



## William T. Kemper Center for Home Gardening

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### Naturescaping

An appreciation of our natural landscape leads many of us to want to capture nature's beauty in our home gardens. Naturescaping is a landscaping approach that focuses on working with the natural character of the land, rather than trying to transplant species that are not native or adapted to the natural conditions. In short, naturescaping is the arrangement of native plants in the garden in a way similar to their arrangement in nature.

Naturescaping provides many benefits to the home gardener including the opportunity to integrate nature into our daily lives and bring conservation closer to home. By recreating the prairie, meadow or woodland which once characterized your region, you can rediscover the past, promoting a "sense of place" and a tie to the land where you live.

Native plants make excellent landscape plantings because they are adapted to the local weather and soil conditions. Consequently, they require little or no fertilizer, are relatively low maintenance and help conserve scarce resources such as water and energy. Native plants are also less frequently bothered by insect and disease problems thus reducing the need for chemical controls.

The principal of naturescaping relies on increased species diversity and natural predation to keep pest populations in check. Pesticide use is strongly discouraged as it harms beneficial insects such as lady bugs, dragon flies and praying mantis. Pesticide use also reduces pollinator and local butterfly populations significantly.

One of the most important reasons for using native plants in the landscape is to increase public awareness about saving native organisms and their habitats. A garden of native plants preserves habitat for many native birds, insects and mammals that are becoming as rare as the plants and natural environments that feed and shelter them.

#### **Native Plants in the Home Landscape**

You can create a beautiful garden with native plants wherever you live. Begin by determining how you want to use native plants in your garden. The most important rule of thumb is to choose plants that will tolerate the conditions available in your landscape. Height, color and time of bloom are also important considerations when selecting native plants for the home landscape. Learn to recognize the native plants that may already exist in your garden such as phlox, black-eyed Susan, butterfly weed, coreopsis, bee balm, deciduous holly and viburnum. On a small scale, you can incorporate a few favorite natives into existing plantings. Or you can devote an entire garden or landscape to native plants.

For gardeners who wish to devote a large portion of their landscape to native plantings, it is helpful first to explore local native plant communities. Conservation organizations, such as the Missouri Department of Conservation, can help you find natural plant communities to explore.

Urban gardeners who may not have the room to recreate an entire plant community can still create the essence of the community by using the dominant native plants as the backbone of their landscape design. Some municipalities may have height restrictions in regard to vegetation. Be sure to check local weed ordinances before beginning any naturoscaping project.

## **Conservation and the Home Landscape**

The recent enthusiasm for naturoscaping has created a demand for a wide range of native plants. In some cases, these plants are collected from the wild rather than propagated in a nursery. In order to conserve our native flora, gardeners should purchase nursery-propagated plants only.

There are several ways to ensure that the plants you purchase are nursery propagated. Check plant labels and catalogs for information on the source of the plant. Beware of ambiguous phrases such as “nursery-grown” which could mean that the plant was dug from the wild and then transplanted in the nursery.

Get to know your nursery person and ask questions about plant production. Price can be a good indicator. Plants, such as *Trillium* spp. that take several years to grow from seed, will cost far less when dug from the wild. Some plants that are particularly prone to poaching include cacti, orchids, insectivorous plants and medicinal plants.

A satisfying and easy way to acquire natives is to collect seeds and grow your own. If you decide to collect seed from the wild, follow ethical practices and never collect more seed than you can grow. Always get landowner permission before collecting on private property.

While collecting seed of common wildflowers is acceptable, it is extremely harmful to natural populations of rare and endangered species. In Missouri, contact the Department of Conservation for collection regulations and a list of threatened and endangered plants.

## **Planting Your Native Wildflower Garden**

### ***The Perennial and Mixed Border***

Native plants will coexist quite happily with non-natives in the perennial or mixed border. When combining native and non-native plants in the same garden area, be certain to group together plants that have the same specific cultural requirements. Choose woodland wildflowers for the shade garden or gardens located in moist or wet areas; choose meadow, prairie or glade wildflowers for the sunny garden.

When incorporating natives into existing plantings, it is advisable to purchase containerized plants. Follow the planting directions provided by the nursery. While plants may be purchased through mail-order, it is best to buy plants from a local source whenever possible. These plants are more likely to be genetically adapted to your region’s climate and other environmental conditions.

### ***Woodland Wildflowers***

Woodland wildflowers will be best suited to your landscape if your yard is shady and wooded. Most woodland wildflowers prefer well-drained soil, light shade and adequate moisture. They will also benefit from a soil high in organic matter as well as a leaf mulch that persists throughout the year.

There are several things to consider before purchasing woodland wildflowers for the home landscape. First, determine whether your wooded area contains wet or dry shade. Rocky outcroppings, white oaks and hickory trees are good indicators of dry shade conditions. Season of bloom is another important consideration in the woodland garden; as many of the woodland wildflowers are spring ephemerals with short-lived bloom periods. Woodland wildflowers are best purchased as containerized plants which establish themselves more reliably than plants started from seed. Finally, select plants from a local nursery as they are more likely to be suited to the growing conditions in your area.

### Native Missouri Plants for the Woodland Garden

\*denotes dry shade

Botanical Name	Common Name	Height (in ft.)	Bloom Period	Bloom Color
<b>Grasses</b>				
<i>Chasmanthium latifolium</i>	Northern Sea Oats	3	Aug-Oct	beige
* <i>Hystrix patula</i>	Bottlebrush Grass	3	Aug-Oct	beige
<b>Shrubs</b>				
<i>Aesculus pavia</i>	Red Buckeye	16	April-June	red
<i>Cephalanthus occidentalis</i>	Buttonbush	5-7	June-August	white
<i>Cornus amomum</i>	Silky Dogwood	10	June	yellowish white
<i>Corylus americana</i> (dry or moist)	American Hazelnut	9	Feb-April	red/light yellow
<i>Lindera benzom</i>	Spice Bush	15	March-April	yellow
* <i>Symphoricarpos orbiculatus</i>	Coralberry	6	July-August	green/pink violet
<b>Wildflowers</b>				
<i>Amsonia tabemaemontana</i>	Blue Star	3	April-May	blue
<i>Anemone canadensis</i>	White Anemone	1	May-July	white
* <i>Anemonella thalictroides</i>	Rue Anemone	0.5	April-May	white, pale pink
* <i>Aquilegia canadensis</i>	Columbine	1-2	April-July	scarlet/yellow
<i>Arisaema triphyllum</i>	Jack-in-the Pulpit	1-3	May-June	purple, white
<i>Asarum canadense</i>	Wild Ginger	0.5	April-May	brown
* <i>Aster anomalis</i>	Weird Aster	2-3	Sept.-Oct.	blue
* <i>Aster patens</i>	Spreading Aster	2-3	Sept.-Oct.	blue
<i>Chelone obliqua</i>	Rose Turtlehead	2-4	Aug.-Oct.	pink
<i>Cimicifuga americana</i>	Bugbane	2-4	Aug.-Sept.	white
<i>Dicentra cucullaria</i>	Dutchman's Breeches	1-2	March-May	white
* <i>Echinacea purpurea</i>	Purple Coneflower	3	May-Oct.	pinkish purple
<i>Erythronium albidum</i>	Dogtooth Violet	0.5	March-May	bluish-white
* <i>Geranium maculatum</i>	Cranesbill Geranium	1-2	April-June	pink, blue
<i>Heuchera richardsonii</i>	Alum Root	1	April-July	green
<i>Iris cristata</i>	Crested Iris	1	April-May	purple, blue
* <i>Monarda bradburiana</i>	Horsemint	2	May-June	pink
<i>Mertensia virginica</i>	Bluebells	2	March-June	pink, blue
* <i>Phlox divaricata</i>	Wild Sweet William	1	April-June	purple, blue
<i>Polygonatum biflorum</i>	Solomon's Seal	3-6	May-June	white
<i>Sanguinaria canadensis</i>	Bloodroot	0.5-1	March-May	white
* <i>Scutellaria incana</i>	Downy Skullcap	3-4	July-August	blue
* <i>Silene caroliniana</i>	Wild Pink	1-1.5	April-May	rose, pink
<i>Smilacina racemosa</i>	False Solomon's Seal	2-3	May	white
* <i>Solidago ulmifolia</i>	Elm-leaved Goldenrod	3-4	August	yellow
<i>Spigelia marilandica</i>	Pink Root	1	May-August	red/yellow
* <i>Stylophorum diphyllum</i>	Celandine Poppy	1-1.5	April-June	yellow
* <i>Tradescantia virginiana</i>	Spiderwort	1-1.5	May-July	purple, blue

<i>Trillium</i> spp.	Wake Robin	0.5-2	March-June	white, red
* <i>Verbesina helianthoides</i>	Wingstem	3	June-July	lemon yellow
* <i>Viola</i> spp.	Violet	0.5-1	April-June	white, blue, purple

### **Prairie Wildflowers**

The essence of the prairie can be obtained by planting native prairie grasses and wildflowers. Since the prairie is essentially a grassland, a general rule of thumb is to establish an area with 50% native grasses, 50% wildflowers. In the home landscape, this translates to about two or three native grasses for every ten to twelve prairie wildflower species.

Medium-height grasses, such as little bluestem and sideoats grama grass, may be more appropriate in the home landscape than the tall grasses associated with our native prairies.

The prairie garden may be started from either transplants or from seed. The size of the area to be planted is the most important consideration when determining whether to use seed or transplants. In general, seeds are better for larger, naturalized plantings while transplants work well for smaller, landscaped plantings.

Garden soil need not be amended as organically rich soil will cause prairie plants to grow too exuberantly. As a result, they may become weedy and need staking. Follow the plan outlined above in meadow and glade gardens for growing wildflowers from seed. Transplanting of bare-rooted seedlings should be done in early spring. Containerized plants can be planted at any time.

As a rule, prairie plants spend most of their first year establishing root systems, with little visible above ground growth. Hand pulling may be necessary to control noxious weeds during this vulnerable period. Your garden will begin to look more like a prairie during the second and third year of growth. During this time, an early-summer mowing (late June) will be helpful in controlling annual weeds. The homeowner should also follow-up with a fall mowing when the vegetation reaches a height between 6-10 inches. Spot applications of an herbicide may be applied, if necessary. When using an herbicide, follow the directions on the label.

Your prairie planting should be fairly well established by the fourth year. At this point, maintenance tasks will be minimal and your prairie will pretty much take care of itself in the years to come.

### **Native Missouri Plants for the Prairie Garden**

<b>Botanical Name</b>	<b>Common Name</b>	<b>Height (in ft.)</b>	<b>Bloom Period</b>	<b>Bloom Color</b>
<b>Shrubs</b>				
<i>Amorpha canescens</i>	Leadplant	1.5-3	May-August	blue/white
<i>Ceanothus americanus</i>	New Jersey Tea	3-4	May-September	white
<i>Rosa setigera</i>	Prairie Rose	6	May-July	white to pink
<i>Rhus copallina</i>	Dwarf Sumac	3	May-November	white
<b>Grasses</b>				
<i>Andropogon gerardii</i>	Big Bluestem	3-8	July-September	purple
<i>Bouteloua curtipendula</i>	Side-oats Grama	1-3	June-September	green, brown, purple
<i>Elymus canadensis</i>	Nodding Canada Wild Rye	2-4	June-September	green
<i>Panicum virgatum</i>	Switchgrass	3-5	July-September	varied
<i>Schizachyrium scoparium</i>	Little Bluestem	2-4	July-September	purple

<i>Sorghastrum nutans</i>	Indian Grass	3-6	July-frost	tan-yellow
<i>Sporobolits heterolepis</i>	Prairie Dropseed	2-3	August-frost	tan-brown
<b>Wildflowers</b>				
<i>Asclepias syriaca</i>	Common Milkweed	8	July-August	pinkish
<i>Asclepias tuberosa</i>	Butterflyweed	1-2	June-August	orange, red
<i>Aster linariifolius</i>	Stiff-leaf Aster	0.5-1.5	August-frost	lavender
<i>Aster novae-angliae</i>	New England Aster	3.5-5	September-October	blue to purple
<i>Baptisia leucantha</i>	White False Indigo	3-6	June-July	white
<i>Camassia scilloides</i>	Prairie Hyacinth	1.5	April-May	purple
<i>Castilleja coccinea</i>	Indian Paint-brush	0.5-1.5	April-July	red
<i>Coreopsis palmata</i>	Prairie Tickseed	1-3	June-July	yellow
<i>Dalea candidum</i>	White Prairie Clover	1-3	July	white
<i>Dalea purpurea</i>	Purple Prairie Clover	1-3	July	purple
<i>Echinacea pallida</i>	Pale Purple Coneflower	2-3	June	purple, pink
<i>Echinacea purpurea</i>	Purple Coneflower	3	May-October	pink
<i>Eryngium yuccifolium</i>	Rattlesnake-master	3-4	July	greenish white
<i>Eupatorium perfoliatum</i>	Boneset	3	July-October	white
<i>Helianthus mollis</i>	Ashy Sunflower	3-5	August	yellow
<i>Helianthus occidentalis</i>	Western Sunflower	2-3	July-August	yellow
<i>Liatris aspera</i>	Rough Blazing-star	4-6	September-October	purple
<i>Liatris pycnostachya</i>	Prairie Gayfeather	3-6	September-October	purple
<i>Liatris spicata</i>	Gay Feather	2-3	July-August	rose-purple
<i>Monarda punctata</i>	Dotted Monarda	2	June-October	purple/red
<i>Parthenium integrifolium</i>	American Feverfew	3	May-September	white
<i>Penstemon digitalis</i>	White Beardtongue	3-4	May-June	white
<i>Phlox pilosa var. ozarkana</i>	Prairie Phlox	1.5-3	May-June	pink
<i>Ratibida pinnata</i>	Gray-headed Coneflower	3-5	July-August	yellow
<i>Rudbeckia hirta</i>	Black-eyed Susan	3	June-September	yellow
<i>Rudbeckia subtomentosa</i>	Sweet Coneflower	6	August-September	yellow
<i>Silphium laciniatum</i>	Compass Plant	4-8	July-August	yellow
<i>Silphium terebinthinaceum</i>	Prairie Dock	3-6	July-September	yellow
<i>Silphium integrifolium</i>	Rosin Weed	4-6	July-August	yellow
<i>Solidago speciosa</i>	Showy Goldenrod	1-3	August-October	gold
<i>Vernonia baldwinii</i>	Ironweed	3	May-September	purple

### **Meadow and Glade Wildflowers**

Meadow wildflowers prefer a dry, open, sunny spot with adequate drainage. Many meadow wildflowers are easily grown from direct seeding, but may need a period of stratification to assure germination. To stratify seeds, keep them under cool, dark moist conditions for a minimum period of three months or more depending on the species. This can be accomplished by putting seeds in a sealed bag with moist sand or perlite and placing it in the refrigerator. A fall sowing will allow nature to complete the stratification process for you.

Ideally, garden soil should be prepared two seasons before seeding and/or planting in order to gain control over weeds. If you are selecting a new location for your meadow wildflower garden, be certain to remove

existing lawn grass and as many weeds as possible. This can be accomplished by digging, rototilling or by using an herbicide such as Roundup. When using any herbicide, be certain to carefully read the label before application.

When ready to plant, loosen the soil with a rake or a hoe. You can deliberately broadcast the seed for a naturalized look. After seeding, gently rake the seeds into the soil and cover lightly with straw. Keep the ground consistently moist for the next few weeks until the seedlings have an opportunity to become established.

If you plan to plant your meadow in the spring, purchasing container grown plants might be the best option. Purchasing plants is more costly, but they will become established more quickly. Plant according to the directions supplied by the nursery and keep well watered until established.

Many wildflowers that are associated with the meadow garden are actually glade species. Glades are naturally occurring open areas characterized by thin, rocky soils which produce an extremely hot, dry environment. Glade wildflowers will feel “at home” anywhere in a location that receives at least six hours of full sun each day. They are particularly tolerant of poor soils and drought conditions. As with meadow wildflowers, many glade wildflowers can be sown directly from seed.

### Native Missouri Plants for Sunny Meadow and Glade Gardens

\*denotes glade species

Botanical Name	Common Name	Height (in ft.)	Bloom Period	Bloom Color
<b>Grasses</b>				
<i>Bouteloua curtipendula</i>	Side-oats Grama	1 - 3	June-September	green, brown, purple
<i>Schizachyrium scoparium</i>	Little Bluestem	2 - 4	July-September	purple
<i>Sporobolus heterolepis</i>	Prairie Dropseed	1 - 3	August-frost	tan-brown
<b>Shrubs</b>				
* <i>Cornus asperifolia</i> var. <i>drummondii</i>	Rough-leaved Dogwood	4-5	May-June	white
* <i>Rosa carolina</i>	Pasture Rose	3	May-June	pink
<b>Wildflowers</b>				
* <i>Asclepias tuberosa</i>	Butterflyweed	1-2	June-August	orange, red
* <i>Aster oblongifolius</i>	Aromatic Aster	3	September-October	blue
* <i>Baptisia australis</i>	Blue Wild Indigo	2-3	May	blue
* <i>Callirhoe involucrata</i>	Purple Poppy Mallow	0.5-1	June-July	rose pink
* <i>Coreopsis lanceolata</i>	Lance-leaved Coreopsis	1-2	May-August	yellow
* <i>Echinacea pallida</i>	Pale-purple Coneflower	2-3	June	lavender
* <i>Echinacea paradoxa</i>	Yellow Coneflower	2-3	June	yellow
<i>Eryngium yuccifolium</i>	Rattlesnake Master	3-4	July	greenish white
* <i>Glandularia canadensis</i>	Rose Verbena	1.5-2	April-November	rose, purple
<i>Heliopsis helianthoides</i>	False Sunflower	4-6	May-September	yellow
* <i>Liatris aspera</i>	Rough Blazing Star	4-6	September-October	purple
<i>Liatris pycnostachya</i>	Prairie Gayfeather	3-6	July-August	purple
* <i>Monarda fistulosa</i>	Wild Bergamot	3-5	June-July	lavender
<i>Oenothera speciosa</i>	Showy Evening Primrose	0.5-1	May-July	white/pink

<i>*Oenothera macrocarpa</i>	Missouri Evening Primrose	0.5-1	June	yellow
<i>*Penstemon cobaea</i> var. <i>purpureus</i>	Beard-tongue	2	April-May	rose purple
<i>*Penstemon tubaeiflorus</i>	Purple Beard-tongue	3-4	May-June	purple
<i>Ratibida pinnata</i>	Gray-headed Coneflower	3-5	July-August	yellow
<i>Rudbeckia missouriensis</i>	Missouri Black-eyed Susan	1-2	July	yellow
<i>*Salvia azurea</i> var. <i>grandiflora</i>	Blue Sage	3	July-September	blue
<i>Scutellaria incana</i>	Downy Skullcap	1-1.5	June-September	blue
<i>*Silene regia</i>	Royal Catchfly	1-1.5	May	pink
<i>Solidago speciosa</i>	Showy Goldenrod	3-4	August-October	yellow
<i>Veronicastrum virginicum</i>	Culver's Root	2-6	June-September	pink, white
<i>*Zizia aurea</i>	Golden Alexander	1	July-September	yellow

### Native Missouri Plants of the Moist Meadow Garden

Botanical Name	Common Name	Height (in ft.)	Bloom Period	Bloom Color
<b>Sedges</b>				
<i>Carex grayi</i>	Carex	1	May-October	beige
<i>Carex stricta</i>	Tussock Sedge	1 - 1.5	May-July	beige
<b>Shrubs</b>				
<i>Hamamelis vernalis</i>	Vernal Witch Hazel	9	January-April	yellow
<i>Physocarpus opulifolius</i>	Ninebark	9	May-June	white
<i>Sambucus canadensis</i>	Common Elderberry	9	May-July	white
<b>Wilflowers</b>				
<i>Asclepias incarnata</i>	Swamp Milkweed	2-4	June-July	rose
<i>Boltonia asteroides</i>	Boltonia	4	July-October	purple
<i>Chelone glabra</i>	Turtlehead	2-3	July-September	white, pink
<i>Eupatoriitin perfoliatum</i>	Joe-pye Weed	3	July-September	pink
<i>Eupatorium purpureum</i>	Green Stemmed Joe-pye Weed	6	July-September	pink, purplish
<i>Helenium autumnale</i>	Sneezeweed	6	August- November	yellow
<i>Ins virginica</i>	Southern Blue Flag	2	May-July	blue
<i>Lilium michiganense</i>	Michigan Lily	3	June-July	orange
<i>Lobelia cardinalis</i>	Cardinal Flower	3-4	July-October	red
<i>Lobelia siphilitica</i>	Blue Lobelia	3	August-October	blue, purple
<i>Phlox maculata</i>	Meadow Phlox	3	May-October	purple
<i>Physostegia virginiana</i>	Obedient Plant	3-4	May-September	pink, white
<i>Rudbeckia fulgida</i>	Brown-eyed Susan	1 - 1.5	June-October	yellow