

The Green Valley Institute exists to help the communities and citizens of The Last Green Valley, also known as the Quinebaug-Shetucket National Heritage Corridor, sustain their environment and quality of life while growing their economics.

We are a non-regulatory organization dedicated to:

- Improving the knowledge base from which land use and natural resource decisions are made,
- Building local capacity to protect and manage natural resources as our region grows.

The GVI was created through a formal partnership of the Quinebaug-Shetucket National Heritage Corridor and the University of Connecticut's College of Agriculture and Natural Resources, University of Massachusetts' Cooperative Extension System and other partners.



University of Connecticut
College of Agriculture and Natural Resources



Choose the right plants for wetlands

This fact sheet is designed to help land use officials understand why choosing the correct wetland plant is important and to provide a short list of recommended plant species. All of the plants listed on the reverse are native to our region, hardy and adaptable to various wetland types.

Site Plan Review

Land use officials frequently review site plans that involve new trees and shrubs in wetlands and adjacent areas. Developments often contain freshwater wetlands (non-tidal) such as vernal pools, stream banks and pond margins. Site plans can indicate artificial wetlands such as rain gardens, drainage swales, and detention ponds for stormwater management. Two critical elements must be kept in mind when selecting wetland plants: the purpose of the landscaping project and the degree of soil moisture for the plants.

Wet Sites Require Careful Selection

Wet soils and seasonal flooding are stressful for most plants because oxygen levels drop too low in the soil for respiration in root cells. Soils with too much water and too little oxygen will eventually kill the roots of trees such as white oak and sugar maple that are adapted to well-drained upland forest soils. Fortunately, Connecticut and Massachusetts have a variety of wetland ecosystems where the plants are adapted to wet soils and/or seasonal flooding. These native plants are the right choice for wetland landscaping projects.

Choosing the right plant partially depends on the purpose of the landscaping project. If the goal is to create an attractive, 'naturalized' stream margin with reduced runoff and soil erosion, a range of shrubs and trees can be used to reach this goal. If the purpose is to restore or re-create an entire wetland plant community, considerable attention must be given to site conditions and plant selection for long-term success. Stakeholders should develop a strong consensus about the purpose of their project before choosing plant materials.



A field of lowbush blueberry, *Vaccinium angustifolium*, showing its red fall color



Elderberry, *Sambucus canadensis*, in the edge of a wet meadow; white spring flowers are followed by dark berries in the early fall, providing food for wildlife

Understanding the Nomenclature

Plant names can be confusing. This fact sheet provides a common name and a scientific (Latin) name for each species. To avoid confusion when selecting plants, it is best to use the scientific name as some common names are used for more than one plant. Plant cultivars within each species (sometimes called varieties) are not shown. Most plants sold in nurseries are cultivars, selected genetic lines that will develop specific characteristics such as flower color or plant size. For example, a summersweet shrub could have the label *Clethra alnifolia* 'Hummingbird'. This is a cultivar of the 'wild' summersweet that has been selected for its compact size of 1-2'. The 'Hummingbird' cultivar will never mimic the 'wild' summersweet shrubs that grow 5-6' tall near streams and ponds. In wetlands restoration projects, 'wild' type plants are generally more suitable in natural conditions than cultivars.

Invasive Species

A small number of introduced plants have escaped cultivation and have become invasive in our natural areas. These non-native invasive plants are highly adaptable and competitive, allowing them to overrun wet meadows, marshes, ponds, forests and other habitats. Purple loosestrife is an example of an invasive plant that has become the dominant species in many wet sites. Invasive plants can destroy native plant populations, disrupt the food webs for insects and animals, and change our natural ecosystems. Reference books and websites (see page 2) can help you identify invasive plants that should never be accepted in a planting design.

Shrubs (Height 1-10')

Common Name	Scientific Name	Attribute
Bog rosemary	<i>Andromeda glaucophylla</i>	low growing, pink flowers
Red chokeberry	<i>Aronia arbutifolia</i>	red fall color, red fruit
Black chokeberry	<i>Aronia melanocarpa</i>	red fall color, black fruit
Buttonbush	<i>Cephalanthus occidentalis</i>	white flowers
Summersweet	<i>Clethra alnifolia</i>	white summer flowers
Silky dogwood	<i>Cornus amomum</i>	white flowers, food for wildlife
Grey dogwood	<i>Cornus racemosa</i>	white flowers, blue fruit, red fall color
Redosier dogwood	<i>Cornus sericea</i>	red stems, white flowers, red fall color
Inkberry	<i>Ilex glabra</i>	semi-evergreen, blue fruit
Winterberry holly	<i>Ilex verticillata</i>	red fruit on female shrub, food for wildlife
Sheep laurel	<i>Kalmia angustifolia</i>	pink flowers, grey evergreen leaves
Fetterbush	<i>Leucothoe racemosa</i>	white flowers
Spicebush	<i>Lindera benzoin</i>	yellow spring flowers, yellow fall color
Bayberry	<i>Myrica pensylvanica</i>	female has blue fruits
Ninebark	<i>Physocarpus opulifolius</i>	white spring flowers, yellow fall color
Rhodora	<i>Rhododendron canadense</i>	spring flowers
Rosebay	<i>Rhododendron maximum</i>	evergreen leaves, white-pink flowers
Swamp azalea	<i>Rhododendron viscosum</i>	white flowers
Swamp rose	<i>Rosa palustris</i>	pink flowers, food for wildlife
Pussy willow	<i>Salix discolor</i>	fuzzy spring flowers
Elderberry	<i>Sambucus canadensis</i>	white flowers, food for wildlife
Meadowsweet	<i>Spiraea tomentosa</i>	white flowers, yellow fall color
Lowbush blueberry	<i>Vaccinium angustifolium</i>	pink flowers, red fall color
Highbush blueberry	<i>Vaccinium corymbosum</i>	white flowers, red fall color
Large Cranberry	<i>Vaccinium macrocarpon</i>	pink flowers, evergreen leaves
Small cranberry	<i>Vaccinium oxycoccus</i>	ink flowers, evergreen leaves
Mapleleaf viburnum	<i>Viburnum acerifolium</i>	white flowers, pink fall color
Witherod	<i>Viburnum cassinoides</i>	white flowers, orange-red fall color
Arrowwood	<i>Viburnum dentatum</i>	white flowers, orange fall color
Nannyberry	<i>Viburnum lentago</i>	white flowers, orange fall color
Blackhaw	<i>Viburnum prunifolium</i>	white flowers, orange fall color
Cranberrybush	<i>Viburnum trilobum</i>	white flowers, red fruit

Trees (Height more than 10')

Common Name	Scientific Name	Attribute
Red maple	<i>Acer rubrum</i>	fall color
Shadbush	<i>Amelanchier Canadensis</i>	white spring flowers, fall color
Alder	<i>Alnus incana</i>	nitrogen fixation, yellow fall color
River birch	<i>Betula nigra</i>	peeling bark, yellow fall color
Hackberry	<i>Celtis occidentalis</i>	yellow fall color, food for wildlife
Fringetree	<i>Chionanthus virginicus</i>	white spring flowers
White cedar	<i>Chamaecyparis thyoides</i>	narrow evergreen tree
Tamarack	<i>Larix laricina</i>	fall color
Sweetgum	<i>Liquidambar styraciflua</i>	fall color
Tuliptree	<i>Liriodendron tulipifera</i>	yellow fall color, fast growth
Sweetbay	<i>Magnolia virginiana</i>	summer flowers, shiny leaves
Blackgum	<i>Nyssa sylvatica</i>	fall color
Sycamore	<i>Platanus occidentalis</i>	peeling bark
Swamp white oak	<i>Quercus bicolor</i>	fall color
Pin oak	<i>Quercus palustris</i>	fall color
Arborvitae	<i>Thuja occidentalis</i>	evergreen



The flowers of summersweet, *Clethra alnifolia*, fill the July air with a gentle fragrance



Cattails, *Typha latifolia*, keeps its "tails" through the winter

Perennial flowers, ferns and grass-like plants

Common Name	Scientific Name	Attribute
Blue flag iris	<i>Iris versicolor</i>	blue-purple flowers
Marsh marigold	<i>Caltha palustris</i>	yellow early spring flowers
Cardinal flower	<i>Lobelia cardinalis</i>	red flowers, summer
Great lobelia	<i>Lobelia siphilitica</i>	blue flowers, later summer
Joe pye weed	<i>Eupatorium maculatum</i>	pink-purple flowers, summer
Swamp milkweed	<i>Asclepias incarnata</i>	pink flowers, summer
Monkey flower	<i>Mimulus ringens</i>	purple flowers, summer
Virginia spiderwort	<i>Tradescantia virginiana</i>	purple flowers, spring
Turtlehead	<i>Chelone glabra</i>	white-pink flowers, summer
Blue vervain	<i>Verbena hastata</i>	blue flowers, summer
New York ironweed	<i>Vernonia noveboracensis</i>	purple flowers, late summer
Wild geranium	<i>Geranium maculatum</i>	lavender spring flowers
Wild blue phlox	<i>Phlox divaricata</i>	blue spring flowers
Meadow phlox	<i>Phlox maculata</i>	pink flowers
Foamflower	<i>Tiarella cordifolia</i>	white spring flowers
Culver's root	<i>Veronicastrum virginicum</i>	white spring flowers
White doll daisy	<i>Boltonia asteroides</i>	white flowers,
Obedient plant	<i>Physostegia virginiana</i>	blue flowers
Skunk cabbage	<i>Symplocarpus foetidus</i>	early spring flowers, large leaves
Cattails	<i>Typha latifolia</i>	interesting winter appearance
Interrupted fern	<i>Osmunda claytoniana</i>	dark green fronds
Cinnamon fern	<i>Osmunda cinnamomea</i>	attractive fronds
Royal fern	<i>Osmunda regalis</i>	handsome fronds
Sensitive fern	<i>Onoclea sensibilis</i>	pretty fronds

Many grasses, rushes (spike rush, Canada rush) and sedges (tussock sedge, broom sedge) are critical components of natural wetlands. The list does not include aquatic plants that grow partially submerged in lakes or streams. Please consult other resources or plant professionals to understand all of the appropriate plants for your site.

Additional Information:

Connecticut Dpt. of Environmental Protection Stormwater Quality Manual – Appendix A
http://dep.state.ct.us/wtr/stormwater/manual/Apx_A_Plant_List.pdf

University of Connecticut Plant Database
<http://www.hort.uconn.edu/plants/>

Connecticut Botanical Society
<http://www.ct-botanical-society.org/>

USDA Plants Database
<http://plants.usda.gov/>



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