

Planting Recommendations for Transitioning to Native Landscaping

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Dry Shade Gardens (ex. under trees)

Replacement for non-native invasive Pachysandra terminalis, Japanese spurge, a common groundcover perennial planted under trees.

The soil condition under trees is often relatively dry because of the high water needs of a mature tree. The roots can also contribute to compaction. Thus, plantings under trees should be perennials, tolerant of dry conditions, and with shallow, running root systems that can establish in shallow soils.

Recommended species:



Adiantum pedatum maidenhair fern 1-2.5' height part to full shade medium water



Symphyotrichum cordifolium blue wood aster 2-5' height part shade dry to medium water



Eurybia divaricata white wood aster 2-5' height part to full shade dry to medium water



Dryopteris marginalis marginal wood fern 1.5-2' height part to full shade medium water



Carex pensylvanica Pennsylvania sedge 0.5-1' height part to full shade dry to medium water



Geranium maculatum wild geranium 1.5-2' height part shade medium water



Phlox divaricata 'Blue Moon' Blue Moon woodland phlox 0.75-1' height part to full shade medium water



Tiarella cordifolia 'Brandywine' foamflower 0.75-1' height part to full shade medium water

Additional perennial species:

Actaea racemosa, black cohosh Aquilegia canadensis, wild columbine Eurybia macrophylla, bigleaf aster Mertensia virginica, Virginia bluebells Smilacina racemosa, Solomon's plume

Ornamental Trees

Replacement for declining non-native ornamental understory trees. Commonly planted species like Cornus kousa, kousa dogwood, provide an attractive flower in spring, but offer little to native pollinators and other fauna.

Species selection for each individual site should be determined based on soil and light conditionsthis selection includes a variety of trees with different cultural needs.

Recommended species:



Amelanchier 'Autumn Brilliance' serviceberry 15-30' mature height full sun to part, medium water white flowers in spring, berries in fall orange-red fall color



Cornus florida flowering dogwood 15-30' mature height full sun to part, medium water white or pink flowers in spring red fall color



Carpinus carolinana American hornbeam 20-30' mature height full sun, medium water orange-red fall color



Magnolia virginiana sweetbay magnolia 12-35' mature height full sun to part, medium water white flowers spring into summer



Cercis canadensis Eastern redbud 12-25' mature height full sun to shade, medium water pink flowers in spring



Nyssa sylvatica 'Wildfire' blackgum 40' mature height full sun, medium to high water spectacular yellow to red fall color



Chionanthus virginicus fringetree 12-20' mature height full sun to part, medium water white flowers in spring berries in fall

Wet Shade Gardens

Plants not suited to shady, wet environments tend to struggle with the lack of sunlight and moist soils, which can contribute to the spread of fungal diseases. However, there are plenty of species that will thrive in these conditions! Planting wet areas can help to uptake excess water, reduce ponding and slow the flow of surface water.

Recommended species:



Athyrium felix-femina lady fern 1-3' height part sun to shade high water



Carex plantaginea seersucker sedge 0.75-1' height full sun to shade medium water



Chrysogonum virginianum green-and-gold 0.5-1' yellow flowers in summer part sun to shade medium to high water



Dryopteris x australis dixie wood fern 2-3' height shade medium to high water



Heuchera americana 'Dale's Strain' alumroot 1-2' height full sun to shade medium water



Lobelia cardinalis cardinal flower 2-4' height red flowers in summer full sun to shade high water



Packera aurea golden groundsel 2-3' height yellow flowers in spring full sun to part medium to high water



Tiarella cordifolia foamflower 1.5' height white flowers in spring part sun to shade medium to high water

Additional species:

Anemone virginiana, thimbleweed Asarum canadense, wild ginger Caltha palustris, marsh marigold Carex flaccosperma, blue wood sedge Onoclea sensibilis, sensitive fern Polemonium reptans, Jacob's ladder

Cephalanthus occidentalis 'Sugar Shack', buttonbush Itea virginica, Virginia sweetspire

Sunny Slopes

Slopes can be a challenging location for planting. Plants for slopes should be tolerant of drought, as soils on slopes tend to drain quickly during rain events. Plants that spread and colonize are beneficial in a challenging environment.

The benefits of planting a slope are many-soils are stabilized and surface water is slowed, which contributes to reducing erosion. Additionally, large plantings can provide a stunning visual feature. Planting in masses can create a more orderly look and simplify maintenance.

Recommended species:



Achillea millefolium varrow 2-3' height white flowers in summer full to part sun very low water



Amsonia hubrichtii threadleaf bluestar 2-3' height blue flowers in spring gold fall color full to part sun, medium water



Aster 'October Skies' aromatic aster 1.5-2' height purple-blue flowers in autumn full sun low to medium water



Bouteloua gracilis blue grama 2.5-3' height full sun low water



Coreopsis verticillata thread leaf coreopsis 1-2' height yellow flowers in summer low to medium water

Additional species:

Andropogon virginicus, broomsedge Asclepias syriaca, common milkweed Monarda fistulosa, wild bergamot Ratibida pinnata, prairie coneflower



Phlox subulata creeping phlox 0.5' height cultivars with varying colors in spring full sun medium water



Pycnanthemum tenuifolium narrow leaf mountain mint 2-3' height white-pink flowers summer full to part sun medium water



Schizachyrium scoparium little bluestem 2-4' height full sun very low water



Ceanothus americanus New Jersey tea 2-3' height white flowers in summer full to part sun low water



Rhus aromatica 'Gro Low' fragrant sumac 3-6' height, 6-12' spread very low water

Rudbeckia hirta, black-eyed Susan Tridens flava, purpletop

Cornus racemosa, gray dogwood Viburnum prunifolium, blackhaw Photinia (syn. Aronia) melanocarpa, black chokeberry

Dooryard Plants

Many standard landscape plants have, over time, escaped cultivation and become invasive. There are many native alternatives that can fill the same niches as these common plants.

Standard Plantings



Hedera helix English ivy A vigorous, drought tolerant evergreen groundcover. Can be destructive for both other plants and built structures. Considered invasive by the Pennsylvania DCNR

Native alternatives



Carex plantaginea, seersucker sedge semi-evergreen, clumping groundcover Pachysandra procumbens, Allegheny spurge spreads slowly by rhizomes Polystichum acrostichoides, christmas fern evergreen, interesting foliage









Vinca minor common periwinkle Vigorous evergreen groundcover with small purple flowers. Grows quickly, establishing dense ground layer that can outcompete other plants. Considered invasive by the Pennsylvania DCNR

Mitchella repens, partridgeberry trailing evergreen groundcover, red berries Phlox divaricata 'Blue Moon', woodland phlox spreading groundcover, delicate blue flowers in spring Waldsteinia fragarioides, Appalachian barren strawberry mat-forming rhizomatous groundcover, yellow flowers









Pachysandra terminalis Japanese spurge Shrubby, shade-tolerant evergreen groundcover. Aggressively spreads by rhizomatous roots and can be difficult to remove. Considered invasive by the Pennsylvania DCNR



Asarum canadense, wild ginger low, colony-forming groundcover Chrysogonum virginianum, green-and-gold small yellow flower, spreads by rhizomes Pachysandra procumbens, Allegheny spurge spreads slowly by rhizomes







Standard Plantings



Miscanthus sinensis Chinese silver grass Large clump-forming ornamental grass. Can spread aggressively and seed into disturbed areas. Considered invasive by the Pennsylvania DCNR

Native alternatives



Andropogon gerardii, big bluestem tall, structural grass with attractive color variations throughout the year Panicum virgatum, switch grass structural, columnar grass maintains shape throughout the winter Schizachyrium scoparium, little bluestem smaller ornamental grass with attractive fall color









Acer platanoides Norway maple Introduced shade tree. Shallow rooted with weak wood. Considered invasive by the Pennsylvania DCNR



Acer rubrum, red maple fairly fast-growing canopy tree with red fall color Acer saccharum, sugar maple large, stately maple with yellow-orange fall color Nyssa sylvatica, black tupelo slow-growing, stately tree with vibrant fall color









Berberis thunbergii Japanese barberry Berberis vulgaris European barberry Often planted as a hedge shrub, can be fairly compact. Good fall color and interesting fruit. Highly invasive, spreads by roots and seeding. Class B noxious weed in Pennsylvania



Itea virginica, Virginia sweetspire small arching shrub with white flowers and vibrant fall color Physocarpus opulifolius, ninebark tall upright shrub with a full, rounded shape Rhus aromatica, fragrant sumac dense, spreading shrub with vibrant fall color







Standard Plantings



Buddleia davidii butterfly bush Fragrant purple flowers in summer, attracts pollinators. Nectar source but not a host for native pollinators, aggressively

Considered invasive by the Pennsylvania DCNR

Native alternatives



Cephalanthus occidentalis, buttonbush open, rounded habit with rounded white flowers, attractive to hummingbirds and butterflies Clethra alnifolia, summersweet

fragrant white flowers attract butterflies and bees, yellow fall color Itea virginica, Virginia sweetspire small arching shrub with white flowers held in racemes









Euonymus alatus burning bush Adaptable with good fall color. Highly invasive, outcompeting native woodland understory and forming dense thickets. Class B noxious weed in Pennsylvania



Aronia arbutifolia, red chokeberry suckering, vase-shaped shrub with glossy red fruits and red fall color Euonymus atropurpureus, eastern wahoo upright, spreading shrub with scarlet red fruits and foliage in fall Viburnum trilobum, American cranberrybush tall, dense, rounded shrub with red fruits and foliage in fall syn. Viburnum opulus var. americanum









Ligustrum sinense Ligustrum vulgare Ligustrum obtusifolium privet species Class B noxious weed in Pennsylvania

Ligustrum japonicum Japanese privet

Class A noxious weed in Pennsylvania

Adaptable to many soil conditions, often used as a hedge plant as it can be pruned heavily. Spreads aggressively by selfseeding.



Ilex glabra, inkberry

rounded, upright evergreen shrub Juniperus virginiana, eastern red cedar columnar evergreen tree, cultivar 'Emerald Sentinel' is more narrow and upright and can be used as a hedge

Viburnum dentatum, arrowwood viburnum upright shrub with glossy leaves and white flowers







Standard Plantings



Spiraea japonica Japanese spiraea Low-growing flowering shrub. Aggressively self-seeds. Considered invasive by the Pennsylvania DCNR

Native alternatives



Ceanothus americanus, New Jersey tea dense, compact low-growing shrub with white flowers in early summer Diervilla lonicera, northern bush honeysuckle low-growing, suckering shrub with yellow summer blooms Itea virginica, Virginica sweetspire small arching shrub with white flowers held in racemes













Considered invasive by the Pennsylvania DCNR

Viburnum plicatum



Viburnum dentatum, arrowwood viburnum upright shrub with glossy leaves and white flowers Viburnum nudum, possumhaw viburnum rounded, upright shrub with smooth, lustrous foliage and good fall color Viburnum trilobum, American cranberrybush tall, dense, rounded shrub with red fruits and foliage in fall syn. Viburnum opulus var. americanum









Additional Resources

To learn more about a specific species of plant:

Lady Bird Johnson Wildflower Center Native Plant Database

information on over 13,000 vacular plants native to the U.S. and Canada

Missouri Botanical Garden Plant Finder

reliable source for information on over 7,500 common plant species

North Carolina Extension Gardener Plant Toolbox

detailed descriptions and photographs of many U.S. east coast natives

Helpful publications:

PA DCNR, Landscaping with Native Plants

web page with resources specific to Pennsylvania native plants and landscapes

PA Enflowered, Flora of Pennsylvania

web page documenting the flora of the state of Pennsylvania, over 950 species listed with more added weekly

Plant Invaders of Mid-Atlantic Natural Areas, National Park Service & U.S. Fish and Wildlife Service

list of 80 species considered invasive, with control guidance, also includes "plants to watch" and native alternatives, available online as a PDF

Xerces Society, Native Plants for Pollinators & Beneficial Insects, Mid-Atlantic

list of native plant species with details on resources they provide to pollinators available online as a PDF

Public gardens with native plant displays:

Delaware Botanic Gardens at Pepper Creek Dagsboro, Delaware

Jenkins Arboretum Devon, PA

Mt. Cuba Center Hockessin, Delaware

Stoneleigh: A Natural Garden Villanova, PA

Wildflower and Native Plant Gardens at the Brandywine Museum of Art Chadds Ford, PA

Native plant retail nurseries:

Edge of the Woods Nursery Orefield PA

Good Host Plants Philadelphia, PA

Keystone Wildflowers Robesonia, PA

Natural Landscapes Nursery West Grove, PA

Redbud Native Plant Nursery Media, PA

The Schuykill Center for Environmental Education Philadelphia PA

Landscape plugs, wholesale only:

New Moon Nursery Woodstown NJ

Northcreek Nurseries Landenberg/Oxford PA