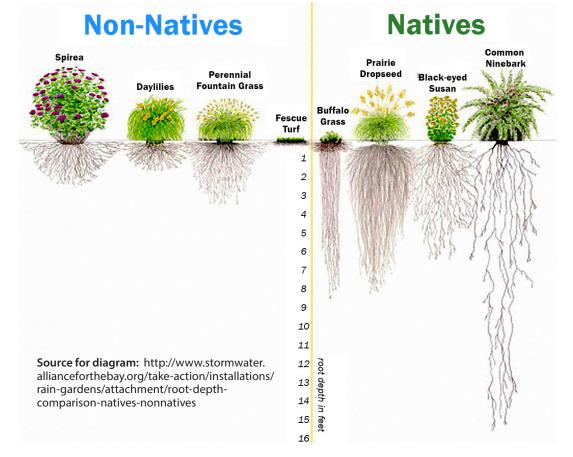
"Plant an oak tree in your wildlife garden. According to Douglas Tallamy, author of Bringing Nature Home: How You Can Sustain Wildlife with Native Plants, oaks can support over 500 species of moths and butterflies!" – Bill Walker, GEMG

Uses for Native Plants

- Lawn replacement
- Perennial beds
- Wildlife habitats
- Rain gardens
- Wetland plantings
- Woodland edge plantings

Native plants are particularly effective in rain gardens and wetland areas because they have deep, extensive root systems. These root systems increase soil permeability which allows for better absorption and filtration of rainwater, thereby reducing the amount of nutrients and pollutants that run off your property and into the Chesapeake Bay. The varying root lengths also provide soil stability to control erosion on slopes and in coastal areas.

Root systems of native grasses and forbs (herbaceous flowering plants that are not grasses, sedges, and rushes) can reach depths of 6 to 15 feet compared to the shallow roots of conventional blue grass turf (left of middle in diagram) which grow to only a few inches.



RECOMMENDED PLANTS FOR SPECIFIC APPLICATIONS

The following lists offer suggested plantings for various applications. Remember to consider site requirements before making your selection. Details about plants marked with an asterisk (*) can be found in their respective chapters, i.e., flowering dogwood in the Trees chapter. Further information can be obtained from references listed at the end of this chapter.

TREES	SHRUBS
American Beech Fagus grandifolia	Highbush Blueberry Vaccinium corymbosum
American Holly Ilex opaca	Hollies – both evergreen and deciduous <i>llex spp.</i> *
Black Cherry Prunus serotina	Red Osier Dogwood Cornus stolonifera
Black Gum Nyssa sylvatica*	Serviceberry Amelanchier arborea
Crabapple Malus spp.	Spicebush Lindera benzoin
Eastern Red Cedar Juniperus virginiana*	Sumacs Rhus spp.
Flowering Dogwood Cornus florida*	Virburnums Viburnum spp.*
Hawthorns Crataegus spp.*	Wax Myrtle Morella cerifera*
Hickories Carya spp.	
Oaks Quercus spp*.	VINES
Pines Pinus spp.	Coral Honeysuckle, Trumpet Honeysuckle Lonicera sempervirens
Red Mulberry Morus rubra	Trumpet Creeper, Trumpet Vine Campsis radicans
Sassafras Sassafras albidum	Virginia Creeper Parthenocissus quinquefolia*

Plant Species for Birds

Host Plants for Caterpillars

TREES	SHRUBS
Black Cherry, Wild Cherry Prunus serotina	Button Bush Cephalanthus occidentalis
Flowering Dogwood Cornus florida*	New Jersey Tea Ceanothus americanus*
Hackberry Celtis occidentalis	Spicebush Lindera benzoin
Oaks Quercus spp.*	Sumacs Rhus spp.
Paw Paw Asimina triloba	Sweet Bay Magnolia Magnolia virginiana*
Redbud Cercis canadensis*	Viburnums Viburnum spp.*
Sassafras Sassafras albidum	
Tulip Poplar Liriodendron tulipifera	PERENNIALS
	Asters Symphyotrichum spp.*
VINES	Butterfly Weed Asclepias tuberosa*
Dutchman's Pipe Aristolochia macrophylla	Golden Alexander Zizea aurea
Purple Passionflower Passiflora incarnata*	Milkweeds, Asclepias incarnata, A. syriaca
	Violets (Viola spp.) - not all are natives

TREES	PERENNIALS (continued)
Serviceberry Amelanchier spp.	Common Sneezeweed Helenium autumnale
	Cowslip, Marsh Marigold Caltha palustris
SHRUBS	Cup Plant Silphium perfoliatum
Button Bush Cephalanthus occidentalis	Goldenrod Solidago spp.
Coastal Azalea Rhododendron atlanticum	Great Blue Lobelia Lobelia siphilitica
New Jersey Tea Ceanothus americanus*	Joe Pye Weed Eutrochium spp.*
Summersweet Clethra alnifolia*	Lyre-leaf Sage Salvia lyrata
Swamp Azalea Rhododendron viscosum	Maryland Golden Aster Chrysopsis mariana
Virginia Sweetspire Itea virginica*	Milkweeds Asclepias incarnata, A. syriaca
	Narrow-leaf Sundrops, Southern Sundrops Oenothera fruiticosa
VINES	Narrow-leaved Mountain Mint Pycnanthemum tenuifolium*
Coral Honeysuckle, Trumpet Honeysuckle Lonicera sempervirens	New England Aster Symphyotrichum novae-angliae*
Trumpet Creeper, Trumpet Vine Campsis radicans	New York Ironweed Vernonia noveboracensis
	Northern Blue Flag Iris versicolor
PERENNIALS	Phlox Phlox spp.* also see Groundcovers
Aster Symphyotrichum spp.*	Pickerelweed Pontederia cordata
Beardtongue Penstemon spp.	Purple Coneflower Echinacea purpurea*
Beebalm Monarda didyma*	Rose Mallow Hibiscus moscheutos
Blue False Indigo, Wild Indigo Baptisia australis*	Seashore Mallow Kosteletzkya virginica
Black-eyed Susan Rudbeckia spp.*	Spiderwort Tradescantia spp.
Blazing Star, Spike Gayfeather Liatris spicata	Tickseed Coreopsis spp.*
Bluestar Amsonia spp.*	Turk's Cap Lily Lilium superbum
Blue Vervain Verbena hastata	White Turtlehead Chelone glabra
Boltonia Boltonia asteroides*	Wild Bergamot Monarda fistulosa
Butterfly Weed Asclepias tuberosa*	Wild Columbine Aquilegia canadensis*
Cardinal Flower Lobelia cardinalis	Sunflower Helianthus spp.
Carolina Bushpea Thermopsis villosa	Violets (Viola spp.) - not all are natives
Common Sneezeweed Helenium autumnale	

Nectar Plants for Hummingbirds, Butterflies and Bees

Sources: Butterfly Species Host List–Denise Greene, Sassafras Farm *For the Birds, Butterflies and Hummingbirds–Creating Inviting Habitats*, HORT-59NP,

https://resources.ext.vt.edu/searchresults?contentname=hort-59np Wildflowers for Butterfly Gardens-Prince William Wildflower Society Wildlife Habitat-Wildlife Habitat | NRCS (usda.gov)

"Avoid plants with "double blooms" as the extra layer of petals can make it harder for hummingbirds, butterflies, and beneficial insects to access the nectar."

– Rose Sullivan, GEMG



Rain Gardens

Rain gardens are usually small gardens which use rainfall and stormwater runoff in their designs and plant selections. They are designed to withstand the extremes of moisture and concentrations of nutrients, particularly nitrogen and phosphorus that are found in stormwater runoff.

TREES	PERENNIALS
Atlantic White Cedar Chamaecyparis thyoides	Asters Symphyotrichum spp.
Bald Cypress Taxodium distichum*	Atamasco Lily Zephyranthes atamasco
Black Gum Nyssa sylvatica*	Beebalm Monarda didyma*
Fringe Tree Chionanthus virginicus*	Black-eyed Susan Rudbeckia hirta
Hackberry Celtis occidentalis	Blazing Star, Spike Gayfeather Liatris spicata
Paw Paw Asimina triloba	Blue Flag Iris Iris virginica, Iris versicolor
River Birch Betula nigra*	Cardinal Flower Lobelia cardinalis
Serviceberry Amelanchier canadensis	Common Boneset Eupatorium perfoliatum
Sweetbay Magnolia Magnolia virginiana*	Coneflower, Black-eyed Susan Rudbeckia spp.*
Sweet Gum Liquidambar styraciflua*	Cut-leaf Coneflower Rudbeckia laciniata
	Goldenrod Solidago spp.
SHRUBS	Great Blue Lobelia Cardinalis siphilitica
Arrowwood Viburnum Viburnum dentatum	Hyssop Skullcap Scutellaria integrifolia
Beautyberry Callicarpa americana*	Jack-in-the-Pulpit Arisaema triphyllum
Buttonbush Cephalanthus occidentalis	Joe Pye Weed Eutrochium dubium
Carolina Allspice Calycanthus floridus	Lyre-leaf Sage Salvia lyrata
Common Elderberry Sambucus nigra spp. canadensis (S. canadensis)	Marsh Marigold Caltha palustris
Fetterbush Leucothoe racemosa	New York Ironweed Vernonia noveboracensis
Groundsel Bush Baccharis halimifolia	Nodding Ladies' Tresses Spiranthes cernua
Highbush Blueberry Vacccinium corymbosum	Obedient Plant Physostegia virginiana
Inkberry Ilex glabra*	Pickerelweed Pontederia cordata
Ninebark Physocarpus opulifolius	Rose Mallow Hibiscus moscheutos
Possumhaw Holly Ilex decidua*	Seashore Mallow Kosteletzkya pentacarpos (K. virginica)
Possumhaw Viburnum Viburnum nudum	Swamp Milkweed Asclepias incarnata
Red Chokeberry Aronia abutifolia*	Swamp Sunflower Helianthus angustifolius
Silky Dogwood Cornus amomum	White Turtlehead Chelone glabra
Southern Wax Myrtle Morella cerifera*	
Spicebush Lindera benzoin	GRASSES
Steeplebush Spiraea tomentosa	Bluejoint Grass Calamagrostis canadensis
Strawberry Bush Euonymus Americanus	Little Bluestem Schizachyrium scoparium*
Swamp Azalea Rhododendron viscosum	River Oats Chasmanthium latifolium
Swamp Rose Rosa palustris	Rushes Juncus spp.
Sweet Pepperbush Clethra alnifolia	Switchgrass Panicum virgatum*
Virginia Sweetspire Itea virginica*	Sedges Carex spp.
Winterberry Holly <i>llex verticillata</i> *	
Yaupon Holly Ilex vomitoria*	

Rain Gardens

Rain Gardens (continued)

FERNS	
Cinnamon Fern Osmunda cinnamomea	Royal Fern Osmunda regalis
Maidenhair Fern Adiantum pedatum	Sensitive Fern Onoclea sensibilis
New York Fern Thelypteris noveboracensis	

Sources: Native Plants for Southeast Virginia, including Hampton Roads area, https://static1.squarespace.com/static/58e25c41e 6f2e17ea4cb7766/t/5964020c099c0166cbe4f826/1499726352177/Native-Plants-for-Southeast-Virginia-Guide-reprint-July-2017.pdf

Native Plants for Wildlife Habitat and Conservation Landscaping: Chesapeake Bay Watershed https://www.fws.gov/chesapeakebay/PDF/resources/Native-Plants-for-Wildlife-Habitat-and-Conservation-Landscaping.pdf Rain Garden Plants https://resources.ext.vt.edu/contentdetail?contentid=1525&contentname=Rain%20Garden%20Plants

Waterfront Landscapes

Plants growing on coastal shores are subjected to environmental conditions much different from those planted inland. Blowing sand, poor soil, excessive drainage, high temperatures, and salt spray determine how well plants grow on coastal landscapes. Most plants will not tolerate salt spray on accumulating on their foliage. Below are plants that have been found to grow well in the Gloucester waterfront areas.

Salt-tolerant Native Plants for Waterfront Landscapes: Outer Coastal Plain

DECIDUOUS TREES	SHRUBS AND SMALL TREES
Bald Cypress Taxodium distichum*	Beach Plum Prunus maritime – edible fruit
Black Cherry Prunus serotina	Groundsel Bush Baccharis halimifolia
Hackberry Celtis occidentalis	Inkberry llex glabra*
Live Oak Quercus virginiana*	Marsh Elder Iva frutescens
Persimmon Diospyros virginiana – edible fruit	Wax Myrtle Morella spp. formerly Myrica spp.*
Sweet Gum Liquidambar styraciflua* – cultivars without seed pods, e.g. 'Rotundiloba'	Yaupon Holly <i>llex vomitoria</i> * – tree, dwarf & weeping varieties available
EVERGREEN TREES	VINES
American Holly <i>llex opaca</i> – thorny leaves shed in spring	Coral Honeysuckle, Trumpet Honeysuckle Lonicera sempervirens
Eastern Red Cedar Juniperus virginiana*	Trumpet Creeper, Trumpet Vine Campsis radicans
Loblolly Pine Pinus taeda	Virginia Creeper Parthenocissus quinquefolia*
Sweetbay Magnolia Magnolia virginiana*	
	PERENNIALS
GRASSES	Asters Symphyotrichum spp various species*
Saltmeadow Hay, Saltmeadow Cordgrass Spartina patens	Black-eyed Susan Rudbeckia hirta*
Switchgrass Panicum virgatum*	Blanket Flower Gaillardia spp.*
	Blazing Star Liatris squarrosa
TIDAL MARSH (regular salt water flooding)	Coneflowers Echinacea spp.*
Salt Marsh Cordgrass Spartina alterniflora	Goldenrods Solidago spp. – volunteers in unmowed areas
Saltmeadow Hay, Saltmeadow Cordgrass Spartina patens	Hibiscus Hibiscus moscheutos
	Marsh Mallow, Seashore Mallow Kosteletzkya virginica

Source: http://ccrm.vims.edu/livingshorelines/documents/HowTo/Native_plants_shorelines.pdf

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Wildlife Habitat:

https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/newsroom/features/?cid=nrcs143_023553

https://www.audubonva.org/creating-wildlife-habitat

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Andersen Horticultural Library. https://arb.umn.edu/

Bird Watcher's Digest. https://www.birdwatchersdigest.com/bwdsite/

Butterflies and Moths of North America. https://www.butterfliesandmoths.org/

- Chesapeake Bay Foundation. https://www.cbf.org/join-us/more-things-you-can-do/in-your-yard/native-plants. html
- Cornell Lab of Ornithology. https://www.birds.cornell.edu/home
- Crossley Books. https://crossleybooks.com/
- Digital Atlas of the Virginia Flora. http://vaplantatlas.org/
- John Clayton Chapter Virginia Native Plant Society. https://vnps.org/johnclayton/
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Lady Bird Johnson Wildflower Center. https://www.wildflower.org/

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North American Butterfly Association. https://www.naba.org/

The Butterfly Society of Virginia, Inc. https://www.butterflysocietyofva.org/

USDA Home Gardening Information. https://www.nal.usda.gov/topics/home-gardening

USDA Plants Database. https://plants.sc.egov.usda.gov/home

Virginia Native Plant Society. https://vnps.org/

The Xerces Society. https://www.xerces.org/

Where to Buy Native Plants:

Gloucester Extension Master Gardeners Plant Extravaganza,

https://www.gloucesterva.info/639/Master-Gardeners - plant sale held every September Local nurseries in Gloucester

Lewis Ginter Botanical Garden, https://www.lewisginter.org/ - plant sales held spring and fall Norfolk Botanical Garden, https://norfolkbotanicalgarden.org/ - plant sale held Mother's Day weekend Northern Neck Extension Master Gardeners, https://nnmg.org/ - check website for upcoming sales Virginia Department of Forestry (tree seedlings only), https://dof.virginia.gov/forest-management-health/ seedling-nurseries/ Virginia Living Museum, Newport News, VA, https://thevlm.org/ - plant sales held April & September Virginia Native Plant Society, www.vnps.org check local John Clayton Chapter link (https://vnps.org/johnclayton/) for upcoming sales Williamsburg Botanical Garden, https://williamsburgbotanicalgarden.org/ - check website for upcoming sales

Aquilegia canadensis

Notes:	