

Native Plant Materials

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Stewardship Handbook **for Natural Lands in** **Southeastern Pennsylvania**

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Nearly 1,600 vascular plant species are known to be native to the greater southeastern Pennsylvania region (the roughly 15 counties that lie south and east of Blue Mountain or Kittatinny Ridge). They include almost 1,350 herbaceous species (wildflowers, grasses, sedges, rushes, ferns), 133 shrubs, 102 trees, and 19 woody vines. Here we suggest a relatively small fraction of those species for use in natural land restoration and landscaping. For natural land restoration we highlight 134 wildflowers; 48 grasses, sedges, and rushes; 19 ferns; 68 shrubs; 62 trees; and 2 woody vines in tables on pages 173–190. A shorter list of plants that provide wildlife benefits and horticultural values can be found on pages 191–198. All species were selected for their ability to thrive under a range of environmental conditions and for their commercial availability (see sources of native plants on page 198), mainly from nurseries and seed suppliers who specialize in plants that are native to southeastern Pennsylvania and immediately adjacent areas of Pennsylvania, New Jersey, Delaware, and Maryland. Don't be discouraged if the availability of some of these plants is limited. Your interest will encourage nurseries to increase their supply.

The plants we recommend for restoration projects are sorted into three major habitat categories: **forest**, **shrubland**, and **meadow**. Within each major category are separate lists of trees, shrubs, and

herbaceous species, and each of those groups is further broken down into height classes, based on the maximum height that each species could attain under ideal growing conditions. Maximum height is particularly important in meadow plantings. Most native meadow species have low tolerance of shade and require full sun for at least a part of every day to survive. If species of markedly different heights are planted together, the shorter species are likely to fail due to shade suppression. In any given patch of meadow, the mix of species planted from seeds or plugs should range across no more than two consecutive size categories (the overall planting can be a mosaic of patches of different heights).

All of the shrub and herbaceous species listed under "Native Forest Plants" have intermediate to high tolerance of shade. The list of upper canopy trees includes a mixture of species with low, intermediate, and high shade tolerance, but all native upper canopy tree species—including those that are highly shade tolerant—should be planted where they will get at least some full sun every day. (Subcanopy trees species generally are more tolerant of shading, but will also benefit from some direct sun exposure while they become established; a few have low shade tolerance and thrive best in savannas or open woodlands, including pitch pine, Virginia pine, black jack oak, post oak, sassafras, and black willow.) Seedlings and saplings of even

the most shade tolerant tree species tend to grow extremely slowly or not at all in deep shade. Shade tolerance does not allow young trees of upper canopy species to grow to full size in the shade; it merely enables them to survive many years in a suppressed state until adult trees in the canopy above them die. The natural course of forest canopy renewal takes place when old trees fall or die, opening up a canopy gap that admits enough sunshine to fuel a growth spurt of the advance regeneration (established seedlings and saplings), which soon fill the gap. If the gap is large enough

to provide sufficient sunlight, it often becomes a race to fill the gap between shade tolerant tree species, which are already established and have a head start but have slower maximum growth rates, and shade intolerant tree species, which must start from seed but generally grow much more rapidly. Owners or managers of natural lands can choose the winners in this race by judicious weeding and by planting tree seedlings or saplings of upper canopy species far enough apart that none will shade or otherwise interfere with each other's growth.

FOREST TREES

SCIENTIFIC NAME	COMMON NAME(S)	SOIL MOISTURE PREFERENCE
<i>maximum height: 70–140 feet or more (upper canopy)</i>		
<i>Acer rubrum</i>	red maple	dry to wet
<i>Acer saccharinum</i>	silver maple	moist to wet
<i>Acer saccharum</i>	sugar maple	dry to moist
<i>Betula lenta</i>	sweet birch, black birch	dry to moist
<i>Betula nigra</i>	river birch	moist
<i>Carya cordiformis</i>	bitternut hickory	moist
<i>Carya laciniata</i>	shellbark hickory	moist to wet
<i>Carya ovata</i>	shagbark hickory	dry to moist
<i>Carya tomentosa</i>	mockernut hickory	dry to moist
<i>Celtis occidentalis</i>	common hackberry	dry to moist
<i>Fagus grandifolia</i>	American beech	moist
<i>Fraxinus americana</i>	white ash	moist
<i>Fraxinus pennsylvanica</i>	red ash, green ash	moist to wet
<i>Gleditsia triacanthos</i>	honeylocust	moist
<i>Juglans nigra</i>	walnut	moist
<i>Liquidambar styraciflua</i>	sweetgum	moist to wet
<i>Liriodendron tulipifera</i>	tuliptree	moist
<i>Nyssa sylvatica</i>	blackgum, sourgum, tupelo	dry to wet
<i>Pinus echinata</i>	shortleaf pine	dry

FOREST TREES, *continued*

SCIENTIFIC NAME	COMMON NAME(S)	SOIL MOISTURE PREFERENCE
<i>maximum height: 70–140 feet or more (upper canopy)</i>		
<i>Pinus strobus</i>	white pine	dry to wet
<i>Platanus occidentalis</i>	American sycamore	moist to wet
<i>Prunus serotina</i>	black cherry	moist
<i>Quercus alba</i>	white oak	dry to moist
<i>Quercus bicolor</i>	swamp white oak	moist to wet
<i>Quercus coccinea</i>	scarlet oak	dry to moist
<i>Quercus falcata</i>	southern red oak	dry to moist
<i>Quercus montana</i> [= <i>Quercus prinus</i>]	chestnut oak	dry
<i>Quercus palustris</i>	pin oak	moist to wet
<i>Quercus phellos</i>	willow oak	moist to wet
<i>Quercus rubra</i>	northern red oak	dry to moist
<i>Quercus velutina</i>	black oak	dry to moist
<i>Tilia americana</i>	basswood	moist
<i>Tsuga canadensis</i>	eastern hemlock	moist
<i>Ulmus americana</i>	American elm	moist to wet
<i>Ulmus rubra</i>	slippery elm	moist to wet
<i>maximum height: 30–65 feet (subcanopy)</i>		
<i>Amelanchier arborea</i>	shadbush, serviceberry, juneberry	dry to moist
<i>Amelanchier laevis</i>	shadbush, serviceberry, juneberry	dry to moist
<i>Aralia spinosa</i>	devil's walking-stick, Hercules'-club	moist
<i>Asimina triloba</i>	pawpaw	moist
<i>Carpinus caroliniana</i>	American hornbeam, musclewood	moist
<i>Cercis canadensis</i>	redbud	rich
<i>Cornus florida</i>	flowering dogwood	moist
<i>Diospyros virginiana</i>	persimmon	dry to moist
<i>Ilex opaca</i>	American holly	moist
<i>Juglans cinerea</i>	butternut	moist
<i>Magnolia virginiana</i>	sweetbay magnolia	moist to wet
<i>Malus coronaria</i>	sweet crabapple	dry to moist
<i>Morus rubra</i>	red mulberry	moist

FOREST TREES, *continued*

SCIENTIFIC NAME	COMMON NAME(S)	SOIL MOISTURE PREFERENCE
<i>maximum height: 30–65 feet (subcanopy)</i>		
<i>Ostrya virginiana</i>	hop-hornbeam	dry to moist
<i>Pinus rigida</i>	pitch pine	dry
<i>Pinus virginiana</i>	Virginia pine	dry
<i>Quercus marilandica</i>	blackjack oak	dry
<i>Quercus stellata</i>	post oak	dry
<i>Salix nigra</i>	black willow	wet
<i>Sassafras albidum</i>	sassafras	dry to moist
<i>Viburnum lentago</i>	nannyberry	moist

FOREST SHRUBS

SCIENTIFIC NAME	COMMON NAME(S)	SOIL MOISTURE PREFERENCE
<i>maximum height: 20–25 feet</i>		
<i>Alnus serrulata</i>	smooth alder	wet
<i>Amelanchier canadensis</i>	shadbush, juneberry, serviceberry	moist
<i>Cornus alternifolia</i>	alternate-leaved dogwood	moist
<i>Euonymus atropurpureus</i>	wahoo	moist to wet
<i>Prunus americana</i>	wild plum	moist
<i>Prunus virginiana</i>	choke cherry	dry to moist
<i>Viburnum prunifolium</i>	black-haw	wet
<i>maximum height: 10–15 feet</i>		
<i>Cephalanthus occidentalis</i>	buttonbush	wet
<i>Clethra alnifolia</i>	sweet pepperbush	wet
<i>Cornus amomum</i>	silky dogwood	wet
<i>Cornus racemosa</i>	gray dogwood	wet
<i>Cornus rugosa</i>	round-leaved dogwood	dry
<i>Corylus americana</i>	American filbert	dry to moist
<i>Corylus cornuta</i>	beaked hazelnut	dry to moist
<i>Hamamelis virginiana</i>	witch-hazel	dry to moist
<i>Ilex verticillata</i>	winterberry, black-alder	wet

FOREST SHRUBS, *continued*

SCIENTIFIC NAME	COMMON NAME(S)	SOIL MOISTURE PREFERENCE
<i>maximum height: 10–15 feet</i>		
<i>Kalmia latifolia</i>	mountain-laurel	dry to moist
<i>Lindera benzoin</i>	spicebush	moist
<i>Photinia melanocarpa</i> [= <i>Aronia melanocarpa</i>]	black chokeberry	dry to wet
<i>Photinia pyrifolia</i> [= <i>Aronia pyrifolia</i>]	red chokeberry	moist to wet
<i>Physocarpus opulifolius</i>	ninebark	moist to wet
<i>Rhododendron arborescens</i>	smooth azalea	moist
<i>Rhododendron maximum</i>	rosebay rhododendron	moist to wet
<i>Rhododendron periclymenoides</i>	pinxter-flower	dry to moist
<i>Rhododendron viscosum</i>	swamp azalea	wet
<i>Salix discolor</i>	pussy willow	moist to wet
<i>Sambucus canadensis</i>	American elder	moist to wet
<i>Sambucus racemosa</i>	red-berried elder	moist
<i>Staphylea trifolia</i>	bladdernut	dry to moist
<i>Vaccinium corymbosum</i>	highbush blueberry	dry to wet
<i>Viburnum cassinoides</i>	witherod	moist to wet
<i>Viburnum dentatum</i>	southern arrow-wood	wet
<i>Viburnum recognitum</i>	northern arrow-wood	wet
<i>Viburnum trilobum</i>	highbush-cranberry	wet
<i>maximum height: 5–7 feet</i>		
<i>Amelanchier stolonifera</i>	low junberry, low shadbush	dry to moist
<i>Dirca palustris</i>	leatherwood	dry to moist
<i>Euonymus americanus</i>	hearts-a-bursting	moist
<i>Gaylussacia frondosa</i>	dangleberry	dry to wet
<i>Hydrangea arborescens</i>	sevenbark, wild hydrangea	dry to moist
<i>Ribes americanum</i>	wild black currant	moist to wet
<i>Rosa palustris</i>	swamp rose	wet
<i>Rubus idaeus</i>	red raspberry	dry to moist
<i>Rubus occidentalis</i>	black-cap, black raspberry	dry to moist
<i>Spiraea alba</i>	meadow-sweet	moist to wet

FOREST SHRUBS, *continued*

SCIENTIFIC NAME	COMMON NAME(S)	SOIL MOISTURE PREFERENCE
<i>maximum height: 5–7 feet</i>		
<i>Spiraea latifolia</i>	meadow-sweet	moist to wet
<i>Taxus canadensis</i>	American yew	moist
<i>Vaccinium stamineum</i>	deerberry	dry
<i>Viburnum acerifolium</i>	maple-leaved viburnum	moist
<i>maximum height: 2–4 feet</i>		
<i>Diervilla lonicera</i>	bush-honeysuckle	dry
<i>Gaylussacia baccata</i>	black huckleberry	dry to wet
<i>Spiraea tomentosa</i>	hardback, steeple-bush	moist to wet
<i>Vaccinium angustifolium</i>	low sweet blueberry	dry to moist
<i>Vaccinium pallidum</i>	lowbush blueberry	dry to moist

FOREST VINES

SCIENTIFIC NAME	COMMON NAME(S)	SOIL MOISTURE PREFERENCE
<i>Lonicera sempervirens</i>	trumpet honeysuckle	moist
<i>Parthenocissus quinquefolia</i>	Virginia-creeper	moist

FOREST PERENNIAL WILDFLOWERS

SCIENTIFIC NAME	COMMON NAME(S)	SOIL MOISTURE PREFERENCE
<i>maximum height: tall (6–8 feet)</i>		
<i>Actaea racemosa</i> [= <i>Cimicifuga racemosa</i>]	black cohosh	dry to moist
<i>Aralia racemosa</i>	spikenard	moist
<i>Polygonatum biflorum</i>	Solomon's-seal	dry to moist
<i>maximum height: intermediate (3½–5 feet)</i>		
<i>Arisaema triphyllum</i>	jack-in-the-pulpit	moist
<i>Eurybia divaricata</i> [= <i>Aster divaricatus</i>]	white wood aster	dry to moist

FOREST PERENNIAL WILDFLOWERS, *continued*

SCIENTIFIC NAME	COMMON NAME(S)	SOIL MOISTURE PREFERENCE
<i>maximum height: intermediate (3½–5 feet)</i>		
<i>Eurybia macrophylla</i> [=Aster macrophyllus]	bigleaf aster	dry to moist
<i>Eurybia schreberi</i> [=Aster schreberi]	Schreber's aster	dry to moist
<i>Maianthemum racemosum</i> [=Smilacina racemosa]	false Solomon's-seal, Solomon's plume	dry to moist
<i>Medeola virginiana</i>	Indian cucumber-root	moist
<i>Polygonatum pubescens</i>	Solomon's-seal	dry to moist
<i>Sanicula odorata</i>	yellow-flowered sanicle, fragrant snakeroot	moist
<i>Solidago caesia</i>	bluestem goldenrod	dry to moist
<i>Solidago flexicaulis</i>	zigzag goldenrod	moist
<i>Symphotrichum cordifolium</i> [=Aster cordifolius]	blue wood aster	dry to moist
<i>Triosteum aurantiacum</i>	wild-coffee	moist
<i>maximum height: short (1½–3 feet)</i>		
<i>Actaea pachypoda</i>	doll's-eyes	dry to moist
<i>Allium tricoccum</i>	ramps, wild leek	dry to moist
<i>Aquilegia canadensis</i>	wild columbine	dry to moist
<i>Aralia nudicaulis</i>	wild sarsaparilla	dry to moist
<i>Aristolochia serpentaria</i>	Virginia snakeroot	dry to moist
<i>Caulophyllum thalictroides</i>	blue cohosh	dry to moist
<i>Dicentra eximia</i>	wild bleeding-heart	dry to moist
<i>Geranium maculatum</i>	wild geranium	dry to moist
<i>Hybanthus concolor</i>	green-violet	moist
<i>Hydrophyllum canadense</i>	Canadian waterleaf	moist
<i>Hydrophyllum virginianum</i>	Virginia waterleaf	moist
<i>Lysimachia quadrifolia</i>	whorled loosestrife	dry
<i>Mertensia virginica</i>	Virginia bluebells	moist
<i>Oclemena acuminata</i>	wood aster	moist
<i>Osmorhiza claytonii</i>	sweet-cicely	moist
<i>Osmorhiza longistylis</i>	anise-root	moist

FOREST PERENNIAL WILDFLOWERS, *continued*

SCIENTIFIC NAME	COMMON NAME(S)	SOIL MOISTURE PREFERENCE
<i>maximum height: short (1½–3 feet)</i>		
<i>Phlox divaricata</i> ssp. <i>divaricata</i>	eastern wild blue phlox	dry to moist
<i>Podophyllum peltatum</i>	mayapple	moist
<i>Polemonium reptans</i>	spreading Jacob's-ladder	moist
<i>Scutellaria serrata</i>	showy skullcap	moist
<i>Thalictrum dioicum</i>	early meadow-rue	moist
<i>Trillium cernuum</i>	nodding trillium	moist
<i>Trillium erectum</i>	purple trillium, wakerobin	moist
<i>Trillium flexipes</i>	declined trillium	moist to wet
<i>Trillium grandiflorum</i>	large-flowered trillium	moist
<i>Uvularia perfoliata</i>	bellwort	moist
<i>Uvularia sessilifolia</i>	bellwort	moist
<i>Zizia aptera</i>	golden-alexander	moist
<i>Zizia aurea</i>	golden-alexander	moist
<i>maximum height: very short (up to 1 foot)</i>		
<i>Asarum canadense</i>	wild ginger	moist
<i>Hydrastis canadensis</i>	goldenseal	moist
<i>Iris cristata</i>	dwarf crested iris	dry to moist
<i>Jeffersonia diphylla</i>	twinleaf	dry to moist
<i>Maianthemum canadense</i>	Canada mayflower	moist
<i>Mitchella repens</i>	partridge-berry	moist
<i>Sanguinaria canadensis</i>	bloodroot	dry to moist
<i>Thalictrum thalictroides</i>	rue anemone	dry to moist
<i>Tiarella cordifolia</i>	foamflower	moist

FOREST GRASSES, SEDGES, AND RUSHES

SCIENTIFIC NAME	COMMON NAME(S)	SOIL MOISTURE PREFERENCE
<i>maximum height: tall (6–8 feet)</i>		
<i>Scirpus cyperinus</i>	wool-grass	wet
<i>maximum height: intermediate (3½–5 feet)</i>		
<i>Carex crinita</i>	fringed sedge, short-hair sedge	wet
<i>Carex folliculata</i>	northern long sedge	wet
<i>Carex gynandra</i>	nodding sedge	wet
<i>Carex lurida</i>	lurid sedge, shallow sedge	wet
<i>Carex scoparia</i>	broom sedge	moist to wet
<i>Carex stipata</i>	stalk-grain sedge, owlfruit sedge	wet
<i>Carex tribuloides</i>	blunt broom sedge, bristlebract sedge	wet
<i>Chasmanthium latifolium</i>	Indian wood-oats	moist
<i>Elymus hystrix</i>	bottlebrush-grass	moist
<i>Glyceria canadensis</i>	rattlesnake mannagrass	wet
<i>Glyceria melicaria</i>	slender mannagrass	wet
<i>Glyceria striata</i>	fowl mannagrass	wet
<i>Leersia virginica</i>	whitegrass	moist to wet
<i>maximum height: short (1½–3 feet)</i>		
<i>Carex intumescens</i>	greater bladder sedge	wet
<i>Carex pensylvanica</i>	Pennsylvania sedge	dry to moist
<i>Carex plantaginea</i>	plaintain sedge	dry to moist
<i>Carex platyphylla</i>	broad-leaf sedge	dry to moist
<i>Carex vulpinoidea</i>	fox sedge, brown fox sedge	wet
<i>Cyperus esculentus</i>	yellow nutsedge	moist to wet
<i>Juncus tenuis</i>	path rush	dry to moist

FOREST FERNS

SCIENTIFIC NAME	COMMON NAME(S)	SOIL MOISTURE PREFERENCE
<i>maximum height: intermediate (3½–5 feet)</i>		
<i>Athyrium filix-femina</i>	lady fern	moist
<i>Dennstaedtia punctilobula</i>	hay-scented fern	moist
<i>Deparia acrostichoides</i>	silvery glade fern	moist
<i>Diplazium pycnocarpon</i>	narrow-leaved glade fern	moist
<i>Dryopteris goldiana</i>	Goldie's wood fern	moist
<i>Dryopteris marginalis</i>	marginal wood fern	moist
<i>Matteuccia struthiopteris</i>	ostrich fern	moist to wet
<i>Onoclea sensibilis</i>	sensitive fern	wet
<i>Osmunda cinnamomea</i>	cinnamon fern	wet
<i>Osmunda claytoniana</i>	interrupted fern	moist to wet
<i>Osmunda regalis</i>	royal fern	wet
<i>maximum height: short (1½–3 feet)</i>		
<i>Adiantum pedatum</i>	northern maidenhair fern	dry to moist
<i>Asplenium platyneuron</i>	ebony spleenwort	dry to moist
<i>Dryopteris carthusiana</i>	spinulose wood fern	moist to wet
<i>Dryopteris intermedia</i>	evergreen wood fern	moist
<i>Polystichum acrostichoides</i>	Christmas fern	dry to moist
<i>Thelypteris noveboracensis</i>	New York fern	moist to wet
<i>Woodwardia areolata</i>	netted chain fern	moist to wet

SHRUBLAND TREES AND SHRUBS

SCIENTIFIC NAME	COMMON NAME(S)	SOIL MOISTURE PREFERENCE
<i>maximum height: 30–40 feet</i>		
<i>Aralia spinosa</i>	devil's walking-stick, Hercules'-club	moist
<i>Asimina triloba</i>	pawpaw	moist
<i>Betula populifolia</i>	gray birch	dry
<i>Cercis canadensis</i>	redbud	dry to moist
<i>Chionanthus virginicus</i>	fringetree	moist
<i>Cornus florida</i>	flowering dogwood	moist
<i>Juniperus virginiana</i>	eastern red-cedar	dry to moist
<i>Malus coronaria</i>	sweet crabapple	dry to moist
<i>Pinus pungens</i>	Table Mountain pine	dry
<i>Quercus marilandica</i>	blackjack oak	dry
<i>Rhus typhina</i>	staghorn sumac	dry
<i>Salix bebbiana</i>	long-beaked willow, gray willow	dry to moist
<i>Viburnum lentago</i>	nannyberry	moist
<i>maximum height: 20–25 feet</i>		
<i>Alnus serrulata</i>	smooth alder	wet
<i>Amelanchier canadensis</i>	shadbush, juneberry	moist
<i>Cornus alternifolia</i>	alternate-leaved dogwood	moist
<i>Euonymus atropurpureus</i>	wahoo	moist to wet
<i>Prunus americana</i>	wild plum	moist
<i>Prunus virginiana</i>	choke cherry	dry to moist
<i>Rhus copallina</i>	winged sumac, shining sumac	dry
<i>Salix eriocephala</i>	heart-leaf willow	moist to wet
<i>Salix exigua</i>	sandbar willow	wet
<i>Salix lucida</i>	shining willow	wet
<i>Viburnum prunifolium</i>	black-haw	wet
<i>maximum height: 10–15 feet</i>		
<i>Celtis tenuifolia</i>	dwarf hackberry, Georgia hackberry	dry
<i>Cephalanthus occidentalis</i>	buttonbush	wet
<i>Clethra alnifolia</i>	sweet pepperbush	wet
<i>Cornus amomum</i>	silky dogwood	wet

SHRUBLAND TREES AND SHRUBS, *continued*

SCIENTIFIC NAME	COMMON NAME(S)	SOIL MOISTURE PREFERENCE
<i>maximum height: 10–15 feet</i>		
<i>Cornus racemosa</i>	gray dogwood	moist to wet
<i>Cornus rugosa</i>	round-leaved dogwood	dry
<i>Corylus americana</i>	American filbert	moist
<i>Corylus cornuta</i>	beaked hazelnut	dry
<i>Hamamelis virginiana</i>	witch-hazel	moist
<i>Ilex verticillata</i>	winterberry, black-alder	wet
<i>Kalmia latifolia</i>	mountain-laurel	dry to moist
<i>Lindera benzoin</i>	spicebush	moist
<i>Photinia melanocarpa</i> [= <i>Aronia melanocarpa</i>]	black chokeberry	dry to wet
<i>Photinia pyrifolia</i> [= <i>Aronia pyrifolia</i>]	red chokeberry	moist to wet
<i>Physocarpus opulifolius</i>	ninebark	moist to wet
<i>Quercus ilicifolia</i>	scrub oak, bear oak	dry
<i>Quercus prinoides</i>	dwarf chestnut oak, dwarf chinkapin oak	dry
<i>Rhododendron maximum</i>	rosebay rhododendron	moist to wet
<i>Rhododendron viscosum</i>	swamp azalea	wet
<i>Rhus glabra</i>	smooth sumac	dry
<i>Salix discolor</i>	pussy willow	moist to wet
<i>Salix humilis</i>	upland willow, sage willow	dry to moist
<i>Salix sericea</i>	silky willow	wet
<i>Sambucus canadensis</i>	American elder	moist to wet
<i>Sambucus racemosa</i>	red-berried elder	moist
<i>Staphylea trifolia</i>	bladdernut	dry to moist
<i>Vaccinium corymbosum</i>	highbush blueberry	dry to wet
<i>Viburnum cassinoides</i>	witherod	moist to wet
<i>Viburnum dentatum</i>	southern arrow-wood	wet
<i>Viburnum recognitum</i>	northern arrow-wood	wet
<i>Viburnum trilobum</i>	highbush-cranberry	wet

SHRUBLAND TREES AND SHRUBS, *continued*

SCIENTIFIC NAME	COMMON NAME(S)	SOIL MOISTURE PREFERENCE
<i>maximum height: 5–7 feet</i>		
<i>Amelanchier stolonifera</i>	low juneberry, low shadbush	dry to moist
<i>Comptonia peregrina</i>	sweet-fern	dry
<i>Dirca palustris</i>	leatherwood	dry to moist
<i>Euonymus americanus</i>	hearts-a-bursting	moist
<i>Gaylussacia frondosa</i>	dangleberry	dry to wet
<i>Hydrangea arborescens</i>	sevenbark, wild hydrangea	dry to moist
<i>Myrica pensylvanica</i>	bayberry	dry to moist
<i>Ribes americanum</i>	wild black currant	moist to wet
<i>Rosa palustris</i>	swamp rose	wet
<i>Rosa virginiana</i>	wild rose, pasture rose	moist
<i>Rubus idaeus</i>	red raspberry	dry to moist
<i>Rubus occidentalis</i>	black-cap, black raspberry	dry to moist
<i>Spiraea alba</i>	meadow-sweet	moist to wet
<i>Spiraea latifolia</i>	meadow-sweet	moist to wet
<i>Taxus canadensis</i>	American yew	moist
<i>Vaccinium stamineum</i>	deerberry	dry
<i>Viburnum acerifolium</i>	maple-leaved viburnum	dry to moist
<i>maximum height: 2–4 feet</i>		
<i>Diervilla lonicera</i>	bush-honeysuckle	dry
<i>Gaylussacia baccata</i>	black huckleberry	dry to wet
<i>Rosa carolina</i>	pasture rose	dry
<i>Spiraea tomentosa</i>	hardback, steeple-bush	moist to wet
<i>Vaccinium angustifolium</i>	low sweet blueberry	dry
<i>Vaccinium pallidum</i>	lowbush blueberry	dry

MEADOW PERENNIAL WILDFLOWERS

SCIENTIFIC NAME	COMMON NAME(S)	SOIL MOISTURE PREFERENCE
<i>maximum height: very tall (9–10 or more feet)</i>		
<i>Coreopsis tripteris</i>	tall tickseed	moist to wet
<i>Eutrochium fistulosum</i> [= <i>Eupatorium fistulosum</i>]	hollow-stemmed joe-pye-weed, trumpetweed	moist to wet
<i>Helianthus giganteus</i>	swamp sunflower	wet
<i>Rudbeckia laciniata</i>	cutleaf coneflower	wet
<i>maximum height: tall (6–8 feet)</i>		
<i>Angelica atropurpurea</i>	purple-stemmed angelica	moist to wet
<i>Apocynum cannabinum</i>	Indian-hemp	moist to wet
<i>Asclepias incarnata</i>	swamp milkweed	wet
<i>Asclepias syriaca</i>	common milkweed	moist to wet
<i>Baptisia australis</i>	blue false-indigo	moist to wet
<i>Boltonia asteroides</i>	aster-like boltonia	moist to wet
<i>Eupatorium perfoliatum</i>	common boneset	wet
<i>Eutrochium purpureum</i> [= <i>Eupatorium purpureum</i>]	joe-pye-weed, sweet-scented joe-pye-weed	dry to wet
<i>Filipendula rubra</i>	queen-of-the-prairie	moist
<i>Helenium autumnale</i>	common sneezeweed	moist to wet
<i>Helianthus divaricatus</i>	rough sunflower, woodland sunflower	dry
<i>Heliopsis helianthoides</i>	ox-eye	dry to wet
<i>Hypericum pyramidatum</i> [= <i>H. ascyron</i>]	great St. John's-wort	moist to wet
<i>Lespedeza capitata</i>	round-headed lespedeza	dry
<i>Liatris spicata</i>	dense blazing-star	moist
<i>Lilium canadense</i>	Canada lily	moist to wet
<i>Lilium superbum</i>	Turk's-cap lily	moist to wet
<i>Lobelia cardinalis</i>	cardinal-flower	wet
<i>Lobelia siphilitica</i>	great blue lobelia	moist to wet
<i>Mimulus ringens</i>	Allegheny monkey-flower	wet
<i>Oenothera biennis</i>	common evening-primrose	dry to moist
<i>Penstemon digitalis</i>	tall white beard-tongue	dry to moist
<i>Polygonatum biflorum</i>	smooth Solomon's-seal	dry to moist

MEADOW PERENNIAL WILDFLOWERS, *continued*

SCIENTIFIC NAME	COMMON NAME(S)	SOIL MOISTURE PREFERENCE
<i>maximum height: tall (6–8 feet)</i>		
<i>Rudbeckia triloba</i>	three-lobed coneflower	dry to moist
<i>Senna hebecarpa</i>	northern wild senna	dry to moist
<i>Senna marilandica</i>	southern wild senna	dry
<i>Solidago canadensis</i>	Canada goldenrod	dry to moist
<i>Solidago gigantea</i>	smooth goldenrod	moist to wet
<i>Solidago rigida</i> [= <i>Oligoneuron rigidum</i>]	stiff goldenrod	moist
<i>Solidago rugosa</i>	wrinkle-leaf goldenrod	dry to wet
<i>Solidago speciosa</i>	showy goldenrod	dry to moist
<i>Symphotrichum lanceolatum</i> [= <i>Aster lanceolatus</i> , <i>A. paniculatus</i> , <i>A. simplex</i>]	panicked aster	dry to wet
<i>Symphotrichum novae-angliae</i> [= <i>Aster novae-angliae</i>]	New England aster	dry to moist
<i>Symphotrichum novi-belgii</i> [= <i>Aster longifolius</i>]	New York aster	moist to wet
<i>Symphotrichum pilosum</i> [= <i>Aster ericoides</i> var. <i>pilosus</i> , <i>A. pilosus</i>]	heath aster	dry to moist
<i>Verbena hastata</i>	blue vervain, simpler's-joy	moist to wet
<i>Verbesina alternifolia</i>	wingstem	moist
<i>Vernonia glauca</i>	Appalachian ironweed, tawny ironweed	dry
<i>Vernonia noveboracensis</i>	New York ironweed	moist to wet
<i>Veronicastrum virginicum</i>	Culver's-root	moist
<i>maximum height: intermediate (3½–5 feet)</i>		
<i>Asclepias purpurascens</i>	purple milkweed	dry to moist
<i>Eupatorium hyssopifolium</i>	hyssop-leaved thoroughwort	dry
<i>Gentiana andrewsii</i>	bottle gentian, prairie closed gentian	moist to wet
<i>Gentiana clausa</i>	meadow closed gentian, bottle gentian	moist
<i>Geum laciniatum</i>	herb-bennet, rough avens	wet
<i>Hypericum punctatum</i> [= <i>H. maculatum</i>]	spotted St. John's-wort	moist

MEADOW PERENNIAL WILDFLOWERS, *continued*

SCIENTIFIC NAME	COMMON NAME(S)	SOIL MOISTURE PREFERENCE
<i>maximum height: intermediate (3½–5 feet)</i>		
<i>Ludwigia alternifolia</i>	seedbox, false loosestrife	wet
<i>Monarda fistulosa</i>	horsemint, wild bergamot	dry to moist
<i>Monarda punctata</i>	spotted bee-balm	dry
<i>Physostegia virginiana</i>	false dragonhead	moist
<i>Pycnanthemum virginianum</i>	Virginia mountain-mint	moist to wet
<i>Rudbeckia fulgida</i>	eastern coneflower	moist
<i>Rudbeckia hirta</i>	black-eyed-susan	dry to moist
<i>Scutellaria incana</i>	downy skullcap	dry to moist
<i>Solidago bicolor</i>	silver-rod, white goldenrod	dry
<i>Solidago juncea</i>	early goldenrod	dry to moist
<i>Solidago nemoralis</i>	gray goldenrod	dry
<i>Symphyotrichum laeve</i> [=Aster laevis var. laevis]	smooth blue aster	dry
<i>Vicia americana</i>	purple vetch	moist
<i>maximum height: short (1½–3 feet)</i>		
<i>Allium cernuum</i>	nodding onion	dry
<i>Asclepias tuberosa</i>	butterfly-weed	dry
<i>Asclepias verticillata</i>	whorled milkweed	dry
<i>Chrysopsis mariana</i>	golden aster	dry
<i>Conoclinium coelestinum</i> [=Eupatorium coelestinum]	mistflower, wild ageratum	dry to moist
<i>Dodecatheon meadia</i>	shooting-star, pride-of-Ohio	dry to moist
<i>Geranium maculatum</i>	wood geranium	moist
<i>Iris prismatica</i>	slender blue flag	moist
<i>Juncus tenuis</i>	path rush	dry to moist
<i>Lupinus perennis</i>	blue lupine	dry to moist
<i>Oenothera fruticosa</i>	sundrops, narrow-leaved evening-primrose	dry to moist
<i>Packera aurea</i> [=Senecio aureus]	golden ragwort	moist
<i>Penstemon hirsutus</i>	northeastern beard-tongue	dry
<i>Phlox maculata</i>	wild sweet-william	moist to wet

MEADOW PERENNIAL WILDFLOWERS, *continued*

SCIENTIFIC NAME	COMMON NAME(S)	SOIL MOISTURE PREFERENCE
<i>maximum height: short (1½–3 feet)</i>		
<i>Phlox pilosa</i>	downy phlox, prairie phlox	moist to wet
<i>Pycnanthemum tenuifolium</i>	narrow-leaved mountain-mint	moist
<i>Sisyrinchium angustifolium</i>	narrow-leaved blue-eyed-grass	moist to wet
<i>Tradescantia ohiensis</i>	Ohio spiderwort, blue-jacket	moist
<i>Tradescantia virginiana</i>	spiderwort, widow's-tears, Virginia spiderwort	dry to moist
<i>Zizia aptera</i>	golden-alexander	moist
<i>Zizia aurea</i>	golden-alexander, golden zizia	moist to wet

MEADOW PERENNIAL COOL-SEASON GRASSES

SCIENTIFIC NAME	COMMON NAME(S)	SOIL MOISTURE PREFERENCE
<i>maximum height: intermediate (3½–5 feet)</i>		
<i>Calamagrostis canadensis</i>	Canada bluejoint	wet
<i>Deschampsia cespitosa</i>	tufted hairgrass	moist to wet
<i>Deschampsia flexuosa</i>	wavy hairgrass, common hairgrass	dry
<i>Dichanthelium clandestinum</i> [= <i>Panicum clandestinum</i>]	deer-tongue, deer-tongue grass	moist
<i>Elymus canadensis</i>	Canada wild-rye	moist
<i>Elymus riparius</i>	riverbank wild-rye	moist to wet
<i>Elymus virginicus</i>	Virginia wild-rye	moist to wet
<i>Leersia oryzoides</i>	rice cutgrass	wet
<i>Poa palustris</i>	fowl bluegrass	wet
<i>maximum height: short (1½–3 feet)</i>		
<i>Danthonia compressa</i>	northern oatgrass	dry
<i>Danthonia spicata</i>	poverty grass, poverty oatgrass	dry
<i>Hordeum jubatum</i> [= <i>Critesion jubatum</i>]	foxtail-barley	dry

MEADOW PERENNIAL WARM-SEASON GRASSES

SCIENTIFIC NAME	COMMON NAME(S)	SOIL MOISTURE PREFERENCE
<i>maximum height: very tall (9–10 feet or more)</i>		
<i>Andropogon gerardii</i>	big bluestem, turkeyfoot	dry to moist
<i>Tripsacum dactyloides</i>	gammagrass	wet
<i>maximum height: tall (6–8 feet or more)</i>		
<i>Andropogon glomeratus</i>	bushy bluestem, bushy broomsedge	moist to wet
<i>Andropogon virginicus</i>	broomsedge, Virginia broomsedge	dry
<i>Panicum virgatum</i>	switchgrass	dry to moist
<i>Sorghastrum nutans</i>	Indian-grass	dry to moist
<i>Spartina pectinata</i>	prairie cordgrass, freshwater cordgrass	moist to wet
<i>Tridens flavus</i>	purpletop	dry to moist
<i>maximum height: intermediate (3½–5 feet)</i>		
<i>Bouteloua curtipendula</i>	side-oats grama, tall grama	dry
<i>Muhlenbergia capillaris</i>	hairgrass, short muhly	dry
<i>Schizachyrium scoparium</i>	little bluestem	dry to moist
<i>Sporobolus cryptandrus</i>	sand dropseed	dry
<i>Sporobolus heterolepis</i>	prairie dropseed	dry
<i>maximum height: short (1½–3 feet)</i>		
<i>Andropogon gyrans</i>	Elliott's beardgrass	dry to moist
<i>Eragrostis spectabilis</i>	purple lovegrass, tumblegrass	dry

MEADOW SEDGES AND RUSHES

SCIENTIFIC NAME	COMMON NAME(S)	SOIL MOISTURE PREFERENCE
<i>maximum height: tall (6–8 feet or more)</i>		
<i>Scirpus cyperinus</i>	wool-grass	wet
<i>maximum height: intermediate (3½–5 feet)</i>		
<i>Carex lurida</i>	lurid sedge, shallow sedge	wet
<i>Carex scoparia</i>	broom sedge	moist to wet
<i>Carex stipata</i>	stalk-grain sedge, owlfruit sedge	wet
<i>Carex tribuloides</i>	blunt broom sedge, bristlebract sedge	wet
<i>maximum height: short (1½–3 feet)</i>		
<i>Carex intumescens</i>	greater bladder sedge	wet
<i>Carex vulpinoidea</i>	fox sedge, brown fox sedge	wet
<i>Cyperus esculentus</i>	yellow nutsedge	moist to wet
<i>Juncus tenuis</i>	path rush	dry to moist

MEADOW FERNS

SCIENTIFIC NAME	COMMON NAME(S)	SOIL MOISTURE PREFERENCE
<i>maximum height: intermediate (3½–5 feet)</i>		
<i>Dennstaedtia punctilobula</i>	hay-scented fern	dry to wet
<i>Onoclea sensibilis</i>	sensitive fern	wet
<i>Pteridium aquilinum</i>	northern bracken fern	dry

NATIVE TREES AND SHRUBS FOR LANDSCAPING AND WILDLIFE

Large Trees

SCIENTIFIC NAME	COMMON NAME	PHYSIOGRAPHIC REGION	DESCRIPTION	WILDLIFE USERS
<i>Acer rubrum</i>	red maple	Piedmont Coastal Plain	Height: 40'-60', Spread: same Habit is pyramidal in youth and rounded with age. Tolerant of most soils, but prefers slightly acid, moist conditions. Naturally occurs in wet area. Excellent fall color.	Buds, flowers, and leaves provide food for many birds and mammals. Chipmunks and squirrels eat seeds and some songbirds use twigs for nest building.
<i>Acer saccharinum</i>	silver maple	Piedmont Coastal Plain	Height: 50'-70', Spread: 40'-50' Has strong spreading branches which form a rounded crown. Tolerant of many soil types. One of the best trees for poor soils and wet conditions (often found on floodplains). Use of this tree should be limited to areas free of buildings and heavy human use as it is prone to internal decay and subsequent loss of branches. Provides fast shade.	See red maple.
<i>Acer saccharum</i>	sugar maple	Piedmont Coastal Plain	Height: 60'-70', Spread: 40'-50' Upright oval to rounded habit. Prefers moist, well drained soils. Tolerates some shade.	See red maple.
<i>Betula nigra</i>	river birch	Piedmont Coastal Plain	Height: 40'-70', Spread: 40'-60' Pyramidal in youth and rounded with age. Often grown multistemmed. Best adapted to moist soils (often found on floodplains). Used in areas that are alternately wet and dry.	Catkins are used by redpolls and pine siskins. Foliage is used by browsers.
<i>Betula lenta</i>	sweet birch	Piedmont Coastal Plain	Height: 40'-55'+, Spread: 35'-45' Pyramidal in youth, forming an irregular, rounded, sometimes wide-spreading crown at maturity. Best in deep, rich, moist, slightly acid soils, however, often found on rocky, drier sites. Flowers are catkins, 2"-3" long. Yellow leaves in fall are best among birches.	See river birch.

Large Trees, *continued*

SCIENTIFIC NAME	COMMON NAME	PHYSIOGRAPHIC REGION	DESCRIPTION	WILDLIFE USERS
<i>Carya ovata</i>	shagbark hickory	Piedmont Coastal Plain	Height: 60'-80', Spread: 40'-60' Straight trunk with an oblong crown. Bark breaks up in thin plates. Difficult to transplant, start as seedling. Good for woodland border.	Leaves are used by browsers. Nuts are also consumed by deer, turkey, foxes, wood ducks, and squirrels.
<i>Celtis occidentalis</i>	common hackberry	Piedmont Coastal Plain	Height: 40'-60', Spread: same In youth weakly pyramidal; in old age the crown is a broad top of ascending-arching branches. Medium to fast growth. Prefers rich, moist soils, but grows in dry, heavy, or sandy, rocky soils; withstands acid or alkaline conditions; moderately wet or very dry areas; tolerates wind; full sun. Fruit is fleshy, orange to dark purple, ripening in September to October. Leaves are yellow to yellow-green in fall. Useful tree for adverse growing conditions.	Fruit is popular with winter birds, especially cedar waxwing, mockingbird, and robin.
<i>Fagus grandifolia</i>	American beech	Piedmont Coastal Plain	Height: 50'-70'+, Spread: same Often has short trunk with wide-spreading crown. Likes moist, well drained soils. Can grow well in full sun or shade.	Beechnuts are eaten by birds and mammals and are important food for chipmunks and squirrels.
<i>Fraxinus americana</i>	white ash	Piedmont Coastal Plain	Height: 50'-80', Spread: same Pyramidal in youth and later developing an open rounded crown. Grows best on deep, well drained soils and full sun.	Moderate importance to wildlife. Seeds eaten by wood ducks, finches, and cardinals.
<i>Fraxinus pennsylvanica</i>	red ash	Piedmont Coastal Plain	Height: 50'-60'+, Spread: 25'-30' Pyramidal in youth, developing upright, spreading habit at maturity. Grows quickly in full sun and in a wide range of soil conditions. Naturally found on moist bottomlands	See white ash.
<i>Gloditsia triacanthos</i>	common honeylocust	Piedmont Coastal Plain	Height: 30'-70', Spread: same Usually has short trunk with open, oval crown. Fast grower. Withstands a wide range of conditions but prefers rich, moist bottomlands (often found on floodplains).	Limited wildlife value.

Large Trees, *continued*

SCIENTIFIC NAME	COMMON NAME	PHYSIOGRAPHIC REGION	DESCRIPTION	WILDLIFE USERS
<i>Juglans nigra</i>	black walnut	Piedmont Coastal Plain	Height: 50'-75', Spread: same Well-formed trunk with an oval crown. Prefers rich, moist soils. Often found on bottomlands. Difficult to transplant; should be started as seedling. Produces toxins which are poisonous to many plants giving it an advantage in open field situations but creating problems for gardeners.	Nuts are eaten by woodpeckers, foxes, and squirrels.
<i>Juniperus virginiana</i>	eastern redcedar	Piedmont Coastal Plain	Height: 40'-50', Spread: 8'-20' Densely pyramidal when young and slightly pendulous in old age. Medium rate of growth. Tolerant of adverse conditions. Prefers deep, moist soils. Will tolerate shade only in youth. Handsome reddish brown bark. Produces small fleshy blue cones. Useful for windbreaks, shelter belts, hedges.	Twigs and foliage eaten by browsers. Seeds are eaten most extensively by cedar waxwings. Evergreen foliage provides nesting and roosting cover for sparrows, robins, mockingbirds, juncos, and warblers.
<i>Liquidambar styraciflua</i>	American sweetgum	Coastal Plain	Height: 60'-75'+, Spread: 40'-50' Pyramidal in youth, rounded crown at maturity. Likes deep, moist, acid soils. Occurs naturally on bottomlands.	Goldfinches and purple finches eat winged seeds.
<i>Liriodendron tulipifera</i>	tuliptree	Piedmont Coastal Plain	Height: 70'-90', Spread: 30'-50' Long, straight trunk with a narrow canopy. Fast grower. Plant in full sun and a well drained loam. Wood somewhat weak.	Moderate wildlife importance. The purple finch and cardinal are principal users.
<i>Nyssa sylvatica</i>	black gum	Piedmont Coastal Plain	Height: 30'-50', Spread: 20'-30' Pyramidal in youth and irregularly crowned at maturity. Prefers moist, well drained, acid soils. Full sun or semi-shade. Deep taproot.	Fruit is relished by many songbirds. Users include wood ducks, robins, woodpeckers, thrashers, flickers, and mockingbirds.

Large Trees, *continued*

SCIENTIFIC NAME	COMMON NAME	PHYSIOGRAPHIC REGION	DESCRIPTION	WILDLIFE USERS
<i>Pinus strobus</i>	eastern white pine	Piedmont Coastal Plain	Height: 50'-80'+, Spread: 20'-40'+ Pyramidal in youth, crown at maturity has several horizontal and ascending branches. Fast grower. Grows best on fertile, well drained soils but is very adaptable.	Provides valuable cover and nesting sites for songbirds and mammals. Needles are used as nesting material. Seeds are eaten by quail, chickadees, grosbeaks, nuthatches, and woodpeckers.
<i>Quercus alba</i>	white oak	Piedmont Coastal Plain	Height: 100', Spread: 50'-80' Pyramidal in youth, becoming broad and rounded with wide spreading branches. Transplant as small tree. Prefers moist, well drained soils. Difficult to obtain from nurseries. Sometimes available as seedling.	Oaks, in general, are of major importance to wildlife. Acorns are at the top of the food preference list for wood ducks, pheasants, grackles, jays, nuthatches, thrushes, woodpeckers, rabbits, foxes, squirrels, and deer.
<i>Quercus palustris</i>	pin oak	Piedmont Coastal Plain	Height: 60'-70', Spread: 25'-40' Strongly pyramidal with ascending branches. One of the faster growing oaks. Full sun. Found naturally in wet soils but is adaptable to many soil types.	See white oak.
<i>Quercus rubra</i>	red oak	Piedmont Coastal Plain	Height: 60'-75'+, Spread: 40'-50' Habit is round-topped and symmetrical. Full sun. Prefers loamy, well drained soils. Fast growing.	See white oak.
<i>Tilia americana</i>	American linden	Piedmont Coastal Plain	Height: 60'-80', Spread: 35'-50' Pyramidal in youth, assuming a rounded shape with age. Full sun or part shade. Prefers deep, moist soils, but is tolerant of heavier soils.	Limited wildlife value.
<i>Tsuga canadensis</i>	eastern hemlock	Piedmont Coastal Plain	Height: 40'-70', Spread: 25'-35' Pyramidal in youth becoming more pendulous with age. Likes moist, well drained soils. Plant in sheltered area. Tolerates shade. Relatively fast growing. Excellent for screens, hedges.	Provides excellent cover for deer and songbirds. Nesting site for several warblers. Seeds are eaten by juncos, chickadees, and siskins.

Small Trees/Large Shrubs

SCIENTIFIC NAME	COMMON NAME	PHYSIOGRAPHIC REGION	DESCRIPTION	WILDLIFE USERS
<i>Amelanchier arborea/laevis</i>	shadbush or shadblow serviceberry	Piedmont Coastal Plain	Height: 6'-20', Spread: 10' Erect stems, often clumped. Blends well on the forest edge.	Important berry producer during the early summer months. Fruit eaten by crows, bluebirds, cardinals, and tanagers. Foliage used by browsers.
<i>Cercis canadensis</i>	eastern redbud	Piedmont	Height: 20'-30', Spread: 25'-35' Small tree with rounded crown. Likes moist, well drained soils. Found naturally only on limestone or diabase soils in Pennsylvania. Full sun to light shade.	Limited wildlife value.
<i>Chionanthus virginicus</i>	white fringetree	Coastal Plain	Height: 12'-20', Spread: same Open habit, often wider than high. Prefers moist, fertile soils and full sun.	Limited wildlife value.
<i>Cornus florida</i>	flowering dogwood	Piedmont Coastal Plain	Height: 20', Spread: 15'-20' Small tree with flat-topped crown. Place in well drained soil. Full sun to partial shade. Has character in all four seasons.	Fruit is an important source for songbirds including evening grosbeak, cardinals, robins and cedar waxwings.
<i>Hamamelis virginiana</i>	common witchhazel	Piedmont Coastal Plain	Height: 20'-30', Spread: 20'-25' Small tree or multi-stemmed shrub. Prefers moist soils in full sun or partial shade.	Limited wildlife value.
<i>Ilex opaca</i>	American holly	Coastal Plain	Height: 15'-30', Spread: 18'-25' Dense, pyramidal in youth, opening up with age. Plant in moist, well drained soil. Full sun or partial shade. Use one male for every three females.	Used extensively by many songbirds including thrushes, mockingbirds, catbirds, bluebirds, and thrashers. Foliage provides cover for songbirds and mammals.
<i>Magnolia virginiana</i>	sweetbay magnolia	Coastal Plain	Height: 10'-20', Spread: same Multi-stemmed, open shrub. Likes wet, acid soils. Tolerates shade.	Wildlife value is low. Seeds are eaten by some mammals and birds. Foliage is used by several birds for nest building.

Small Trees/Large Shrubs, *continued*

SCIENTIFIC NAME	COMMON NAME	PHYSIOGRAPHIC REGION	DESCRIPTION	WILDLIFE USERS
<i>Viburnum lentago</i>	nannyberry	Piedmont Coastal Plain	Height: 15'-18', Spread: 6'-10' Shrub or small tree with open habit. Adapts to a wide range of soil conditions. Sun or partial shade.	Used by grouse, brown thrasher, cedar waxwing, squirrels, and deer.
<i>Viburnum prunifolium</i>	blackhaw viburnum	Piedmont Coastal Plain	Height: 12'-15', Spread: 8'-12' Round-headed tree or multi-stemmed shrub. Adaptable to many soil types. Sun or shade.	See nannyberry.

Shrubs

SCIENTIFIC NAME	COMMON NAME	PHYSIOGRAPHIC REGION	DESCRIPTION	WILDLIFE USERS
<i>Aronia arbutifolia</i>	red chokeberry	Piedmont Coastal Plain	Height: 6'-10', Spread: 3'-5' Upright multi-stemmed shrub, somewhat open and rounded. Adaptable to many soil types. Full sun to half shade.	Fruit eaten by grouse, chickadees, and other songbirds.
<i>Aronia melanocarpa</i>	black chokeberry	Piedmont Coastal Plain	See red chokeberry.	See red chokeberry.
<i>Clethra alnifolia</i>	summersweet clethra	Coastal Plain	Height: 3'-8', Spread: 4'-6' Oval, round-topped, erect, dense, leafy shrub. Transplant into moist organic soils. Full sun or shade. Good plant for wet areas and heavy shade.	Limited wildlife value.
<i>Cornus racemosa</i>	silky dogwood	Piedmont Coastal Plain	Height: 10'-15', Spread: 10'-15' Erect, multi-stemmed shrub with short spreading branches. Suckers profusely and forms large colonies. Very adaptable, withstanding wet or dry soils, but prefers moist, well drained conditions. Full sun or shade.	High wildlife value for fruit and browse. Used by a wide variety of mammals and songbirds, including cardinals, evening grosbeaks, robins, thrush, vireos, and cedar waxwings.
<i>Ilex glabra</i>	inkberry	Coastal Plain	Height: 6'-8', Spread 8'-10' Upright, multi-branched, rounded shrub. Prefers moist, acid soils.	Berries used by a wide variety of wildlife.

Shrubs, *continued*

SCIENTIFIC NAME	COMMON NAME	PHYSIOGRAPHIC REGION	DESCRIPTION	WILDLIFE USERS
<i>Ilex verticillata</i>	winterberry	Piedmont Coastal Plain	Height: 6'-10', Spread: same Oval, rounded, deciduous shrub holly. Tends to form multi-stemmed clumps. Does well in light and heavy soils. Prefers moist, organic soils. Red fruit is beautiful in winter. A male plant is necessary for fertilization.	Used extensively by many songbirds, particularly thrushes, mockingbirds, robins, bluebirds, and thrashers.
<i>Itea virginica</i>	Virginia sweetpire	Coastal Plain	Height: 3'-5', Spread: 6'-8' Erect shrub with clustered branches. Prefers moist, fertile soils. Full sun or shade. Suited for wet areas. Excellent fall color.	Fruit capsules are used by some songbirds.
<i>Kalmia latifolia</i>	mountain laurel	Piedmont Coastal Plain	Height: 7'-15', Spread: same Large, robust shrub, becomes open with age. Requires moist, well drained soils in full sun or shade.	Mammals eat foliage and twigs. Utilized extensively by mammals and birds for winter shelter.
<i>Myrica pensylvanica</i>	northern bayberry	Coastal Plain	Height: 5'-12', Spread: same Tends to sucker to form large colonies. Deciduous to semi-evergreen. Upright, rounded, dense shrub. Adaptable to many soil conditions, including poor soils. Full sun to partial shade.	Fruit is eaten by a variety of birds in small quantities including tree swallows and myrtle warblers.
<i>Rhododendron maximum</i>	rosebay rhododendron	Piedmont Coastal Plain	Height: 4'-10', Spread: same Rounded, evergreen shrub. Plant in moist, well drained soil. Prefers partial shade.	Limited wildlife value except as browse for deer and winter cover for songbirds.
<i>Rhododendron periclymenoides</i>	pinxter-flower	Piedmont Coastal Plain	Height: 4'-6', Spread: 6'-8' Multi-stemmed, stolomiferous shrub. Adapted to dry, sandy, rocky soils. Useful for naturalizing.	Limited wildlife value except as browse for deer and grouse

Shrubs, *continued*

SCIENTIFIC NAME	COMMON NAME	PHYSIOGRAPHIC REGION	DESCRIPTION	WILDLIFE USERS
<i>Vaccinium corymbosum</i>	highbush blueberry	Piedmont Coastal Plain	Height: 6'-12', Spread: 8'-12' Upright, multi-stemmed shrub with spreading branches. Requires moist, well drained soils. Full sun or light shade.	Used heavily by grouse, scarlet tanager, bluebirds, thrushes, and other songbirds.
<i>Viburnum acerifolium</i>	maple-leaved viburnum	Piedmont Coastal Plain	Height: 4'-6', Spread: 3'-4' Low, sparsely branched shrub. Adaptable to dry soils. Extremely shade tolerant.	Twigs are eaten by deer and rabbits. Fruit is used by grouse.
<i>Viburnum dentatum</i>	southern arrow-wood	Piedmont Coastal Plain	Height: 6'-8', Spread: 6'-15' Multi-stemmed, dense, rounded shrub. Adaptable to most soil conditions, but prefers well drained. Suckers freely.	Used by grouse, brown thrasher, cedar waxwing, squirrels, and deer.

SOURCES

Nurseries Specializing in Native Plants

David Brothers Bean Road Nursery
P.O. Box 123
Whitehall and Bean Roads
Worcester, PA 19490
610-584-1550

Edge of the Woods Native Plant Nursery
2415 Route 100
Orefield, PA 18069
610-395-2570
www.edgeofthewoodsnursery.com

Natural Landscapes
354 North Jennersville Road
West Grove, PA 19380
610-869-3788

North Creek Nurseries, Inc.
388 North Creek Road
Landenberg, PA 19350
877-ECO-PLUG
www.northcreeknurseries.com

Octoraro Farm and Gardens
698 Lees Bridge Road
Nottingham, PA 19362
610-932-0225
www.octorarofarm.com

Octoraro Native Plant Nursery
6126 Street Road
Kirkwood, PA 17536
717-529-3160
www.octoraro.com

Pinelands Nursery
323 Island Road
Columbus, NJ 08022
609-291-9486
www.pinelandsnursery.com

Redbud Native Plant Nursery
1214 N. Middletown Road
Glen Mills, PA 19342
610-358-4300
www.redbudnativeplantnursery.com

Sylva Native Nursery and Seed Company
3815 Roser Road
Glen Rock, PA 17327
717-227-0486
www.sylvanative.com

Temple University/Ambler Nursery
580 Meetinghouse Road
Ambler, PA 19002-3994
215-283-1330
(Wholesale only)

Yellow Springs Farm
1165 Yellow Springs Road
Chester Springs, PA 19425
610-827-2014
www.yellowspringsfarm.com

Other Nurseries That Carry Native Plants

Buddies Nursery
P.O. Box 14
Birdsboro, PA 19508
610-582-2410

Moon Nurseries
P.O. Box 672
145 Moon Road
Chesapeake City, MD 21915
800-803-TREE
www.moonnurseries.com

Musser Forests
1880 Route 119 North
Indiana, PA 15701
800-643-8319
www.musserforests.com
(Seedlings only)

New Moon Nursery
13 Ways Lane
Kennett Square, PA 19348
888-998-1951
www.newmoonnursery.com

Princeton Nurseries
P.O. Box 185
Allentown, NJ 08501
800-916-1776
www.princetonnurseries.com

Shemin Nurseries
P.O. Box 649
100 Green Tree Road
Oaks, PA 19456
610-666-0595
www.sheminnurseries.com
(Wholesale only)

Wildflower Sources

Brandywine Conservancy
Box 141
Chadds Ford, PA 19317
610-388-2700

Ernst Conservation Seeds
9006 Mercer Pike
Meadville, PA 16335
800-873-3321
www.ernstseed.com

Prairie Nursery
P.O. Box 306
Westfield, WI 53964
800-476-9453
www.prairienursery.com

Sandy Wilson
Native Plants and Aquatic Nursery
834 Church Road
Harleysville, PA 19438
610-584-6302

Additional Sources for General Lists

Guide to Pennsylvania Nursery Stock
Pennsylvania Nurserymen's Association,
Inc.
1924 North Second Street
Harrisburg, PA 17102

New England Wild Flower Society, Inc.
Garden in the Woods
180 Hemenway Road
Framingham, MA 01701
508-877-7630

Information Sources

Manual for Woody Landscape Plants
Michael Dirr
Stipes Publishing Company, 1990

*American Wildlife and Plants: A Guide to
Wildlife Food Habits*
Alexander C. Martin, et. al.
Dover Publications, 1951

*The Plants of Pennsylvania, An Illustrated
Manual, 2nd Edition*
Ann F. Rhoads and Timothy A. Block
University of Pennsylvania Press, 2007