



Chokeberry, Fall; thetreecenter.com



Winterberry; carolynshadegarden.com



Native Plant Manual



Hickory Tree; treepicturesonline.com



Service Berry, 20minutegarden.com



Americanmeadows.com

1st Edition:

2010, James P. Engel, White Oak Nursery
Using Native Plants in Commercial, Suburban, and Urban Landscapes:
Incorporating Ecological Design Principles
Photos from J. Engel

2nd Edition:

2018, Town of Victor Conservation Board
Contributions from Zaretsky & Associates, Inc.
Town of Victor, Native Plant Manual
Photos from online resources, CB files

Town of Victor Native Plant Manual

This manual was developed by the Town of Victor Conservation Board to be used as a guide for the selection and use of native plants in commercial and public landscapes.

Please Note: The Town of Victor Conservation Board advises all developers, contractors and landscapers undertaking commercial work within the town to **use at least 70% native species in all plantings** (see Tables 1, 2 and 3). Select the remaining 30% of the plant material from the list of acceptable non-native species (see Table 4). Do not use plants from the list of unacceptable species (see Table 5). Also, consult the DEC website for regulated and prohibited invasive species to avoid. **Meet the 70% requirement within each category of plant:** shade trees, conifers, shrubs, perennials and ornamental grasses. Each category of plant must meet the 70% requirement independently of the other categories. Annual flowers are exempt from the requirement.

Reference: <http://www.victorny.org>; search Town Code for subsection 211-45 Native Plant requirements

This manual provides practical tree, shrub, perennial and grass choices for a variety of situations that may arise in developing a site or when managing and updating a current landscape. Choosing the right plant for the site often results in lower maintenance costs, and a well-planned landscape plan can add value to the development. By selecting the proper plants for the location, many long-term issues can be avoided.

Consideration should be given to the mature size of the tree, shrub or perennial and how long it takes to achieve mature height and width. A plant that is too big for the location requires constant pruning and/or shearing and may need to be replaced after several years. Because native plants are adapted to local environmental conditions, they require far less water, saving time, money and an extremely valuable natural resource. In addition to providing vital habitat for birds, many other species of wildlife benefit as well. Using the proper plants in rain gardens, wetlands mitigation, meadows, etc. helps to avoid plant failure. In addition, by using the proper plants for meadows, you can avoid large swaths of lawn, which require weekly mowing.

Table of Contents

About the Native Plant Manual	6
Native Plant Definition	6
Reasons to Use Native Plants in Our Landscapes	6
Conserve Local Natural Resources	7
Availability of Native Plants	7
Conserve Existing Native Vegetation	8
Key Descriptions for Tables 1 a & b, 2 a & b and 3 a & b	9
Table 1a: Native Deciduous Trees for Use in Landscape Plantings	10
Table 1b: Native Conifers for Use in Landscape Plantings.....	14
Table 2a: Native Shrubs for Use in Landscape Plantings	15
Table 2b: Native Small Trees for Use in Landscape Plantings	21
Table 3a: Native Wildflowers for Use in Landscape Plantings	23
Table 3b: Native Grasses for Use in Landscape Plantings	29
Table 4: Non-Native Trees Shrubs and Wildflowers.....	31
Avoid the Problem of Invasive Plants	38
Terrestrial Invasive Species in New York State.....	39
Table 5: Non-native Trees, Shrubs, Wildflowers and Grasses Considered Invasive and should never be used in Landscape Plantings.....	40
Environmental Benefits of Plants.....	43
Plant Survival	44
Plant Small	44
Create Three-dimensional Landscapes	45

New Ways to Use Trees in the Landscape45

Combine Plants of Different Heights and Growth Habits 46

Replace Lawn with Meadow46

 Table 6: Native Wildflowers, Grasses and Shrubs for Use in a Meadow Planting48

Plants for Water Control Structures..... 49

Rain gardens – An Effective Alternative to Managing Stormwater.....49

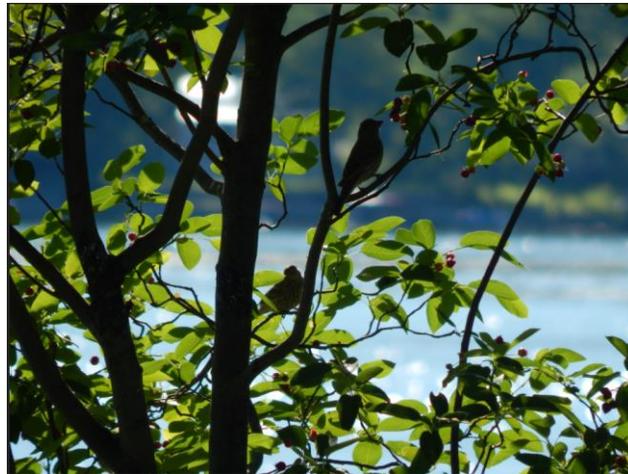
 Table 7: Native Wetland Plants and Shrubs for Use in Managing Storm Water Runoff51

The Right Plant for an Impossible Site 52

 Table 8: Durable Plants for Extreme Environments52

Biodiversity and Pest Control54

Conclusion55



Photographer: Kate Crowley

About the Native Plant Manual

The manual has been formatted to be friendly to residents and developers who are not arborists. Plant names have been formatted so that the genus is listed first (Maple), followed by the species (Red), and then the variety (Acer rubrum var. drummondii).

Plant availability is clearly noted through the use of color. **Commonly available plants are green, moderately available are blue, plants that are uncommon in garden centers are written in red, and rare plants are presented in black.** For additional information regarding availability and planning see [Availability of Native Plants](#).

[\(Return to Table Of Contents\)](#)

Native Plant Definition

The term “native plant” as used in this document refers to *any species of indigenous plant that existed east of the Mississippi river prior to European settlement*. Note: This definition excludes introduced plants that have become widely naturalized since European colonization. Cultivated varieties (cultivars) of native plants are acceptable to use interchangeably with the species; however, selective breeding for ornamental traits can produce plants that are less adapted to survive in the landscape, compared to the species. Plant the species unless there is a specific reason for using a cultivar.

[\(Return to Table Of Contents\)](#)

Reasons to Use Native Plants in Our Landscapes

Native plants are indigenous to our area; they are adapted to local climatic conditions and soils; and they have evolved over thousands of years to survive and reproduce in this region. Native plants grow naturally in the surrounding natural landscape and grow just as well in manmade managed landscapes.

Because native plants are an integral component of the local ecosystem, they pose no inherent environmental or ecological risk to the health of the ecosystem in contrast to non-native plants. Native plants form the base of the food chain for the local ecosystem and provide the critical requirements that wildlife species need to live and reproduce.

[\(Return to Table Of Contents\)](#)

Conserve Local Natural Resources

The Town of Victor believes that conservation of local natural resources serves the public good. The town is experiencing rapid development with the resulting loss of open spaces, loss of wildlife habitat and an increase in invasive species. These changes lead to deteriorating environmental quality. Many of these natural resource issues are addressed in part by promoting the use of native plants and applying a best-practices approach to landscapes within the town.

[\(Return to Table Of Contents\)](#)



Maple Tree; arboretum.ua.edu

Availability of Native Plants

As noted earlier, this manual is formatted to help you in the planning process. In Tables 1, 2 and 3 trees, shrubs, perennials and grasses are categorized as rare, common, etc. to alert you to plants that may require longer lead times or are only available from specialty nurseries. The left-most column of each table indicates availability of the plant.

Contact prospective suppliers and growers early in the design process to make sure you have the plants you need for your project. Plan ahead to locate sources and assure availability because native plants may not be available from your regular suppliers in the quantities, species and sizes needed for your project. Work with local growers if possible. If you contact growers early enough in the process they can custom grow plants in the numbers and species you need. They will be eager to work with you, knowing that they have a specific buyer and market for their plants.

[\(Return to Table Of Contents\)](#)

Conserve Existing Native Vegetation

Protect native plants and intact native plant communities where they already exist in the landscape. Conserving existing habitat is better for the environment and is more economical than having to replant.

Take specific precautions to protect plants and their habitat during construction and site development:

- Reduce the building and paving footprints whenever possible.
- Limit site disturbance to a minimal area around the building perimeter. Cordon off areas to be preserved intact with fencing to prevent unwanted vehicle traffic and unintentional use.
- Trees to be saved should be surrounded with fencing at a minimum to the drip line of the canopy, protecting the root system and soil from compaction by heavy equipment.
- Restrict where construction equipment, building materials, temporary buildings and other building supplies are parked, stored or warehoused. Areas that will be permanently disturbed, such as parking lots, are the preferred location.

[\(Return to Table Of Contents\)](#)



Honey Locust; wikipedia.org

Key Descriptions for Tables 1 a & b, 2 a & b and 3 a & b

Availability: This is how likely it is that the plant will be found at a wholesale or retail nursery.

Common: Indicates a common landscape plant; it will be easy to locate this plant in the nursery trade.

Moderate: This is a less common plant in the nursery trade. Some nurseries will grow this plant.

Uncommon: This plant will be difficult to locate. It may be found at a specialty nursery or be available by pre-ordering. It may take some hunting to locate this plant.

Rare: This plant will be very difficult to locate in the nursery trade. This type of plant is seldom grown for ornamental purposes. It might be possible to locate this plant from a nursery doing wild land restoration.

Value: The first letter (H, M, or L) indicates the ranking placed on using this plant in the landscape. Plants with higher ratings should be given priority for use. The rating is based on a number of factors: ability to survive in adverse soils and varied environmental conditions, importance to wildlife and desirable ornamental characteristics.

Type: A cultivar is a plant variety produced in cultivation by selective breeding. When only “species” is listed there are no known or readily available cultivars offered. When “species & cultivar” is listed, the species or any of the cultivar may be used. The term “many cultivars” indicates that there are numerous cultivars on the market and a cultivar should be used over the species.

Zone: The range of climatic zones this plant is known to grow in. Use this as a guide for selecting plants that are adapted to our climatic zone.

Height range: The average mature height (often a range) for the species. This can vary significantly depending on age of the plant, growing conditions, maintenance pruning, cultivar and other factors. Use as a rough guide when selecting plants for height.

Drought tolerance: Range is from high to low. A range may indicate other contributing factors, such as plants that are more drought tolerant in shade, ability to withstand short-term drought or drought tolerance once established.

Moisture: The range of soil moistures each plant will tolerate. Range is from very dry to wet saturated soils. Most plants can grow in a range of soil moistures. The larger the moisture range the more tolerant the plant will be to soil moisture variables.

Soil: The general type of soil that the plant commonly grows in. Range is from sandy to clay.

Light requirements: The range of sunlight conditions the plant will tolerate.

[\(Return to Table Of Contents\)](#)

Table 1a: Native Deciduous Trees for Use in Landscape Plantings

Availability	Value	Common Name	Latin Name	Type	Zone	Height Range	Drought Tolerance	Moisture	Soil	Light Requirements	Notes
Medium	M/ Adapt	Ash, American	Fraxinus americana	species & cultivars	4 - 8	50 - 80'	Low-Mod	D, M, Mo	WD, L, C	S, PS	Avoid until Ash borer issue is solved
Common	M/ Adapt	Ash, Green	Fraxinus pennsylvanica	species & cultivars	3 - 8	50 - 60'	High	VD, M, Mo, W	PD/ L, C	S, PS	Avoid until Ash borer issue is solved
Rare	M/ Orn, Wild	Beech, American	Fagus grandifolia	Species	4 - 8	50 - 70'	Low-Mod	M, Mo	WD/ Loam	S, PS, PSh, Sh	Not tolerant of wet sites
Medium	M/ Orn, Wild	Birch, Gray	Betula populifolia	species & cultivars	3 - 7	20 - 30'	Mod	D, M, Mo	WD/ L, G	S, PS	Good for wet sites/rain gardens; good for naturalizing
Medium	H/ Orn, Wild	Birch, Paper	Betula papyrifera	Species	3 - 6	50 - 70'	Low-Mod	M, Mo	WD/ L, G	S, PS, PSh	
Common	H/ Orn, Adapt, Wild	Birch, River	Betula nigra	species & cultivars	3 - 8	40 - 70'	Mod-High	D, M, Mo, W	PD/ L, C	S, PS	Good for wet sites/use Heritage for white bark; tough urban tree
Uncommon	M/ Orn, Adapt, Wild	Birch, Sweet	Betula lenta	Species	4 - 7	40 - 55'	Mod	D, M, Mo	WD/ L, G	S, PS, PSh	
Rare	M/ Orn, Wild	Birch, Yellow	Betula alleghaniensis	Species	3 - 7	60 - 75'	Mod	M, Mo	PD/ S, L	S, PS, PSh	
Uncommon	M/ Orn, Wild	Buckeye, Ohio	Aesculus glabra	Species	4 - 7	30 - 70'	Low	M, Mo, W	WD/ S, L, C	S, PS	Good for rain gardens
Uncommon	M/ Orn, Wild	Buckeye, Yellow	Aesculus flava	Species	4 - 8	60 - 75'	Mod	M, Mo	WD/ S, L, C	S, PS	
Rare	M/ Adapt, Wild	Cherry, Black	Prunus serotina	Species	3 - 8	60 - 70'	Mod	M, Mo	WD/ Loam	S, PS, PSh	
Uncommon	M/ Orn, Adapt	Coffee Tree, Kentucky	Gymnocladus dioicus	Species	3 - 8	60 - 75'	High	VD, M, Mo	WD, L, C	S, PS	
Rare	L/ Orn	Cypress, Bald	Taxodium distichum	Species	4 - 9	50 - 70'	Mod-High	D, M, Mo, W	PD/ L, C	S, PS, PSh	
Medium	M/ Orn, Adapt	Elm, American	Ulmus americana	cultivars only	3 - 9	60 - 80'	Low-Mod	D, M, Mo, W	PD/ L, C	S, PS	Use newer varieties only: Princeton, Valley Forge, etc

Value: H = High; M = Medium; L = Low; ADAPTable; ORNamental; WILDlife

Moisture: WD = Well drained; VD = Very dry; D = Dry; M = Medium; Mo = Moist; W = Wet

Soils: S = Sand; L = Loam; C = Clay; G = Gravel

Light Requirement: S = Full sun; PS= Partial sun; PSh = Partial shade; Sh = Full shade

Table 1a: Native Deciduous Trees for Use in Landscape Plantings (cont'd)

Availability	Value	Common Name	Latin Name	Type	Zone	Height Range	Drought Tolerance	Moisture	Soil	Light Requirements	Notes
Uncommon	H/ Orn, Adapt, Wild	Gum, Black	<i>Nyssa sylvatica</i>	Species	4 - 8	30 - 50'	Mod-High	D, M, Mo, W	PD/ L, C	S, PS, PSh	Tolerates wet sites; outstanding red fall color; slow-growing
Uncommon	M/ Orn, Adapt	Gum, Sweet	<i>Liquidambar styraciflua</i>	Species	5 - 8	60 - 75'	Mod	D, M, Mo, W	PD/ L, C	S, PS	Beautiful fall color; drops seeds; do not use in parking lots
Uncommon	M/ Adapt, Wild	Hackberry	<i>Celtis occidentalis</i>	Species	3 - 8	40 - 60'	High	VD, M, Mo	WD, L, C	S, PS	
Rare	M/ Orn, Adapt, Wild	Hickory, Bitternut	<i>Carya cordiformis</i>	Species	4 - 8	50 - 75'	High	D, M, Mo	WD/ L, C	S, PS	
Rare	M/ Adapt, Wild	Hickory, Shagbark	<i>Carya ovata</i>	Species	4 - 8	60 - 80'	High	D, M, Mo	WD/ L, C	S, PS	
Uncommon	H/ Orn, Adapt	Hophornbeam	<i>Ostrya virginiana</i>	Species	3 - 8	25 - 40'	Mod-High	D, M, Mo	WD/ L, G	S, PS, PSh, Sh	
Uncommon	H/ Orn, Wild	Hornbeam, American	<i>Carpinus caroliniana</i>	Species	3 - 8	20 - 30'	Mod	M, Mo, W	PD/ L, C	S, PS, PSh, Sh	Good street tree; holds leaves late into winter
Uncommon	M/ Orn, Adapt	Linden, American	<i>Tilia americana</i>	Species	3 - 8	60 - 80'	Mod	M, Mo	PD/ L, C	S, PS, PSh	Good urban tree; varieties: American, Little Leaf, Greenspire
Common	M/ Orn, Adapt	Locust, Honey	<i>Gleditsia triocanthus inermis</i>	cultivars only	4 - 8	30 - 70'	High	VD, M, Mo	WD/ L, C, G	S, PS	Many varieties available; tough urban tree; leaves are small so leaf drop does not pose a maintenance issue
Uncommon	M/ Orn, Wild	Magnolia, Cucumber	<i>Magnolia acuminata</i>	Species	4 - 8	50 - 80'	Low-Mod	M, Mo	WD/ Loam	S, PS, PSh	
Uncommon	H/ Orn, Adapt	Maple, Black	<i>Acer nigrum</i>	Species	4 - 8	60 - 75'	Mod-High	D, M, Mo	WD/ L, C, G	S, PS, PSh, Sh	

Value: H = High; M = Medium; L = Low; ADAPTable; ORNamental; WILDlife
Soils: S = Sand; L = Loam; C = Clay; G = Gravel
Moisture: WD = Well drained; VD = Very dry; D = Dry; M = Medium; Mo = Moist; W = Wet
Light Requirement: S = Full sun; PS= Partial sun; PSh = Partial shade; Sh = Full shade

Table 1a: Native Deciduous Trees for Use in Landscape Plantings (cont'd)

Availability	Value	Common Name	Latin Name	Type	Zone	Height Range	Drought Tolerance	Moisture	Soil	Light Requirements	Notes
Medium	H/ Orn, Adapt	Maple, Freeman	<i>Acer x fremanii</i>	all cultivars	4 - 8	50 - 75'	Low-Mod	D, M, Mo, W	PD/ L, C	S, PS, PSh	Cross between Silver Maple & Red Maple; good urban tree; beautiful red fall color
Common	H/ Orn, Adapt	Maple, Red	<i>Acer rubrum</i>	sp. & cultivars	3 - 9	40 - 60'	Low	D, M, Mo, W	PD/ L, C	S, PS, PSh	Consider Armstrong for a tall narrow street tree: 15' wide; red fall color
Common	L/ Adapt	Maple, Silver	<i>Acer saccharinum</i>	Species	3 - 9	50 - 70'	Mod	D, M, Mo, W	PD/ L, C	S, PS	
Common	H/ Orn, Adapt	Maple, Sugar	<i>Acer saccharum</i>	species & cultivars	4 - 8	60 - 75'	Low	M, Mo	WD/ L, C	S, PS, PSh, Sh	Beautiful orange/yellow/red fall color
Rare	L/ Adapt, Wild	Mulberry, Red	<i>Morus rubra</i>	Species	5 - 8	30 - 50'	Mod	M, Mo	WD/ Loam	S, PS, PSh	
Uncommon	M/ Adapt, Wild	Oak, Black	<i>Quercus velutina</i>	Species	3 - 8	50 - 60'	Mod-High	D, M, Mo	WD/ L, G	S, PS	
Uncommon	M/ Adapt, Wild	Oak, Burr	<i>Quercus macrocarpa</i>	Species	3 - 8	70 - 80'	High	D, M, Mo, W	PD/ L, C	S, PS	
Uncommon	M/ Adapt, Wild	Oak, Chinkapin	<i>Quercus muehlenbergii</i>	Species	5 - 7	60 - 70'	High	D, M, Mo	WD/ S, L, C	S, PS	
Common	H/ Orn, Adapt, Wild	Oak, Pin	<i>Quercus palustris</i>	Species	4 - 8	60 - 70'	Mod-High	D, M, Mo, W	PD/ L, C	S, PS	
Common	H/ Orn, Adapt, Wild	Oak, Red	<i>Quercus rubra</i>	Species	3 - 7	60 - 75'	Mod-High	D, M, Mo	PD/ L, C, G	S, PS, PSh	
Medium	H/ Orn, Adapt, Wild	Oak, Scarlet	<i>Quercus coccinea</i>	Species	4 - 8	60 - 70'	Mod-High	D, M, Mo	WD/ L, G	S, PS	
Uncommon	M/ Adapt, Wild	Oak, Shingle	<i>Quercus imbricaria</i>	Species	4 - 8	50 - 60'	Mod-High	D, M, Mo	WD/ L, G	S, PS	
Medium	H/ Orn, Adapt, Wild	Oak, Swamp White	<i>Quercus bicolor</i>	Species	4 - 8	50 - 60'	Mod-High	D, M, Mo	PD/ Loam	S, PS	
Uncommon	M/ Adapt, Wild	Oak, White	<i>Quercus alba</i>	Species	3 - 8	50 - 80'	Mod-High	D, M, Mo	WD/ L, G	S, PS	

Value: H = High; M = Medium; L = Low; ADAPTable; ORNamental; WILDlife
Moisture: WD = Well drained; VD = Very dry; D = Dry; M = Medium; Mo = Moist; W = Wet
Soils: S = Sand; L = Loam; C = Clay; G = Gravel
Light Requirement: S = Full sun; PS= Partial sun; PSh = Partial shade; Sh = Full shade

Table 1a: Native Deciduous Trees for Use in Landscape Plantings (cont'd)

Availability	Value	Common Name	Latin Name	Type	Zone	Height Range	Drought Tolerance	Moisture	Soil	Light Requirements	Notes
Rare	L/ Adapt, Wild	Persimmon	Diospyros virginiana	Species	4 - 8	35 - 60'	Mod	D, M, Mo	WD/ S, L, C	S, PS, PSh	
Rare	L/ Adapt, Wild	Sassafras	Sassafras albidum	Species	4 - 8	30 - 60'	Mod-High	D, M, Mo	WD/ L, G	S, PS, PSh	
Rare	M/ Orn	Silverbell, Mt	Helesia monticola	species & cultivars	4 - 8	30 - 40'	Low-Mod	M, Mo	WD/ Loam	S, PS, PSh	
Rare	M/ Orn	Silverbell, Two-winged	Helesia diptera	Species	4 - 8	20 - 30'	Low-Mod	M, Mo	WD/Loam	S, PS, PSh	
Uncommon	M/ Orn	Sour Wood	Oxydendrum arboretum	Species	5 - 8	25 - 30'	Mod	M, Mo	WD/ L, G	S, PS, PSh	Not tolerant of urban pollution
Medium	H/ Orn, Adapt, Wild	Sycamore, American	Platanus occidentalis	Species	4 - 8	75 - 100'	Mod	D, M, Mo, W	PD/ L, C	S, PS	
Medium	M/ Orn	Tulip Tree	Liriodendron tulipifera	Species	4 - 8	70 - 90'	Low-Mod	M, Mo	WD/ Loam	S, PS	
Uncommon	H/ Orn	Yellow wood	Cladrastis lutea	species & cultivars	4 - 8	30 - 50'	Low-Mod	M, Mo	WD/ Loam	S, PS	Fragrant flowers

Value: H = High; M = Medium; L = Low; ADAPT=able; ORN=amental; WILD=life
Moisture: WD = Well drained; VD = Very dry; D = Dry; M = Medium; Mo = Moist; W = Wet
Soils: S = Sand; L = Loam; C = Clay; G = Gravel
Light Requirement: S = Full sun; PS= Partial sun; PSh = Partial shade; Sh = Full shade



Concolor Fir; taitstrees.net



Red Pine; olddairybarn.com



Balsam Fir; wewegombel.me

Table 1b: Native Conifers for Use in Landscape Plantings

Availability	Value	Common Name	Latin Name	Type	Zone	Height Range	Drought Tolerance	Moisture	Soil	Light Requirements	Notes
Medium	M/ Orn, Wild	Fir, Balsam	<i>Abies balsamea</i>	Species	3 - 5	30 - 50'	Low-Mod	M, Mo	WD/ S, L, G	S, PS	
Uncommon	H/ Orn, Adapt	Fir, Canaan	<i>Abies balsamea</i> var. <i>phanerolepis</i>	Species	3 - 5	30 - 50'	Mod	M, Mo	WD/ S, L, G	S, PS	
Common	H/ Orn, Adapt	Fir, Concolor	<i>Abies concolor</i>	Species	3 - 7	30 - 50'	Mod-High	D, M, Mo	WD/ S, L, G	S	
Common	M/ Orn, Adapt	Fir, Douglas	<i>Pseudotsuga menziesii</i>	Species	4 - 6	40 - 60'	Mod	M, Mo	WD/ S, L	S, PS	Suffers from Needlecast; not advised for use in tree lines, screening, or open areas
Medium	M/ Orn	Fir, Fraser	<i>Abies fraseri</i>	Species	4 - 7	30 - 40'	Mod	M, Mo	WD/ S, L	S, PS	
Common	H/ Orn, Wild	Hemlock, Eastern	<i>Tsuga canadensis</i>	species	3 - 7	60 - 70'	Low-Mod	M, Mo	WD/ S, L, G	S, PS, PSh, Sh	Hemlock Woolly Adelgid
Uncommon	M/ Orn, Adapt	Pine, Mexican Border	<i>Pinus strobiformis</i>	species	4 - 8	40 - 50'	High	D, M	WD/ S, L, G	S, PS	
Uncommon	M/ Adapt	Pine, Red	<i>Pinus resinosa</i>	species	2 - 5	50 - 60'	High	D, M	WD/ S, L, G	S, PS	
Common	H/ Orn, Adapt, Wild	Pine, White	<i>Pinus strobus</i>	species	3 - 7	60 - 80'	Mod	D, M, Mo	WD/ S, L, C	S, PS, PSh	
Common	H/ Orn, Adapt	Spruce, Blue	<i>Picea pungens</i>	species	2 - 7	30 - 60'	Mod-High	D, M, Mo	WD/ S, L, G	S	Suffers from Needlecast; not advised for use in tree lines, screening, or open areas
Medium	H/ Orn, Adapt	Spruce, White	<i>Picea glauca</i>	species	2 - 6	30 - 60'	Mod	D, M, Mo	WD/ S, L, G	S, PS, PSh	

Value: H = High; M = Medium; L = Low; ADAPTable; ORNamental; WILDlife
Moisture: WD = Well drained; VD = Very dry; D = Dry; M = Medium; Mo = Moist; W = Wet
Soils: S = Sand; L = Loam; C = Clay; G = Gravel
Light Requirement: S = Full sun; PS= Partial sun; PSh = Partial shade; Sh = Full shade

Table 2a: Native Shrubs for Use in Landscape Plantings

Availability	Value	Common Name	Latin Name	Type	Zone	Height Range	Drought Tolerance	Moisture	Soil	Light Required	Notes
		Azalea, Swamp	Rhododendron Viscosum		4 - 9	4 - 6'	Low	M		PSh, Sh	Fragrant, attracts bees & butterflies; salt tolerant
Uncommon	M/ Adapt, Wild	Bayberry	Myrica pennsylvanica	Species	3 - 6	6 - 8'	High	VD, M, Mo, W	S, L, C	S, PS, PSh	Semi-evergreen; tough plant
Moderate	H/ Orn, Adapt	Bear Berry	Arctostaphylos uva-ursi	Species	2 - 6	< 1'	High	D, M, WD	S, L, G	S, PS	Good low ground cover; likes dry conditions
Common	H/ Orn, Wild	Blueberry, Highbush	Vaccinium corymbosum	many cultivars	3 - 7	6 - 8'	Mod-High	D, M, Mo	S, L	S, PS, PSh,	Attracts bees & butterflies
Uncommon	M/ Orn, Wild	Button Bush	Cephalanthus occidentalis	Species	5 - 9	6 - 9'	Low	Mo, W	L, C	S, PS	Attracts bees & butterflies
Common	M/ Adapt, Wild	Cedar, Eastern Red	Juniperus virginiana	many cultivars " Bar harbor, Bluechip	3 - 9	to 30'	High	D, M, Mo	S, L, G	S, PS	Beautiful bark on older specimens; many varieties both upright & low; good for birds
Common	H/ Orn, Adapt, Wild	Chokeberry, Black	Aronia melanocarpa	species, cultivars	3 - 8	3 - 5'	Mod-High	D, M, Mo, W	S, L, C, G	S, PS	Good for naturalizing
Common	H/ Orn, Adapt, Wild	Chokeberry, Red	Aronia arbutifolia	species, cultivar	4 - 9	4 - 6'	Mod-High	D, M, Mo, W	S, L, C, G	S, PS	Good for naturalizing
Rare	L/ Wild	Coral berry	Symphoricarpos orbiculatus	Species	3 - 7	3 - 4'	High	D, M, Mo	S, L, G	S, PS, PSh,	
Common	M/ Adapt, Wild	Cranberrybush, American	Viburnum trilobum	species, cultivars	2 - 7	6 - 10'	Mod-High	M, Mo, W	L, C	S, PS, PSh,	
Uncommon	L/Adapt, Wild	Currant, Clove	Ribes odoratum	Species	4 - 6	3 - 6'	Mod	D, M, Mo	S, L, G	S, PS, PSh	

Value: H = High; M = Medium; L = Low; ADAPTable; ORNamental; WILDlife
Moisture: WD = Well drained; VD = Very dry; D = Dry; M = Medium; Mo = Moist; W = Wet
Soils: S = Sand; L = Loam; C = Clay; G = Gravel
Light Requirement: S = Full sun; PS= Partial sun; PSh = Partial shade; Sh = Full shade

Table 2a: Native Shrubs for Use in Landscape Plantings (cont'd)

Availability	Value	Common Name	Latin Name	Type	Zone	Height Range	Drought Tolerance	Moisture	Soil	Light Required	Notes
Uncommon	L/Adapt, Wild	Currant, Eastern Black	<i>Ribes americanum</i>	Species	4 - 6	3 - 6'	Mod	D, M, Mo	S, L, G	S, PS, PSh	
Uncommon	M/Adapt, Wild	Dogwood, Grey	<i>Cornus racemosa</i>	Species	3 - 8	5 - 8'	High	VD, M, Mo, W	All	S, PS, PSh	Good for naturalizing
Common	M/Adapt, Wild	Dogwood, Red-twig	<i>Cornus sericea</i>	species, cultivars	2 - 7	5 - 8'	High	D, M, Mo, W	L, C	S, PS, PSh	
Uncommon	M/Adapt, Wild	Dogwood, Silky	<i>Cornus amomum</i>	Species	4 - 8	5 - 8'	Mod	M, Mo, W	L, C	S, PS, PSh	
Uncommon	M/Adapt, Wild	Elderberry, Black	<i>Sambucus Canadensis</i>	Species	4 - 9	6 - 8'	High	D, M, Mo, W	S, L, C, G	S, PS, PSh	
Rare	M/Adapt, Wild	Elderberry, Red	<i>Sambucus racemosa</i>	Species	4 - 6	6 - 8'	Mod-High	D, M, Mo	S, L, G	PS, PSh, Sh	Good for naturalizing
Uncommon	L/Orn	Fetterbush	<i>Leucothoe fontanesiana</i>	species, cultivars	5 - 8	4 - 5'	Low-Mod	M, Mo	S, L	PS, PSh	Evergreen; good ground cover
Common	H/Orn, Adapt	Fothergilla, Dwarf	<i>Fothergilla gardenii</i>	species, cultivars	5 - 8	3 - 4'	Mod	WD, M, Mo,	S, L	S, PS, PSh	White spring flowers; beautiful fall color
Uncommon	M/Orn,	Fothergilla, Large	<i>Fothergilla major</i>	species, cultivars	4 - 8	6 - 10'	Mod	WD, M, Mo,	S, L	S, PS, PSh	White spring flowers; beautiful fall color
Rare	M/ Wild	Hazelnut, American	<i>Corylus americana</i>	Species	4 - 9	8 - 10'	Mod-High	D, M, Mo	S, L, C	S, PS	
Rare	M/ Wild	Hazelnut, Beaked	<i>Corylus cornuta</i>	Species	4 - 9	5 - 6'	Mod-High	D, M, Mo	S, L, C	S, PS, PSh	
Uncommon	M/Orn, Wild	Holly, Deciduous	<i>Ilex decidua</i>	species, cultivars	5 - 9	8 - 12'	Low-Mod	M, Mo, W	S, L, C	S, PS, PSh	
Moderate	H/Orn, Adapt, Wild	Honeysuckle, Bush	<i>Diervilla lonicera</i>	species, cultivars	3 - 7	3 - 4'	High	D, M, Mo,	S, L, G	S, PS, PSh	

Value: H = High; M = Medium; L = Low; ADAPTable; ORNamental; WILDlife
Moisture: WD = Well drained; VD = Very dry; D = Dry; M = Medium; Mo = Moist; W = Wet
Soils: S = Sand; L = Loam; C = Clay; G = Gravel
Light Requirement: S = Full sun; PS= Partial sun; PSh = Partial shade; Sh = Full shade

Table 2a: Native Shrubs for Use in Landscape Plantings (cont'd)

Availability	Value	Common Name	Latin Name	Type	Zone	Height Range	Drought Tolerance	Moisture	Soil	Light Required	Notes
Common	M/ Orn,	Hydrangea, Annabelle	Hydrangea arborescens	many cultivars	4 - 9	3 - 5'	Mod-High	D, M, Mo	S, L, G	S, PS, PSh, Sh	Late spring-summer flowers; good ornamental large shrub
Moderate	M/ Orn,	Hydrangea, Oak Leaf	Hydrangea quercifolia	many cultivars	5 - 9	4 - 6'	Mod	WD, M, Mo	S, L	S, PS, PSh, Sh	Good hydrangea for shade
Common	M/ Adapt	Inkberry	Ilex glabra	many cultivars	4 - 9	3 - 4'	Mod	M, Mo, W	S, L, C	S, PS, PSh	Good evergreen for exposed sites
Common	M/ Adapt	Juniper, Common	Juniperus communis	many cultivars	2 - 6	2 - 10'	High	D, M, Mo	S, L, G	S, PS	Many varieties both upright & low; good for birds
Common	M/ Adapt	Juniper, Creeping	Juniperus horizontalis	many cultivars	4 - 9	1 - 2'	High	D, M, Mo	S, L, G	S, PS	Many varieties both upright & low; good for birds
Common	M/ Adapt	Juniper, Rocky Mountain	Juniperus scopulorum	many cultivars	3 - 7	to 20'	High	D, M, Mo	S, L, G	S, PS	Many varieties both upright & low; good for birds
Rare	H/ Orn, Adapt, Wild	Meadowsweet	Spirea alba	Species	3 - 5	3 - 5'	Mod-High	D, M, Mo	S, L, C	S, PS, PSh	
Moderate	M/ Orn	Mountain Laurel	Kalmia latifolia	species, cultivars	4 - 9	6 - 15'	Mod	D, M, Mo	S, L, G	PS, PSh, Sh	Avoid exposed areas
Rare	L/ Adapt	Mountain Lover	Paxistima canbyi	Species	3 - 7	1'	High	D, M	S, L, G	S, PS	
Uncommon	H/ Orn, Adapt, Wild	New Jersey Tea	Ceanothus americanus	Species	4 - 8	2 - 3'	High	D, M	S, L, G	S, PS, PSh	
Moderate	H/ Orn, Adapt	Ninebark	Physocarpus opulifolius	species, cultivars	2 - 7	6 - 8'	Mod-High	D, M, Mo	S, L, G	S, PS, PSh	Good for naturalizing
Common	H/ Orn, Adapt	Potentilla	Potentilla fruticose	many cultivars	2 - 6	2 - 3'	High	D, M, Mo	S, L, G	S, PS	Good tough plant; many flower colors available

Value: H = High; M = Medium; L = Low; ADAPTable; ORNamental; WILDlife
Soils: S = Sand; L = Loam; C = Clay; G = Gravel
Moisture: WD = Well drained; VD = Very dry; D = Dry; M = Medium; Mo = Moist; W = Wet
Light Requirement: S = Full sun; PS= Partial sun; PSh = Partial shade; Sh = Full shade

Table 2a: Native Shrubs for Use in Landscape Plantings (cont'd)

Availability	Value	Common Name	Latin Name	Type	Zone	Height Range	Drought Tolerance	Moisture	Soil	Light Required	Notes
Uncommon	M/ Adapt, Wild	Raspberry, Flowering	Rubus odoratus	species	4 - 6	3 - 5'	Mod	D, M, Mo	S, L, G	S, PS, PSh, Sh	
Moderate	M/ Orn	Rhododendron	Rhododendron species	many cultivars	4 - 7	5 - 10'	Low-Mod	M, Mo	S, L	PS, PSh	Many varieties available; avoid exposed sites
		Rose, Carolina	Rosa Carolina		4 - 9	2 - 5'	Low	D, M	S, L	Psh, Sh	Attracts bees & butterflies
Uncommon	M/ Orn,	Rosemay, Bog	Andromeda polifolia	species, cultivar	3 - 6	1 - 2'	Low	Mo, W	WD, S, L	S, PS, PSh	
Uncommon	M/ Adapt, Wild	Sand Cherry	Prunus pumilla	species	2 - 6	1 - 2'	High	D, M	S, L, C	S, PS	
Uncommon	M/ Adapt, Wild	Serviceberry, Saskatoon	Amelanchier alnifolia	species, cultivars	3 - 5	6 - 10'	Mod	D, M, Mo	S, L, G	S, PS, PSh	
Rare	L/ Wild	Snowberry	Symphoricarpos albus	species	3 - 7	3 - 4'	High	D, M	S, L, C, G	S, PS, PSh,	
Moderate	H/ Adapt, Wild	Spice Bush	Lindera benzoin	species	4 - 9	6 - 10'	Mod	M, Mo, W	S, L, C	S, PS, PSh, Sh	Early flowering; attracts birds & butterflies
Moderate	H/ Orn, Adapt,	St Johnswort	Hypericum frondosum	species, cultivars	5 - 8	2 - 3'	Mod-High	D, M, Mo	S, L, G	S, PS, PSh	
Moderate	H/ Orn, Adapt,	St Johnswort	Hypericum kalmianum	species, cultivars	4 - 7	2 - 3'	Mod-High	D, M, Mo	S, L, G	S, PS, PSh	Can be prolific; good large scale groundcover
Rare	M/ Orn, Adapt, Wild	Steeplebush	Spirea tomentosa	species	4 - 6	3 - 5'	Low-Mod	M, Mo, W	S, L, C	S, PS, PSh	
Moderate	H/ Orn, Adapt, Wild	Sumac, Fragrant	Rhus aromatic	species	3 - 9	6 - 8'	High	VD, M, Mo	S, L, G	S, PS	Good ground cover & erosion control plant
Common	H/ Orn, Adapt, Wild	Sumac, Fragrant	Rhus aromatica "Grow-low"	cultivar	3 - 9	1 - 2'	High	VD, M, Mo	S, L, G	S, PS	

Value: H = High; M = Medium; L = Low; ADAPTable; ORNamental; WILDlife
Moisture: WD = Well drained; VD = Very dry; D = Dry; M = Medium; Mo = Moist; W = Wet
Soils: S = Sand; L = Loam; C = Clay; G = Gravel
Light Requirement: S = Full sun; PS= Partial sun; PSh = Partial shade; Sh = Full shade

Table 2a: Native Shrubs for Use in Landscape Plantings (cont'd)

Availability	Value	Common Name	Latin Name	Type	Zone	Height Range	Drought Tolerance	Moisture	Soil	Light Required	Notes
Common	H/ Orn, Wild	Summersweet	<i>Clethra alnifolia</i>	many cultivars	4 - 9	2 - 5'	Mod	M, Mo, W	L, C	S, PS, PSh	Very fragrant; attracts pollinators
Uncommon	M/ Adapt	Sweet Fern	<i>Comptonia peregrina</i>	species	2 - 6	3 - 4'	High	D, M	S, L, G	S, PS	
Moderate	M/ Orn	Sweet Shrub	<i>Calycanthus floridus</i>	species, cultivars	4 - 9	6 - 8'	Mod	WD, M, Mo	L	S, PS, PSh	
Common	H/ Orn, Adapt,	Sweet Spire	<i>Itea virginica</i>	species, cultivars	5 - 9	3 - 4'	Mod-High	M, Mo, W	L, C	S, PS, PSh	Late spring drooping white flowers
Uncommon	L/ Adapt	Sweetgale	<i>Myrica gale</i>	species	1 - 6	3 - 4'	Low	Mo, W	S, L, C	S, PS	
Moderate	H/ Orn, Adapt, Wild	Viburnum, Winterthur	<i>Viburnum nudum</i>	species, cultivars	5 - 9	6 - 12'	Low-Mod	M, Mo, W	L, C	S, PS	Many varieties available
Common	H/ Orn, Adapt, Wild	Viburum, Arrowwood	<i>Viburnum dentatum</i>	many cultivars "Bar harbor, Bluechip	3 - 8	6 - 10'	High	D, M, Mo, W	L, C	S, PS, PSh, Sh	Many varieties available; attracts bees & butterflies
Rare	H/ Orn, Adapt, Wild	Viburum, Maple Leaf	<i>Viburnum acerifolium</i>	species	4 - 8	4 - 6'	High	D, M, Mo	WD, L, C, G	PS, PSh, Sh	Many varieties available
Uncommon	H/ Orn, Adapt, Wild	Viburum, Witherood	<i>Viburnum cassinoides</i>	species	3 - 8	6 - 12'	Mod	M, Mo, W	L, C	S, PS	Many varieties available
Rare	M/ Adapt, Wild	Willow, Heart Leaved	<i>Salix eriocephala</i>	species	2 - 6	6 - 13'	Low-Mod	M, Mo, W	S, L, C	S, PS	
Medium	M/ Adapt, Wild	Willow, Pussy	<i>Salix discolor</i>	species, cultivars	3 - 6	6 - 20'	Low-Mod	M, Mo, W	L, C	S, PS	Attracts bees & butterflies
Rare	M/ Adapt, Wild	Willow, Sandbar	<i>Salix exigua</i>	species	2 - 6	3 - 15'	Low-Mod	M, Mo, W	S, L, G	S, PS	

Value: H = High; M = Medium; L = Low; ADAPTable; ORNamental; WILDlife
Moisture: WD = Well drained; VD = Very dry; D = Dry; M = Medium; Mo = Moist; W = Wet
Soils: S = Sand; L = Loam; C = Clay; G = Gravel
Light Requirement: S = Full sun; PS= Partial sun; PSh = Partial shade; Sh = Full shade

Table 2a: Native Shrubs for Use in Landscape Plantings (cont'd)

Availability	Value	Common Name	Latin Name	Type	Zone	Height Range	Drought Tolerance	Moisture	Soil	Light Required	Notes
Rare	M/ Adapt, Wild	Willow, Shining	Salix lucida	Species	2 - 7	8 - 16'	Low-Mod	M, Mo, W	S, L, C	S, PS	
Rare	M/ Adapt, Wild	Willow, Silky	Salix sericea	Species	2 - 6	4 - 12'	Low-Mod	M, Mo, W	S, L, C	S, PS	
Common	M/ Orn, Wild	Winter Berry	Ilex verticillata	many cultivars	3 - 9	4 - 6'	Mod	M, Mo, W	L, C	S, PS, PSh	Nice red berries; plant one male for berry production on females; attracts birds
Uncommon	M/ Adapt	Witch Hazel	Hamamelis virginiana	Species	3 - 8	6 - 10'	Low-Mod	WD, D, M, Mo	S, L, C	S, PS, PSh, Sh	Good for naturalizing or creating buffers
<p>Value: H = High; M = Medium; L = Low; ADAPTable; ORNamental; WILDlife Moisture: WD = Well drained; VD = Very dry; D = Dry; M = Medium; Mo = Moist; W = Wet Soils: S = Sand; L = Loam; C = Clay; G = Gravel Light Requirement: S = Full sun; PS= Partial sun; PSh = Partial shade; Sh = Full shade</p>											



Fothergilla; pinterest.com



Sweet Spire; longisladnnatives.com

Table 2b: Native Small Trees for Use in Landscape Plantings

Availability	Value	Common Name	Latin Name	Type	Zone	Height Range	Drought Tolerance	Moisture	Soil	Light Required	Notes
Rare	L/ Adapt	Bladdernut	Staphylea trifolia	species	3 - 8	10 - 15'	Mod	M, Mo	S, L, C	S, PS, PSh	
Rare	M/ Orn	Buckeye, Bottlebrush	Aesculus parviflora	species	5 - 9	6 - 8ft	Low-Mod	M, Mo	WD, S, L,	S, PS, PSh	
Uncommon	H/ Orn, Adapt, Wild	Chokecherry	Prunus virginiana	species	2 - 6	15 - 25'	High	D, M, Mo	S, L, C, G	S, PS, PSh	
Moderate	H/ Orn, Adapt, Wild	Chokecherry	Prunus virginiana	"Schubert, Canada Red:	2 - 6	15 - 25'	High	D, M, Mo	S, L, C, G	S, PS	
		Crabapple, Sweet	Malus, coronaira		4 - 8	15 - 25'				S, PS, PSh	prefers rich moist soil; attracts bees & butterflies
Uncommon	H/ Orn, Wild	Dogwood, Alternate-leaf	Cornus alternifolia	species	3 - 7	10 - 20'	Mod	M, Mo	WD, L, C	S, PS, PSh	Nice small tree; good for courtyards as a specimen
Common	M/ Orn, Wild	Dogwood, Flowering	Cornus florida	species, cultivars	5 - 9	15 - 25'	Low-Mod	M, Mo	WD, L, C	S, PS, PSh	Beautiful understory tree; use Rutgers varieties or Koussa
Uncommon	M/ Orn, Adapt	Fringe Tree	Chionanthus virginicus	Species	4 - 9	8 - 25'	Mod-High	D, M, Mo	S, L, C	S, PS, PSh	Late flowering; slow growing; fragrant flowers
Moderate	H/ Orn, Adapt	Hawthorn	Craetagus species	many species, cultivars	4 - 8	20 - 30'	High	D, M, Mo	WD, L, C	S, PS	Avoid thorny varieties
Uncommon	H/ Orn, Adapt	Hawthorn, Cockspur	Creatagus crus-galli inermis	Species	4 - 6	20 - 25'	High	D, M, Mo	WD, L, C	S, PS	
Uncommon	H/ Orn, Adapt	Hawthorn, Downy	Creatagus mollis	Species	3 - 6	20 - 25'	High	D, M, Mo	WD, L, C	S, PS	
Uncommon	H/ Orn, Adapt	Hawthorn, Washington	Creatagus phaenopyrum	species, cultivars	4 - 8	20 - 30'	High	D, M, Mo	WD, L, C	S, PS	
Uncommon	H/ Orn, Adapt	Hawthorn, Winter King	Craetagus viridis	Cultivar "winter King"	5 - 9	20 - 25'	High	D, M, Mo	WD, L, C	S, PS	
Uncommon	L/ Orn	Maple, Striped	Acer pennsylvanica	Species	3 - 7	15 - 20'	Low-Mod	D, M, Mo	WD, S, L,	PS, PSh	
Uncommon	M/ Adapt, Wild	Plum, American	Prunus americana	Species	3 - 8	15 - 25'	Mod	D, M	S, L, C, G	S, PS	Attracts bees & butterflies

Value: H = High; M = Medium; L = Low; ADAPTable; ORNamental; WILDlife
Moisture: WD = Well drained; VD = Very dry; D = Dry; M = Medium; Mo = Moist; W = Wet
Soils: S = Sand; L = Loam; C = Clay; G = Gravel
Light Requirement: S = Full sun; PS= Partial sun; PSh = Partial shade; Sh = Full shade

Table 2b: Native Small Trees for Use in Landscape Plantings (cont'd)

Availability	Value	Common Name	Latin Name	Type	Zone	Height Range	Drought Tolerance	Moisture	Soil	Light Required	Notes
Common	M/ Orn	Red Bud	<i>Cercis Canadensis</i>	species, cultivars	4 - 9	20 - 25'	Low-Mod	WD, M, Mo	WD, L	S, PS, PSh	Red/pink spring flowers; can be invasive; use for naturalizing or in areas that will be mown; do not use in ornamental beds; attracts butterflies & bees
Common	H/ Orn, Adapt, Wild	Serviceberry	<i>Amelanchier x grandiflora</i>	all cultivars	4 - 9	15 - 25'	Mod-High	D, M, Mo	S, L, G	S, PS, PSh	Attracts birds; edible fruit; white spring flowers; nice fall color
Common	H/ Orn, Adapt, Wild	Serviceberry, Alleghany	<i>Amelanchier laevis</i>	species, cultivars	4 - 9	15 - 25'	Mod-High	D, M, Mo	S, L, G	S, PS, PSh	Attracts birds; edible fruit; white spring flowers; nice fall color
Common	H/ Orn, Adapt, Wild	Serviceberry, Downy	<i>Amelanchier arborea</i>	species, cultivars	4 - 9	15 - 25'	Mod	D, M, Mo	S, L, G	S, PS, PSh	Attracts birds; edible fruit; white spring flowers; nice fall color
Common	H/ Orn, Adapt, Wild	Serviceberry, Shadblow	<i>Amelanchier Canadensis</i>	species, cultivars	3 - 8	10 - 20'	Mod	M, Mo, W	S, L, C	S, PS, PSh	Attracts birds; edible fruit; white spring flowers; nice fall color
Rare	H/ Orn, Adapt	Smoketree, American	<i>Cotinus obovatus</i>	species	4 - 8	15 - 25'	High	D, M, Mo	WD, S, L, G	S, PS, PSh	
Uncommon	H/ Adapt, Wild	Viburnum, Blackhaw	<i>Viburnum prunifolium</i>	species	3 - 9	10 - 15'	High	D, M, Mo	L, C	S, PS, PSh	
Uncommon	H/ Adapt, Wild	Viburnum, Nanny Berry	<i>Viburnum lentago</i>	species	2 - 7	10 - 20'	Mod-High	M, Mo, W	L, C	S, PS	

Value: H = High; M = Medium; L = Low; ADAPTable; ORNamental; WILDlife
Moisture: WD = Well drained; VD = Very dry; D = Dry; M = Medium; Mo = Moist; W = Wet
Soils: S = Sand; L = Loam; C = Clay; G = Gravel
Light Requirement: S = Full sun; PS= Partial sun; PSh = Partial shade; Sh = Full shade

Table 3a: Native Wildflowers for Use in Landscape Plantings

Availability	Value	Common Name	Latin Name	Zone	Height Range	Moisture	Soil	Light Requirement	Notes
Common	M/ Orn, Adapt, Wild	Ageratum, Hardy	<i>Eupatorium coelestinum</i>	4 - 9	2' - 3'	M, Mo, W	S, L, C	S, PS	
Common	H/ Orn, Adapt	Alumroot	<i>Heuchera americana</i>	3 - 9	1' - 2'	D, M	L	S, PS	
Uncommon	M/ Orn, Adapt, Wild	Aster, Heart Leaved	<i>Aster cordifolius</i>	3 - 8	2' - 3'	D, M	S, L, C	PS, PSh, Sh	
Common	H/ Orn, Adapt, Wild	Aster, New England	<i>Aster novae-angliae</i>	3 - 9	2' - 5'	M, Mo	S, L, C	S, PS	Good for naturalizing; attracts bees & butterflies
Medium	H/ Orn, Adapt, Wild	Aster, New York	<i>Aster novi-belgii</i>	3 - 9	1' - 3'	M, Mo		S, PS	Good for naturalizing
Medium	H/ Orn, Adapt, Wild	Aster, Sky Blue	<i>Aster azureus</i>	3 - 9	1' - 3'	D, M	S, L	S, PS,	Good for naturalizing
Medium	H/ Orn, Adapt, Wild	Aster, Smooth	<i>Aster laevis</i>	3 - 9	1' - 3'	D, M	S, L	S, PS	Good for naturalizing
Uncommon	M/ Orn, Adapt, Wild	Aster, White Wood	<i>Aster divaricatus</i>	3 - 8	1' - 2'	D, M	S, L, C	PS, PSh, Sh	Good for naturalizing
Medium	M/ Orn, Adapt, Wild	Beard Tongue	<i>Penstemon grandiflorus</i>	3 - 9	2' - 5'	D, M	S, G	S	Attracts bees & butterflies
Common	H/ Orn, Adapt, Wild	Bee Balm	<i>Monarda didyma</i>	3 - 9	3' - 4'	M, Mo	S, L, C	S, PS, PSh	Attracts pollinators
Common	H/ Orn, Adapt, Wild	Black-eyed Susan	<i>Rudbeckia hirta</i>	3 - 9	2' - 3'	D, M		S, PS	Good for meadows
Common	M/ Orn, Adapt	Blanket Flower	<i>Gaillardia pulchella</i>	4 - 8	1' - 3'	D, M	S, L	S	
Common	M/ Orn, Adapt	Blanket Flower	<i>Gaillardia x grandifolia</i>	4 - 8	1' - 3'	D, M	S, L	S	
Common	H/ Orn, Adapt, Wild	Blazing Star, Dense	<i>Liatris spicata</i>	4 - 8	3' - 5'	M, Mo	S, L, C	S	Good for meadows; attracts bees & butterflies

Value: H = High; M = Medium; L = Low; ADAPTable; ORNamental; WILDlife
Sils: S = Sand; L = Loam; C = Clay; G = Gravel
Moisture: WD = Well drained; VD = Very dry; D = Dry; M = Medium; Mo = Moist; W = Wet
Light Requirement: S = Full sun; PS= Partial sun; PSh = Partial shade; Sh = Full shade

Table 3a: Native Wildflowers for Use in Landscape Plantings (cont'd)

Availability	Value	Common Name	Latin Name	Zone	Height Range	Moisture	Soil	Light Requirement	Notes
Uncommon	H/ Orn, Adapt, Wild	Blazing Star, Northern	<i>Liatris borealis</i>	4 - 8	2' - 3'	D, M	WD, S, L	S	Good for meadows; attracts bees & butterflies
Common	H/ Orn, Adapt, Wild	Blazing Star, Prairie	<i>Liatris pycnostachya</i>	3 - 9	3' - 5'	M, Mo	S, L, C	S, PS	Good for meadows; attracts bees & butterflies
Uncommon	H/ Orn, Adapt, Wild	Blazing Star, Rough	<i>Liatris aspera</i>	3 - 9	2' - 4'	D, M	WD, S, L	S	Good for meadows; attracts bees & butterflies
Medium	M/ Orn	Bleeding Heart, Wild	<i>Dicentra exima</i>	4 - 9	1'	M, Mo	S, L, C	S, PS, PSh, Sh	
Medium	H/ Orn, Adapt	Blood Root	<i>Sanguinaria canadensis</i>	3 - 9	<1'	M	WD	PS, PSh, Sh	
Uncommon	M/ Orn, Adapt	Blue Star	<i>Amsonia tabernaemontana</i>	3 - 9	3'	D, M, Mo	S, L, C	S, PS	Good for naturalizing
Medium	M/ Orn, Adapt, Wild	Blue Vervain	<i>Verbena hastata</i>	3 - 9	2' - 4'	M, W		S, PS	
Medium	H/ Orn, Adapt, Wild	Brown Eyed Susan	<i>Rudbeckia triloba</i>	3 - 9	2' - 3'	M		S, PS	
Common	H/ Orn, Adapt, Wild	Butterfly Weed	<i>Asclepias tuberosa</i>	3 - 9	2' - 3'	D, M	S, L	S, PS,	
Medium	M/ Orn, Adapt	Canada Anemone	<i>Anemone canadensis</i>	2 - 9	1' - 2'	M, Mo	L	PS, PSh, Sh	
Medium	M/ Orn, Wild	Cardinal Flower	<i>Lobelia cardinalis</i>	3 - 9	2' - 4'	Mo, W	S, L	S, PS, PSh	Good for wet areas
Common	H/ Orn, Adapt	Cohosh, Black	<i>Cimicifuga racemosa</i>	3 - 9	3' - 5'	D, M, Mo	L, G	PS, PSh, Sh	Good for shade
Uncommon	L/ Orn, Adapt	Cohosh, Blue	<i>Caulophyllum thalictroides</i>	3 - 8	2' - 3'	M, Mo	S, L	PSh, Sh	
Common	H/ Orn, Adapt, Wild	Columbine	<i>Aquilegia canadensis</i>	3 - 9	1' - 2'	D, M	WD	S, PS, PSh,	
Uncommon	H/ Orn, Adapt, Wild	Coneflower, Eastern	<i>Rudbeckia fulgida</i>	3 - 9	2' - 3'	M		S, PS	Good for meadows/birds/butterflies

Value: H = High; M = Medium; L = Low; ADAPTable; ORNamental; WILDlife
Moisture: WD = Well drained; VD = Very dry; D = Dry; M = Medium; Mo = Moist; W = Wet
Soils: S = Sand; L = Loam; C = Clay; G = Gravel
Light Requirement: S = Full sun; PS= Partial sun; PSh = Partial shade; Sh = Full shade

Table 3a: Native Wildflowers for Use in Landscape Plantings (cont'd)

Availability	Value	Common Name	Latin Name	Zone	Height Range	Moisture	Soil	Light Requirement	Notes
Medium	H/ Orn, Adapt, Wild	Coneflower, Pale-Purple	<i>Echinacea pallida</i>	3 - 9	2' - 3'	D, M	WD, S, L, C	S, PS	Good for meadows/birds/butterflies
Common	H/ Orn, Adapt, Wild	Coneflower, Purple	<i>Echinacea purpurea</i>	3 - 9	2' - 3'	D, M	WD, S, L, C	S, PS	Good for meadows/birds/butterflies
Uncommon	H/ Orn, Adapt, Wild	Coneflower, Yellow	<i>Echinacea paradoxa</i>	4 - 9	2' - 3'	D, M	WD, S, L, C	S	Good for meadows/birds/butterflies
Common	H/ Orn, Adapt, Wild	Coreopsis, Lanceleaf	<i>Coreopsis lanceolata</i>	3 - 9	1' - 2'	D, M	S, L	S, PS	Good ground cover
		Cranesbill, Wild	<i>Geranium maculatum</i>	3 - 8	1' - 2'	D, M	S, L	S, PS, Sh	Attracts bees & butterflies
Medium	M/Adapt, Wild	Culvers Root	<i>Veronicastrum virginicum</i>	3 - 9	3' - 5'	M, W		S, PS	Good for naturalizing
Medium	M/ Orn, Adapt, Wild	False Aster	<i>Boltonia asteroides</i>	4 - 9	3' - 4'	D, M, Mo	S, L, C	S, PS	Tall sun-loving lavender flower
Medium	H/ Orn, Adapt, Wild	False Solomon Seal	<i>Smilacina racemose</i>	3 - 8	1' - 3'	M		PS, PSh, Sh	
Medium	H/ Orn, Adapt, Wild	False-indigo, Blue	<i>Baptisia australis</i>	4 - 8	3' - 4'	D, M,	S, L, C	S, PS	Nice meadow plant; attracts bees & butterflies
Uncommon	M/ Orn, Adapt, Wild	False-indigo, Cream	<i>Baptisia bracteata</i>	4 - 8	1' - 2'	D, M,	S, L	S, PS	Nice meadow plant
Uncommon	M/ Orn, Adapt, Wild	False-indigo, White	<i>Baptisia lactea</i>	4 - 8	3' - 5'	M, Mo	S, L, C	S, PS	Nice meadow plant
Common	H/ Orn, Adapt	Foam Flower	<i>Tiarella cordifolia</i>	3 - 9	<1'	M		PS, PSh, Sh	Good for shady groundcover
		Gentian, Bottle	<i>Gentiana andrewsii</i>	3 - 7	1' - 2'	M		S, PS	Attracts butterflies & bees
Medium	M/ Orn, Adapt	Geranium, Wild	<i>Geranium maculatum</i>	3 - 9	1'	D, M	L	S, PS, PSh, Sh	

Value: H = High; M = Medium; L = Low; ADAPTable; ORNamental; WILDlife
Moisture: WD = Well drained; VD = Very dry; D = Dry; M = Medium; Mo = Moist; W = Wet
Soils: S = Sand; L = Loam; C = Clay; G = Gravel
Light Requirement: S = Full sun; PS= Partial sun; PSh = Partial shade; Sh = Full shade

Table 3a: Native Wildflowers for Use in Landscape Plantings (cont'd)

Availability	Value	Common Name	Latin Name	Zone	Height Range	Moisture	Soil	Light Requirement	Notes
Medium	H/ Orn, Adapt	Goat's Beard	<i>Aruncus dioicus</i>	4 - 8	3' - 5'	Mo	Rich	PS, PSh, Sh	Good for naturalizing
Uncommon	H/ Orn, Adapt	Gold Star	<i>Chrysogonum virginianum</i>	5 - 9	<1'	D, M, Mo	S, L, C	S, PS, PSh	
Uncommon	M/ Orn, Adapt, Wild	Goldenrod, Blue Stemmed	<i>Solidago caesia</i>	3 - 9	1' - 3'	D, M		S, PS, PSh, Sh	Good for meadows
Uncommon	H/ Orn, Adapt, Wild	Goldenrod, Showy	<i>Solidago speciosa</i>	3 - 9	2' - 5'	D, M		S, PS	Good for meadows
Uncommon	M/ Orn, Adapt, Wild	Goldenrod, Zigzag	<i>Solidago flexicaulis</i>	3 - 8	1' - 4'	D, M		S, PS, PSh, Sh	Good for meadows
Uncommon	M/ Orn, Adapt	Hepatica, Sharp Lobed	<i>Hepatica acutiloba</i>	3 - 8	<1'	M, Mo	L	PS, PSh	
Medium	H/ Orn, Adapt, Wild	Iris, Blue Flag	<i>Iris versicolor</i>	4 - 9	2' - 3'	M, Mo, W	S, L, C	S, PS, PSh	Good for wet areas
Uncommon	H/ Orn, Adapt	Iris, Crested	<i>Iris cristata</i>	4 - 9	<1'	M, Mo	S, L	PS, PSh	Good for wet areas
Uncommon	M/Adapt, Wild	Ironwood, New York	<i>Vernonia noveboracensis</i>	3 - 9	3' - 5'	M, W	Rich	S, PS	Very nice tall dark purple flower
Common	M/ Orn, Adapt	Jack-in-the-pulpit	<i>Arisaema triphyllum</i>	3 - 9	1'	M, Mo	S, L	PS, PSh, Sh	
Medium	M/ Orn, Adapt	Jacobs Ladder	<i>Polemonium reptans</i>	3 - 8	1'	M, Mo	L	PS, PSh	Attracts bees & butterflies
Common	H/ Orn, Adapt, Wild	Joe-pye-weed, Purple	<i>Eupatorium purpureum</i>	3 - 8	3' -6'	M, Mo, W	S, L, C	S, PS, PSh	Good for wet areas
Uncommon	H/ Orn, Adapt, Wild	Joe-pye-weed, Spotted	<i>Eupatorium maculatum</i>	3 - 9	3' -6'	M, Mo, W	S, L, C	S, PS, PSh	Good for wet areas
Medium	H/ Orn, Adapt	Larkspur, Tall Blue	<i>Delphinium exaltatum</i>	4 - 9	1' -2'	D, M	S, L	S, PS	
Common	H/ Orn, Adapt, Wild	Lavender Hyssop	<i>Agastache foeniculum</i>	3 - 9	2' - 3'	D, M,	S, L, C, G	S, PS	Good for meadows; attracts bees & butterflies

Value: H = High; M = Medium; L = Low; ADAPTable; ORNamental; WILDlife
Moisture: WD = Well drained; VD = Very dry; D = Dry; M = Medium; Mo = Moist; W = Wet
Soils: S = Sand; L = Loam; C = Clay; G = Gravel
Light Requirement: S = Full sun; PS= Partial sun; PSh = Partial shade; Sh = Full shade

Table 3a: Native Wildflowers for Use in Landscape Plantings (cont'd)

Availability	Value	Common Name	Latin Name	Zone	Height Range	Moisture	Soil	Light Requirement	Notes
Common	H/ Orn, Adapt, Wild	Lobelia, Great Blue	<i>Lobelia siphilitica</i>	3 – 9	2' - 3'	M, Mo, W	S, L, C	S, PS	Attracts bees & butterflies
		Lupine, Wild	<i>Lupinus perennis</i>	3 – 8	1' - 2'	D	S	S,PS	Attracts bees & butterflies
Uncommon	L/ Orn, Adapt	Marsh-marigold	<i>Caltha palustris</i>	1 – 8	1' - 2'	Mo, W	L, C	S, PS, PSh, Sh	
Uncommon	M/ Orn, Adapt	May Apple	<i>Podophyllum peltatum</i>	3 – 9	1' - 2'	D, M, W	WD, S, L, C	PS, PSh	
Uncommon	L/ Adapt	Meadow Rue, Early	<i>Thalictrum dioicum</i>	3 – 8	1' - 3'	M		PS, PSh, Sh	
Common	M/ Orn, Adapt	Meadow Rue, Tall	<i>Thalictrum pubescens</i>	3 – 9	3' - 8'	M, W		S, PS, PSh, Sh	
Medium	M/ Orn, Adapt, Wild	Nodding Pink Onion	<i>Allium cernuum</i>	3 – 9	1'-2'	M, Mo	S, L, C	S, PS	
Common	H/ Orn, Adapt, Wild	Ox Eye Sunflower	<i>Heliopsis helianthoides</i>	3 – 9	3' - 5'	D, M	S, L, C	S, PS	Good for meadows
Common	M/ Orn, Adapt, Wild	Penstemon, Smooth	<i>Penstemon digitalis</i>	3 – 9	2' - 4'	M, Mo	S, L, C	S, PS	
Common	H/ Orn, Adapt	Phlox, Moss	<i>Phlox subulata</i>	3 – 9	<1'	D, M	WD, S, G	S	Many varieties; creeping to upright
Common	H/ Orn, Wild	Phlox, Summer	<i>Phlox paniculata</i>	3 – 9	3' - 5'	M, Mo	S, L, C	S, PS	Many varieties; creeping to upright
Medium	H/ Orn, Wild	Phlox, Wild Blue	<i>Phlox divaricata</i>	3 – 9	1'	M, Mo	S, L, C	PS, PSh, Sh	Many varieties; creeping to upright
Medium	M/ Orn, Adapt	Poppy, Celandine	<i>Stylophorum diphyllum</i>	4 – 8	1' - 2'	M		PS, PSh, Sh	
Uncommon	M/ Orn, Adapt, Wild	Prairie Clover, Pale-Purple	<i>Dalea purpurea</i>	3 – 9	1' -2'	D, M	S, L, C	S	
Uncommon	M/ Orn, Adapt, Wild	Prairie Clover, White	<i>Dalea candida</i>	3 – 9	1' -2'	D, M	S, L	S	

Value: H = High; M = Medium; L = Low; ADAPTable; ORNamental; WILDlife
Soils: S = Sand; L = Loam; C = Clay; G = Gravel
Moisture: WD = Well drained; VD = Very dry; D = Dry; M = Medium; Mo = Moist; W = Wet
Light Requirement: S = Full sun; PS= Partial sun; PSh = Partial shade; Sh = Full shade

Table 3a: Native Wildflowers for Use in Landscape Plantings (cont'd)

Availability	Value	Common Name	Latin Name	Zone	Height Range	Moisture	Soil	Light Requirement	Notes
Uncommon	M/ Orn, Adapt	Prairie Smoke	Geum triflorum	4 - 8	<1'	D, M	S, L	S, PS	
Uncommon	M/ Orn, Adapt	Queen of the Prairie	Filipendula rubra	3 - 8	6' - 8'	M, Mo	S, L, C	S, PS	
Rare	M/ Orn, Adapt	Rattlesnake master	Eryngium yuccifolium	4 - 8	3' - 5'	D, M	S, L, C	S	
Uncommon	M/ Orn, Adapt	Red Baneberry	Actaea rubra	2 - 8	1'-2'	M, Mo	L	PSh, Sh	
Medium	M/Adapt, Wild	Snakeroot, White	Eupatorium rugosum	4 - 9	2' - 3'	M, Mo	S, L, C	S, PS, PSh	
Common	M/ Orn, Adapt	Solomon's Seal	Polygonatum biflorum	3 - 9	1' - 3'	M, Mo	Rich, S, L, C	PS, PSh, Sh	Good for naturalizing shady areas
Medium	H/ Orn, Adapt, Wild	Spiderwort, Virginia	Tradescantia virginiana	3 - 9	1' - 2'	M	Rich	S, PS, PSh	Attracts butterflies & bees
Medium	H/ Orn, Adapt, Wild	Swamp Milkweed	Asclepias incarnata	3 - 9	2' - 4'	M, Mo, W	S, L, C	S, PS,	Attracts butterflies (Monarchs) & bees
Common	H/ Orn, Adapt, Wild	Tickseed, Threadleaf	Coreopsis verticillata	4 - 9	1' -2'	M, Mo	S, L	S, PS	
Uncommon	M/ Orn, Adapt	Turk's Cap Lily	Lilium superbum	4 - 9	3' - 8'	M, Mo, W		S, PS	
Medium	M/ Orn, Adapt, Wild	Turtle Head, Pink	Chelone lyonii	4 - 9	2' - 3'	M, Mo, W	S, L, C	S, PS, PSh	
Medium	M/ Orn, Adapt, Wild	Turtle Head, White	Chelone glabra	3 - 9	2' - 3'	M, Mo, W	S, L, C	S, PS, PSh	
Uncommon	M/ Orn	Umbrella Leaf	Diphylleia cymosa	4 - 8	2'	Mo, W	L	PSh, Sh	
Rare	L/ Adapt	Virgin's Bower	Clematis virginiana	3 - 9	Vine	M, Mo, W	S, L, C	S, PS	
Medium	M/ Orn, Adapt	White Dolls Eye	Actaea pachypoda	3 - 8	1'-2'	M, Mo	L	PSh, Sh	
Common	H/ Orn, Adapt, Wild	Wild- bergamot, Lavender	Monarda fistulosa	3 - 9	3' - 4'	M, Mo, W	S, L, C	S, PS, PSh	Attracts bees & butterflies
Medium	M/ Orn	Wild Ginger	Asarum canadense	3 - 8	<1'	M, Mo	WD, S, L, G	PSh, Sh	

Value: H = High; M = Medium; L = Low; ADAPTable; ORNamental; WILDlife
Moisture: WD = Well drained; VD = Very dry; D = Dry; M = Medium; Mo = Moist; W = Wet
Soils: S = Sand; L = Loam; C = Clay; G = Gravel
Light Requirement: S = Full sun; PS= Partial sun; PSh = Partial shade; Sh = Full shade

Table 3b: Native Grasses for Use in Landscape Plantings

Availability	Value	Common Name	Latin Name	Zone	Height Range	Moisture	Soil	Light Requirement	Notes
Common	H/ Orn, Adapt, Wild	Bluestem, Big	<i>Andropogon gerardii</i>	3 - 9	5' - 8'	D, M, Mo	S, L, C	S	
Common	H/ Orn, Adapt, Wild	Bluestem, Little	<i>Schizachyrium scoparium</i>	4 - 9	2' - 3'	D, M	S, L	S, PS	
Uncommon	M/ Orn, Adapt	Bottlebrush Grass	<i>Elymus hystrix</i>	3 - 8	2' - 5'	D, M	S, L	PS, PSh, Sh	
Rare	M/ Orn, Adapt, Wild	Gamma, Blue	<i>Bouteloua gracilis</i>	3 - 8	1' - 2'	D, M	S, L	S, PS	
Uncommon	H/ Orn, Adapt, Wild	Gamma, Side Oats	<i>Bouteloua curtipendula</i>	3 - 8	2' - 3'	D, M	S, L	S, PS	
Rare	M/ Orn, Adapt	Hairgrass, Muhly Grass,	<i>Muhlenbergia capillaris</i>	3 - 6	2' - 3'	D, M, Mo	S, L, G	S, PS	
Rare	M/ Orn, Adapt	Hairgrass, Wavy	<i>Deschampsia flexuosa</i>	3 - 8	1' - 2'	D, M	S, L, G		
Common	H/ Orn, Adapt, Wild	Indian Grass	<i>Sorghastrum nutans</i>	4 - 8	5' - 7'	D, M, Mo	S, L, C		
Rare	M/ Orn, Adapt	June Grass	<i>Koeleria macrantha</i>	3 - 8	2' - 3'	D, M	S, L, G	S, PS	
Rare	M/ Orn, Adapt	Lovegrass, Purple	<i>Eragrostis spectabilis</i>	5 - 9	2' - 3'	D, M, Mo	S, L	S, PS	
Medium	H/ Orn, Adapt, Wild	Oats, Northern Sea	<i>Chasmanthium latifolium</i>	4 - 8	3' - 4'	D, M, Mo	S, L	S, PS, PSh	
Common	H/ Orn, Adapt, Wild	Prairie Dropgrass	<i>Sporobolus heterolepis</i>	3 - 9	2' - 4'	D, M	S, L, C		
Rare	L/Adapt	Sedge, Appalachian	<i>Carex appalachica</i>	3 - 7	8 - 10"	D, M	S, L	PS, PSh, Sh	

Value: H = High; M = Medium; L = Low; ADAPTable; ORNamental; WILDlife
Soils: S = Sand; L = Loam; C = Clay; G = Gravel
Moisture: WD = Well drained; VD = Very dry; D = Dry; M = Medium; Mo = Moist; W = Wet
Light Requirement: S = Full sun; PS= Partial sun; PSh = Partial shade; Sh = Full shade

Table 3b: Native Grasses for Use in Landscape Plantings (cont'd)

Availability	Value	Common Name	Latin Name	Zone	Height Range	Moisture	Soil	Light Requirement	Notes
Rare	M/Adapt	Sedge, Ivory	Carex eburnea	4 - 6	6"	D, M, Mo	S, L, G	PS, PSh, Sh	
Medium	M/Adapt	Sedge, Pennsylvania	Carex pennsylvanica	4 to 8	6" to 8"	D, M	S, L, G	PS, PSh, Sh	
Common	M/ Adapt, Wild	Switch Grass	Panicum virgatum	5 to 9	3' to 6'	D, M, Mo, W	S, L, C	S, PS	
Rare	M/ Orn, Adapt	Wild Rye, Blue	Elymus glaucus	4 to 8	2' -3'	D, M, Mo	S, L	S, PS	
Medium	M/Adapt, Wild	Wild Rye, Canada	Elymus canadensis	3 to 8	4' - 5'	D, M, Mo	S, L, C	S, PS	
Medium	M/Adapt, Wild	Wild Rye, Virginia	Elymus virginicus	3 to 8	4' - 5'	M, Mo	S, L, C	S, PS, PSh	

Value: H = High; M = Medium; L = Low; ADAPTable; ORNamental; WILDlife
Moisture: WD = Well drained; VD = Very dry; D = Dry; M = Medium; Mo = Moist; W = Wet
Soils: S = Sand; L = Loam; C = Clay; G = Gravel
Light Requirement: S = Full sun; PS= Partial sun; PSh = Partial shade; Sh = Full shade



Switch Grass; pinterest.com

Table 4: Non-Native Trees Shrubs and Wildflowers, that are acceptable to use in landscape plantings. If non-native plants are used and they become aggressive due to prevailing conditions and overtake other natives in the landscape, ask an arborist or landscape professional for advice. For a list of the codes used, see page 37.

Large Shade Trees			
Code	Common Name	Latin Name	Notes
A	Beech, European	<i>Fagus sylvatica</i>	
A	Beech, Purpleleaf European	<i>Fagus sylvatica purpurea</i>	
B, D	Birch, Himalayan	<i>Betula albo-sinensis</i>	
B, D	Birch, Jacquemonti	<i>Betula jacquemontii</i>	
B, D	Birch, Whitespire	<i>Betula platyphylla japonica</i>	Highly susceptible to birch borer & leaf miner; use River Birch or Heritage River Birch
A	Cherry, Flowering	<i>Prunus subhirtella</i>	many varieties available; early flowering
A	Cherry, Oriental	<i>Prunus serrulata</i>	
A	Cherry, Sargent	<i>Prunus sargentii</i>	
B	Chinese Fringe Tree	<i>Chionanthus retusus</i>	
B	Filbert, Turkish	<i>Corylus colurna</i>	

Large Shade Trees			
Code	Common Name	Latin Name	Notes
A	Ginko	<i>Ginko biloba</i>	
A	Hornbeam, European	<i>Carpinus betulus</i>	Fastigiated variety good for street tree planting
A	Hornbeam, Upright	<i>Carpinus betulus fastigiata</i>	
B, D	Horsechestnut, Ruby-red	<i>Aesculus x carnea</i>	
B	Katsura Tree	<i>Cercidiphyllum japonicum</i>	Nice ornamental tree
A	Linden, Little-leaf	<i>Tilia cordata</i>	
B, D	Maple, English	<i>Acer campestre</i>	
B, E	Maple, Japanese	<i>Acer palmatum (green)</i>	
A	Maple, Paperbark	<i>Acer griseum</i>	Good ornamental tree with cinnamon-colored exfoliating bark
B, E	Maple, Purpleleaf Japanese	<i>Acer palmatum atropurpureum</i>	Many varieties available; valuable ornamental tree

Large Shade Trees			
Code	Common Name	Latin Name	Notes
A	Maple, Threadleaf Japanese	<i>Acer palmatum dissectum</i>	Many varieties available; valuable ornamental tree
B, D	Maple, Trident	<i>Acer buergerianum</i>	
	Oak, English	<i>Quercus robur f. fastigiata</i>	Prefers moist well-drained loam; oval shaped acorns
A	Parrotia, Persian	<i>Parrotia persica</i>	
	Pear, Flowering	<i>Pyrus calleryana</i>	Use Callery or Red Spire; DO NOT use Bradford
B	Planetree, London	<i>Platanus x acerifolia</i>	Good urban tree. Cross between European & American species
A	Redwood, Dawn	<i>Metasequoia glyptostroboides</i>	
C, D	Rubber Tree	<i>Eucommia ulmoides</i>	
D, E	Snowbell, Fragrant	<i>Styrax obassia</i>	
B	Snowbell, Japanese	<i>Styrax japonicas</i>	
A	Stewartia, Japanese	<i>Stewartia pseudocamillia</i>	
A	Stewartia, Korean	<i>Stewartia koreana</i>	
A	Zelkova, Japanese	<i>Zelkova serrata</i>	

Small Flowering Trees			
Code	Common Name	Latin Name	Notes
E	Crabapple	<i>Malus species</i>	Many varieties, including sterile (Spring Snow); needs pruning every 3 - 4 years
D, E	Dogwood, Cornelian Cherry	<i>Cornus mas</i>	Attracts birds; edible fruit
B	Dogwood, Kousa	<i>Cornus kousa</i>	Nice exfoliating bark
B	Dogwood, Stellar	<i>Cornus rutgan</i>	Hybrid of Kousa & Florida; use in place of traditional dogwoods
B, D	Golden Chain Tree	<i>Laburnum x watereri</i>	
	Golden Rain Tree	<i>Koelreuteria paniculata</i>	Tolerates urban pollution
B	Lilac, Japanese Tree	<i>Syringa reticulata</i>	One of the toughest trees for urban areas; highly recommended
B	Magnolia, Hybrid	<i>Magnolia x hybrid</i>	Early flowering
B	Magnolia, Loebneri	<i>Magnolia x loebneri</i>	
B	Magnolia, Saucer	<i>Magnolia x soulangiana</i>	
B	Magnolia, Star	<i>Magnolia stellata</i>	

Non-Native Conifers			
Code	Common Name	Latin Name	Notes
	Cedar, Western Red	Thuja, plicata	Fast growing; resistant to deer; single stem; use in place of Emerald Green & Dark American Arborvitae

Non-native shrubs			
Code	Common Name	Latin Name	Notes
D	Abelia, Fragrant	Abelia grandiflora	Good for naturalizing
A, D	Andromeda, Japanese	Pieris japonica	Evergreen; easy care; avoid windy sites
B	Arborvitae, Oriental	Thuja orientalis	
A, B	Azaleas	Rhododendron species	Many varieties available; avoid exposed sites; attracts bees & butterflies
C, D	Beautybush	Kolkwitzia amabilis	
E	Bluebeard Shrub,	Caryopteris x clandonensis	Very showy; easy care
A	Boxwood	Buxus microphylla	Deer resistant; easy care
A	Boxwood, Common	Buxus sempervirens	
	Butterfly Bush	Buddleia	Consider sterile cultivars; can be invasive
B	Chinese Fringe Tree	Chionanthus retusus	
B	Clethra, Japanese	Clethra barbinervis	
D	Daphne, Rose	Daphne cneorum	

Non-native shrubs			
Code	Common Name	Latin Name	Notes
B	Deutzia	Deutzia species	
B	Deutzia, Slender	Deutzia gracilis	Good for hedging; seasonal pruning may be necessary
A	Falsecypress	Chamaecyperis obtusata	Good focal trees & shrubs
A	Falsecypress	Chamaecyperis pisifera	Good focal trees & shrubs
A	Falsecypress	Chamaecyperis species	Good focal trees & shrubs
A, D	Fetterbush	Leucothoe fontanesiana	
E	Forsythia	Forsythia x intermedia	Good tough plant in a variety of sizes; early flowering; good for naturalizing
D	Forsythia, White	Abeliophyllum distichum	
B	Holly, Blue	Ilex x meserveae	Plant at least 1 male for berries on the females; attracts birds; tolerates pollution
B	Holly, Japanese	Ilex crenata	Avoid windy sites
B	Hydrangea	Hydrangea serrata	Many varieties available
B	Hydrangea, Bigleaf	Hydrangea macrophylla	Many varieties available

Non-native shrubs			
Code	Common Name	Latin Name	Notes
B	Hydrangea, Panicle	Hydrangea paniculata	Many varieties available
B	Juniper, Chinese	Juniperus chinensis	Many varieties; both upright & low; good for birds
B	Juniper, Japanese	Juniperus procumbens	
D	Kerria, Japanese	Kerria japonica	
A, D	Leptodermis	Leptodermis oblonga	
B	Lilac, Common	Syringa vulgaris	
B	Lilac, Koren	Syringa meyeri	Dwarfs recommended for easy care
B	Lilac, Manchurian	Syringa patula	Dwarfs recommended for easy care
C, D	Mock Orange	Philadelphus coronarius	
B, D	Mock Orange	Philadelphus x virginalis	
B	Pine, Mugo	Pinus mugo	
D	Redvian, Enkianthus,	Enkianthus campanulatus	
A, B	Rhododendron	Rhododendron species	

Non-native shrubs			
Code	Common Name	Latin Name	Notes
	Rose, Rugosa	Rose, Salt-spray	Tolerates salt spray; good for erosion control
E	Rose of Sharon	Hibiscus syriacus	Tolerant of urban pollution; summer flower; attracts butterflies & bees
B	Smokebush	Cotinus coggygria	Purple foliage; showy
E	Spirea	Spirea x bumalda	Many varieties available; good, tough plant; showy
C, D	Spirea, Bridalwreath	Spirea prunifolia	Many varieties available; good, tough plant; showy
E	Spirea, Nippon	Spirea nipponica	Many varieties available; good, tough plant; showy
C, D	Spirea, Vanhoutte	Spirea x vanhouttei	Many varieties available; good, tough plant; showy
B	St John's Wort	Hypericum species	
B	Stephanadra, Cutleaf	Stephanandra incisa	
B	Tea Rose, Hybrid	Rosa x hybrids	
B	Viburnum, Burkwood	Viburnum x burkwoodii	
B	Viburnum, Doublefile	Viburnum plicatum tomentosum	
B	Viburnum, Fragrant	Viburnum ferreri 'Nanum'	

Non-native shrubs			
Code	Common Name	Latin Name	Notes
B	Viburnum, Japanese Snowball Bush	Viburnum plicatum	
B	Viburnum, Judd	Viburnum x judii	Good for hedges; naturalizing; focal point; many varieties
B	Viburnum, Koreanspice	Viburnum carlesii	Good for hedges; naturalizing; focal point; many varieties
B	Viburnum, Leatherleaf	Viburnum rhytidophyllum	Good for hedges; naturalizing; focal point; many varieties
E	Viburnum, Linden	Viburnum dilatatum	Good for hedges; naturalizing; focal point; many varieties
E	Viburnum, Onandaga	Viburnum sargentii	Good for hedges; naturalizing; focal point; many varieties
B	Viburnum, Prague	Viburnum pragense 'Decker'	Good for hedges; naturalizing; focal point; many varieties
B	Viburnum, Siebold	Viburnum sieboldii	Good for hedges; naturalizing; focal point; many varieties
E	Viburnum, Wayfaringtree	Viburnum lantana	Good for hedges; naturalizing; focal point; many varieties
B	Wiegela	Wiegela florida	Attracts hummingbirds
B	Willow, Artic Blue	Salix purpurea 'Nana'	
A	Witchhazel, Chinese	Hamamelis mollis	
A	Witchhazel, Hybrid	Hamamelis x intermedia	

Non-native shrubs			
Code	Common Name	Latin Name	Notes
B	Yew, English	Taxus baccata	Good groundcover; easy care; no pruning needed; avoid deer
B	Yew, Hybrid	Taxus x media	
B	Yew, Japanese	Taxus cuspidata	

Wildflowers			
Code	Common Name	Latin Name	Notes
A	Alumroot	Heuchera species	Coral Bells; many varieties available
B	Artemisia, Silver Mound	Artemisia schmidtiana	
B	Astilbe	Astilbe x arendsii	Very showy; tough; easy care; prefers part shade; some varieties tolerate sun
B	Astilbe, Chinese	Astilbe chinensis	Very showy; tough; easy care; prefers part shade; some varieties tolerate sun
B	Astilbe, Japanese	Astilbee japonica	Very showy; tough; easy care; prefers part shade; some varieties tolerate sun
B	Basket of Gold	Aurinia saxatilis	
B	Bell Flower	Platycodon grandiflorus	

Wildflowers			
Code	Common Name	Latin Name	Notes
B	Bleeding Heart	Dicentra spectabilis	
B	Bugloss, Siberian	Brunnera macrophylla	Good groundcover & for naturalizing
B	Catchfly, German	Lychnis viscaria	
B	Columbine, Hybrid	Aquilegia x hybrida	
B	Daylilly, Hybrid	Hemocallis x hybrida	Many varieties available; good for meadows/birds/butterflies
	Flower, Chinese	Scabiosa columbaria	
B	Geranium Cranesbill, Blood-red	Geranium sanguineum	
	Geranium, Fragrant	Geranium Biokova	Good groundcover; fragrant foliage; easy care
	Geranium, Rozanne	Rozanne Geranium	Good groundcover; flowers June – November
B	Harebell, Carpathian	Campanula carpatica	Good for naturalizing
B	Hosta	Hosta Species	
B, C	Lady's Mantle	Alchemilla mollis	Good for naturalizing shady areas

Wildflowers			
Code	Common Name	Latin Name	Notes
B	Larkspur, Candle	Delphinium elatum	
B	Ligularia, Bigleaf	Ligularia dentate	Good for wet areas; spiky yellow flower; DO NOT use Othello as it is invasive
B	Mum, Hardy	Chrysanthemum x morifolium	
B	Pasque Flower	Pulsatilla vulgaris	
B	Peony, Tree	Paeonia suffruticosa	Nice specimen plant
B	Pinks, Cheddar	Dianthus gratianopolitanus	
B	Pinks, Garden	Dianthus deltoids	Good groundcover; easy care
B	Sage, Meadow	Salvia pratensis	Good for meadows & massing
B	Sage, Perennial	Salvia nemorosa	Good for meadows & massing
B	Salvia, Perennial	Salvia x superba	
B	Sedum	Sedum species	Tough plant; very drought tolerant
B	Sedum, Autumn Joy	Sedum telephium	Tough plant; very drought tolerant

Wildflowers			
Code	Common Name	Latin Name	Notes
B	Speedwell	Veronica spicata	Good for meadows & massing
B	Spurge, Cushion	Euphorbia polychrome	
	Sunflower, perennial	Helianthus spp	Good meadow plant; attracts bees
	Sweet Woodruff	Gallium odoratum	Good prolific groundcover
B	Yarrow, Common	Achillea millefolium	Good for meadows
B	Yarrow, Fern-Leaf	Achillea aquilegifolium	Good for meadows
B	Yarrow, Fern-Leaf	Achillea filipendula	Good for meadows

Grasses			
Code	Common Name	Latin Name	Notes
	Feather Reed Grass	Calamagrostis spp	Easy care
	Fountain Grass, Hamelyn	Pennisetum "Hamelyn"	Do not use common variety as it is invasive
	Japanese Forest Grass	Hakonechloa spp	Good groundcover & for focal points; easy care
	Maiden Grass	Miscanthus sinensis	Grown for its purple-flushed flower plumes in late summer; fabulous focal point
	Oat Grass, Blue	Helictotrichon sempervirens	Good for meadows & naturalizing

- A: Low risk of escape from cultivation
 B: Low risk of escape. Recommend using an equivalent native replacement
 C: Questionable landscape value. Recommend using a more desirable native replacement
 D: Seldom used in landscaping. Recommend using a native replacement
 E: Known to escape cultivation. Recommend using a native replacement

Avoid the Problem of Invasive Plants

Using native plants in landscapes avoids many environmental problems that result from using non-native plants. Some non-native plants that have been extensively used in landscaping over the years have escaped from cultivation and become established in nature. Non-native plants cause irreparable damage to natural landscapes, native plant communities and wildlife populations. Once these plants escape into the wild they continue to reproduce and spread unchecked. The aggressive spread and growth of invasive plants enables them to out-compete and displace native flora, forming large monocultures. The result is loss of wildlife, increased control and maintenance costs for individuals and communities and degradation of nature biological systems. These problems are compounded by continued use of these plants.

It is far more cost effective to prevent the escape and establishment of non-native invasive plants than it is to try to control the plants once they have escaped cultivation.

Native plants provide the same ornamental and landscape requirements as their non-native counterparts. Plants such as black chokeberry, bearberry and New Jersey tea can easily replace the non-natives with no loss of aesthetics. In many cases the native replacements have qualities that are more desirable.

Of note, laws have become more prescriptive as it relates to invasive species since the first publication of this manual. Read on for more details.

[\(Return to Table Of Contents\)](#)



Garlic Mustard; wordpress.com

Terrestrial Invasive Species in New York State

<https://www.dec.ny.gov/animals/95383.html>

Terrestrial invasive species are land-living organisms that negatively affect our communities, fields and forests. They can decrease our enjoyment of nature, increase the cost of living and even put our health at risk.

An unfortunate byproduct of world travel and trade is the introduction of unwanted invasive species. Shipping pallets and crates, luggage, the ballast water of boats and even people can unintentionally transport invasive plants, insects and diseases to new areas. Without knowing that they would become problematic, some species have been introduced intentionally for use in landscaping, agriculture and other purposes.

Invasive species impact all aspects of life, from recreation to livelihood. Spotted knapweed is an invasive plant that can take over crop fields, limiting crop production and feed for livestock. Hemlock woolly adelgid is an invasive insect that defoliates and kills hemlock trees, a key species in maintaining important habitat along waterways. Whether damaging the economy or the environment, invasive species can destroy the places we love and require costly solutions.

Before buying or relocating plants (or animals), check the [NYS Regulated and Prohibited Invasive Species list](#). DEC officials finalized the list in 2014 and gave growers, landscapers and retailers until the spring of 2016 to comply with the regulation. For example, Japanese barberry is no longer for sale in New York nurseries as it has been found to spread to natural landscapes and quickly choke out native species. It is also prohibited to share or to transport. Burning bush is also regulated and no longer available at most nurseries. These plants are known to escape cultivation and invade natural areas throughout the northeast.

[\(Return to Table Of Contents\)](#)

Table 5: Non-native Trees, Shrubs, Wildflowers and Grasses Considered Invasive and should never be used in Landscape Plantings

Code	Latin Name	Common Name	Code	Latin Name	Common Name
Large Shade Trees			Small Flowering Trees		
B, C, E	<i>Acer ginnala</i>	Maple, Amur	B	<i>Crataegus laevigata</i>	Hawthorn, English
A, D	<i>Acer platanoides</i>	Maple, Norway	C, D, E	<i>Prunus cerasifera</i>	Plum, Cherry
A, D	<i>Acer platanoides</i> 'Crimson King'	Maple, Norway "Crimson King"	A	<i>Pyrus calleryana</i>	Pear, Bradford
A, D, E	<i>Acer pseudoplatanus</i>	Maple, Sycamore	A, D, E	<i>Rhamnus frangula</i>	Buckthorn, Glossy
B, C, E	<i>Acer tartaricum</i>	Maple, Tartarian	A, D, E	<i>Rhamnus cathartica</i>	Buckthorn, European
A, D, E	<i>Ailanthus altissima</i>	Tree of Heaven			
C, D, E	<i>Alnus glutinosa</i>	Alder, Black	Shrubs		
C, D, E	<i>Koelreuteria paniculata</i>	Golden rain tree	B, C, D	<i>Akebia quinata</i>	Fiveleaf Akebia
B, D, E	<i>Maackia amurensis</i>	Maackia, Amur	A, C, D	<i>Ampelopsis brevipedunculata</i>	Porcelainberry
B, D, E	<i>Paulownia tomentosa</i>	Princess Tree	A	<i>Berberis thunbergii</i>	Barberry, Japanese
B, D, E	<i>Phellodendron amurense</i>	Corktree, Amur	A	<i>Berberis vulgaris</i>	Barberry, Common
B, D, E	<i>Quercus acutissima</i>	Oak, Sawtooth	C, D	<i>Callicarpa dichotoma</i>	Beautyberry, Purple
C, D, E	<i>Salix babylonica</i>	Willow, Weeping	C, D	<i>Callicarpa japonica</i>	Beautyberry, Japanese
C, D, E	<i>Salix matsudana</i>	Willow, Corkscrew	C, D	<i>Caragana arborescens</i>	Peashrub, Siberian
C, D, E	<i>Sorbus acuparia</i>	Mt Ash, European	A, C, E	<i>Celastrus scandens</i>	Bittersweet, Oriental
C, D, E	<i>Sorbus alnifolia</i>	Mt Ash, Korean	C, D	<i>Chaenomeles japonica</i>	Quince, Japanese
C, D, E	<i>Styphnolobium japonica</i>	Japanese Scholar Tree	C, D	<i>Chaenomeles speciosa</i>	Quince, Flowering
B, D, E	<i>Tilia tomentosa</i>	Linden, Silver	C, D	<i>Cornus sanguinea</i>	Dogwood, Blood-twig
B, D, E	<i>Ulmus parviflora</i>	Elm, Chinese	C, D	<i>Cotoneaster apiculatus</i>	Cotoneaster, Cranberry
A, D, E	<i>Ulmus pumilla</i>	Elm, Siberian	C, D	<i>Cotoneaster dammeri</i>	Cotoneaster

A: Plant is invasive throughout the northeast. **D:** There are desirable native replacements.

B: Plant is invasive locally in the northeast. **E:** Is seldom used in landscaping.

C: Plant poses moderate to high risk of escape from cultivation.

Table 5: Non-native Trees, Shrubs, Wildflowers and Grasses Considered Invasive and should never be used in Landscape Plantings (cont'd)

Code	Latin Name	Common Name	Code	Latin Name	Common Name
Shrubs (cont'd)			C, D, E	Rhodotyphos scandens	Jetbead, Black
C, D	Cotonester horizontalis	Cotoneaster, Rock	C, D, E	Ribes alpinum	Currant, Alpine
C, D, E	Cytisus scopiarus	Scotch Broom	A, C, E	Rosa multiflora	Rose, Multiflora
A, C, D	Elaeagnus angustifolia	Olive, Russian	B, C, D	Rosa species	Species, Rose
A, C, D	Elaeagnus umbellata	Olive, Autumn	C, D, E	Salix alba	Willow, White
A, C, D	Euonymus alatus	Burning bush	C, D, E	Salix caprea	Pussywillow, French
A, C, D	Euonymus fortunei	Wintercreeper	C, D, E	Salix integra	Willow, Nishiki
A, C	Hedera helix	English Ivy	C, D, E	Salix species	Species, Willow
A, C, D	Ligustrum species	Privet	C, D	Sambucus nigra	Elder, European
A, C, D	Ligustrum vulgare	Privet, European	B, C	Spirea japonica	Spirea, Japanese
A, C, D	Ligustrum x vicari	Privet, Golden	B, C, D	Viburnum opulus	Cranberry Bush, Eur.
A, C, D	Lonicera japonica	Honeysuckle, Japanese	B, C, D	Wisteria floribunda	Wisteria
A, C, D	Lonicera maackii	Honeysuckle, Amur	D, E	Prunus domestica	Plum, Prune
A, C, D	Lonicera morrowii	Honeysuckle, Morrow	Perennials		
A, C, D	Lonicera species	Honeysuckle	B, C, D	Adenophora liliflora	Ladybells
A, C, D	Lonicera tartarica	Honeysuckle, Tartarian	A, C, D	Aegopodium podagraria	Bishopsweed, Goutweed
C, E	Nandina domestica	Bamboo, Heavenly	B, C, D	Ajuga reptans	Bugleweed
A, C	Pachysandra terminalis	Pachysandra, Japanese	B, C, D	Aster tartaricus	Tartarian Aster
A, C	Parthenocuiassis tricuspidata	Ivy, Boston	B, C, D	Campanula glomerata	Bellflower, Clustered
C, D, E	Prunus x cistena	Sand Cherry, Purple	B, C, D	Campanula rapunculoides	Bellflower, European
			B, C, D	Capanula species	Bellflower

A: Plant is invasive throughout the northeast. **D:** There are desirable native replacements.

B: Plant is invasive locally in the northeast. **E:** Is seldom used in landscaping.

C: Plant poses moderate to high risk of escape from cultivation.

Table 5: Non-native Trees, Shrubs, Wildflowers and Grasses Considered Invasive and should never be used in Landscape Plantings (cont'd)

Code	Latin Name	Common Name	Code	Latin Name	Common Name
B, C, D	<i>Centaurea cyanus</i>	Bachelor's Button, Cornflower	B, C, D	<i>Symphytum 'Hidcote Blue'</i>	Hidcote Comfrey
A, C, D	<i>Chrysanthemum leucanthemum</i>	Daisy, Oxeye	A, C, D	<i>Vinca major</i>	Vinca, Bigleaf Periwinkle
A, C, D	<i>Chrysanthemum maximum</i>	Daisy, Shasta	A, C, D	<i>Vinca minor</i>	Vinca, Small-leaf Periwinkle
A, C, D	<i>Coronilla varia</i>	Crown Vetch			
A, C, D	<i>Covallaria majalis</i>	Lilly of the Valley	GRASSES		
A, C, D	<i>Hemerocallis fulva</i>	Lilly, Day	B	<i>Arundo donax</i>	Giant Reed
A, C, D	<i>Hesperis matronalis</i>	Dames Rocket	B, C	<i>Cortaderia selloana</i>	Grass, Pampass
B, C, D	<i>Impatiens balfourii</i>	Balfour's Touch-me-not	B, C	<i>Cortaderia jubata</i>	Grass, Pampass
B, C, D	<i>Lamiastrum galeobdolon</i>	Yellow Archangel	C, D	<i>Festuca ovina glauca</i>	Sheep Fescue
A, C, D	<i>Lathyrus odoratus</i>	Sweet Pea	B, C, D	<i>Leymus arenarius</i>	Rye, Blue
C, D	<i>Lychnis coronaria</i>	Rose Campion	B, D	<i>Liriope muscari</i>	Lilly Turf
B, C	<i>Lysimachia clethroides</i>	Loosestrife, Gooseneck	B, C, D	<i>Miscanthus sacchariflorus</i>	Grass, Silver Banner
B, C	<i>Lysimachia nummularia</i>	Moneywort, Creeping Jenny	B, C	<i>Miscanthus sinensis</i>	Grass, Japanese Silver
A, D	<i>Lythrum salicaria</i> L	Loosestrife, Purple	B, C	<i>Miscanthus sinensis</i> var. <i>purpurascens</i>	Grass, Flame
C, D	<i>Macleaya cordata</i>	Plume Poppy	B, C	<i>Pennisetum alopecuroides</i>	Grass, Fountain
A, C, D	<i>Myosotis sylvatica</i>	Forget-me-not	B, C	<i>Pennisetum orientale</i>	Grass, Oriental Fountain
B, C, D	<i>Ornithogalum umbellatum</i>	Star of Bethlehem	B, C, D	<i>Phalaris arundinacea</i>	Grass, Ribbon
A, C, D	<i>Pachysandra terminalis</i>	Pachysandra, Japanese	A, C, D	<i>Phalaris arundinacea</i>	Grass, Reed Canary
A, C, D	<i>Ranunculus ficaria</i>	Lesser Celandine			
C, D	<i>Stachys byzantina</i>	Lamb's Ear			

A: Plant is invasive throughout the northeast. **D:** There are desirable native replacements.

B: Plant is invasive locally in the northeast. **E:** Is seldom used in landscaping.

C: Plant poses moderate to high risk of escape from cultivation.

Environmental Benefits of Plants

It is well known that the judicious use of plants in the landscape is a cost effective way to utilize the environmental benefits of plants. Proper selection of the right species and the correct siting of those plants should be considered during the early design stage of any project. The energy savings and environmental benefits of installing plants are accrued indefinitely, while the cost of installation occurs just once. Benefits tend to increase over time as the plants grow, while maintenance costs are low to non-existent.

Proper placement and orientation of trees in relation to buildings reduce air-conditioning requirements by shading them from direct sunlight. Peak summertime temperatures in parking areas, streets, sidewalks and other hard surface areas are significantly reduced by strategically planting shade trees.

Plants sited on the windward side of buildings function as an effective windbreak, significantly lowering wind speeds. Lower wind speeds save on heating costs by reducing heat loss from nearby buildings.

Wetland plants are extremely effective in managing storm water runoff. Swales, ditches and areas adjacent to hard surfaces that are planted with vegetation will reduce runoff, trap pollutants, lower flow speeds and increase infiltration. Bioengineered water control devices are far more cost effective in managing stormwater than man-made structures.

[\(Return to Table Of Contents\)](#)

Plant Survival

Awareness of soil problems before planting can prevent plant health problems later. Soil tests are recommended to determine soil type, pH, organic content and fertility. Tests should be taken after soil grading but before planting. Additional samples can be taken every three to five years thereafter to determine whether any nutrients are lacking. A soil test kit may be obtained from your county Extension office. This is an important step to maintaining the investment in green infrastructure.

Construction sites usually leave large areas backfilled and graded with highly disturbed subsoil, that is then covered with just a few inches of topsoil. These soils are deficient in the nutrients and organic matter necessary to support good plant growth and have poor soil structure. Soil amendments may be added to these soils to make them more suitable for sustaining plant growth. Plants selected for their tolerance to these difficult sites will help to reduce plant problems. Plants requiring moderate to high fertility will need good top soil or soils amended with organic matter. It is also important to keep newly planted trees watered and pruned and to keep weeds away from their bases to avoid excess stress.

Organic bark mulches are recommended for use under trees and shrubs. Inorganic mulch material such as stone chips, rubber chips or pebble mulches should never be used around plant material. Inorganic mulches provide none of the requirements for plant health and growth compared to organic mulches. Wood chip and dyed bark mulches are discouraged over the use of natural un-dyed bark mulches for the same reason.

[\(Return to Table Of Contents\)](#)

Plant Small

Smaller plants survive better and establish faster than larger plants and are more economical. To avoid having to remove plants as they mature, use annuals during the initial growing seasons to fill in blanks. Or, savings from using smaller plant material can be reinvested by using a greater number of plants. What does smaller mean? Trees can be planted at 1" to 1½ " caliper, shrubs in 1 - 3 gallon containers and perennials in 1 - 2 gallon pots.

Smaller plants suffer less transplant shock; lower root to shoot ratios encourage quicker establishment in the existing soils and more rapid growth. Smaller containers and trees may be produced in one to two years making it easier to acquire plant material. It may take two years to several years to grow the larger plant material. Supplies of larger native plant material may not be readily available.

[\(Return to Table Of Contents\)](#)

Create Three-dimensional Landscapes

Too often aesthetics and visual appeal are the only design factors given consideration. Choice of native plants, placement of plants in the landscape and arrangement of plants in relationship to each other, collectively, determines how much benefit native plants will contribute to overall wildlife habitat. Placement of plants in the landscape is just as important as choosing the right species. Designers should take into account other environmental and ecological factors when creating a landscape design, such as plant density, plant communities, sun exposure, soil structure and drainage patterns.

Focusing on the way plants are placed in the landscape will not only satisfy the aesthetic requirements of a landscape but also meet the survival needs of the plants and the habitat requirements of wildlife. By understanding how birds and animals use vegetation, it will be easier to incorporate their needs into the landscape. Wildlife requires vegetative cover for nearly every activity, such as feeding, resting and raising young. The denser and more extensive the cover, the better the habitat is and more wildlife it will support. Create connectivity between plantings so wildlife can move from one area to another under the protection of cover. The soil surface should always be covered with plants to prevent erosion and soil pollution.

[\(Return to Table Of Contents\)](#)

New Ways to Use Trees in the Landscape

Changing the way trees are planted and placed in the landscape will help meet their long-term survival needs, keep them healthier and provide greater ecological benefits. The common practice of planting 'specimen trees' in the landscape surrounded by turf grass runs contrary to the normal forest environment where trees grow naturally. Trees have evolved to grow in close proximity to each other, interspersed with other woody shrub species.

- Plant trees in groups instead of as individual trees.
- Plant shade trees in clusters or groupings of a few to a dozen or more trees.
- Groupings can consist of individual species or mixed species.

- Surround each tree or group of trees with a large mulch ring. Install a mulch ring that surrounds the whole group and covers the entire space under and between the trees. Ideally, a mulch ring should extend to the drip line of the tree or beyond.
- Install flowering trees, shrubs and perennials under and between the larger trees.

[\(Return to Table Of Contents\)](#)

Combine Plants of Different Heights and Growth Habits

- Combine plants of different species, growth habits and mature heights to more closely mimic what occurs in nature and create a more biologically diverse landscape.
- All tree groupings should consist of mixed plantings. Shrubs, perennials and small flowering trees can be inter-planted amongst the larger shade trees.
- A single tree can have its mulch ring planted with low shrubs or perennials or a mixture of both. This functions like a ground cover, leaving little room for weeds to grow thereby requiring less mulch and labor to maintain.

[\(Return to Table Of Contents\)](#)

Replace Lawn with Meadow

It is a common landscape practice to maintain large open areas of turf by mowing. Maintaining large areas in turf is wasteful and an unnecessary use of labor, fuel and equipment.

Converting mowed turf to a low-maintenance no-mow policy or establishing a wild-flower meadow will save money on maintenance. A meadow will cover large open areas in a way that is aesthetically acceptable to the public but requires little maintenance. Installing a meadow requires the knowledge and experience of an expert. Seek professional help on the specific steps and processes involved in developing a meadow habitat.

Whether starting from bare soil or established turf, determine the minimum area you need to maintain by mowing. Choose a plant community that will meet the short term and long-term uses for the land.

Here is a basic framework for establishing a meadow that is aesthetically pleasing to the public:

- Choose about six to 12 hardy species of colorful perennial wildflowers and two to four species of native grasses that are easy to establish, are vigorous growers and are long-lived. Establish a few dominant wildflower species that will make the meadow explode with color. These plants will contribute color and ornamental interest to the planting. Other secondary species can be added over time. A suggested list of plants is given in Table 6.
- Surround the meadow with a mowed strip to define the natural meadow from the surrounding managed area. Maintaining a defined boundary between natural and managed spaces conveys the message that the meadow is intentional and not the result of neglect. Develop a maintenance program that will maintain the meadow in an ecologically sustainable way.
- Plant groups of ornamental shrubs and trees around the perimeter of the meadow and a few groups in the center. A meadow with groups of woody plants is more visually acceptable than a meadow with only grasses and perennials. The trees and shrubs draw the focus away from the low meadow vegetation. This is especially effective during winter when the meadow plants are dormant.

[\(Return to Table Of Contents\)](#)



Photobotanic.com

Table 6: Native Wildflowers, Grasses and Shrubs for Use in a Meadow Planting

Meadow Shrubs		Meadow Plants, cont'd	
Common Name	Latin Name	Common Name	Latin Name
Black Elderberry	<i>Sambucus canadensis</i>	Clover, White Prairie	<i>Dalea candida</i>
Chokecherry	<i>Prunus virginiana</i>	Coneflower, Eastern	<i>Rudbeckia fulgida</i>
Dogwood, Silky	<i>Cornus amomum</i>	Coneflower, Pale Purple	<i>Echinacea pallida</i>
Hazelnut, Beaked	<i>Corylus cornuta</i>	Coneflower, Purple	<i>Echinacea purpurea</i>
Nannyberry	<i>Viburnum lentago</i>	Coneflower, Yellow	<i>Echinacea paradoxa</i>
Serviceberry Alleghany	<i>Amelanchier laevis</i>	Coreopsis, Lanceleaf	<i>Coreopsis lanceolata</i>
Spice Bush	<i>Lindera benzoin</i>	Goldenrod, ohio	<i>Solidago ohioensis</i>
Viburnum, Arrowwood	<i>Viburnum dentatum</i>	Goldenrod, Showy	<i>Solidago speciosa</i>
		Hyssop, Lavender	<i>Agastache foeniculum</i>
Meadow Plants		Indigo, Blue False	<i>Baptisia australis</i>
Aster, New England	<i>Aster novae-angliae</i>	Indigo, Cream False	<i>Baptisia bracteata</i>
Aster, New York	<i>Aster novi-belgii</i>	Indigo, White False	<i>Baptisia lactea</i>
Aster, Sky Blue	<i>Aster azureus</i>	Milkweed, Red	<i>Asclepias incarnata</i>
Aster, Smooth	<i>Aster laevis</i>	Nodding Pink Onion	<i>Allium Cernuum</i>
Bee Balm	<i>Monarda didyma</i>	Sunflower, Ox Eye	<i>Heliopsis helianthoides</i>
Bergamot, Wild	<i>Monarda fistulosa</i>	Tickseed, Threadleaf	<i>Coreopsis verticillata</i>
Black-Eyed Susan	<i>Rudbeckia hirta</i>		
Blazing Star, Northern	<i>Liatris borealis</i>	Grasses	
Blazing Star, Prairie	<i>Liatris pycnostachya</i>	Canada Wild Rye	<i>Elymus canadensis</i>
Blazing Star, Rough	<i>Liatris aspera</i>	Indian Grass	<i>Sorghastrum nutans</i>
Brown Eyed Susan	<i>Rudbeckia triloba</i>	Little Bluestem	<i>Schizachyrium scoparium</i>
Butterflyweed	<i>Asclepias tuberosa</i>	Prairie Dropseed	<i>Sporobolus heterolepis</i>
Clover Pale Purple Prairie	<i>Dalea purpurea</i>	Sideoats Gramma	<i>Bouteloua curtipendula</i>

Plants for Water Control Structures

Storm-water treatment features such as retention, detention and infiltration basins, rain gardens swales and bio-filters should be covered with native vegetation. Covering with native vegetation will reduce maintenance, enhance landscape aesthetics, increase the design function and create high value wildlife habitat.

Water control structures (WCS) may be inundated with water for long periods of time. They may have muddy soils, have steep slopes or be lined with rock, preventing the usual practice of managing vegetation by mowing. Unplanted water control features are quickly invaded by aggressive species like phragmites and cattails. Planting with native vegetation will reduce or eliminate both of these problems.

Native wetland vegetation is ideally suited for controlling storm-water runoff and improving water quality that enhances the function of the WCS. The dense root system and stems will slow water runoff, increase infiltration, and trap sediment from the water column. Biological activity in the plants and sediments will help break down and degrade pollutants. Plants absorb and remove nutrients from the water.

Choose shrub and herbaceous wetland species adapted for the different water levels in the WCS.

Select plant material that provides color and interest over an extended period. Select a combination of woody and perennial plants that combine the best attributes of both groups of plants. Shrubs provide multi-season interest, especially during winter, and grow taller than perennial plants. Perennials provide more plant diversity, adding to the diversity of foliage, flower, size and structure.

[\(Return to Table Of Contents\)](#)

Rain gardens – An Effective Alternative to Managing Stormwater

Rain gardens are one of the simplest and most effective ways to “green” your landscape and manage storm-water. A rain garden is a shallow, planted depression that absorbs the water that flows from your roof, patio or yard, allowing it to drain directly into the soil. By building a rain garden, you can divert water from impervious surfaces in your landscape into an attractive planting bed that works like a sponge and natural filter to clean the water and let it percolate slowly into the surrounding soil.

Installing a rain garden is not difficult if you're willing to dig or you bring in machines to help. Consult your local Cooperative Extension Office for specifics about soil mix, garden size, and plants for your area. Your local extension

office will have information to help you size a rain garden to suit rainfall patterns typical in your area. The ideal size might be smaller than you expect.

Seek advice about initial construction and the types of plants to use. Group plants in zones, based on how well they tolerate having "wet feet". Plants that thrive in the wettest environment go in the center of the rain garden; that area tends to stay wet the longest after a storm. Put plants that can handle standing water on the sloping sides, and those that are suited to drier conditions on the edges.

Once the plants are in the ground, cover the inside of the rain garden with a 3-inch layer of mulch to keep the soil moist and to prevent weed seeds from sprouting. Until a rain garden's plants are established, even drought-tolerant plants require supplemental watering to survive dry seasons. Check the mulch depth annually and replenish as necessary. Rain gardens do not require fertilizers beyond the compost used in the soil mix. Weed and prune to keep the rain garden looking its best.



Rain Garden; Pinterest.com

Table 7: Native Wetland Plants and Shrubs for Use in Managing Storm Water Runoff

Wetland Shrubs		Wetland Perennials	
Common Name	Latin Name	Common Name	Latin Name
Black Chokeberry	Aronia melanocarpa	Bee Balm	Monarda didyma
Black Elderberry	Sambucus Canadensis	Boneset	Eupatorium perfoliatum
Button Bush	Cephalanthus occidentalis	Culvers Root	Veronicastrum virginicum
Dogwood, Grey	Cornus racemose	Hardy Ageratum	Ekupatorium coelestinum
Dogwood, Red Twig	Cornus sericea	Iris, Blue Flag	Iris versicolor
Dogwood, Silky	Cornus amomum	Joe-Pye Weed, Purple	Eupatorium purpureum
Nannyberry	Viburnum lentago	Joe-Pye Weed, Spotted	Eupatorium maculatum
Spice Bush	Lindera benzoin	Joe-Pye Weed, Tall	Eupatorium fistulosum
Steeplebush	Spirea tomentosa	Lobelia, Great Blue	Lobelia siphilitica
Viburnum, Arrowwood	Vlburnum dentatum	Rose Mallow	Hibiscus palustris
Viburnum, Winterthur	Viburnum nudum	Swamp Milkweed	Asclepias Incarnata
Viburnum, Witherood	Viburnum cassinoides	Tall Meadow Rue	Thalictrum dasycarpum
Willow, Heart-leaved	Salix eriocephala	Vervain, Blue	Verbena hastata
Willow, Pussy	Saliix dicolor	White Snakeroot	Eupatorium rugosum
Willow, Sandbar	Salix exigua	Rushes	
Willow, Shining	Salix lucida	Bulrush, Hard stemmed	Scirpus acutus
Willow, Silky	Salix sericea	Bulrush, Soft Stemmed	Scirpus validus
Winter Berry	Ilex verticillata	Giant Burreed	Sparganium eurycarpum

The Right Plant for an Impossible Site

Choosing the right plant for a difficult site is the first consideration to avoid future plant problems. It is even more critical when selecting plants for extreme environments. Parking lot islands and tree pits are two of the most challenging planting sites. They often have extreme temperatures and limited soil moisture due to impermeable surfaces. Soils are typically compacted, of poor quality and have a high pH. Table 8 lists some native plants with high tolerance to extreme environmental conditions. ([Return to Table Of Contents](#))

Table 8: Durable Plants for Extreme Environments

Species name	Common Name	Tolerances			
Shrubs for extreme environments					
Arcto staphylos uva-ursi	Bear Berry	poor soils, drought	Juniperus scopulorum	Rocky Mountain Juniper	poor soils, high temp, drought, + pH
Aronia arbutifolia	Red Chokeberry	poor soils, drought, + pH	Myrica pennsylvanica	Bayberry	poor soils, high temp, drought, + pH, salt
Aronia melanocarpa	Black Chokeberry	poor soils, drought, + pH	Potentilla fruticosa	Potentilla	drought, + pH
Ceanothus americanus	New Jersey Tea	poor soils, drought, + pH	Prunus pumilla	Sand Cherry	poor soils, high temp, drought, salt
Comptonia peregrina	Sweet Fern	poor soils, high temp, drought	Rhus aromatica	Fragrant Sumac	poor soils, high temp, drought, + pH
Cornus racemosa	Grey Dogwood	poor soils, high temp, drought, + pH	Small trees for extreme environments		
Cornus rugosa	Roundleaf Dogwood	poor soils, high temp, drought, + pH	Amelanchier canadensis	Shadblow Serviceberry	poor soils, drought, + pH
Diervilla lonicera	Bush Honeysuckle	poor soils, drought, + pH	Amelanchier laevis	Alleghany Serviceberry	drought, + pH
Hypericum frondosum	St Johnswort	poor soils, high temp, drought, + pH	Cotinus obovatus	American Smoketree	drought, + pH
Ilex glabra	Inkberry	drought, salt, + pH	Craetagus species	Hawthorn	poor soils, drought, + pH
Juniperus communis	Common Juniper	poor soils, high temp, drought, + pH	Prunus virginiana	Chokecherry	poor soils, drought, + pH
Juniperus horizontalis	Creeping Juniper	poor soils, high temp, drought, + pH			

Table 8: Durable Plants for Extreme Environments (cont'd)

Species name	Common Name	Tolerances
Large trees for extreme environments, continued		
<i>Acer nigrum</i>	Black Maple	drought + pH
<i>Betula lenta</i>	Sweet Birch	drought
<i>Betula nigra</i>	River Birch	drought, + pH
<i>Carya cordiformis</i>	Bitternut Hickory	poor soils, drought
<i>Carya ovata</i>	Shagbark Hickory	poor soils, drought
<i>Celtis occidentalis</i>	Hackberry	drought + pH
<i>Gleditsia triocanthus inermis</i>	Honey Locust	poor soils, drought, + pH, salt
<i>Gymnocladus dioicus</i>	Kentucky Coffee Tree	poor soils, drought, + pH, salt
<i>Nyssa sylvatica</i>	Black Gum	drought, salt
<i>Ostrya virginiana</i>	Hophornbeam	drought, + pH
<i>Quercus bicolor</i>	Swamp White Oak	drought
<i>Quercus imbricaria</i>	Shingle Oak	drought
<i>Quercus macrocarpa</i>	Burr Oak	poor soils, drought, + pH
<i>Quercus muehlenbergii</i>	Chinkapin Oak	drought, + pH
<i>Quercus rubra</i>	Red Oak	drought
<i>Tilia americana</i>	American Linden	drought, + pH
<i>Ulmus americana</i>	American Elm	drought, + pH



White Birch; rutgersin.com

Biodiversity and Pest Control

Biodiversity in the landscape reduces pest problems. Research has shown that plant monoculture and simple landscapes with less structure result in more pest problems. Simple ecological systems are subject to disruptions and population peaks and valleys that complex systems are not.

A landscape containing only a few species of plants will also have fewer species of beneficial insects (insect predators) that keep insect pests (insect herbivores) in check. Insect pests reproduce very quickly, allowing their populations to explode. Insect predators, on the other hand, reproduce slowly. In the absence of predators, the herbivore population increases rapidly. The predators will also begin to reproduce but they cannot reproduce fast enough to keep pace with the pest outbreak. The difference in reproductive potential between predator and prey creates population peaks and valleys that translate into pest outbreaks.

A landscape with a diversity of plant species creates a more complex physical environment that supports a diversity of predator species. In complex systems, there are more plant species. Each plant species will have its own unique compliment of herbivores and the insect predators that feed on them. If one pest begins to increase in number, there are more species of insect predators that can begin to prey on that population and hold its population in check. When that population declines, the predators can then shift to another prey species. This allows the population of predators to remain higher and more diverse than in a simplified system.

Each insect species has certain habitat requirements it needs to survive. Some beneficial insects live part or all of their life in the soil, while others species may live in the tree canopy. One species may over-winter in the cracks and fissure of tree bark, while another may burrow into a plant stem for winter protection. Eliminate any one of those habitat features and that species is removed from the habitat.

Using more native species from different plant families and covering large areas with plants will create the complex environment that keeps insect pests under control.

[\(Return to Table Of Contents\)](#)

Conclusion

Following Town of Victor Conservation Board recommendations, the Town Planning Board demonstrated support for use of native plants in development landscapes by adding specific requirements to Town Design and Construction Standards. Landscape architects that work in the Town are not surprised by the requirements; in fact, most support the concept and recognize the benefits of moving away from non-native plants. This manual is intended to facilitate the process as well as educate those who are at a loss as to where to begin.

Using native species supports a healthy ecosystem in our town, and residents see the benefits: e.g., landscapes with unique qualities rather than a rubberstamp approach to design, natural appearance, increase in birds and butterflies, increased survival rate of plants and reduction of time and money spent on home landscapes.

As demand continues to increase for native vegetation, suppliers large and small will take steps to supply the product. It is a priority to prevent the disappearance of native species from New York State and to encourage biodiversity. The intent is to restore plant and animal habitats throughout the Town. In addition, use of native plants contributes to “green infrastructure”, the interconnected network of natural areas and other open spaces that conserves natural ecosystem values and functions, that sustains clean air and water, and that provides a wide array of benefits to people and wildlife.

[\(Return to Table Of Contents\)](#)



Trillium; pinterest.com