RAYMORE come home to more



Native and Adaptive Landscapes 2017



Project Overview

The Native Landscape Committee was created in order to ensure success with native and adaptive landscapes and their implementation in all future public projects. Our goals are to not only increase the visual aesthetic of public buildings and parks, but also to decrease overall maintenance costs involved with landscaped areas around City facilities, trails, parks, and streets while protecting the natural resources in the area. Native plants also have unique characteristics that allow them to serve specific purposes for erosion control, stream protection, and wildlife attractants. Leveraging these abilities is paramount to the success of a native planting area when a specific goal is in mind.

With the rebranding of our City, we also want to make our parks and facilities premier destinations residents, for visitors, and staff. We will accomplish this by creating an overall design for each project while keeping in mind the guidelines within this book, as abilities and well as the characteristics of the selected plants.

This plan will also aid in our efforts to educate residents and private developers in how native plants are beneficial for not only public spaces, but private



properties as well. After seeing our success with the implementation of this plan, it is our hope that residents and private developers will also begin incorporating native landscapes on private property and future developments.

This book is designed to be a guide and reference for all seeking success in implementing a native landscape. As we strive to lead the charge in restoring native plants to Raymore, we hope to encourage others to do the same, as we share our successes we encourage others to do the same.

-The City of Raymore Native Landscapes Committee



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Category	Height	Spacing	Uses	January	February	March	April	May	June	July	August	September	October	November	December

Ground Cover

Blue Grama Grass	8''-24''	18''-24''	Ground Cover	x	x	x				x	x	x	x	x	x
Cedar Sedge	2''-4''	8''-12''	Ground Cover / Container		x	x	x	x	x	x	x	x	x		
Creeping Red Fescue	3''-4''	-	Ground Cover / Erosion Control			x	x	x	x	x	x	x	x		
Crested Iris	5''-7''	12''-24''	Ground Cover / Border					x	x						
Golden Groundsel	10"-14"	12"-18"	Ground Cover		x	x	x								
Littleflower Alumroot	9"-12"	9"-12"	Ground Cover / Borders / Groups						x	x	x	x	x		
Oak Sedge	8''-10''	14''-20''	Ground Cover / Container						x	x	x	x	x		
Pennsylvania Sedge	8''-10''	18''-30''	Ground Cover		x	x	x	x	x	x	x	x	x		
Prairie Dropseed	18"-30"	24''-30''	Massed Plantings / Border	x	x	x		x	x	x	x	x	x	x	x
Purple Poppy Mallow	6"-12"	6"-36"	Ground Cover / Border Fronts / Rock Gardens					×	x	x	x	x	x		
Star Tickseed	9"-12"	6"-9"	Borders / Containers / Dry Areas					x	x	x	x	x	x		
Tussock Sedge	1'-3'	18''-30''	Ground Cover / Rainscape / Border					x	x	x	x	x	x		

Small (2-3 feet)

Aromatic Aster	12''-30''	16''-20''	Border / Fragrant							x	x	x	x		
Beautyberry			Rear Shrub Border							x	x	x	x		
Black-eyed Susan	2-3'	1'-2'	Mass Planting / Borders / Meadows					x	x	x	x	x	x		
Butterfly Milkweed	18''-24''	18''-24''	Borders / Mass Planting / Spotty Planting To Add Color						x	x	x				
Eastern Blazing Star	2'-4'	9"-18"	Mass Use for Borders							x	x	x	x		
<u>Indian Pink</u>	1'-2'	6"-18"	Shaded Border Fronts / Shade Gardens					x	x	x	x	x	x		
<u>Michigan Lily</u>	2'-5'	1'-2'	Best Grouped or Massed / Native Gardens						x	x					
Orange Coneflower	2'-3'	2'-2.5'	Raingarden / Ground Cover							x	x	x	x		
Shining Blue Star	2'-3'	2'-3'	Universal				x	x	x						
<u>Slender Mountain Mint</u>	2'-3'	2'-3'	Herb Garden/Border/Naturalized Area	x	x	x				x	x	x	x	x	x
Southern Blue Flag	1'-3'	1'-3'	Water Gardens / Flood Areas					x	x	x					
<u>Texas Green Eyes</u>	1.5'-3'	1'-2'	Borders / Edger For Informal Situations / Flower Meadow						×	×	x	x			

Medium (3-8 feet)

Beardtongue	3'-5'	18"-24"	Borders / Clump Forming				x	x	x						
Big Bluestem	4'-6'	2'-3'	Screening / Erosion Control	x	x	x				x	x	x	x	x	x
Black Chokeberry	3'-6'	3'-6'	Shrub Border / Wet Conditions			x	x	x	x	x	x	x	x		
Bloodtwig Dogwood	5'-6'	5'-6'	Shrub Border/Ornamental					x	x	x	x	x	x	x	x
Blue False Indigo	3'-4'	3'-4'	Borders / Small Groups					x	x						
Cardinal Flower	24''-48''	12''-18''	Rain Gardens / Stream Buffer / Tall Borders							x	x	x			
<u>Dwarf Fountain</u> <u>'Hameln' Grass</u>	2'-3'	1'-3'	Ornamental / Borders			x	x	x	x	x	x				
Marsh Milkweed	4'-5'	2'-3'	Sunny Borders / Butterfly Garden / Stream Bank						x	x	x				
New England Aster	3'-6'	2'-3'	Fall Color / Border Front / Groups								x	x	x		
Purple Cone Flower	2'-5'	1'-2'	Long Blooming Flower / Mass Planting / Borders					×	x	x	×				
Switchgrass	3'-6'	2'-3'	Screening / Rain Garden	x	x	x				x	x	x	x	x	x

						Mc	ont	hs	O	fΙ	nte	ere	est		
Category	Height	Spacing	Uses	January	February	March	April	May	June	July	August	September	October	November	December
Winterberry	3'-8' (Up to 12 if not trimmed)		Mass Group / Border / Foundation	x	x	x	x	x	×	x	x	x	x	x	x

Tall (9+ feet)

Black Gum Tree	30'+	15'-30'	Color / Focal Point of Planting				x	x	x	x	x	x	x	
Flowering Dogwood	10'-30'	15'-30'	Accent Tree / Focal Point of Planting			×	x	x			x	x	×	
<u>HornBeam</u>	10'-35'	20'-35'	Shady Sites / Woodland Areas	x	x	x	x	x	x	x	x	x		
Prairie Gold Aspen	20'-35'	10'-15'	Mass Planting / Color /			x	x	x		x	x	x		
<u>Redbud</u>	10'-30'	25'-35'	Shrub Borders / Along Patios / Street Tree		x	×	x	x	x	x	x	x	x	
<u>Serviceberry</u>	10'-25'	15'-25'	Tree		x	x	x	x	x	x	x	x	x	



Design Guidelines

For public projects, basic design guidelines shall be developed and followed when selecting and implementing plants for the native and adaptive landscape areas. We understand that these guidelines must be designed on a project to project basis due to the unique qualities of this type of work.

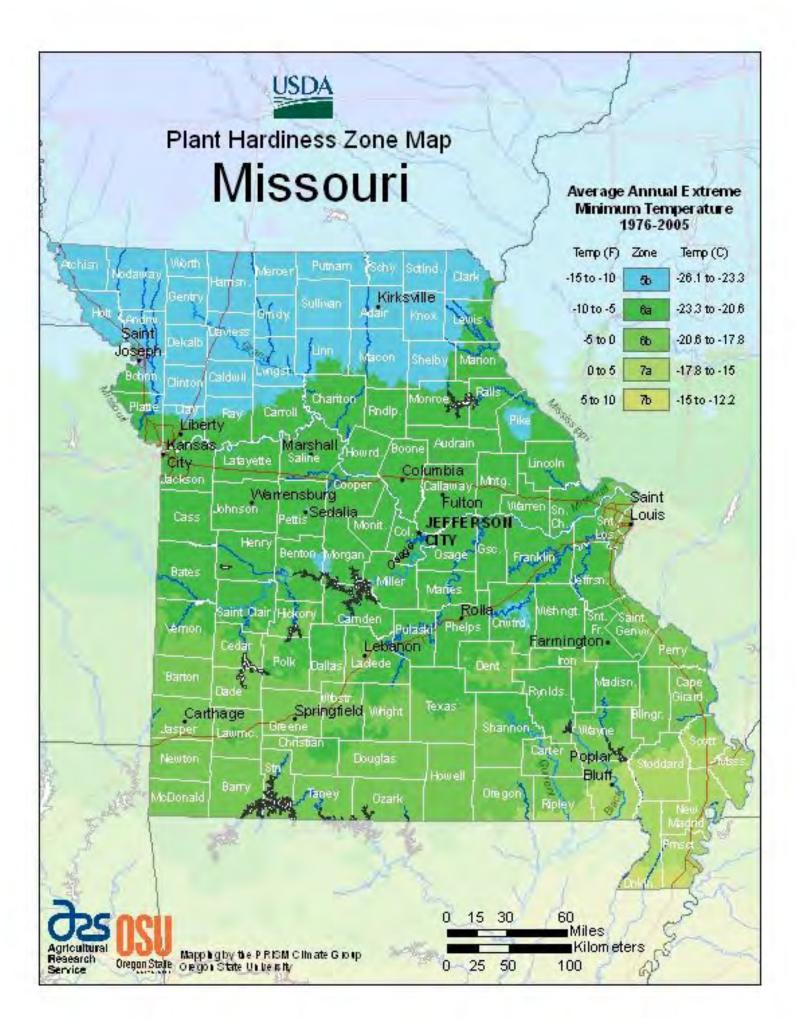
In the following pages you will find illustrations of planting areas in certain situations. The illustrations are not meant to be followed exactly, but they are here to give an idea of the best practices when selecting a layout of the planting area.

Please see the below points for general considerations when designing a native and adaptive landscape.

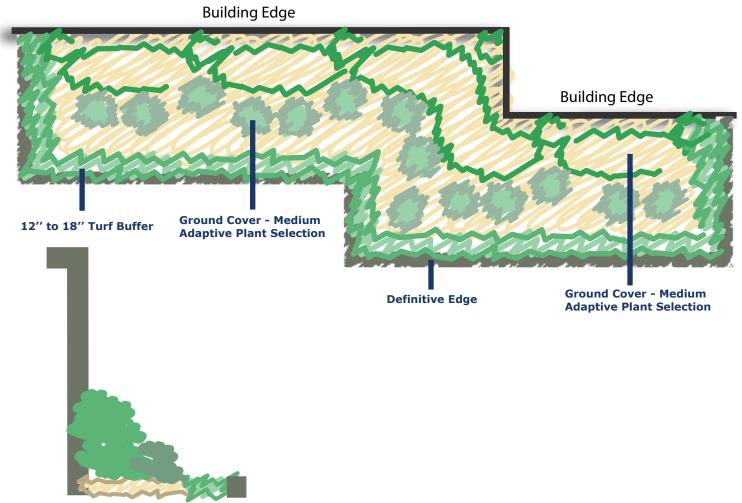
- A maintenance plan must be created for each project so as to prevent neglect of the area.
- A planting area buffer must be selected for each project. These buffers can be turf borders, rock borders, pavestone borders, or even poured concrete. This not only creates a separation of space from things like roads and sidewalks, but also prevents mulch or matting from spreading outside of the planting area, and aids in protecting the first row of plants from being stepped on or driven over.
- Growing seasons and bloom times of plants must be observed. If an entire planting area was to bloom and die at the same time, interest in the planting will quickly dwindle. It is more effective to select plants that draw interest throughout the year, even if this means selecting plants that change colors but remain standing when they die during the winter time.
- Special care must be taken in regards to planting taller plants. It would be counterproductive to have a mass planting with the tallest plants at the front of the area, thereby obstructing the view of the rest of the plantings. Consideration must also be taken when implementing a planting area near a roadway. Tall plants could obstruct the view of drivers and pedestrians.
- Accent pieces are encouraged for planting areas. This includes, but is not limited to: artwork, boulders, larger trees, and signage. This increases visual appeal during the fall and winter months when many flowers are no longer blooming.
- Signage is recommended for ALL planting areas no matter how small. This is the education aspect of our project. The signage may state things like "Please do not disturb this area, Native Landscape", but there can also be larger signs that tell visitors what is actually in the planting and why we have chosen particular plants for the area as well as wildlife the selected plants may attract.



- All plants have a purpose. Care should be taken in the selection of plants for erosion control and rain garden areas. Certain native plants do not do well in low lying or wet areas, whereas others excel in these uses.
- Consider your audience. Some planting areas are going to become a destination for residents and visitors. It is recommended that visually appealing and showy plants be planted in these locations, or even plants that attract wildlife such as butterflies and birds. Other planting areas may be more functional in nature, in which case the selection of plants that serve a designated purpose will be a more important consideration, such as in a drainage swale or rain garden.
- Lastly, keep the big picture in mind. Some planting areas may be larger than what the budget constraints allow to be completed at the start. This is where the overall design must be completed, but while installing plants in a modular fashion over time rather than all at once. This doesn't mean the planting area decreases in size as a whole, it means the number of plants initially will be less than the final design, and the project will be completed as the budget allows.

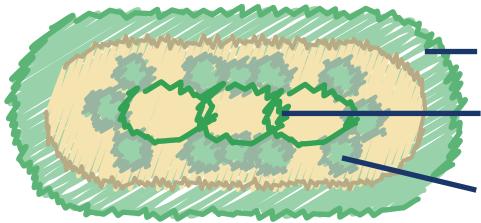


Building/Facililty Landscaping 'Tier 1'



Landscape Section 'Tier 1'

Parking Lot & Landscape Islands 'Tier 1' or ' Tier 2'

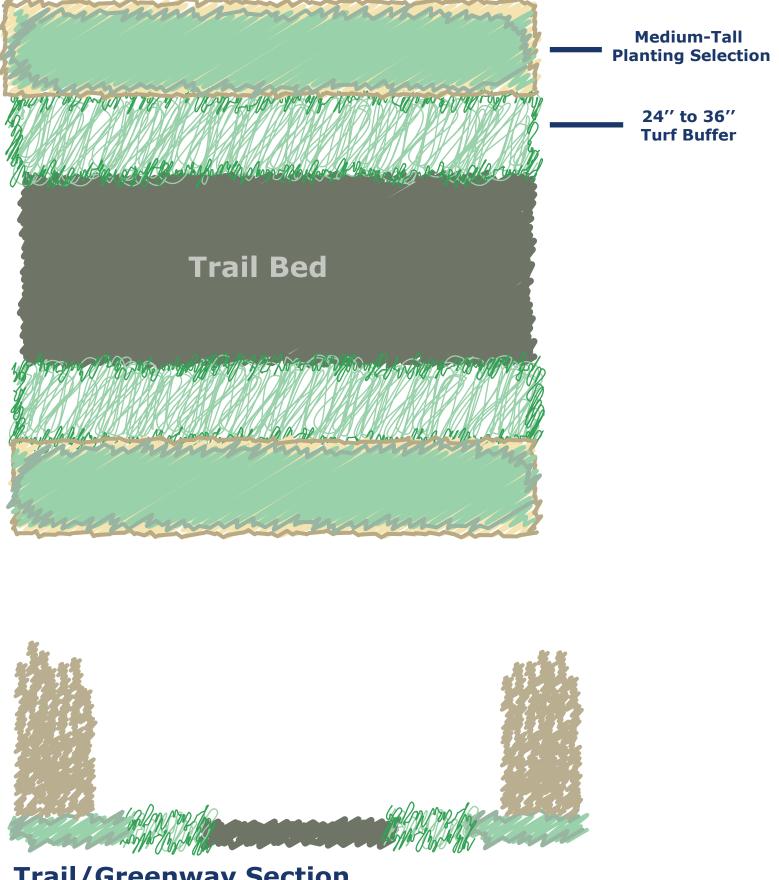


12" to 18" Turf Buffer

Medium-Tall Adaptive Planting Selection

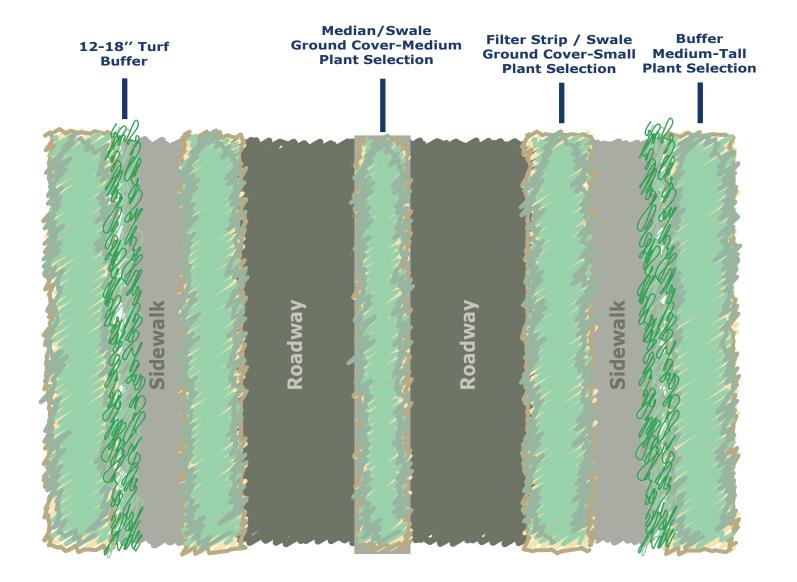
Ground Cover-Medium Adaptive Planting Selection

Trail/Greenway 'Tier 3'



Trail/Greenway Section

Streets & Greenways 'Tier 2' or 'Tier 3'





Street / Greenway Section



Ground Cover Plants

Native Landscapes Committee

Ground Cover ____

6 Inches - 2 Feet



Blue Grama Grass



Cedar Sedge



Creeping Red Fescue



Littleflower Alumroot



Prairie Dropseed



Tussock Sedge



Crested Iris



Oak Sedge



Purple Poppy Mallow



Golden Groundsel

Pennsylvania Sedge



Star Tickseed



Blue Grama Grass

Scientific Name: Bouteloua Gracilis Type: Ornamental grass Family: Poaceae Native Range: Southern and Western United States, Mexico Zone: 3 to 10 Height: 0.75 to 2.00 feet Spread: 1.50 to 2.00 feet Bloom Time: June to August Bloom Description: Reddish-purple Sun: Full Sun Water: Dry to Medium Maintenance: Low Flower: Showy, Good Dried Attracts: Birds Tolerate: Drought, Erosion, Dry Soil, Shallow-Rocky Soil, Black Walnut, Air Pollution



Culture

Easily grown in average, dry to medium, well-drained soils in full sun. Tolerates a wide range of soils, except poorly-drained, wet ones. Excellent drought tolerance. Freely self-seeds. Cut to the ground in late winter before new shoots appear.

Noteworthy Characteristics

Bouteloua gracilis, commonly called blue grama or mosquito grass, is a tufted, warm season, Missouri native grass noted for its distinctive arrangement of mosquito larvae-like seed spikes which hang from only one side of its flowering stems. It is native to prairies, plains, open rocky woodlands and along railroad tracks throughout the Western U.S. It was a dominant grass of the dry shortgrass prairies. Narrow, bluish-gray leaf blades (to 1/4" wide) typically form a dense clump growing 12-15" tall. Foliage turns golden brown in autumn, sometimes also developing interesting hues of orange and red. Inflorescences of purplish-tinged flowers appear on arching stems above the foliage in early to mid summer, typically bringing the total height of the clump to 20" tall.

Problems

No serious insect or disease problems.

Garden Uses

Small size makes blue grama grass an excellent selection for rock gardens where it can be used as a specimen or in small groups. Also an excellent choice for naturalized areas, native plant gardens, unmowed meadows, prairie areas or other informal areas in the landscape, especially where drought tolerant plants are needed. Can also be grown as a turf grass and regularly mowed to 2 inches high. Flower spikes are an excellent addition for dried flower arrangements.



Cedar Sedge (Bristle-Leaved Sedge)

Scientific Name: Carex Eburnea Type: Rush or Sedge Family: Cyperaceae Native Range: Eastern and Central United States Zone: 2 to 8 Height: 0.50 to 1.00 feet Spread: 0.50 to 1.00 feet Bloom Time: April Bloom Description: Green Sun: Part Shade to Full Shade Water: Medium Maintenance: Low Suggested Use: Ground Cover, Naturalize Flower: Insignificant Tolerate: Deer, Heavy Shade



Culture

Grow in medium moisture soils in part shade to full shade. Thrives in soils that receive consistent moisture, but also will grow in drier sandy or rocky soils. Cut foliage to the ground and remove in late winter. Plants spread slowly by rhizomes over time, sometimes forming large colonies in optimum conditions in the wild.

Noteworthy Characteristics

Carex eburnea, sometimes commonly called bristle-leaf sedge, is native from Newfoundland to Alaska south to Virginia, Alabama, Arkansas and Texas. In Missouri, it most commonly occurs in crevices of limestone bluffs in the Ozark areas of the state (Steyermark). It is also known to grow in drier sandy soils, particularly on limestone outcroppings and glades. This sedge is grown in the landscape for its foliage effect. Soft, thread-like, green leaves form a spherical, porcupine-like clump to 6-10" tall and as wide. Whitish-green flowers on spikes in spring are insignificant. Other common names for this sedge include ivory sedge and ebony sedge.

Problems

No serious insect or disease problems.

Garden Uses

Rock gardens. Effective accent for smaller gardens.



Crested Iris

Scientific Name: Iris Cristata Type: Herbaceous Perennial Family: Iridaceae Native Range: Northeastern United States Zone: 3 to 9 Height: 0.50 to 0.75 feet Spread: 0.50 to 1.00 feet Bloom Time: April Bloom Description: Pale Blue With Gold-crested Falls Sun: Full Sun to Part Shade Water: Medium Maintenance: Medium Suggested Use: Ground Cover, Naturalize Flower: Showy Tolerate: Deer, Drought



Noteworthy Characteristics

Iris cristata, commonly called dwarf crested iris, is a low-growing, rapidly spreading plant that typically grows to 3-6" tall. It features pale blue, lilac or lavender iris flowers with gold crests on the falls. Flowers are borne on very short stems, often appearing nearly stemless. Narrow, sword-shaped, yellowish-green to medium green leaves (to 6" long) arise from a network of branching rhizomes. Spreads quickly and forms dense colonies in optimum growing conditions. Native from Maryland to Oklahoma south to Georgia and Mississippi. In Missouri, it typically occurs on rocky, wooded slopes, on bluffs and along streams in the southeastern Ozark region (Steyermark). When in flower, a well-developed bed can produce a spectacular drift of blue color.

Problems

Snails and slugs can be significant problems.

Garden Uses

An excellent plant for early spring bloom in a shaded area of the rock garden, perennial border or woodland garden. Foliage forms a nice ground cover for woodland areas. May also be used as a seasonal ground cover or edger.



Golden Groundsel (Round-Leaved Ragwort)

Scientific Name: Packera Obovata Type: Herbaceous Perennial Family: Asteraceae Native Range: Southeastern United States Zone: 3 to 8 Height: 1.00 to 1.50 feet Spread: 0.50 to 1.00 feet Bloom Time: April to June Bloom Description: Yellow Sun: Full Sun to Part Shade Water: Medium to Wet Maintenance: Medium Suggested Use: Ground Cover, Naturalize, Rain Garden Flower: Showy Attracts: Butterflies



Culture

Easily grown in average, moist, well-drained soils in full sun to part shade. Blooms well in shady locations. Tolerates some soil dryness. Naturalizes into large colonies in optimum growing conditions by both self-seeding and stolons. Remove flowering stems after bloom and/or dispersal of seed. Basal foliage will serve as an attractive ground cover (to 4-6" tall) throughout the growing season as long as consistent moisture is provided.

Noteworthy Characteristics

Packera obovata, commonly called roundleaf ragwort, roundleaf groundsel or squaw weed, is valued for its ability to thrive in shady locations, naturalize rapidly and produce a long and profuse spring bloom of bright yellow flowers. It is native to rocky wooded hillsides, open rocky glades, limestone ledges, stream banks and moist meadows from Quebec and Ontario south to Texas and Florida. In Missouri it most often is found in the Ozark region in the southern and central part of the State (Steyermark). Flat-topped clusters (corymbs) of daisy-like flowers (3/4" diameter) with yellow rays and yellow central disks bloom in spring (April-June) atop sparsely-leaved stems rising to 18" tall. Flowering stems rise from a basal clump of serrate, rounded to spatulate leaves (to 2-4" long) each of which tapers at the base into a long petiole. Upper stem leaves are much smaller, sessile and pinnately lobed.

Problems

No serious insect or disease problems.

Garden Uses



Vigorous spring wildflower for sunny or shady areas of the landscape. Large naturalized plantings in woodland gardens can be spectacular in bloom. Cut off flowering stems after bloom and enjoy the semi-evergreen basal foliage which forms an attractive ground cover. Also effective in wild gardens, cottage gardens, native plant gardens, borders, or along streams/ponds.



Littleflower Alumroot

Scientific Name: Heuchera Parviflora Var. Puberula Type: Herbaceous Perennial Family: Saxifragaceae Native Range: Southeastern United States Zone: 5 to 9 Height: 0.75 to 1.00 feet Spread: 0.75 to 1.00 feet Bloom Time: July to September Bloom Description: White to Pink Sun: Full Sun to Part Shade Water: Medium Maintenance: Low Flower: Showy



Culture

Best grown in organically rich, humusy, medium moisture, well-drained soils in full sun to part shade. Performs well in full sun in the north, but prefers part shade (particularly in the heat of the afternoon) in the south. In the St. Louis area, best foliage color may occur in sunny spots with some afternoon shade. Scorch and general foliage decline usually occur if soils are allowed to dry out. Consistent moisture is particularly important. Remove stems of faded flowers to encourage additional bloom. Foliage is essentially evergreen in warm winter climates, but the amount of retained foliage color in cold winter climates such as St. Louis depends in large part upon the severity of the temperatures. In cold winter climates, a winter mulch applied after the ground freezes will help prevent root heaving. Divide clumps in spring every 3-4 years.

Noteworthy Characteristics

This heuchera is native from Missouri to Kentucky, Tennessee and Arkansas. In Missouri, it is most often found growing on northern or eastern facing shaded limestone bluffs (Steyermark). This is a clump-forming plant that typically grows in a basal mound to 12" tall. Leaves (to 5" wide) have long petioles, 5-7 shallow rounded lobes, crenate margins and cordate bases. Slender flowering stems rise to 18" in late summer featuring white to pink flowers in open airy panicles. Flowers typically bloom from late July to September, but sometimes later. Leaf undersides, leaf-stalks and flowering stems are densely covered with minute hairs (puberulent as the variety name suggests).

Problems

No serious insect or disease problems. Frost heaving of roots may occur when winter temperatures fluctuate widely.

Garden Uses



Uncommonly sold in commerce. This is a shade tolerant heuchera that may be grown in rock gardens, borders, open woodland gardens, rocky slopes or native plant areas. It is best planted in groups or massed.



Oak Sedge

Scientific Name: Carex Albicans Type: Rush or Sedge Family: Cyperaceae Native Range: United States Zone: 4 to 8 Height: 1.00 to 1.50 feet Spread: 1.00 to 1.50 feet Bloom Time: May Sun: Part Shade to Full Shade Water: Medium Maintenance: Low Suggested Use: Naturalize Flower: Showy Tolerate: Drought, Dry Soil



Culture

Easily grown in medium moisture soils in part shade to full shade. Will grow in full sun. This species tolerates dry soil conditions better than most species of Carex. Plants will slowly spread by rhizomes and will self-seed in optimum growing conditions.

Noteworthy Characteristics

Carex albicans, sometimes commonly called white tinged sedge or oak sedge, is a rhizomatous perennial sedge (section Acrocystis) that grows in a clump to 15-20" tall. It is native to North America from Quebec and Ontario south to Florida and Texas. In Missouri, it is found throughout the State, but most frequently in messic to dry upland forests and shaded ledges and less frequently in sandy bottomland forests (Steyermark). Narrow, grass-like, upright-arching, bright green leaf blades (to 16" long and 1/10" wide) grow in either dense tufts or loose colonies of tufts. Flowers bloom in late spring (May) on flowering stems rising to as much as 20" tall. Inflorescence has a staminate terminal spike and pistillate lateral spikes. Staminate scales are green to straw-colored, often tinged with reddish purple and white-margined. Pistillate scales are usually dark brown to black with green midribs and white margins. Fruits are trigonous, one-seeded achenes enclosed in sac-like bracts (perigynia).

Problems

No serious insect or disease problems.

Garden Uses

Best grown in groups or massed for foliage effect. Effective as a ground cover. Good selection for shade/part shade gardens and landscape areas. Good year round foliage interest.



Pennsylvania Sedge

Scientific Name: Carex Pensylvanica Type: Rush or Sedge Family: Cyperaceae Native Range: Canada, United States Zone: 3 to 8 Height: 0.50 to 1.00 feet Spread: 0.50 to 1.00 feet Bloom Time: May Bloom Description: Greenish Sun: Part Shade to Full Shade Water: Dry to Medium Maintenance: Low Suggested Use: Ground Cover, Naturalize, Rain Garden Flower: Insignificant Tolerate: Heavy Shade, Wet Soil



Culture

Easily grown in average, dry to medium, well-drained soils in part shade to full shade. Prefers loose loams in dry soils in sun-dappled part shade. Most sedges prefer moist to wet soils, but not this one. Plants spread by rhizomes. Plants may self-seed in optimum growing conditions.

Noteworthy Characteristics

Carex pensylvanica, commonly called Pennsylvania sedge, is a shade-loving perennial sedge that is native to thickets and dry woodland areas in Eastern and Central North America from Quebec to Manitoba south to Mississippi and Georgia. In Missouri, it is found mostly north of the Missouri River in dry to mesic upland forests and shaded bluff ledges (Steyermark). It typically grows in loose colonies with a creeping habit. Roots are reddish brown. It is often found in areas with oak trees, hence the additional common name of oak sedge. This is a low sedge with soft, delicate, arching, semi-evergreen leaves (each to 1/8" wide). It typically grows in a clump to 8" tall. It is semi-evergreen in moderately cold winter climates. Narrow, grass-like, medium green leaves (to 8-12" long) are typically shorter than the flowering stems. Plants are monoecious (spikelets of male flowers above female flowers). Flowers bloom in late spring (May) in inflorescences atop rough, sharply triangular culms (stems) which rise up singly from the rhizomes. Staminate scales are green often tinged with reddish-purple with white margins. Pistillate scales are dark brown to purplish black with green midribs and white margins. Female flowers are followed by tiny fruits (achenes) enclosed in sac-like bracts (perigynia).

Problems

No serious insect or disease problems. Leaf spot, smut and rust are occasional problems.

Garden Uses



Groundcover for dry shade. Underplanting for shade perennials. Lawn substitute for dry soils in shady areas (forms a turf that never needs mowing or mow 2-3 times per year to 2" tall). May be best to use purchased plants for covering large areas because this species often does not grow well from seed.



Prairie Dropseed

Scientific Name: Sporobolus Heterolepis Type: Ornamental Grass Family: Poaceae Native Range: North America Zone: 3 to 9 Height: 2.00 to 3.00 feet Spread: 2.00 to 3.00 feet Bloom Time: August to October Bloom Description: Pink and Brown-tinted Sun: Full Sun Water: Dry to Medium Maintenance: Low Suggested Use: Ground Cover, Naturalize, Rain Garden Flower: Showy, Fragrant Leaf: Good Fall Attracts: Birds Other: Winter Interest



Tolerate: Deer, Drought, Erosion, Dry Soil, Shallow-Rocky Soil, Black Walnut, Air Pollution

Culture

Easily grown in average, dry to medium, well-drained soils in full sun. Tolerates wide range of soils, including heavy clays. Prefers dry, rocky soils. Good drought tolerance. Slow-growing and slow to establish. May be grown from seed but does not freely self-seed in the garden.

Noteworthy Characteristics

Sporobolus heterolepis, called prairie dropseed, is a clump-forming, warm season, Missouri native perennial grass which typically occurs in prairies, glades, open ground and along railroads throughout much of the State (Steyermark). This is a prairie grass that is native from Quebec to Saskatchewan south to Colorado, Texas and Connecticut. Fine-textured, hair-like, medium green leaves (to 20" long and 1/16" wide) typically form an arching foliage mound to 15" tall and 18" wide. Foliage turns golden with orange hues in fall, fading to light bronze in winter. Open, branching flower panicles appear on slender stems which rise well above the foliage clump in late summer to 30-36" tall. Flowers have pink and brown tints, but are perhaps most noted for their unique fragrance (hints of coriander). Tiny rounded mature seeds drop to the ground from their hulls in autumn giving rise to the descriptive common name.

Problems

No serious insect or disease problems.

Garden Uses



Ground cover for hot, dry areas. Prairies, meadows, native plant gardens, wild areas or slopes. Also effective in large rock gardens. Accent for foundation plantings or borders.



Purple Poppy Mallow

Scientific Name: Callirhoe Involucrata Type: Herbaceous Perennial Family: Malvaceae Native Range: Central United States Zone: 4 to 8 Height: 0.50 to 1.00 feet Spread: 0.50 to 3.00 feet Bloom Time: May to June Bloom Description: Magenta Sun: Full Sun Water: Dry to medium Maintenance: Low Suggested Use: Naturalize Flower: Showy Tolerate: Drought, Dry Soil, Shallow-Rocky Soil



Culture

Easily grown in dry to medium moisture, well-drained soils in full sun. Grows well from seed and may self-seed in the garden in optimum growing conditions. Long tap root gives plant good drought tolerance but makes transplanting of established plants difficult.

Noteworthy Characteristics

Callirhoe involucrata, commonly called purple poppy mallow, is a mat-forming, Missouri native perennial which most frequently occurs in dryish, rocky soils in prairies, fields and along roadsides scattered in several counties mostly northeast of the Missouri River. Plants typically form a low foliage mound from 6-9" tall on procumbent stems which spread along the ground to 3' wide. Solitary, upward facing, cup-shaped, five-petaled, poppy-like, magenta flowers (to 2.5" wide) continuously appear on thin stems above the foliage from mid-spring to fall. Stamens form a prominent central column typical of mallow family members, but with distinctive style branches. Leaves are palmately divided into 5-7 finger-like lobes. The closely-related Missouri native fringed poppy mallow (Callirhoe digitata) is, by contrast, a spindly, erect plant which typically grows 2-3' tall.

Problems

No serious insect or disease problems. Crown rot may occur in poorly drained soils.

Garden Uses

Good native ground cover. Border fronts, rock gardens, native plant gardens, wild gardens, naturalized areas or meadows. Sprawl over a stone wall. Fits well into both formal garden areas as well as wild/naturalized areas.



Red Fescue (Creeping Red Fescue)

Scientific Name: Festuca rubra 'Pennlawn' Type: Turfgrass Family: Poaceae Zone: 3 to 6 Height: 0.25 to 0.25 feet Spread: 0.25 to 0.25 feet Bloom Time: Non-flowering Bloom Description: Green Sun: Part shade Water: Medium Maintenance: Medium Suggested Use: Ground Cover Tolerate: Drought



Culture

Red fescue is a fine-leaved turfgrass that does well in part shade and grows best in cool climates as in the coastal northwest, Great Lakes area or at high elevations. It has good drought tolerance and requires low to medium amounts of fertilizer (1 to 3 lbs. nitrogen per 1,000 sq. ft.) It can be blended with tall fescue or bluegrass and has the ability to creep by rhizomes. Seeding rates are about 2 to 4 lbs. per 1,000 sq. ft.

Noteworthy Characteristics

Red fescue is the most commonly used cool season turfgrass in shade and dry, drought-prone areas. It can be mixed with other fescues and bluegrass to provide a full sun to shade blend. Its maintenance requirement is low to medium and should be mowed at about 2 to 3". It can be left unmowed for a meadow look, if desired.

Problems

Red fescue does not wear well and is slow to recuperate when thinned out or damaged. It is very susceptible to summer diseases in hot climates and this can become more notable in fertile, moist soils.

Garden Uses

Frequently used under shade conditions such as beneath the canopy of trees. Blend with bluegrass or tall fescue.



Star Tickseed

Scientific Name: Coreopsis Pubescens Type: Herbaceous Perennial Family: Asteraceae Zone: 6 to 9 Height: 0.75 to 1.00 feet Spread: 0.50 to 0.75 feet Bloom Time: June to September Bloom Description: Yellow With Orange Center Disk Sun: Full Sun Water: Dry to Medium Maintenance: Low Suggested Use: Naturalize Flower: Showy Attracts: Butterflies Tolerate: Deer, Drought, Dry Soil, Shallow-Rocky Soil



Culture

Easily grown in dry to medium moisture, well-drained soil in full sun. Thrives in poor, sandy or rocky soils with good drainage. Tolerant of heat, humidity and drought. Prompt deadheading of spent flower stalks encourages additional bloom and prevents any unwanted self-seeding. Plants are somewhat short-lived and self-seeding helps perpetuate a good planting in the garden. Plants may be cut back hard in summer if foliage sprawls or becomes unkempt. When grown in borders or other formal garden areas, division may be needed every 2-3 years to maintain robustness.

Noteworthy Characteristics

Coreopsis pubescens, commonly called star tickseed or downy tickseed, is native to rocky open woods, bluff bases, valleys, gravelly stream beds, rocky ledges along streams, alluvial thickets and railroad right-of-ways from Florida to Texas north to Virginia, Illinois, Missouri and Kansas. It typically grows in a clump to 3-4' tall on slender downy stems clad with ovate-lanceolate leaves which are sometimes lobed at the base. Daisy-like single flowers (2" diameter) with star-like involucre bracts feature yellow rays (lobed or notched at the tips) surrounding a darker golden yellow center disk. Flowers typically bloom from late spring to late summer and sometimes into fall, though bloom period can be much shorter if spent flowers are not regularly deadheaded.

'Sunshine Superman' is a compact variety that only grows to 10-12" tall. Yellow daisy-like flowers (to 1" diameter) with notched yellow rays and orange center disks bloom profusely from June to September. Lance-shaped, medium green leaves form a somewhat bushy foliage mound.

Problems

No serious insect or disease problems. Crown rot may occur if grown in moist, poorly drained soils.



Garden Uses

Borders. Also effective in naturalized areas, meadows, prairies or cottage gardens. Good plant for areas with poor, dry soils. Patio containers.



Tussock Sedge

Scientific Name: Carex Stricta Type: Rush or Sedge Family: Cyperaceae Native Range: Central United States Zone: 3 to 8 Height: 1.00 to 3.00 feet Spread: 1.00 to 2.00 feet Bloom Time: May to June Bloom Description: Reddish-brown Sun: Full Sun to Part Shade Water: Medium to Wet Maintenance: Low Suggested Use: Water Plant, Naturalize, Rain Garden Flower: Showy Leaf: Evergreen Other: Winter Interest Tolerate: Deer, Erosion



Culture

Easily grown in moist to wet soils including standing water in full sun to part shade. Grows well in wet low spots, water margins and areas that experience some seasonal flooding. Tolerates shady conditions. Spreads by rhizomes to form large colonies.

Noteworthy Characteristics

Carex stricta is a rhizomatous evergreen sedge that grows in dense tussocks (clumps) to 1-3' tall and to 2' wide. It is an emergent aquatic that is native primarily to wet swales, marshes, bogs, wet meadows and creek margins in eastern North America (Quebec to Ontario to North Dakota south to Missouri, Tennessee and North Carolina). In Missouri, it is limited to several locations in calcareous, spring fed, swampy meadows in the Ozarks in the southeastern part of the State (Steyermark). Narrow, glaucous, grass-like leaves (to 3/8" wide) grow in dense clumps. Older leaves turn straw brown as they die, and build up around the base of each clump surrounding the newer yellowish-green leaves. Flora of North America reports that plants grown in sites with seasonal flooding form distinctive large clumps, and plants grown in drier areas tend to spread more by rhizomes. Flowers appear in late spring in reddish-brown spikes atop stems rising above the foliage. Steyermark maintains that the scattered Missouri populations of this species are all that remains from an ancient Pleistocene presence that has gradually disappeared over time as the glaciers disappeared and the weather warmed.

Problems

No serious insect or disease problems.



Garden Uses

Best grown in mass for foliage effect in moist to wet areas including ones with standing water. Flowers are not showy. Good selection for low spots, stream/pond margins or areas with seasonal flooding. Also may be grown in a variety of upland locations as long as soils are kept consistently moist. Effective accent for smaller gardens. Ground cover for shady areas.



Small Plants (2'-3')

Native Landscapes Committee

Small

2-3 Feet



Aromatic Aster



Beautyberry



Black-eyed Susan



Butterfly Milkweed



Eastern Blazingstar



Indian Pink



Shining Blue Star



Texas Green Eyes



Michigan Lily



Slender Mountain Mint Southern Blue Flag



Orange Coneflower





Aromatic Aster

Scientific Name: Symphyotrichum Oblongifolium Type: Herbaceous Perennial Family: Asteraceae Native Range: Northeastern and Central United States Zone: 3 to 8 Height: 1.00 to 3.00 feet Spread: 1.00 to 3.00 feet Bloom Time: August to September Bloom Description: Blue, Purple Sun: Full Sun Water: Dry to Medium Maintenance: Medium Suggested Use: Ground Cover Flower: Showy Leaf: Fragrant Attracts: Birds, Butterflies Tolerate: Drought, Erosion, Clay Soil, Dry Soil, Shallow-Rocky Soil



Culture

Easily grown in average, dry to medium, well-drained soil in full sun. Does well in sandy or clay soils. Generally tolerates poor soils and drought.

Noteworthy Characteristics

Symphyotrichum oblongifolium, commonly called aromatic aster, is a Missouri native plant that typically occurs on limestone glades, slopes, prairies and dry open ground. A bushy, stiff, compact, low-growing plant with hairy stems. Typically grows 1-2' (infrequently to 3') tall and features small, daisy-like flowers (1" across) with violet blue rays and yellow center disks. Rigid, toothless, oblong, blue-green leaves (to 4" long) are, as the common name suggests, fragrant when crushed. Good cut flower. Attractive to butterflies.

Problems

No serious insect or disease problems. Some susceptibility to mildew. Some support may be needed for taller plants since stems may tend to splay apart in autumn from the weight of the bloom.

Garden Uses

Open shade gardens, native plant gardens or woodland gardens. Good for mass planting.



Beautyberry

Scientific Name: Callicarpa Americana Type: Deciduous Shrub Family: Lamiaceae Native Range: Southeastern United States Zone: 6 to 10 Height: 3.00 to 6.00 feet Spread: 3.00 to 6.00 feet Bloom Time: June to August Bloom Description: Lavender, Pink Sun: Full Sun to Part Shade Water: Medium Maintenance: Medium Flower: Insignificant Attracts: Birds Fruit: Showv Other: Winter Interest Tolerate: Clay Soil



Culture

This native plant prefers the soil of its natural forest floor habitat - a moist clay or sand enriched with organic matter. It will fruit most abundantly in full sun but may be grown in light shade. The plant needs minimal care once its roots are established. Since Missouri is at the northern edge of beautyberry's range, the foliage will be killed back to the ground in most winters. This will not affect the flowering as the plant blooms on new growth. In warmer areas, this shrub may be pruned back to about 2' less than the desired size. Propagate by cuttings or from seed.

Noteworthy Characteristics

Callicarpa americana, commonly called beautyberry, is a loose open shrub valued for its spectacular fruits. The relatively insignificant flowers develop into prolific bright violet to magenta berry-like drupes which encircle the stem. These fruits remain attractive for a long time although they are generally gone before severe winter weather.

Problems

Beautyberry is relatively disease and pest free.

Garden Uses

The size and loose open habit of beautyberry makes it best for the back of a shrub border where it may be massed in large landscapes or where it may be naturalized. Beautyberry plants are said to bear more fruit if several are planted together.



Black-Eyed Susan

Scientific Name: Rudbeckia Hirta Type: Herbaceous Perennial Family: Asteraceae Native Range: Central United States Zone: 3 to 7 Height: 2.00 to 3.00 feet Spread: 1.00 to 2.00 feet Bloom Time: June to September Bloom Description: Yellow to Orange-yellow Rays, Dark Brown Centers Sun: Full Sun Water: Medium Maintenance: Low Suggested Use: Annual, Naturalize Flower: Showy Attracts: Butterflies Tolerate: Deer, Drought, Clay Soil



Culture

Biennial or short-lived perennial that is winter hardy to USDA Zones 3-7. It blooms in the first year from seed planted in early spring, and is accordingly often grown as an annual. It is easily grown in average, medium moisture, well-drained soils in full sun. Best in moist, organically rich soils. Tolerates heat, drought and a wide range of soils except poorly-drained wet ones. For best result from seed in the St. Louis area, start seed indoors around March 1. Seed may also be sown directly in the garden at last frost date. Some varieties are available in cell/six packs from nurseries. Set out seedlings or purchased plants at last frost date. Deadhead spend flowers to encourage additional bloom and/or to prevent any unwanted self-seeding. Whether or not plants survive from one year to the next, they freely self-seed and will usually remain in the garden through self-seeding.

Noteworthy Characteristics

Ruudbeckia hirta, commonly called black-eyed Susan, is a common Missouri native wildflower which typically occurs in open woods, prairies, fields, roadsides and waste areas throughout the State. It is a coarse, hairy, somewhat weedy plant that features daisy-like flowers (to 3" across) with bright yellow to orange-yellow rays and domed, dark chocolate-brown center disks. Blooms throughout the summer atop stiff, leafy, upright stems growing 1-3' tall. Rough, hairy, lance-shaped leaves (3-7" long). Plants of this species are sometimes commonly called gloriosa daisy, particularly the larger-flowered cultivars that come in shades of red, yellow, bronze, orange and bicolors.

Problems

No serious insect or disease problems. Susceptible to powdery mildew. Watch for slugs and snails on young plants. Can self-seed freely.



Garden Uses

Borders. Annual beds. Cottage gardens. Wild gardens. Meadows. Groups or mass plantings. Good cut flower.



Butterfly Milkweed

Scientific Name: Asclepias Tuberosa Type: Herbaceous Perennial Family: Apocynaceae Native Range: Eastern and Southern United States Zone: 3 to 9 Height: 1.00 to 2.50 feet Spread: 1.00 to 1.50 feet Bloom Time: June to August Bloom Description: Yellow/Orange Sun: Full sun Water: Dry to Medium Maintenance: Low Suggested Use: Naturalize, Rain Garden Flower: Showy Attracts: Butterflies Tolerate: Deer, Drought, Erosion, Dry Soil, Shallow-Rocky Soil



Culture

Easily grown in average, dry to medium, well-drained soils in full sun. Drought tolerant. Does well in poor, dry soils. New growth tends to emerge late in the spring. Plants are easily grown from seed, but are somewhat slow to establish and may take 2-3 years to produce flowers. Mature plants may freely self-seed in the landscape if seed pods are not removed prior to splitting open. Butterfly weed does not transplant well due to its deep taproot, and is probably best left undisturbed once established.

Noteworthy Characteristics

Asclepias tuberosa, commonly called butterfly weed, is a tuberous rooted, Missouri native perennial which occurs in dry/rocky open woods, glades, prairies, fields and roadsides throughout the State (Steyermark). It typically grows in a clump to 1-3' tall and features clusters (umbels) of bright orange to yellow-orange flowers atop upright to reclining, hairy stems with narrow, lance-shaped leaves. Unlike many of the other milkweeds, this species does not have milky-sapped stems. Flowers give way to prominent, spindle-shaped seed pods (3-6" long) which split open when ripe releasing numerous silky-tailed seeds for dispersal by the wind. Seed pods are valued in dried flower arrangements. Long bloom period from late spring throughout the summer. Flowers are a nectar source for many butterflies and leaves are a food source for monarch butterfly larvae (caterpillars). Also commonly called pleurisy root in reference to a prior medicinal use of the plant roots to treat lung inflammations.

Problems

No serious insect or disease problems. Crown rot can be a problem in wet, poorly drained soils. Susceptible to rust and leaf spot.



Garden Uses

Butterfly gardens, meadows, prairies, or naturalized/native plant areas. Also effective in sunny borders. Whether massing plants in large drifts or sprinkling them throughout a prairie or meadow, butterfly weed is one of our showiest native wildflowers.



Eastern Blazingstar

Scientific Name: Liatris spicata Type: Herbaceous Perennial Family: Asteraceae Native Range: Eastern United States Zone: 3 to 8 Height: 2.00 to 4.00 feet Spread: 0.75 to 1.50 feet Bloom Time: July to August Bloom Description: Red-purple Sun: Full Sun Water: Medium Maintenance: Low Suggested Use: Rain Garden Flower: Showy, Good Cut, Good Dried Attracts: Birds, Butterflies Tolerate: Drought, Clay Soil



Culture

Easily grown in average, medium, well-drained soils in full sun. Somewhat tolerant of poor soils, but prefers moist, fertile ones and generally performs better in moist soils than most other species of Liatris. Intolerant of wet soils in winter. Tolerant of summer heat and humidity. May be grown from seed, but is slow to establish.

Noteworthy Characteristics

Liatris spicata, commonly called blazing star, dense blazing star or marsh blazing star, is a tall, upright, clump-forming perennial which is native to moist low grounds, meadows and marsh margins. In Missouri, it has only been found in Oregon County on the Arkansas border (Steyermark). It typically grows 2-4' tall in cultivation, but can reach a height of 6' in some parts of its native habitat. Features terminal spikes (6-12" long) of sessile, rounded, fluffy, deep purple flower heads (each to 3/4" across) appearing atop rigid, erect, leafy flower stalks. One or more stalks arise from a basal tuft of narrow, grass-like, medium green leaves (to 12" long). Stem leaves gradually decrease in size toward the top. Blooms in summer. Liatris belongs to the aster family, with each flower head having only fluffy disk flowers (resembling "blazing stars") and no ray flowers. The feathery flower heads of liatris give rise to another common name of gayfeather.

Problems

No serious insect or disease problems. Taller plants may require staking or other support.

Garden Uses

Mass in perennial borders, native plant gardens, cottage gardens and prairie areas.



Indian Pink

Scientific Name: Spigelia Marilandica Type: Herbaceous Perennial Family: Loganiaceae Native Range: Southeastern United States Zone: 5 to 9 Height: 1.00 to 2.00 feet Spread: 0.50 to 1.50 feet Bloom Time: June Bloom Description: Red and yellow Sun: Part Shade to Full Shade Water: Medium Maintenance: Low Flower: Showy Attracts: Hummingbirds Tolerate: Drought, Dry Soil



Culture

Easily grown in average, medium, well-drained soil in part shade to full shade. Prefers moist, organically rich soils.

Noteworthy Characteristics

Spigelia marilandica, commonly called Indian pink, is a clump-forming, Missouri native perennial which occurs in moist woods and streambanks in the far southeastern part of the State. Features one-sided cymes of upward facing, trumpet-shaped, red flowers (to 2" long) atop stiff stems growing to 18" tall. Each flower is yellow inside and flares at the top to form five pointed lobes (a yellow star). Flowers bloom in June. Glossy green, ovate to lance-shaped leaves (to 4" long).

Problems

No serious insect or disease problems.

Garden Uses

Shaded border fronts, shade gardens, woodland gardens, wildflower gardens or native plant gardens.



Michigan Lily

Scientific Name: Lilium Michiganense Type: Bulb Family: Liliaceae Native Range: Northern and Central North America Zone: 4 to 8 Height: 2.00 to 5.00 feet Spread: 1.00 to 2.00 feet Bloom Time: June to July Bloom Description: Orange with Dark Spots Sun: Full Sun to Part Shade Water: Medium to Wet Maintenance: Low Suggested Use: Rain Garden Flower: Showy Attracts: Hummingbirds Tolerate: Wet Soil



Culture

Easily grown in average, medium, well-drained soils in full sun to light shade. Best in moist, humusy soils in full sun. Mulch helps keep root zone cool. Plant bulbs 5-6" deep in fall. Stoloniferous, but usually slow to spread.

Noteworthy Characteristics

Lilium michiganense, commonly called Michigan lily, is native to Missouri where it occurs in wet meadows, low woods and swampy prairies throughout the state. Typically grows 2-5' tall. Elliptic to lance-shaped, lower leaves (to 4" long) are arranged in whorls around the stems. Downward-facing, orange-red,Turk's cap-type flowers (to 3" wide) with densely-spotted, broadly-reflexed sepals and petals. Flowers (usually 1-8) appear in a loose inflorescence atop upright stems in early summer.

Problems

No serious insect or disease problems.

Garden Uses

Borders, cottage gardens, native plant gardens or meadows. Best grouped or massed.



Orange Coneflower

Scientific Name: Rudbeckia Fulgida Type: Herbaceous perennial Family: Asteraceae Native Range: Southeastern United States Zone: 3 to 9 Height: 2.00 to 3.00 feet Spread: 2.00 to 2.50 feet Bloom Time: June to October Bloom Description: Orange / yellow Sun: Full Sun Water: Dry to Medium Maintenance: Low Suggested Use: Naturalize, Rain Garden Flower: Showy, Good Cut, Good Dried Attracts: Butterflies



Tolerate: Deer, Drought, Clay Soil, Dry Soil, Shallow-Rocky Soil, Air Pollution

Culture

Easily grown in dry to medium, organically rich to average, well-drained soils in full sun. Best bloom occurs in full sun, although plants will tolerate some light shade. Plants prefer consistent moisture throughout the growing season, with some tolerance for drought once established. Good air circulation is appreciated. Deadhead spent flowers to encourage additional bloom. Plants slowly spread in the garden by rhizomes.

Noteworthy Characteristics

Rudbeckia fulgida is a Missouri native which occurs in both dry and moist soils in open woods, glades and thickets. An upright, rhizomatous, clump-forming, free-blooming coneflower which typically grows to 3' tall, often forming colonies in the wild. Features daisy-like flowers (to 2.5" across) with yellow rays and brownish-purple center disks. Prolific bloom production over a long mid-summer to fall bloom period. Oblong to lanceolate, medium green foliage. Good cut flower.

Problems

No serious insect or disease problems.

Garden Uses

Mass in bold drifts in the perennial border, cottage garden, meadow, native plant garden or naturalized area. Provides excellent bloom and color for the late summer. Good cut flower.



Shining Blue Star

Scientific Name: Amsonia Illustris Type: Herbaceous perennial Family: Apocynaceae Native Range: Central United States Zone: 5 to 9 Height: 2.00 to 3.00 feet Spread: 1.00 to 1.50 feet Bloom Time: May Bloom Description: Light blue Sun: Full Sun to Part Shade Water: Medium Maintenance: Low Suggested Use: Naturalize, Rain Garden Flower: Showy Leaf: Good Fall Attracts: Butterflies Tolerate: Deer



Culture

Easily grown in average, medium, well-drained soils in full sun to part shade. Prefers moist, loamy soils. Tolerates some drought. When grown in full sun, plants often require no pruning or staking. When grown in some shade and/or in rich soils, however, plants tend to become more open and floppy and often require staking or pruning. For a neater appearance, particularly for shade-grown plants, consider cutting back stems by 1/2 to 1/3 after flowering to promote bushy growth and, if desired, a more rounded foliage mound. Easily grown from seed.

Noteworthy Characteristics

Amsonia illustris, commonly called Ozark bluestar or shining blue star, is a Missouri native perennial that most frequently occurs in sandy or rocky soils on gravel bars or along streams in the Ozark region of the state (Steyermark). This is an erect, clump-forming plant that features terminal, pyramidal clusters of 1/2-inch, star-like, soft light blue flowers in late spring atop erect, leafy stems growing 2-3' tall. Narrow, willow-shaped, leathery, shiny green leaves (to 6" long) may turn an attractive yellow in fall. Very similar in appearance to Amsonia tabernaemontana, except the leaves of the within species are shinier, thicker and more leathery and the seed pods are pendant.

Problems

No serious insect or disease problems. Taller plants may require staking, particularly if grown in shade and not pruned after flowering.

Garden Uses

Borders, meadows, open shade gardens, native plant gardens, naturalized areas.



Slender Mountain Mint

Scientific Name: Pycnanthemum Tenuifolium Type: Herbaceous perennial Family: Lamiaceae Native Range: Eastern North America Zone: 4 to 8 Height: 2.00 to 3.00 feet Spread: 2.00 to 3.00 feet Bloom Time: July to September Bloom Description: White Sun: Full Sun to Part Shade Water: Dry to Medium Maintenance: Low Suggested Use: Naturalize, Rain Garden Flower: Showy, Good Cut Leaf: Fragrant Tolerate: Drought, Erosion, Clay Soil, Dry Soil, Shallow-Rocky Soil



Culture

Easily grown in average, dry to medium, well-drained soil in full sun to part shade. A vigorous and sometimes aggressive grower.

Noteworthy Characteristics

Pycnanthemum tenuifolium, commonly called mountain mint, is somewhat misleading since the plant typically grows in the wild in dry, open, rocky woods, dry prairies and fields, along roadsides, along streams and in open wet thickets. An erect, many-branched, herbaceous perennial that grows 2-3' tall and features extremely narrow, almost needle-like leaves and profuse terminal clusters of small, white flowers which bloom in mid to late summer. All parts of the plant emit a strong, mint-like aroma when crushed. Pycnanthemums have been used in teas.

A Missouri native plant that is found throughout the state.

Problems

No serious insect or disease problems.

Garden Uses

Interesting plant for the herb garden, border, naturalized area or meadow. Also may be grown in open areas near ponds and streams.



Southern Blue Flag

Scientific Name: Iris Virginica Type: Herbaceous Perennial Family: Iridaceae Native Range: United States Zone: 5 to 9 Height: 1.00 to 3.00 feet Spread: 1.00 to 3.00 feet Bloom Time: June Bloom Description: Violet Blue With Yellow and White Crested Falls Sun: Full Sun Water: Medium to Wet Maintenance: Low Suggested Use: Water Plant, Naturalize, Rain Garden Flower: Showy Tolerate: Deer, Wet Soil



Culture

Best grown in wet, boggy, acidic, sandy soils in full sun. Also does surprisingly well in average garden soils that are kept consistently moist, however best performance in the border will generally occur with sandy-humusy, water-retentive soils that are never allowed to dry out. The species is often found in the wild growing in standing water, and this cultivar may be grown in shallow water (up to 6 "). Tolerates light shade, particularly in the southern part of its growing range. Clumps will slowly spread by creeping rhizomes to form colonies in optimum growing conditions. Divide plants when overcrowding occurs.

Noteworthy Characteristics

Iris virginica, commonly called Southern blue flag, is a wetland species of iris which is native primarily to coastal plains from Virginia to Louisiana. It typically grows to 2' tall (less frequently to 3') and features non-fragrant violet-blue flowers with falls that are crested with yellow and white. Flower color can vary considerably from very light blue to purple. Bright medium green, sword-shaped leaves often lie on the ground or in the water. Blooms in late spring.

Problems

No serious insect or disease problems. Optimum growing conditions may be difficult to attain in the home landscape.

Garden Uses

Water gardens, along streams or ponds or in low-lying areas that are subject to periodic flooding. May be grown in borders as long as soils are kept uniformly moist.





Texas Green Eyes

Scientific Name: Berlandiera Texana Type: Herbaceous Perennial Family: Asteraceae Native Range: South-central United States Zone: 6 to 8 Height: 1.50 to 3.00 feet Spread: 1.00 to 2.00 feet Bloom Time: June to September Bloom Description: Yellow Rays and Maroon Center Disks Sun: Full Sun Water: Dry to Medium Maintenance: Low Suggested Use: Naturalize Flower: Showy Tolerate: Drought, Dry Soil



Culture

Easily grown in average, dry to medium, well-drained soils in full sun. Tolerates light shade. Prefers slightly alkaline soils. Good tolerance for heat and drought. May produce more flowers with consistent moisture, but at the possible cost of stem-drooping. Easily grown from seed. May self-seed in the garden.

Noteworthy Characteristics

Berlandiera texana, commonly called Texas greeneyes, is a hirsute perennial sunflower that is native to dry, rocky/sandy, calcareous soils in open woods, glades, and thickets in Missouri, Kansas, Oklahoma and Texas. In Missouri, it is primarily found in the southern Ozark region. Daisy-like flowers, in corymbiform terminal clusters, bloom from June to September atop erect, branching, purple-pubescent stems rising to 1.5-3' (occasionally to 4') tall. Each flower features yellow rays (usually 5-12), shallow cup-like green calyces (bracts) beneath the rays, and maroon center disks (to 1/2" diameter). Stems are clad with alternate, broadly triangular, coarsely-toothed leaves (to 6" long) which are cordate at the base, rounded to blunt at the apex and pubescent on both sides. Larger lower leaves are petiolate and smaller upper leaves are sessile. Once the flower petals and disk flowers drop, the remaining stiff, cupped, green calyces surrounding the greenish center disks resemble green eyes, hence the common name.

Problems

No serious insect or disease problems. Root rot may occur in overly moist soils.

Garden Uses

Perennial border. Wildflower meadow. Naturalized areas. Edger for informal situations.



Medium Plants (3'-8')

Native Landscapes Committee

Medium 3-8 Feet



Beardtongue



Big Bluestem



Black Chokeberry



Bloodtwig Dogwood



Dwarf Fountain Grass



Purple Coneflower



Blue False Indigo



Marsh Milkweed



Cardinal Flower



New England Aster



Winterberry



Switchgrass



Beardtongue

Scientific Name: Penstemon digitalis Type: Herbaceous Perennial Family: Plantaginaceae Native Range: Eastern and Southeastern United States Zone: 3 to 8 Height: 3.00 to 5.00 feet Spread: 1.50 to 2.00 feet Bloom Time: April to June Bloom Description: White Sun: Full Sun Water: Dry to Medium Maintenance: Medium Suggested Use: Naturalize, Rain Garden Flower: Showy, Good Cut Attracts: Birds, Butterflies Tolerate: Deer, Drought, Clay Soil, Dry Soil



Culture

Grow in average, dry to medium moisture, well-drained soil in full sun. Avoid wet, poorly drained soils.

Noteworthy Characteristics

Penstemon digitalis is a clump-forming, Missouri-native perennial which typically grows 3-5' tall and occurs in prairies, fields, wood margins, open woods and along railroad tracks. Features white, two-lipped, tubular flowers (to 1.25" long) borne in panicles atop erect, rigid stems. Flowers bloom mid-spring to early summer. Basal leaves are elliptic and stem leaves are lance-shaped to oblong.

Problems

No serious insect or disease problems. Root rot can occur in wet, poorly-drained soils. Leaf spots are occasional problems.

Garden Uses

Mass in sunny borders, wild gardens, native plant gardens or naturalized areas.



Big Bluestem

Scientific Name: Andropogon gerardii Type: Ornamental Grass Family: Poaceae Native Range: Canada to Mexico Zone: 4 to 9 Height: 4.00 to 6.00 feet Spread: 2.00 to 3.00 feet Bloom Time: September to February Bloom Description: Purplish-red Sun: Full sun Water: Dry to Medium Maintenance: Low Suggested Use: Naturalize Flower: Insignificant, Good Dried Leaf: Good Fall Other: Winter Interest



Tolerate: Deer, Drought, Erosion, Dry Soil, Black Walnut, Air Pollution

Culture

Easily grown in average, dry to medium, well-drained soils in full sun. Tolerant of a wide range of soils and growing conditions. Puts out lots of growth in moist, fertile soils, but is less apt to topple in dryish, infertile soils. Freely self-seeds in optimum growing conditions. This grass develops an extensive root system and is somewhat slow to establish, but, once established, has excellent drought tolerance and is easy to maintain. Cut stems to the ground in late winter before new shoots appear.

Noteworthy Characteristics

Andropogon gerardii, commonly called big bluestem grass, is a tall, Missouri native, perennial, warm season grass that was the dominant grass of the tallgrass prairie which once covered large parts of the Midwest. It may be grown as an ornamental grass because of its attractive foliage which changes color seasonally, its good architectural height and its interesting flower/seed heads. It features an upright clump of stems with flattened leaves (to 2' long and 3/8" wide) which emerge gray to blue green in spring, mature to green with red tinges in summer and turn reddish bronze with lavender tones in autumn after frost. Flowering stems rise in late summer above the foliage clump bearing purplish 3-parted, finger-like flower clusters (to 4" long) purportedly resembling turkey feet (hence the additional common name of turkeyfoot grass for this species). Flowering stems bring total height of this grass to 4-8' tall (typically at the taller end in moist soils and the shorter end in dry soils).

Problems

No serious insect or disease problems.

Garden Uses



Best massed in wildflower meadows, prairie or naturalized areas. Also effective in border rears or native plant gardens as a screen or accent. Extensive root system makes this a good grass for erosion control.



Black Chokeberry

Scientific Name: Aronia Melanocarpa Type: Deciduous Shrub Family: Rosaceae Native Range: Eastern North America Zone: 3 to 8 Height: 3.00 to 6.00 feet Spread: 3.00 to 6.00 feet Bloom Time: May Bloom Description: White Sun: Full Sun to Part Shade Water: Medium Maintenance: Low Suggested Use: Hedge, Naturalize, Rain Garden Flower: Showy Leaf: Good Fall Attracts: Birds Fruit: Showy, Edible



Culture

Easily grown in average, medium moisture, well-drained soils in full sun to part shade. Plants have a wide range of soil tolerance including boggy soils. Best fruit production usually occurs in full sun. Remove root suckers to prevent colonial spread.

Noteworthy Characteristics

Aronia melanocarpa, commonly called black chokeberry, is an open, upright, spreading, somewhat rounded but leggy, suckering, deciduous shrub that typically grows 3-6' tall. It is native to low woods, swamps, bogs and moist thickets but occasionally to dry upland areas, from Newfoundland to southern Ontario and Minnesota south to Missouri, Tennessee and Georgia. Although common in many parts of its native range, it is somewhat rare in Missouri where it is only found in sandy wet or boggy ground along spring branches at the base of Crowley Ridge in southeastern Stoddard County (Steyermark). It is noted for its 5-6 flowered clusters of white 5-petaled spring (May) flowers, glossy elliptic to obovate dark green leaves (to 2-3" long) with finely toothed margins, black autumn berries (blueberry size) and purple/red fall color.

The common name of chokeberry is in reference to the tart and bitter taste of the fruits which are technically edible but so astringent as to cause choking in most of those who try. Fruits are sometimes used to make tasty jams and jellies.

Problems

No serious insect or disease problems. Some susceptibility to leaf spots and twig/fruit blight.



Garden Uses

Group or mass in shrub borders, small gardens or open woodland areas. Ability to withstand wet conditions makes it suitable for growing on the margins of ponds or streams. Excellent addition to naturalized areas where its suckering, colonial growth habit does not need to be restrained.



Bloodtwig Dogwood

Scientific Name: Cornus Sanguinea Type: Deciduous shrub Family: Cornaceae Zone: 5 to 7 Height: 5.00 to 6.00 feet Spread: 5.00 to 6.00 feet Bloom Time: May to June Bloom Description: White Sun: Full Sun to Part shade Water: Medium Maintenance: Low Suggested Use: Hedge, Rain Garden Flower: Showy, Fragrant Leaf: Good Fall Attracts: Birds, Butterflies Fruit: Showy Other: Winter Interest Tolerate: Deer, Erosion



Culture

Best grown in organically rich, medium moisture, well-drained soils in full sun to part shade. Tolerant of a wide range of soils. Prefers consistently moist, well-drained soils. Best stem color occurs on young stems. Although pruning is not required, many gardeners choose to remove 20-25% of the oldest stems in early spring of each year to stimulate growth of new stems which will display the best color. As an alternative to annual pruning, some gardeners prune all stems close to the ground in early spring every 2-3 years to renew. Any loss of flowers through spring pruning is not terribly significant since the small flowers of this dogwood are rather ordinary. Remove root suckers if desired to prevent colonial spread.

Noteworthy Characteristics

Cornus sanguinea, commonly known as blood twig dogwood, European dogwood or common dogwood, is an upright, round-topped, spreading, twiggy, multi-stemmed, deciduous shrub that typically matures to 8-15' tall and as wide. It is native to northern Europe and northwestern Asia. Simple broad-elliptic to ovate leaves (to 2-4" long and to 1 3/4" wide) are dark green above and villous on both sides. Dull white flowers with a fetid fragrance bloom in loose clusters (pubescent cymes to 2" diameter) in May to early June. Flowers are followed by blue-black fruit (drupes to 1/ 4" across) which mature in August-September. Fruit is not particularly showy. Fall color can be a stunning red-purple, but often falls short of this mark by appearing greenish-purple. Stem is slender, hairy, usually purple or dark blood red but often greenish on the lower side. Older branches are greenish gray.



'Midwinter Fire' is for its colorful stems and twigs in winter. **It grows to 5' tall and 6' wide over 8 years**. The outstanding ornamental features of this cultivar are: (1) yellow winter stems which are tipped with red twigs and (2) golden yellow fall foliage color. Broadly elliptic to ovate, medium green leaves (to 3" long). Tiny white flowers appear in flat-topped clusters (cymes) in late spring. Flowers give way to clusters of dark purple drupes in summer. Fruit is not showy, but is attractive to birds. Fall color is golden yellow.

Problems

No serious insect or disease problems.

Garden Uses

Shrub border. Screen. Mass in areas where the ornamental qualities of the reddish-colored new-growth twigs can be enjoyed.



Blue False Indigo

Scientific Name: Baptisia Australis Type: Herbaceous Perennial Family: Fabaceae Native Range: Eastern United States Zone: 3 to 9 Height: 3.00 to 4.00 feet Spread: 3.00 to 4.00 feet Bloom Time: May to June Bloom Description: Indigo Blue Sun: Full Sun to Part Shade Water: Dry to Medium Maintenance: Low Suggested Use: Naturalize Flower: Showy Attracts: Butterflies Fruit: Showy



Tolerate: Rabbit, Drought, Erosion, Clay Soil, Dry Soil, Shallow-Rocky Soil

Culture

Easily grown in average, dry to medium, well-drained soil in full sun to part shade. Best in full sun. Tolerates drought and poor soils. Over time, plants develop slowly expanding clumps with deep and extensive root systems, and should not be disturbed once established. May be grown from seed, but takes several years to establish. Plants take on more of a shrubby appearance and tend to open up after bloom. Trimming or shearing foliage after bloom helps maintain rounded plant appearance and obviates a possible need for staking, but eliminates the developing seed pods which are so attractive.

Noteworthy Characteristics

Baptisia australis, commonly called blue false indigo, is an upright perennial which typically grows 3-4' tall and occurs in rich woods, thickets and along streambanks from Pennsylvania south to North Carolina and Tennessee. It features purple, lupine-like flowers in erect racemes (to 12") atop flower spikes extending well above a foliage mound of clover-like, trifoliate, bluish-green leaves (leaflets to 2" long). Blooms in spring. Flowers give way to inflated seed pods (to 2.5" long) which turn charcoal black when ripe and have considerable ornamental interest. Seeds rattle around in the blackened pods which were once popularly used by children as rattles. Stems with seed pods are valued additions to dried flower arrangements.

Problems

No serious insect or disease problems. Taller plants may need support, particularly when grown in part shade locations.

Garden Uses



Borders, cottage gardens, prairies, meadows and native plant gardens. Effective in naturalized settings. Best as a specimen or in small groups.



Cardinal Flower

Scientific Name: Lobelia Cardinalis Type: Herbaceous Perennial Family: Campanulaceae Native Range: Americas Zone: 3 to 9 Height: 2.00 to 4.00 feet Spread: 1.00 to 2.00 feet Bloom Time: July to September Bloom Description: Scarlet Red, White or Rose Sun: Full Sun to Part Shade Water: Medium to Wet Maintenance: Low Suggested Use: Naturalize, Rain Garden Flower: Showy Attracts: Hummingbirds, Butterflies Tolerate: Rabbit, Deer, Wet Soil



Culture

Easily grown in rich, medium to wet soils in full sun to part shade. Needs constant moisture. Tolerates brief flooding. Soils should never be allowed to dry out. Tolerates full sun in northern climates, but appreciates part afternoon shade in hot summer climates of the lower Midwest and South. Root mulch should be applied in cold winter climates such as St. Louis to protect the root system and to prevent root heaving. Mulch will also help retain soil moisture.

Noteworthy Characteristics

Lobelia cardinalis, commonly called cardinal flower is a Missouri native perennial which typically grows in moist locations along streams, sloughs, springs, swamps and in low wooded areas. A somewhat short-lived, clump-forming perennial which features erect, terminal spikes (racemes) of large, cardinal red flowers on unbranched, alternate-leafed stalks rising typically to a height of 2-3' (infrequently to 4'). Tubular flowers are 2-lipped, with the three lobes of the lower lip appearing more prominent than the two lobes of the upper lip. Finely-toothed, lance-shaped, dark green leaves (to 4" long). Late summer bloom period. Flowers are very attractive to butterflies and hummingbirds, but not cardinals. White and rose colored forms are also known.

Problems

No serious insect or disease problems. Snails and slugs may damage the foliage. Some hybrid lobelias have not performed well at the Kemper Center in St. Louis for reasons that at this point are unclear. Foliage contains alkaloids which are very toxic to humans if ingested.

Garden Uses



Effective in moist areas of woodland/shade gardens, wet meadows or along streams or ponds. Water gardens. Rain garden. Also adds late summer bloom and height to borders as long as soils are kept uniformly moist.



Dwarf Fountain Grass

Scientific Name: Pennisetum Alopecuroides 'Hameln' Type: Ornamental grass Family: Poaceae Zone: 5 to 9 Height: 1.50 to 2.50 feet Spread: 1.50 to 2.50 feet Bloom Time: August to October Bloom Description: Pinkish White Sun: Full Sun to Part Shade Water: Medium to Wet Maintenance: Low Suggested Use: Ground Cover, Rain Garden Flower: Showy, Good Cut, Good Dried Leaf: Colorful, Good Fall Attracts: Birds Other: Winter Interest Tolerate: Drought, Erosion, Wet Soil, Black Walnut, Air Pollution



Culture

Easily grown in average, medium to wet soils in full sun to part shade. Best in full sun. Tolerates part shade, but may not flower in too much shade. Cut foliage to the ground in late winter before new shoots appear. May be grown from seed and self-seeds in optimum growing conditions but cultivars do not come true from seed. May not be reliably winter hardy throughout USDA Zone 5 where it is best sited in a protected location. Although Pennisetum often reseeds, it should be noted that this cultivar will not come true from seed.

Noteworthy Characteristics

Pennisetum alopecuroides, commonly called fountain grass, is a warm season ornamental grass which typically grows in graceful, spreading clumps from 2-3' tall and as wide. Features narrow, medium to deep green leaves (to 1/2" wide) in summer, changing to golden yellow in fall and fading to beige in late fall. Foliage usually remains attractive throughout the winter. Showy, silvery to pinkish-white, bristly, bottle brush-like flower spikes arch outward from the clump in late summer like water spraying from a fountain (hence the common name). Flower spikes turn brownish as the seeds form, and spikes usually persist until late fall or early winter before shattering. Many excellent fountain grass cultivars are available in commerce, ranging in height from 1-5' and featuring a variety of different flower colors (purples, pinks or whites) and autumn foliage. 'Hameln' is similar to the species, except the flower spikes of this cultivar are shorter and the plants are more compact.

Problems

No serious insect or disease problems.



Garden Uses

Specimen, group or mass. Foliage and attractive flower spikes of this ornamental grass provide excellent texture, color and contrast to borders, foundations and open areas. Also grows well in moist locations such as peripheries of water gardens, ponds or streams.



Marsh/Swamp Milkweed

Scientific Name: Asclepias Incarnata Type: Herbaceous Perennial Family: Apocynaceae Native Range: Northeastern and Southeastern United States Zone: 3 to 6 Height: 4.00 to 5.00 feet Spread: 2.00 to 3.00 feet Bloom Time: July to August Bloom Description: White, Pink, Mauve Sun: Full Sun Water: Medium to Wet Maintenance: Low Suggested Use: Naturalize, Rain Garden Flower: Showy, Fragrant Attracts: Butterflies Tolerate: Deer, Clay Soil, Wet Soil



Culture

Easily grown in medium to wet soils in full sun. Surprisingly tolerant of average well-drained soils in cultivation even though the species is native to swamps and wet meadows. Plants have deep taproots and are best left undisturbed once established. Foliage is slow to emerge in spring.

Noteworthy Characteristics

Asclepias incarnata, commonly called swamp milkweed, is an erect, clump-forming, Missouri native plant which is commonly found in swamps, river bottomlands and wet meadows throughout the State. It typically grows 3-4' tall (less frequently to 5') on branching stems. Small, fragrant, pink to mauve flowers (1/4" wide), each with five reflexed petals and an elevated central crown, appear in tight clusters (umbels) at the stem ends in summer. Flowers are uncommonly white. Narrow, lance-shaped, taper-pointed leaves are 3-6" long. Stems exude a toxic milky sap when cut. Flowers are followed by attractive seed pods (to 4" long) which split open when ripe releasing silky-haired seeds easily carried by the wind. Flowers are very attractive to butterflies as a nectar source. In addition, swamp milkweed is an important food source (albeit somewhat less important than upland species of Asclepias) for the larval stage of Monarch butterflies.

Problems

No serious insect or disease problems.

Garden Uses

Sunny borders, stream/pond banks, butterfly gardens. A good plant for low spots or other moist areas in the landscape.



New England Aster

Scientific Name: Symphyotrichum Novae-angliae Type: Herbaceous Perennial Family: Asteraceae Native Range: Eastern North America Zone: 4 to 8 Height: 3.00 to 6.00 feet Spread: 2.00 to 3.00 feet Bloom Time: August to September Bloom Description: Deep Pink-purple Sun: Full Sun Water: Medium Maintenance: Medium Suggested Use: Naturalize, Rain Garden Flower: Showy, Good Cut Attracts: Butterflies Tolerate: Clay Soil



Culture

Easily grown in average, medium, well-drained soil in full sun. Prefers moist, rich soils. Good air circulation helps reduce incidence of foliar diseases. Pinching back stems several times before mid-July will help control plant height, promote bushiness and perhaps obviate the need for staking. Pinching back will also delay flowering. Easily grown from seed and may self-seed in the garden in optimum growing conditions. Plants may be cut to the ground after flowering to prevent any unwanted self-seeding and/or if foliage has become unsightly.

Noteworthy Characteristics

Symphyotrichum novae-angliae, commonly called New England aster, is a Missouri native perennial which occurs in moist prairies, meadows, thickets, low valleys and stream banks (Steyermark) throughout the State. It is a stout, leafy plant typically growing 3-6' tall with a robust, upright habit. Features a profuse bloom of daisy-like asters (to 1.5" diameter) with purple rays and yellow centers from late summer to early fall. Rough, hairy, lance-shaped leaves (to 4" long) clasp stiff, hairy stems. Flowers are attractive to butterflies.

Problems

No serious insect or disease problems. Some susceptibility to powdery mildew. Aster wilt can also be an occasional problem, particularly if plants are grown in poorly-drained clay soils. Taller plants may require staking or other support.

Garden Uses



Provides color and contrast to the fall perennial border front. Mass or plant in groups. Also effective naturalized in drifts in meadows or in native or wildflower gardens.



Purple Coneflower

Scientific Name: Echinacea Purpurea Type: Herbaceous perennial Family: Asteraceae Native Range: Eastern North America Zone: 3 to 8 Height: 2.00 to 5.00 feet Spread: 1.50 to 2.00 feet Bloom Time: June to August Bloom Description: Purplish Pink Sun: Full Sun to Part Shade Water: Dry to Medium Maintenance: Low Suggested Use: Naturalize Flower: Showy, Good Cut Attracts: Birds, Butterflies Tolerate: Deer, Drought, Clay Soil, Dry Soil, Shallow-Rocky Soil



Culture

Easily grown in average, dry to medium, well-drained soil in full sun to part shade. Best in full sun. An adaptable plant that is tolerant of drought, heat, humidity and poor soil. Divide clumps when they become overcrowded (about every 4 years). Plants usually rebloom without deadheading, however prompt removal of spent flowers improves general appearance. Freely self-seeds if at least some of the seed heads are left in place.

Noteworthy Characteristics

Echinacea purpurea, commonly called purple coneflower, is a coarse, rough-hairy, herbaceous perennial that is native to moist prairies, meadows and open woods of the central to southeastern United States (Ohio to Michigan to Iowa south to Louisiana and Georgia). It typically grows to 2-4' tall. Showy daisy-like purple coneflowers (to 5" diameter) bloom throughout summer atop stiff stems clad with coarse, ovate to broad-lanceolate, dark green leaves. Good fresh cut or dried flower. The dead flower stems will remain erect well into the winter, and if flower heads are not removed, the blackened cones may be visited by goldfinches or other birds that feed on the seeds.

Problems

Japanese beetle and leaf spots are occasional problems. Susceptible to aster yellows disease.

Garden Uses

Excellent, long-blooming flower for massing in the border, meadow, native plant garden, naturalized area, wildflower garden or part shade area of woodland garden. Often massed with black-eyed Susans (rudbeckias).



Switchgrass

Scientific Name: Panicum Virgatum Type: Ornamental Grass Family: Poaceae Native Range: North America Zone: 5 to 9 Height: 3.00 to 6.00 feet Spread: 2.00 to 3.00 feet Bloom Time: July to February Bloom Description: Pink-tinged Sun: Full Sun to Part Shade Water: Medium to Wet Maintenance: Low Suggested Use: Naturalize, Rain Garden Flower: Showy, Good Cut, Good Dried Leaf: Good Fall Attracts: Birds Other: Winter Interest



Tolerate: Drought, Erosion, Dry Soil, Wet Soil, Black Walnut, Air Pollution

Culture

Easily grown in average, medium to wet soils in full sun to part shade. Tolerates a wide range of soils, including dry ones, but prefers moist, sandy or clay soils. Tolerates occasional flooding. May flop in overly rich soils. Generally performs best in full sun. Will grow in part shade, but begins to lose its form in too much shade, growing more openly and possibly falling over. Grows primarily in clumps, but will slowly spread by slightly creeping rhizomes. Cut back clumps to the ground in late winter to early spring. Plants may self-seed in optimum growing conditions but cultivars may not come true from seed.

Noteworthy Characteristics

Panicum virgatum, commonly called switch grass, is a Missouri native ornamental grass which was an important component of the tallgrass prairie which once covered large areas of the State. It occurs in both wet and dry soils in prairies and open woods, gravel bars and stream banks and along railroad tracks throughout most of the State. Switch grass is generally noted for its stiff, columnar form, and typically retains its vertical shape throughout the growing season. It is a clump-forming, warm season grass which typically grows to 3' tall. When in flower, flower panicles may bring total plant height to 6'. Features medium green leaves which turn yellow (sometimes with orange tints) in autumn, fading to tan-beige in winter. Foliage clump is topped in mid-summer by finely-textured, pink-tinged, branched flower panicles which hover over the foliage like an airy cloud. Panicles turn beige as the seeds mature in fall with the seed plumes persisting well into winter. Seeds are a food source for birds in winter.



Problems

No serious insect or disease problems. Some susceptibility to rust, particularly in hot and humid summer climates. Crown or root rot may occur, particularly as a result of improper growing conditions. Japanese beetles, thrips and spider mites may appear.

Garden Uses

Accent, group or mass. Also effective as a screen. Perennial borders, wild gardens, native plant gardens, prairies, meadows or naturalized areas. Also appropriate for water gardens, bog gardens and along ponds.



Winterberry

Scientific Name: Ilex Verticillata Type: Deciduous Shrub Family: Aquifoliaceae Native Range: Eastern North America Zone: 3 to 9 Height: 3.00 to 12.00 feet Spread: 3.00 to 12.00 feet Bloom Time: June to July Bloom Description: Greenish-white Sun: Full Sun to Part Shade Water: Medium to Wet Maintenance: Low Suggested Use: Hedge, Rain Garden Flower: Insignificant Attracts: Birds Fruit: Showy Tolerate: Erosion, Clay Soil, Wet Soil, Air Pollution



Culture

Easily grown in average, acidic, medium to wet soils in full sun to part shade. Adaptable to both light and heavy soils, but prefers moist, acidic, organic loams. Good tolerance for poorly drained soils including wet boggy or swampy conditions (this species is native to swampy areas of Eastern North America). Winterberries are dioecious (separate male and female plants). Only fertilized female flowers will produce the attractive red berries that are the signature of the species. Generally one male winterberry will be sufficient for pollinating 6-10 female plants. Flowers appear on new growth. Prune to shape in early spring just before new growth appears.

Noteworthy Characteristics

Ilex verticillata, commonly called winterberry, is a deciduous holly that is native to eastern North America where it typically occurs in swamps, damp thickets, low woods and along ponds and streams. The form of this plant found in Missouri is Ilex verticillata var. padifolia, which occurs in "shut-ins", granite rocky stream beds and sandstone bluffs in only 4 counties in the southeastern part of the state (Steyermark). This is a slow-growing, deciduous shrub with an upright-rounded habit that typically grows 3-12' tall. In the wild, it often suckers to form large thickets or colonies. Elliptic to obovate, toothed, dark green leaves (2-3" long). Fall color is usually negligible, but in some years leaves may turn attractive shades of maroon. Relatively inconspicuous greenish-white flowers appear in the leaf axils in late spring. Flowers, if properly pollinated, give way to a crop of bright red berries (1/4" diameter) in late summer to fall. Berries are quite showy and will persist throughout the winter (hence the common name) and often into early spring. Berries provide considerable impact and interest to the winter landscape.

Problems



No serious insect or disease problems. Occasional disease problems include leaf spots and powdery mildew. Plants do poorly in neutral to alkaline soils where they are susceptible to chlorosis (yellowing of leaves) and often die.

Garden Uses

Year round interest, highlighted by the showy display of red berries in winter. Mass or group in shrub borders, foundations, native plant areas or bird gardens. Hedge. Excellent shrub for moist soils in low spots or along streams and ponds. Although an attractive shrub, the species is infrequently sold in commerce because of the many excellent cultivars which generally produce showier flowers and larger, more abundant fruit.



Tall Plants and Trees (9'+)

Native Landscapes Committee





Black Gum Tree



Prairie Gold Aspen



Flowering Dogwood



Redbud/White Bud



Hornbeam



Serviceberry

Ground Cover_____

Root and Weed Control / Plant Establishment



Mulch

River Rock



Jute/Mesh Matting



Black Gum Tree

Scientific Name: Nyssa Sylvatica Type: Tree Family: Cornaceae Native Range: Eastern North America Zone: 3 to 9 Height: 30.00 to 50.00 feet Spread: 20.00 to 30.00 feet Bloom Time: May to June Bloom Description: Greenish white Sun: Full Sun to Part Shade Water: Medium to Wet Maintenance: Low Suggested Use: Shade Tree, Street Tree, Rain Garden Flower: Insignificant Leaf: Good Fall Attracts: Birds Tolerate: Clay Soil, Wet Soil



Culture

Easily grown in average, medium to wet soils in full sun to part shade. Prefers moist, acidic soils. Tolerates poorly-drained soils and can grow in standing water. On the other end of the spectrum, tolerates some drought and adapts to some dryish soils, at least in the wild. Long taproot precludes moving established trees. Female trees need a male pollinator to set fruit.

Noteworthy Characteristics

Nyssa sylvatica, commonly called sour gum, is a slow-growing, deciduous, Missouri native tree which occurs in a wide range of soils south of the Missouri River in the southeastern quarter of the State. It is primarily a lowland tree found in low wet woods, bottomlands and pond peripheries, but also can be found on dry rocky wooded slopes and ravines. A stately tree with a straight trunk and rounded crown (more pyramidal when young) that typically grows 30-50' tall, but occasionally to 90'. Primarily dioecious (separate male and female trees), but each tree often has some perfect flowers. Small, greenish-white flowers appear in spring on long stalks (female flowers in sparse clusters and male flowers in dense heads). Although flowers are not showy, they are an excellent nectar source for bees. Flowers give way to oval, 1/2" long fruits which are technically edible but quite sour (hence the common name). Fruits mature to a dark blue and are attractive to birds and wildlife. Spectacular scarlet fall color. Obovate to elliptic, entire to slightly toothed leaves (to 5" long) are dark green above and paler below.

Problems

No serious insect or disease problems. Some susceptibility to leaf spots, canker, rust, leaf miner and scale.



Garden Uses

Excellent ornamental shade tree for lawns or street tree. Also grows well in moist woodland gardens or naturalized areas or in low spots subject to periodic flooding or in boggy areas. Although slow-growing, it still needs to be sited in an area which affords plenty of room for future growth, particularly since it is so difficult to transplant.



Flowering Dogwood

Scientific Name: Cornus Florida Type: Tree Family: Cornaceae Native Range: Eastern North America Zone: 5 to 9 Height: 15.00 to 30.00 feet Spread: 15.00 to 30.00 feet Bloom Time: April to May Bloom Description: White (bracts) Sun: Full Sun to Part Shade Water: Medium Maintenance: Medium Suggested Use: Flowering Tree Flower: Showy Leaf: Good Fall Attracts: Birds, Butterflies Fruit: Showy Tolerate: Deer, Clay Soil, Black Walnut



Culture

Easily grown in average, medium moisture, well-drained soils in full sun to part shade. Prefers moist, organically rich, acidic soils in part shade. Benefits from a 2-4" mulch which will help keep roots cool and moist in summer. May be inadvisable at this time to plant this tree in areas where dogwood anthracnose infestations are present (see problems section below).

Noteworthy Characteristics

Cornus florida, commonly known as flowering dogwood, is a small deciduous tree that typically grows 15-30' tall with a low-branching, broadly-pyramidal but somewhat flat-topped habit. It arguably may be the most beautiful of the native American flowering trees. It is native from Maine to southern Ontario to Illinois to Kansas south to Florida, Texas and Mexico. It is the state tree of Missouri and Virginia. It blooms in early spring (April) shortly after, but usually overlapping, the bloom period of the redbuds. The true dogwood flowers are actually tiny, yellowish green and insignificant, being compacted into button-like clusters. However, each flower cluster is surrounded by four showy, white, petal-like bracts which open flat, giving the appearance of a single, large, 3-4" diameter, 4-petaled, white flower. Oval, dark green leaves (3-6" long) turn attractive shades of red in fall. Bright red fruits are bitter and inedible to humans (some authors say poisonous) but are loved by birds. Fruits mature in late summer to early fall and may persist until late in the year.

Problems

Flowering dogwood, when stressed, is susceptible to a rather large number of disease problems, the most serious of which is dogwood anthracnose. Although this anthracnose is not yet a serious



problem in Missouri, it has caused considerable devastation in parts of the eastern U.S. Plants are also susceptible to powdery mildew, leaf spot, canker, root rot and leaf and twig blight. Stressed trees also become vulnerable to borers. Leaf miner and scale are less serious potential insect pests.

Garden Uses

Popular as a specimen or small grouping on residential property around homes, near patios or in lawns. Also effective in woodland, bird or native plant gardens.



Hornbeam

Scientific Name: Carpinus Caroliniana Type: Tree Family: Betulaceae Native Range: Eastern North America Zone: 3 to 9 Height: 20.00 to 35.00 feet Spread: 20.00 to 35.00 feet Bloom Time: February Bloom Description: White (female), Green (male) Sun: Part Shade to Full Shade Water: Medium Maintenance: Low Suggested Use: Street Tree, Naturalize Flower: Insignificant Leaf: Good Fall Tolerate: Clay Soil



Culture

Easily grown in average, medium moisture soil in part shade to full shade. Prefers moist, organically rich soils.

Noteworthy Characteristics

Carpinus caroliniana, commonly called American hornbeam, is a slow-growing, deciduous, small to medium-sized understory tree with an attractive globular form. It is native to Missouri where it is typically found in rich moist woods, valleys, ravine bottoms and rocky slopes along streams throughout the eastern and Ozark regions of the state (Steyermark). Typically grows 20-35' tall. The smooth, gray trunk and larger branches of a mature tree exhibit a distinctive muscle-like fluting that has given rise to another common name of musclewood for this tree. Flowers appear in spring in separate male and female catkins, with the female catkins giving way to distinctive clusters of winged nutlets. Serrated, elliptic-oval, dark green leaves often produce respectable shades of yellow, orange and red in fall. The extremely hard wood of this tree will, as the common name suggests, take a horn-like polish and was once used by early Americans to make bowls, tool handles and ox yokes. Commercial use of hornbeam wood is not practicable, however, due to the limited amount of wood that can be harvested per tree.

Problems

No serious insect or disease problems. Leaf spots, cankers and twig blight are occasional disease problems.

Garden Uses



An attractively shaped, low-maintenance understory tree for shady sites. May be grown in lawns or naturalized in woodland areas.



Prairie Gold Aspen (American Aspen)

Scientific Name: Populus Tremuloides Type: Tree Family: Salicaceae Native Range: Canada to Mexico Zone: 1 to 6 Height: 20.00 to 50.00 feet Spread: 10.00 to 30.00 feet Bloom Time: April Sun: Full Sun Water: Medium Maintenance: High Suggested Use: Naturalize Flower: Insignificant Leaf: Good Fall Attracts: Birds



Culture

Best grown in rich, humusy, consistently moist, well-drained soils in full sun. In the wild, this tree grows in a large variety of soils ranging from rocky soils at high mountain elevations to clay or sandy loams at lower elevations. This tree thrives in cool northern climates, but will struggle in the heat and humidity of a typical St. Louis summer. Generally intolerant of urban pollutants. In the wild, aspens typically appear in groupings or groves, with all of the stems in a grouping being clones rising from a single extensive underground root system. Large groves featuring hundreds of clones may have all originated from a single stem. Trees are dioecious, so each grouping consists of all male clones or all female clones.

Noteworthy Characteristics

Populus tremuloides, commonly called quaking aspen, is perhaps most noted for its beautiful white bark, its deep green foliage that quakes in the slightest breeze and its golden yellow fall foliage color. It has the widest geographical distribution of any North American tree, being indigenous to Alaska and most of Canada, the Pacific Northwest, New England, the Great Lakes and south in the Rockies to New Mexico and Arizona. It is a medium sized deciduous tree that typically grows 20-50' tall with a narrow, rounded crown. Ovate-triangular to nearly round, dark glossy green leaves (to 3" long) are finely toothed. Leaves flutter in even the smallest amount of wind due to flattened leaf stalks. Leaves turn a beautiful golden yellow in fall. Aspens are dioecious, with male and female flowers appearing in separate catkins on separate clones in spring (April in St. Louis) before the foliage. Catkins are gray-green and not showy. Small drooping fruiting clusters follow the female flowers in late May. Bark of young trees is smooth and greenish white. As the tree matures, bark becomes more chalky white with black warty patching.

Problems



Aspens are susceptible to a large number of disease problems, including dieback, leaf spots, rusts, powdery mildew and cankers. Diseased trees often suffer premature leaf drop as a result thereof. Common insect visitors include caterpillars, borers, aphids and scale. Trees stressed by St. Louis summers are particularly susceptible to diseases such as dieback and to borers.

Garden Uses

A beautiful tree for cool summer climates. Not recommended for the St. Louis area.



Redbud

Scientific Name: Cercis Canadensis Type: Tree Family: Fabaceae Native Range: North and Central America Zone: 4 to 8 Height: 20.00 to 30.00 feet Spread: 25.00 to 35.00 feet Bloom Time: April Bloom Description: Pink Sun: Full Sun to Part Shade Water: Medium Maintenance: Low Suggested Use: Street Tree, Flowering Tree, Naturalize Flower: Showy Leaf: Good Fall Attracts: Butterflies Tolerate: Deer, Clay Soil, Black Walnut



Culture

Easily grown in average, medium moisture, well-drained soils in full sun to part shade. Part shade is best in hot summer climates. Performs best in moderately fertile soils with regular and consistent moisture. Avoid wet or poorly drained soils. Since this tree does not transplant well, it should be planted when young and left undisturbed.

Noteworthy Characteristics

Cercis canadensis, commonly called eastern redbud, is a deciduous, often multi-trunked understory tree with a rounded crown that typically matures to 20-30' tall with a slightly larger spread. It is particularly noted for its stunning pea-like rose-purple flowers which bloom profusely on bare branches in early spring (March-April) before the foliage emerges. This tree is native to eastern and central North America from Connecticut to New York to southern Ontario and the Great Lakes south to Western Texas and Florida. It is found in open woodlands, thickets, woodland margins, limestone glades and along rocky streams and bluffs throughout Missouri (Steyermark). Flowers (to ½" wide) bloom in clusters of 4-10. Flowers are followed by flattened leguminous bean-like dry seedpods (to 2-4" long) that mature to brown in summer. Each pod has 6-12 seeds. Pods may remain on the tree into winter. Alternate, simple, cordate, broadly ovate to nearly orbicular, dull green to blue-green leaves (3-5" across) have a papery texture and are short pointed at the tip. Leaves turn pale yellow to greenish-yellow in fall. Cercis canadensis is the state tree of Oklahoma.

Problems

Canker can be a significant disease problem. Verticillium wilt, dieback, leaf spots, mildew and blights may also occur. Insect pests include Japanese beetles, tree hoppers, leaf hoppers, caterpillars,



borers, webworms and scale. Keeping the tree vigorous by regular watering and fertilization and by pruning out dead branches as needed will help keep the tree healthy.

Garden Uses

Specimen or small groups. Lawns, shrub borders, woodland margins, or along patios. Street tree or lawn tree. Attractive in naturalized settings.



Serviceberry

Scientific Name: Amelanchier Arborea Type: Tree Family: Rosaceae Native Range: Eastern North America Zone: 4 to 9 Height: 15.00 to 25.00 feet Spread: 15.00 to 25.00 feet Bloom Time: March to April Bloom Description: White Sun: Full Sun to Part Shade Water: Medium Maintenance: Low Suggested Use: Flowering Tree Flower: Showy, Fragrant Leaf: Good Fall Attracts: Birds Fruit: Showy, Edible Tolerate: Clay Soil, Air Pollution



Culture

Easily grown in average, medium, well-drained soil in full sun to part shade. Tolerant of a somewhat wide range of soils. Root suckers are common, and if not removed, will result in a shrubby growth habit for the plant.

Noteworthy Characteristics

Amelanchier arborea, commonly called downy serviceberry, is a deciduous, early-flowering, large shrub or small tree which typically grows 15-25' tall in cultivation but can reach 40' in the wild. A Missouri native plant that occurs most often in open rocky woods, wooded slopes, and bluffs. Features 5-petaled, showy, slightly fragrant, white flowers in drooping clusters which appear before the leaves emerge in early spring. The finely-toothed, obovate leaves exhibit good fall color. Flowers give way to small, round green berries which turn red and finally mature to a dark purplish-black in early summer. Edible berries resemble blueberries in size and color and are often used in jams, jellies and pies. Amelanchiers are commonly called Juneberries.

Problems

No serious problems. Rust, leaf spot, fire blight and powdery mildew are occasional disease problems, and sawfly, leaf miner, borers, and scale are occasional insect pests.

Garden Uses



Best in shrub borders, or in woodland, naturalized or native plant gardens, especially with dark or shaded backdrops which tend to highlight the form, flowers and fall color of the plant. Also effective along stream banks and ponds.

Replace non-native plants Missouri natives

The next time you're ready to select plants for your landscape, think native. To help you, we put together a list of native plant alternatives for plants often sold at retail centers. Plants listed on the left are not native, but imported exotics, many of them are invasive. When they escape into natural areas—and they do—they harm Missouri's wild ecosystems. The escape artists are marked with an asterisk (*) and should be avoided. Not all plants on the left are invasive. In fact, they, along with the invasive plants, often add beauty to a landscape. The downside is that they provide little in the way of habitat for the wildlife we want to invite into our yards. Consider replacing them, as well as the invasive, non-native plants, with native plants listed on the right. These plants are beautiful, are adapted to Missouri's climate, need minimal maintenance and provide food and shelter for desirable wildlife. To learn more about native plants, visit www.grownative.org.



	PROBLEMATIC NON-NATIVES	BENEFICIAL NATIVES
Shrubs and Small Trees	Amur maple (<i>Acer ginnala</i>)	American hornbeam, ironwood or blue beech (<i>Carpinus caroliniana</i>) Pagoda dogwood (<i>Cornus alternifolia</i>) Red buckeye (<i>Aesculus pavia</i>) Service berry (<i>Amelanchier arborea</i>) Witch hazel (<i>Hamamelis virginiana</i>) Indian Cherry (<i>Rhamnus caroliniana</i>)
	* Autumn olive (<i>Elaeagnus umbellata</i>)	Service berry (Amelanchier arborea)
	Barberry (Berberis thunbergii, Berberis vulgaris)	New Jersey tea (<i>Ceanothus americanus</i>) Virginia sweetspire (<i>Itea virginica</i>)
	* Bush honeysuckles (<i>Lonicera x bella, Lonicera maackii</i>)	American beauty berry (Callicarpa americana)
	* Butterfly bush (Buddleja davidii)	New Jersey tea (Ceanothus americanus)
	Non-native crabapple (<i>Malus</i>)	Deciduous holly or possum haw (<i>Ilex decidua</i>) Service berry (<i>Amelanchier arborea</i>)
	Forsythia (<i>Forsythia x intermedia</i>)	Spicebush (<i>Lindera benzoin</i>) Golden currant (<i>Ribes odoratum</i>)
	Golden raintree (Koelreuteria paniculata)	Western soapberry (<i>Sapindus drummondii</i>) (may not be hardy in northern part of state)
	Japanese pagoda (Sophora japonica)	Western soapberry (<i>Sapindus drummondii</i>) (may not be hardy in northern part of state)
	Japanese tree lilac (Syringa reticulata)	Fringe Tree (Chionanthus virginicus)
	Lilac (Syringa)	Fringe Tree (Chionanthus virginicus)
	Non-native hydrangea (<i>Hydrangea</i>)	Wild hydrangea (Hydrangea arborescens)
	Spiraea (Spiraea)	American beauty berry (Callicarpa americana)
	* Winged euonymus; burning bush (<i>Euonymus alatus</i>)	Wahoo (<i>Euonymus atropupureus</i>)

	PROBLEMATIC NON-NATIVES	BENEFICIAL NATIVES
Large Trees	Bradford pear (<i>Pyrus calleryana</i> 'Bradford')	Black gum; black tupelo (<i>Nyssa sylvatica</i>) Fringe Tree (<i>Chionanthus virginicus</i>) Green ash (<i>Fraxinus pennsylvanica</i>)
	Japanese zelkova (<i>Zelkova serrata</i>)	Hackberry (<i>Celtis occidentalis</i>) Sugarberry (<i>Celtis laevigata</i>) Yellowwood (<i>Cladrastis kentukea</i>)
	Siberian elm (Ulmus pumila)	Hackberry (<i>Celtis occidentalis</i>) Sugarberry (<i>Celtis laevigata</i>)
Vines	* Japanese honeysuckle (Lonicera japonica)	Yellow honeysuckle (Lonicera flava)
	* Chinese bittersweet (Celastrus orbiculatus)	American bittersweet (Celastrus scandens)
	Porcelain berry (Ampelopsis brevipedunculata)	Virginia creeper (Parthenocissus quinquefolia)
	* Wintercreeper (Euonymus fortunei)	Wild Ginger (Asarum canadense)
Herbaceous Perennials and Grasses	Aster cultivars (Aster)	New England aster (<i>Aster novae-angliae</i>) Aromatic aster (<i>Aster oblongifolius</i>) Silky aster (<i>Aster sericeus</i>) Sky blue aster (<i>Aster oolentangiensis</i>) Southern prairie aster (<i>Aster paludosus</i>) Prairie aster (<i>Aster turbinellus</i>)
	Bleeding heart (<i>Dicentra spectabilis</i>)	Celandine poppy (<i>Stylophorum diphyllum</i>) Squaw weed (<i>Senecio obovatus</i>) Virginia bluebells (<i>Mertensia virginica</i>)
	Bugle weed (Ajuga)	Wild ginger (Asarum canadense)
	Coreopsis cultivars	Lanceleaf coreopsis (<i>Coreopsis lanceolata</i>) Prairie coreopsis (<i>Coreopsis palmata</i>)
	* Dame's rocket (<i>Hesperis matronalis</i>)	Garden phlox (Phlox paniculata)
	Delphinum cultivars	Tall larkspur (Delphinium exaltatum)
	Foxglove (<i>Digitalis</i>)	Foxglove beard tongue (<i>Penstemon digitalis</i>) Purple beard tongue (<i>Penstemon cobaea</i>) Prairie beard tongue (<i>Penstemon tubaeflorus</i>)
	Hibiscus cultivars	Rose mallow (Hibiscus lasiocarpos)
	Pachysandra (<i>Pachysandra terminalis</i>)	Golden ragwort (<i>Senecio aureus</i>) Squaw-weed (<i>Senecio obovatus</i>) Wild ginger (<i>Asarum canadense</i>)
	* Purple loosestrife (<i>Lythrum</i>)	Marsh milkweed (<i>Asclepias incarnata</i>) Queen of the prairie (<i>Filipendula rubra</i>) Blazing stars (<i>Liatris</i> spp.)
	Wormwood (Artemisia)	Missouri primrose (Oenothera macrocarpa)
	* Yellow flag (Iris pseudacorus)	Southern blue flag (Iris virginica v.shrevei)
	Maiden grass (Miscanthus)	Switch grass (Panicum virgatum)
	Fountain grass (Pennisetum)	Prairie dropseed (Sporobolus heterolepis)

www.missouriconservation.org

Equal opportunity to participate in and benefit from programs of the Missouri Department of Conservation is available to all individuals without regard to their race, color, national origin, sex, age or disability. Questions should be directed to the Department of Conservation, PO. Box 180, Jefferson City, MO 65102, (573) 751-4115 (voice) or 800-735-2966 (TTY), or to the U.S. Fish and Wildlife Service Division of Federal Assistance, 4401 N. Fairfax Drive, Mail Stop: MBSP-4020, Arlington, VA 22203.