

The Vermont Rain Garden Plant List

This plant list contains 150 plants that are suitable for Vermont rain gardens. These plants can be placed in any part of your rain garden with success. However, some plants will be more successful in the wetter or drier sections of your garden. Therefore, when designing the garden, be aware of each plant's ideal soil conditions and place in the garden accordingly. This plant list includes three separate tables: 1) Ferns, Grasses, and Perennials, 2) Shrubs, and 3) Trees. Each table provides categories specific to the needs of each type of plant. An explanation of the plant list categories are provided below.

Plant List Categories

VT Native: X = Yes

Using plants native to Vermont is recommended when planting a rain garden (or any garden). Native plants require less watering, fertilizing, and overall maintenance and care as they have adapted to and thrive in Vermont's climate.

Tolerant to Salt: X = Yes

Salt can injure plants by scorching leaf margins, ultimately leading to leaf drop, poor vigor, or death. No plant is immune to salt damage but some plants are more tolerant than others. Plants may accumulate salt from the soil over a number of years without revealing any overt sign of the problem until the accumulation reaches a toxic level. In winter, the road salt - ice water solution is whipped into fine droplets by passing vehicles and may be carried considerable distances by the wind. When selecting plants to install along paved roads, sidewalks, or in areas where snow runoff might become an issue, choose species that are tolerant of salt.

Mature Height:

This is the height that the plant will reach when mature if planted in its ideal conditions.

Exposure:

FS = Full Sun; PSH = Part Shade; SH = Shade

Exposure refers to the amount of light a plant will receive. Plants assigned "full sun" (FS) should receive at least one-half day of sun meaning at least six hours or more of direct sunlight. Plants assigned "partial shade" (PSH) should receive full or dappled shade during the hottest part of the day or 4-6 hours of direct sun. Plants assigned "shade" (SH) should be protected from the sun, with no or little direct sun exposure, usually less than 2 hours.

Ferns, Grasses, & Perennials (suitable for all hardiness zones in VT)

Latin Name	Common Name	VT Native	Tolerant to Salt	Mature Height	Exposure	Seasonal Interest	Pollinators	Comments
FERN								
<i>Athyrium filix-femina</i>	Lady Fern	x		1-3'	PSH/SH			Light-green, finely-divided fronds, can tolerate full sun if kept moist
<i>Deparia acrostichoides</i>	Silver False Springwort	x		1-3'	PSH/SH			Fronds have a silvery sheen when young
<i>Dryoptera filix-mas x marginalis</i>	Vermont Wood Fern			1-3'	PSH/SH			Hybrid between Marginal Wood Fern and Male Fern
<i>Matteuccia struthiopteris</i>	Ostrich Fern	x		3-5'	PSH/SH			Medium-green, feathery fronds (hence common name)
<i>Onoclea sensibilis</i>	Sensitive Fern	x		1-3'	PSH/SH			Bright green fronds, leathery triangular leaflets, drought sensitive
<i>Osmunda cinnamomea</i>	Cinnamon Fern	x		2-3'	PSH/SH	F		Yellow-green erect fronds, cinnamon color fibers near frond base, can tolerate full sun if kept moist
<i>Osmunda claytoniana</i>	Interrupted Fern	x		1-4'	PSH/SH			Broad fronds "interrupted" in the middle by spore-bearing leaflets, can tolerate full sun if kept moist
<i>Osmunda regalis</i>	Royal Fern	x		2-3'	PSH/SH	F		Broad fronds, large well separated leaflets, brown tassel-like fertile clusters, can tolerate full sun if kept moist
<i>Polystichum acrostichoides</i>	Christmas Fern	x		1-3'	PSH/SH	W		Evergreen, leathery, lance-shaped fronds, fountain like clumps, full sun ok if kept moist
<i>Thelypteris noveboracensis</i>	New York Fern	x		1-2'	PSH/SH	F		Yellow-green fronds that grow in tufts, can form ground cover
GRASS								
<i>Agrostis stolonifera</i>	Creeping Bentgrass			3-5'	FS	S		Not showy
<i>Andropogon gerardii</i>	Big Bluestem	x		3-7'	FS	F/W	BM	Purple, good for erosion prevention due to large root system
<i>Andropogon virginicus</i>	Bushy Broomsedge			3-4'	FS	S/F		Ideal for growing in masses or meadows, orange golden color, graceful
<i>Bouteloua curtipendula</i>	Side-oats Grama Grass			1.5-2.5'	FS	S/F		Ideal for growing in masses or meadows, bright purple flowers
<i>Calamagrostis acutiflora</i>	Feather Reed Grass		x	3-5'	FS			Good as specimen plant, tolerates clay soils
<i>Carex flacca</i>	Blue Sedge			6-8"	FS/PSH	Sp		Forms a mat of gray-blue foliage, very drought tolerant
<i>Carex flaccosperma</i>	Blue Wood Sedge		x	1-1.5'	FS/PSH	Sp		Slow spreading blue-green textured leaves
<i>Carex grayi</i>	Gray Sedge	x	x	2-3'	PSH	S		Pale green spiked seed heads
<i>Carex muskingumensis 'Oehme'</i>	Variiegated Palm Sedge		x	2-3'	PSH/SH	S		Subtle yellow variegation, showy seeds, can tolerate full sun if kept moist
<i>Carex vulpinoidea</i>	Fox Sedge	x	x	1-3'	FS/PSH	S		Not showy
<i>Cinna latifolia</i>	Drooping Woodreed	x		1-5'	FS/SH	S/F		Not showy
<i>Juncus effusus</i>	Common Rush		x	2-3'	FS/PSH	Sp/S/F		small, non-showy yellowish cymes in summer
<i>Panicum virgatum</i>	Switch Grass	x	x	3-6'	FS	Sp/S/F		Quick growing, spring wild life cover
<i>Schizachyrium scoparium</i>	Little Bluestem	x	x	3-4'	FS	F		Turns reddish orange in fall, loose clusters
<i>Sorghastrum nutans</i>	Indiangrass	x		4-6'	FS/PSH	S/F	BM	Golden-brown
PERENNIAL								
<i>Acorus americanus</i>	Sweetflag	x		2-4'	FS	S	B/BM	Vertical interest
<i>Actaea rubra</i>	Red Baneberry	x	x	1-3'	PSH	Sp		White flowers, berries are toxic
<i>Agalinis purpurea</i>	Purple False Foxglove		x	3-6'	FS	S	B	White, red, purple flowers
<i>Agastache foeniculum</i>	Lavender Hyssop			2-4'	PSH	S	BM	Blue flowers, self seeds readily
<i>Alchemilla mollis</i>	Lady's Mantle			1.5-2.5'	PSH	Sp	L	Yellow-chartreuse flowers
<i>Allium cernuum</i>	Nodding Onion		x	1-3'	FS	Sp	B	Pink flowers, edible fruit
<i>Amorpha canescens</i>	Leadplant			2-4'	FS/PSH	S	BM	Purple flowers, favorite of deer, rabbit and livestock
<i>Anemone canadensis</i>	Windflower	x	x	1-2'	PSH	Sp	B/L	Pure white blossoms, tuber
<i>Aquilegia canadensis</i>	Columbine	x	x	1-2'	FS/PSH	Sp/F	BM	Showy red and yellow, beautiful foliage
<i>Arisaema triphyllum</i>	Jack-In-The-Pulpit	x		2'	PSH/SH	Sp		White flowers, poisonous to cattle
<i>Aruncus dioicus</i>	Goatsbeard	x		5'	PSH	Sp	B/BM	White flowers, plant males with females for better bloom
<i>Asarum canadensis</i>	Wild Ginger	x		0.5-1'	PSH/SH	Sp	L	Purple-brown cup-shaped flower, ginger aroma
<i>Asclepias incarnata</i>	Swamp Milkweed	x		2-3'	FS/PSH	Sp/S/F	B/BM	Orange, suitable for a dry or wet garden

Latin Name	Common Name	VT Native	Tolerant to Salt	Mature Height	Exposure	Seasonal Interest	Pollinators	Comments
PERENNIALS CONTINUED...								
<i>Asclepias tuberosa</i>	Butterfly Plant, Milkweed	x		1-2.5'	FS	S	BM	Orange flower
<i>Aster novae-angliae</i> (<i>Doellingeria umbellata</i>)	New England Aster	x	x	2-6'	FS/PSH	S/F	B/BM	Pink-purple flowers
<i>Aster umbellatus</i>	Flat-topped Aster	x	x	3-7'	FS/PSH	F	B/BM	White to yellowish-centered flowers
<i>Astilbe ssp.</i>	Astilbe		x	3-6'	PSH	S	B/L	White, light pink, and dark pink flowers, spires, does not like pm sun/dry soil
<i>Baptisia australis</i>	Blue False Indigo	x	x	3-4'	FS	Sp/S	BM	Blue, interesting seed pods
<i>Boltonia asteroides</i>	False Aster	x		6-8'	FS/PSH	S/F	BM	White to pink, needs staking, pest free
<i>Caltha palustris</i>	Marsh Marigold, Cowslip	x		2'	FS/PSH	S	B	Glossy heart-shaped leaves, bright yellow flowers, poisonous leaves
<i>Camassia leichtlinii</i>	Camass			3-4'	FS/PSH	Sp		Spikes of white, cream, blue or purple flowers, beautiful choice for wet areas of the garden, bulb
<i>Campanula americana</i>	Tall Bellflower		x	3-4'	PSH	S/F	H	Blue-purple flower
<i>Cassia hebecarpa</i>	Wild Senna, American Senna	x		3-6'	FS/PSH	S/F	BM	Yellow flowers, toxic, tolerates clay, showy leaves, drought tolerant
<i>Caulophyllum thalictroides</i>	Blue Cohosh	x		1'-2'	PSH/SH	S	BM	Blue berries, yellow-green, non-showy flowers
<i>Chelone ssp.</i> (Native: <i>Chelone glabra</i>)	Turtlehead	x		3-6'	FS/PSH	S/F	BM	White, shade from afternoon sun
<i>Cimicifuga ramosa</i>	Purple-leaf Bugbane			5'	PSH/SH	F	B/L	White flowers, purple foliage
<i>Clintonia borealis</i>	Blue Bead Lily	x		1'	PSH/SH		B	Yellow flower, young leaves can be used to make a pleasant addition to a salad, cluster of dark blue shiny berries (mildly toxic) by midsummer
<i>Convallaria majalis</i>	Lily of the Valley	x		6"	FS/SH	Sp	B	White fragrant bell shaped flowers followed by red berries, slow but aggressive spreader
<i>Coreopsis lanceolata</i>	Coreopsis	x		1-2'	FS	S	BM	Yellow flower, good cut flower
<i>Desmodium canadense</i>	Canada Tick-Trefoil	x	x	4'	FS	S	BM	Pink-purple pea like flowers
<i>Dicentra spectabilis</i>	Bleeding Heart			2-3'	PSH/SH	Sp	B/H	Pink heart-shaped flowers, good cut flower
<i>Echinacea purpurea spp.</i>	Coneflower	x		1-2'	FS/PSH	S		Varieties include purple and white flowers
<i>Epilobium angustifolium</i> (<i>Chamaerion</i>)	Fireweed		x	4-6'	FS/PSH	S	B	Purple spiky flowers, colonizes
<i>Erythronium americanum</i>	Trout Lily	x		6"	FS/PSH	Sp	B	Yellow flowers
<i>Eupatorium coelestinum</i>	Blue Mist Flower		x	2-3'	PSH/SH	S	BM	Blue flowers, can be invasive
<i>Eupatorium maculatum</i> (<i>Eutrochium</i>)	Spotted Joe-Pye Weed	x		4-6'	FS/PSH	S/F	BM	Pink flowers, deer resistant
<i>Eupatorium perfoliatum</i>	Boneset	x		4-6'	FS/PSH	S	BM	Flat-topped clusters of small, fluffy, white flowers
<i>Euthamia graminifolia</i>	Flat-top Goldentop	x		3-6'	FS	S/F	BM	Yellow flowers
<i>Filipendula rubra</i>	Queen of the Prairie	x		4-5'	FS/PSH	S	B/L	Showy pink flowers, deer resistant, one of the best wild flowers
<i>Gaylussacia baccata</i>	Black Huckleberry	x		2-4'	PSH	Sp/S		White flowers, edible fruits
<i>Gentiana andrewsii</i>	Closed Gentian, Bottle Gentian	x		2'	FS/PSH	F	B	Deep blue bottle shaped flowers
<i>Geranium maculatum</i>	Wild Geranium	x		1-2'	FS/PSH	Sp/S	B	Pink flowers, Deer resistant
<i>Helenium autumnale</i>	Sneezeweed	x		3-5'	FS	F	B/BM	Yellow flowers, cutting flower
<i>Helianthus angustifolius</i>	Swamp Sunflower			3-6'	FS/PSH	S/F	BM	Yellow flowers
<i>Heliopsis helianthoides</i>	Smooth Oxeye	x	x	3-5'	FS	S/F	BM	Yellow flowers
<i>Hemerocallis ssp.</i>	Daylilies	x	x	2.5'-3.5'	FS/PSH	S	BM	Purple, yellow, orange flowers
<i>Heuchera 'Chocolate Ruffles'</i>	Coral Bells			1-2'	FS/PSH	Sp/S		White flowers and showy, coppery-pink to dark chocolate/deep purple leaves
<i>Hibiscus moscheutos</i>	Swamp Rose, Mallow		x	4-6'	FS	S	BM	White and pink flowers
<i>Hosta ssp.</i>	Hosta		x	1-2'	PSH/SH	S	BM	White and purple flowers
<i>Hydrophyllum virginianum</i>	Eastern Waterleaf	x		1-3'	PSH/SH	Sp/S		White-lavender flowers
<i>Iris versicolor</i>	Blue Flag Iris	x	x	2-3'	FS/PSH	Sp/S	B	Blue-violet flowers
<i>Isopyrum biternatum</i>	False Rue Anemone			0.5-1'	FS/PSH	Sp		White flower, great groundcover

Seasonal Interest:

Sp = spring; S= summer; F= fall; W = winter

In designing your rain garden, plant selection is key in creating an inspiring landscape. Choosing plants that bloom at different times over the course of the growing season give the garden an ever-changing impact. Some plants may provide a dramatic array of flowers for only a week, but others may carry a smattering of flowers throughout the season. Characteristics such as flower color, bloom time, shape, fruit, decorative bark, dramatic fall foliage color, or showy foliage should be considered when selecting plants. However, remember that neutral plants provide the background and unity for a comfortable yet interesting garden. A description of the seasonal interest is included in the "comments."

Pollinators:

B = Bee; BM = Butterfly & Moth;

H = Hummingbirds; L = Ladybugs

Pollinators increase the genetic diversity of a plant community and are therefore an important ally. Many plants have evolved to depend upon the assistance of specific insects and other animals to complete the act of pollination and seed dispersal. Nearly 90% of all flowering plants require pollination by animals or insects. Plants have developed specific characteristics to attract potential pollinators. Creating a diverse garden that attracts a variety of pollinators will supply a food source for these important animals and insects while enhancing the rain garden. Different pollinators are attracted to specific characteristics of flowering plants:

Bees (B): are attracted to brightly-colored flowers with sweet scents and ample nectar and pollen.

Butterflies & Moths (BM): prefer tubular flowers. Butterflies tend to be attracted to the bright colors whereas moths prefer duller colors (typically red or purple). The difference in colors is likely due to the fact that butterflies are diurnal whereas moths are nocturnal.

Ladybugs (L): are natural enemies to pesky insects, including aphids and other sap feeders. Like other beetles, ladybugs are attracted to flowers that are white to yellow or green, and open during the day with a bowl/cup-like shape.

Hummingbirds (H): are site feeders and have little to no sense of smell so they are attracted to brightly colored (especially red) trumpet shaped flowers with ample nectar. These flowers are designed to dust the bird's head and back with pollen.

Tolerance to Drought (Trees & Shrubs only)

H = Tolerant; M = Intermediate; L = Intolerant

A species drought tolerance indicates its comparative ability to survive drought stress, or lack of water. This category is included for trees and shrubs because these plants have deep rooting systems and are therefore more sensitive to this limiting factor.

Tolerance to Poor Drainage (Trees & Shrubs only)

H = Tolerant; M = Intermediate; L = Intolerant

Poorly drained (wet) sites, often with a percentage of clay, will not allow water to drain freely and can often limit the availability of oxygen to the roots. Choosing a species that can survive in this environment will often lead to long term success. Conversely, well drained sites, often with a high percentage of sand, has very limited water holding capacity and may be too dry for some species, if not watered regularly. To determine soil type, conduct the “ribbon test” on page 4. This category is included for trees and shrubs because these plants have deep rooting systems and are therefore more sensitive to this limiting factor.

Hardiness Zone:

The coldest zone where each plant is judged to survive is indicated in this column. Before purchasing a plant, determine which hardiness zone the rain garden is located in by referring to the Plant Hardiness Zones map on the back cover of this manual. It is especially important to consider hardiness zones when planting trees and shrubs since they are exposed to the winter environment.

Plant survival depends on numerous factors, but winter temperature is often the greatest challenge to a plant’s performance. Hardiness zones are affected by elevation, snow cover, nearness to large bodies of water, and cold drainage. Remember that the hardiness zones represent only averages. In some years, temperatures will fall well below the average annual minimum. Plants surviving and growing well for several years may be severely injured or killed when this happens. Talking to experienced neighbors or local nursery personnel may help to determine the likelihood of success for your desired plants.

Latin Name	Common Name	VT Native	Tolerant to Salt	Mature Height	Exposure	Seasonal Interest	Pollinators	Comments
PERENNIALS CONTINUED...								
<i>Liatriis spicata</i>	Dense Blazingstar		x	2-4'	FS	S	BM	Purple flowers, good for drying
<i>Lilium canadense</i>	Canada Lily	x		3-8'	FS/PSH	S	H	Yellow, difficult to start
<i>Lobelia cardinalis</i>	Cardinal Flower	x	x	2-4'	FS/PSH	S	BM/H	Vibrant Red spiky flowers, tricky, short lived
<i>Lobelia spicata</i>	Spiked Lobelia	x	x	3-5'	FS/PSH	Sp/S	BM	Blue or white flowers
<i>Lysimachia ciliate ssp.</i>	Fringed Loosestrife	x		1-3'	PSH	S	BM/H	Yellow flowers, can tolerate clay soils, good for edging, the cultivar 'Firecracker' has stunning bronze-purple leaves
<i>Mentha arvensis</i>	Wild Mint	x		1-2'	FS/PSH	S	B	White flowers
<i>Mertensia virginica</i>	Virginia Bluebells			2-3'	PSH/SH	Sp	BM/H	Blue flowers
<i>Mimulus ringens</i>	Monkey Flower	x		1-3'	FS	Sp/S/F	BM/H	Blue-purple flowers
<i>Mitella diphylla</i>	Bishop's Cap, Miterwort	x		1-3'	PSH/SH	Sp	B	White flowers
<i>Monarda didyma</i>	Bee Balm, Oswego Tea	x		3'	FS/PSH	S	BM	Red, pink, salmon colored flowers, aggressive
<i>Parthenium integrifolium</i>	Wild Quinine			2-4'	FS	S/F	BM	White flowers, aggressive
<i>Penstemon digitalis</i>	Foxglove, Beardtongue	x		3-4'	FS/PSH	Sp/S	BM/H	Purple flowers
<i>Phlox divaricata</i>	Woodland Phlox	x		2-3'	FS/PSH	S	BM/H	Groundcover
<i>Polemonium reptans</i>	Jacob's Ladder	x		0.5-2'	FS/SH	Sp	BM	Blue flower
<i>Polygonatum biflorum</i>	Smooth Solomon's Seal	x		1-3'	PSH/SH	Sp	B	Greenish-white flower
<i>Pycnanthemum virginianum</i>	Virginia Mountain Mint	x		2-3'	FS	S/F	B	White flowers, mint-like fragrance, aggressive
<i>Ratibida pinnata</i>	Pinnate Prairie Coneflower	x		3-4'	FS	Sp/S	BM	Yellow flowers
<i>Rhexia virginica</i>	Meadow Beauty	x		1-2'	PSH	S/F		Pink flowers
<i>Rodgersia henrici</i>	Rodgersia			3-4'	FS/PSH	S		Large showy leaves; reddish purple spires with large airy plumes of soft-pink to rose-purple flowers
<i>Rudbeckia hirta</i>	Black-Eyed Susan	x	x	1'	FS/PSH	S/F	B/BM	Orange-yellow flowers, short lived, deer resistant
<i>Salvia verticillata</i>	Lilac Sage	x		2'	FS	S	B/BM	Purple flowers, long blooming
<i>Sanguinaria canadensis</i>	Bloodroot	x		6-10"	PSH/SH	Sp	B	White flower, toxic
<i>Sanguisorba tenuifolia</i>	Japanese Burnet			4-5'	FS/PSH	S/F		Pink flowers, yellow and red fall foliage
<i>Solidago ssp.</i>	Goldenrod	x	x	3-4'	FS/PSH	S/F	B/BM	Yellow flower
<i>Streptopus roseus</i>	Rosy Twisted Stalk	x		1.5'	PSH/SH	Sp/S		Prefers light (sandy) and medium (loamy) soils
<i>Tiarella cordifolia</i>	Foamflower	x		1-3'	PSH/SH	Sp	BM/H	White flowers
<i>Tradescantia ohiensis</i>	Spiderwort			1-3'	FS/PSH	Sp/S	BM	Blue flowers, aggressive
<i>Trillium undulatum</i>	Painted Trillium	x		0.6'-1.5'	PSH/SH	Sp/S		White flowers
<i>Veratrum viride</i>	False Hellebore	x		2-5'	FS	S	B/BM	Green flowers, toxic, considered a pest plant by livestock farmers
<i>Verbena hastata</i>	Blue Vervain	x		2-6'	FS	S/F	BM	Purple spires
<i>Vernonia noveboracensis</i>	NY Ironweed		x	3'-6'	FS/PSH	S/F	BM	Intense purple flowers, good cut flower
<i>Veronicastrum virginicum</i>	Culver's Root	x		2-6'	FS/PSH	S	BM	White flowers

Shrubs

Latin Name	Common Name	VT Native	Tolerant to Salt	Mature Height	Exposure	Seasonal Interest	Tolerance to Drought	Tolerance to Poor Drainage	Hardiness Zone	Comments
<i>Alnus rugosa</i>	Speckled Alder	x		10-16'	PSH	Sp	L	H	2	Yellow flowers
<i>Aronia arbutifolia</i>	Red Chokeberry		x	4-8'	FS	Sp/S	L	M	4	Dark purple flowers
<i>Aronia melanocarpa</i>	Black Chokeberry	x	x	3-4'	SH	Sp	M	M	3	White to pink flowers
<i>Cephalanthus occidentalis</i>	Buttonbush	x		10-20'	SH	S/F	M	M	5	White flowers
<i>Clethra alnifolia</i>	Summersweet, Sweet Pepperbush		x	6-12'	PSH	S	L	M	3	Fragrant white flowers
<i>Comptonia peregrina</i>	Sweetfern	x		1-2'	FS	Sp	H	L	2	White flowers, heavily scented when crushed

Latin Name	Common Name	VT Native	Tolerant to Salt	Mature Height	Exposure	Seasonal Interest	Tolerance to Drought	Tolerance to Poor Drainage	Hardiness Zone	Comments
Shrubs Continued...										
<i>Cornus amomum</i>	Silky Dogwood	x		5-10'	PSH	Sp	L	H	5	White flowers
<i>Cornus sericea</i>	Red Osier Dogwood	x		6-12'	FS	Sp/S	L	H	3	White flowers, red stems in winter, provides food and cover
<i>Diervilla lonicera</i>	Low Bush Honeysuckle	x		1-2'	PSH	S	H	L	3	Yellow flowers
<i>Ilex glabra</i>	Inkberry		x	6-12'	FS	S	L	M	4	Inconspicuous white flowers, black berries, non-edible
<i>Ilex verticillata</i>	Winterberry Holly	x		6-10'	PSH	S	L	M	3	White flowers, showy orange winter berries
<i>Kalmia latifolia</i>	Mountain Laurel	x		5-6'	FS	Sp	H	M	4	Purple flowers
<i>Lindera benzoin</i>	Spicebush	x		6-12'	PSH	Sp	L	M	4	White flowers
<i>Physocarpus opulifolius</i>	Ninebark	x		5-10'	FS	Sp/S	H	L	2	Purple flowers
<i>Rhododendron canadense</i>	Rhodora	x		6-12'	SH	Sp	L	H	2	Purple flowers, tolerates wet, acidic soil.
<i>Rhododendron maximum</i>	Great Rhododendron	x		10-20'	SH	Sp	H	M	4	Red flowers
<i>Rhododendron periclymenoides</i>	Rosebud Azalea	x		4-10'	SH	Sp	M	M	4	Purple flowers
<i>Rosa palustris</i>	Swamp Rose	x		6-8'	SH	Sp	L	M	3	Red flowers
<i>Salix discolor</i>	Pussy Willow	x		20-40'	SH	W/Sp	L	H	4	White flowers, silky grey catkins
<i>Salix humilis</i>	Small Pussy-Willow	x		5-10'	PSH	Sp	L	L	4	Inconspicuous yellow flowers, green catkins
<i>Salix purpurea</i>	Purple Osier Willow	x		5-8'	FS	Sp	L	M	4	Red catkins
<i>Sambucus canadensis</i>	American Elderberry	x		4-7'	FS	S	M	M	3	White flowers
<i>Spiraea latifolia</i>	Bridalwreath Spiraea	x	x	4-7'	FS	Sp	H	H	3	White flowers
<i>Vaccinium corymbosum</i>	Highbush Blueberry	x	x	6-12'	PSH/SH	Sp/S	H	H	3	White flowers, edible fruit
<i>Viburnum cassinoides</i>	Witherod	x		8-15'	FS/PSH	S/F	H	H	3	Creamy white flowers
<i>Viburnum lentago</i>	Nannyberry	x		10-20'	FS/PSH	Sp	H	H	2	Creamy white flowers

Trees

Latin Name	Common Name	VT Native	Tolerant to Salt	Mature Height	Exposure	Tolerance to Drought	Tolerance to Poor Drainage	Hardiness Zone	Rooting Space	Comments
<i>Acer rubrum</i>	Red Maple	x		70-90'	FS/SH	M	H	3	L	Several cultivars available
<i>Amelanchier ssp.</i>	Serviceberry, Shadblow	x	x	15-25'	PSH	M	L	4	S	Early white flowers
<i>Betula nigra</i>	River Birch		x	35-80'	FS	L	H	4	M	Can be single or multi-stemmed
<i>Carpinus caroliniana</i>	Musclewood	x		20-30'	FS/SH	H	M	3	M	May be hard to locate at local nurseries
<i>Celtis occidentalis</i>	Hackberry	x	x	40-60'	FS/PSH	H	H	2	M	Ornamental bark with age
<i>Fraxinus americana</i>	White Ash	x	x	40-90'	FS	M	M	3	M	Susceptible to Emerald Ash Borer, should be planted in limited numbers, several cultivars available
<i>Fraxinus pennsylvanica</i>	Green Ash	x	x	35-70'	FS	H	H	3	L	Susceptible to Emerald Ash Borer, should be planted in limited numbers. Several seedless cultivars available
<i>Hamamelis virginiana</i>	Witch Hazel	x	x	10-15'	FS/SH	L	H	3	S	Bright fragrant yellow flowers appear mid to late fall
<i>Juniperus virginiana</i>	Red cedar	x	x	25-50'	FS/PSH	H	H	3	M	Pale blue fruits on female plants
<i>Nyssa sylvatica</i>	Black Tupelo	x	x	35-90'	FS	H	H	5	M	May be hard to locate at local nurseries, red fall foliage.
<i>Ostrya virginiana</i>	Hop Hophornbean	x		25-50'	FS/SH	H	M	4	S	May be hard to locate at local nurseries
<i>Quercus bicolor</i>	Swamp White Oak	x	x	35-100'	FS/PSH	M	H	3	L	Acorns can be a nuisance
<i>Quercus palustris</i>	Pin Oak			50-75'	FS	M	H	4	M	Low tolerance for alkaline soils, acorns can be a nuisance
<i>Quercus rubra</i>	Red Oak	x	x	35-100'	FS/PSH	H	L	4	L	Acorns can be a nuisance
<i>Thuja occidentalis</i>	Eastern White Cedar	x		3-50'	FS	M	M	3	M	Grows slowly reaching an age of 400 years or more

Rooting Space (Trees only):

L = 1200 cubic ft; M = 800 cubic ft; S- 400-450 cubic ft
Lack of rooting space is one of the most common ailments of urban trees. Heavily compacted soils, underground utilities, sidewalks, and pavement can all affect the amount of soil volume available to a tree's root system. Insufficient soil volume can lead to limited nutrient, water, and oxygen gathering capacity. In order to estimate the available rooting volume of a planting site, measure the length and width of available soil, then multiply the area by the estimated depth of rooting. Remember that compacted soil will have a very shallow rooting depth. Even small trees need a minimum of 56 square feet to survive, assuming a 3 foot deep rooting area. Take a close look at your rain garden area and measure out the potential rooting space for a tree. The more rooting space that is available to your tree, the healthier it will be.

Is this Site Appropriate for a Tree?

Trees can be a valuable addition to any rain garden. To give your new tree(s) the best chance for long-term survival, proper selection of tree species and planting site is crucial. Careful planning should ensure that the "right tree" is established in the "right place." Consider the following questions, before determining which tree you want to plant:

- What is the purpose and use of the planting?
- What are the site conditions above and below ground?
- What type of maintenance will be required?
- What is the best tree(s) species for long-term success?

Rarely will you find the perfect tree that will fit an entire list of selected criteria, yet answering these important questions can avoid many unforeseen pitfalls. Remember by planting a tree in, or near your rain garden, you may be increasing the amount of shade over the garden area- choose perennials and shrubs accordingly.

Clay/Shade Rain Gardens

Building a rain garden in clay soil in the shade can be a challenge. Few plants can tolerate the extreme conditions found in this type of landscape. For a listing of rain garden plants that have proven to thrive in these conditions, please visit the Winooski NRC's rain garden website:

www.vacd.org/winooski/winooski_raingarden.shtml