

Compatible Herbaceous Species

A Spotters Guide for
ROW Herbicide Applicators



Prepared for



Prepared by



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Aster Family

Patterns of the Aster or Sunflower Family

Asters are often easy to recognize from a distance.

Plants of the Aster family are "composites" of many small flowers in a disk-like flowerhead.

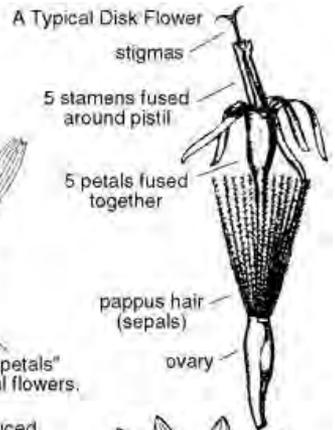


Arnica

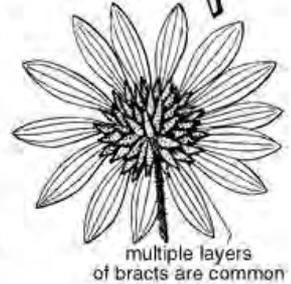
Each seed is produced by a single tiny flower.



Dandelion



Even the "petals" are individual flowers.



multiple layers of bracts are common

Members of the Aster Family all have a composite flower head.

Black-Eyed Susan *Rudbeckia hirta*

Bright yellow petaled flowers with dark centers sit atop coarse, rough, and hairy stems. 2-3' tall.



- Seeds are a food source for birds.
- Valuable nectar source for bees, butterflies, and other pollinators.
- Root tea used for colds; root wash for sores, snakebites, and swelling.

Bloom Time

January	February	March	April	May	June	July	August	September	October	November	December
											

Common Yarrow *Achillea millefolium*

Flat-topped clusters of small, whitish flowers grow at the top of a gray-green, leafy, usually hairy stem. Alternate leaves that are further divided into smaller leaflets, giving them a delicate, fernlike, lacy appearance. 3' tall.



- Yarrow was formerly used for medicinal purposes: to break a fever by increasing perspiration, to treat hemorrhaging and as a poultice for rashes. A tea used by Native Americans to cure stomach disorders was made by steeping the leaves.

Bloom Time

January	February	March	April	May	June	July	August	September	October	November	December
											

Pale Purple Coneflower

Echinacea pallida

Tough stems with flowerheads of lavender rays drooping from a large, spiny, cone-shaped center. The ray flowers vary in length and width. Coarse-haired, narrowly lance-shaped leaves are attached to the plant near its base. 2-4' tall.



- Beneficial polinator plant for bees and butterflies.
- Echinacea have a medicinal history of using the dried root of the plant to make a decoction in boiling water or a tincture in alcohol, both to treat impurities in the blood and a variety of infections.
- Native Americans used it to treat snakebite.

Bloom Time

January	February	March	April	May	June	July	August	September	October	November	December
											

Rough Blazing Star

Liatris aspera

A spike of rounded pinkish to lavender flower heads along stiff erect stems covered with grayish hairs. The stem is lined with short, narrow, bright-green leaves. 1-4' tall.



- The roots were ground and used as a pain reliever for headache, arthritis and earaches by the Cheyenne.
- Valuable nectar source for bees, butterflies, and other pollinators.

Bloom Time

January	February	March	April	May	June	July	August	September	October	November	December
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Tall Goldenrod

Solidago altissima

Stems occur singly or in clusters. Small, yellow flowers are arranged along the upper side of branches, forming a feathery, plume-shaped inflorescence. 2-4' tall.



- Goldenrod is used to reduce pain and swelling, as a diuretic to increase urine flow, and to stop muscle spasms. It is also used for gout, joint pain, arthritis, as well as eczema and other skin conditions.

Bloom Time

January	February	March	April	May	June	July	August	September	October	November	December
											

Western Ironweed *Vernonia baldwinii*

Stems occur singly or in clumps, and are stout and hairy. Wide clusters of vibrant, red-violet fuzzy looking flowers form at the ends of short branches near the top of the plant. Long, lance-shaped leaves line the stems.

3-5' tall.

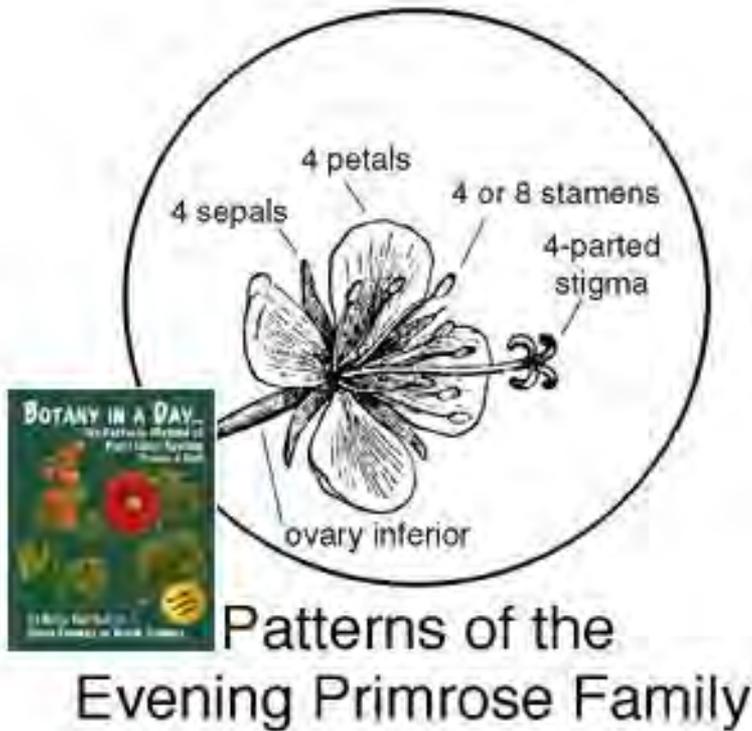


- Valuable nectar source for bees, butterflies, and other pollinators.
- American Indians used ironweed for medicinal purposes, making teas from leaves to treat female problems and as a blood tonic. Root teas were used to treat loose teeth and for stomach ulcers and hemorrhaging.

Bloom Time

January	February	March	April	May	June	July	August	September	October	November	December
											

Evening Primrose Family



Members of the Primrose Family all have 4 sepals, 4 petals, 4 or 8 stamens, and a 4-parted stigma.

Biennial Gaura *Oenothera gaura*

Long-tubed white flowers, turning pink with age, bloom 2 or 3 at a time in clusters on long, wand-like spikes branching from the top portion of this 2-5' biennial.



- Important native plant for pollinating long-tongue bees and bumblebees.
- The larvae from the Gaura Moth and Primrose Moth will feed on the leaves and seeds.

Bloom Time

January	February	March	April	May	June	July	August	September	October	November	December
											

Common Evening Primrose *Oenothera biennis*

At the top of a leafy stalk bloom lemon-scented, 2" yellow four-petaled flowers, which open at night. Stem hairy, often purple-tinged. 2-6' tall.



- Food source for moths, small mammals, birds, and deer.
- Roots and shoots edible.
- Evening-primrose oil can help treat eczema, asthma, migraine headaches, heart disease, high cholesterol, inflammation, PMS, multiple sclerosis, diabetes, rheumatoid arthritis and even alcoholism.

Bloom Time

January	February	March	April	May	June	July	August	September	October	November	December
											

Missouri Evening Primrose / Ozark Sundrop *Oenothera macrocarpa*

Large 4" showy yellow four-petaled flowers open in the evening and close the next day. The foliage is narrow, thick and gray-green. Can be trailing or upright, usually growing 8-10" tall.



- Roots and shoots edible.
- In ancient times the roots of this genus of plants were used in scenting wine

Bloom Time

January	February	March	April	May	June	July	August	September	October	November	December
											

Showy Evening Primrose / Pinkladies *Oenothera speciosa*

Upright to sprawling perennial that spreads to form extensive colonies. Nodding buds, opening into large four-petaled pink or white flowers, are in the upper leaf axils on slender, downy stems. Foliage is usually linear and pinnate. 10-24" tall.



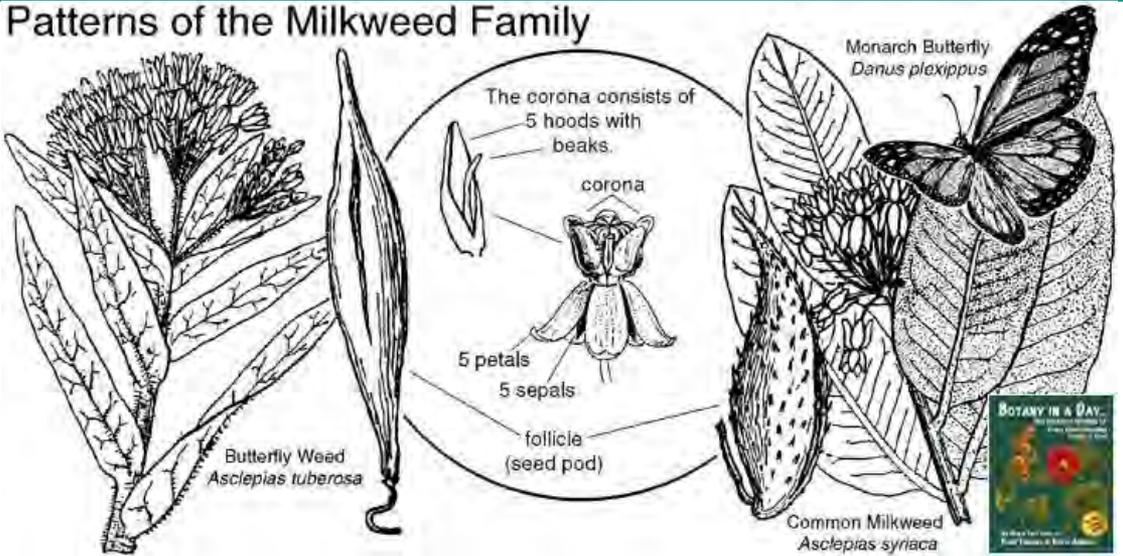
- Roots and shoots edible.
- Seeds contain omage-6 fatty acids

Bloom Time

January	February	March	April	May	June	July	August	September	October	November	December
											

Milkweed Family

Patterns of the Milkweed Family



Members of the Milkweed Family have clustered flowers made up of a corona with 5 hoods and a corolla with 5 petals and 5 sepals. Most milkweeds produce a milky sap.

Butterfly Milkweed *Asclepias tuberosa*

Stiff, lance-shaped foliage with clusters of flat-topped bright orange flowers. Follicles split open in the fall and early winter dispensing wind borne seeds. 1-2' tall.



- Larval host for Grey Hairstreak, Monarch, and Queens.
- Valuable nectar source for bees, butterflies, and other pollinators.

Bloom Time

January	February	March	April	May	June	July	August	September	October	November	December
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Common Milkweed *Asclepias syriaca*

Tall umbels of large ball shaped clusters of pink flowers. Follicles split open in the fall and early winter dispensing wind borne seeds. 2-3' tall.



- Larval host for Monarch butterfly.
- Valuable nectar source for bees, butterflies, and other pollinators.

Bloom Time

January	February	March	April	May	June	July	August	September	October	November	December
											

Swamp Milkweed *Asclepias incarnata*

Deep pink flowers clustered at the top of a tall, branching stem, bearing numerous narrow, lanceolate leaves. Opposite, narrow, lance-shaped leaves line the erect, open-branched stem. Elongated, tan-brown seed pods persist into winter. 2-5' tall.

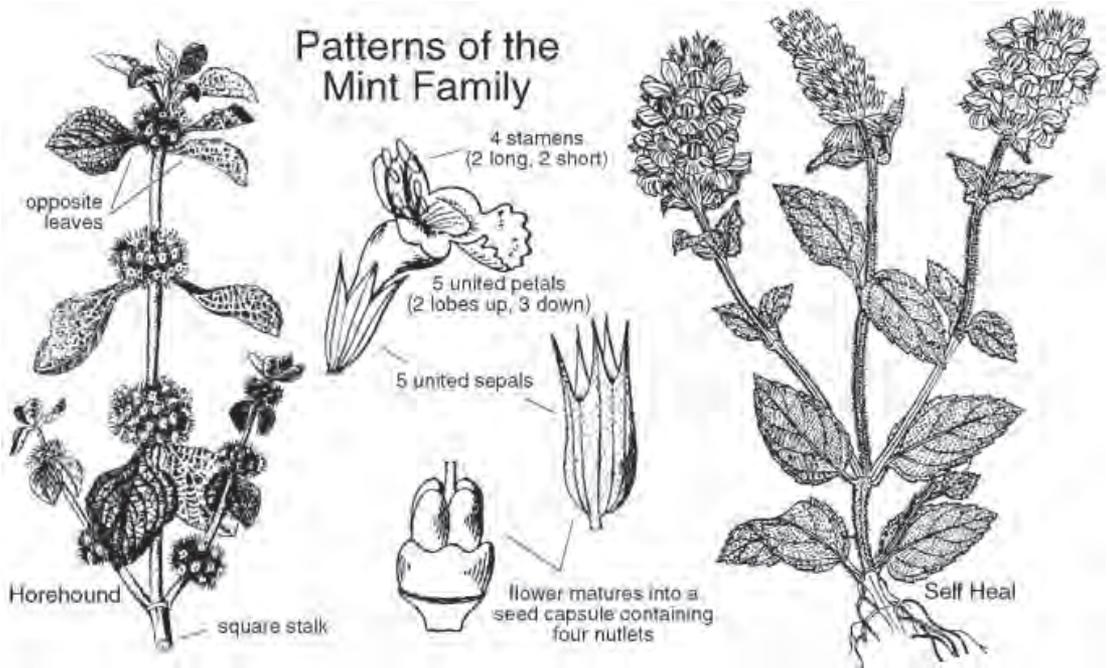


- Larval host for Monarch and Queen butterflies.
- Valuable nectar source for bees, butterflies, and other pollinators.

Bloom Time

January	February	March	April	May	June	July	August	September	October	November	December
											

Mint Family



Members of the Mint Family all have opposite leaves, square stems, irregular flowers, and are usually fragrant.

Blue Sage *Salvia azurea*

A tall, delicate plant with large, 2-lipped, blue flowers, whorled around the square stem and forming a terminal spike-like cluster. 3-6' tall.



- Valuable nectar source for bees, butterflies, and other pollinators.
- Sage plants are said to have many medicinal properties. Used for pain.

Bloom Time

January	February	March	April	May	June	July	August	September	October	November	December
						☀️	☀️	☀️	☀️		

Slender Mountain Mint

Pycnanthemum tenuifolium

This stiff, erect, compact, clump-forming mint has narrow leaves and terminal flower clusters composed of numerous, small, two-lipped corollas varying from whitish to lavender, with purple spots. 2-3' tall.



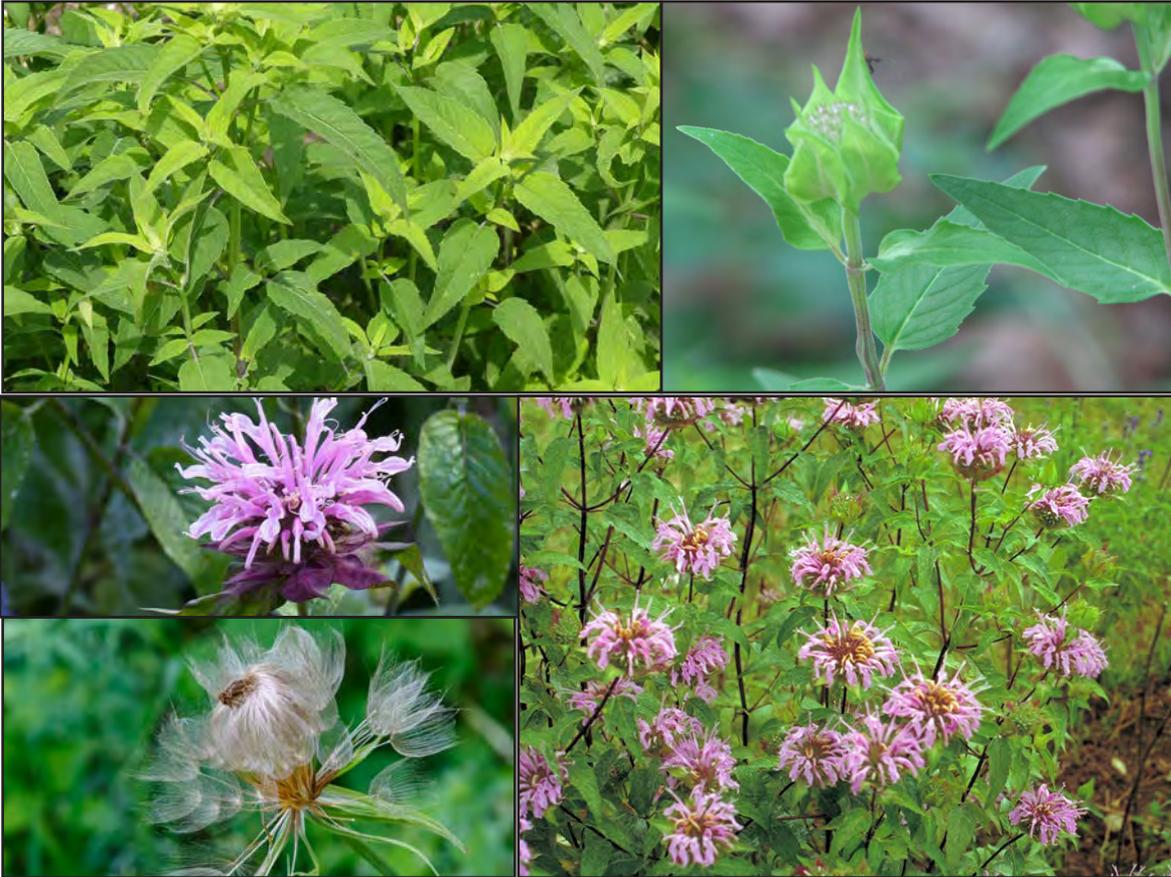
- Dried leaves used as flavoring and in teas.
- Rub leaves on skin to repel mosquitoes.

Bloom Time

January	February	March	April	May	June	July	August	September	October	November	December
											

Wild Bergamot *Monarda fistulosa*

Upright perennial that expands into colonies from shallow vigorous rhizomes. Stems are smooth, green and square. The aromatic leaves are arranged opposite from each other on short petioles along the stems. Showy summer-blooming pink to lavender flowers. 2-5' tall.

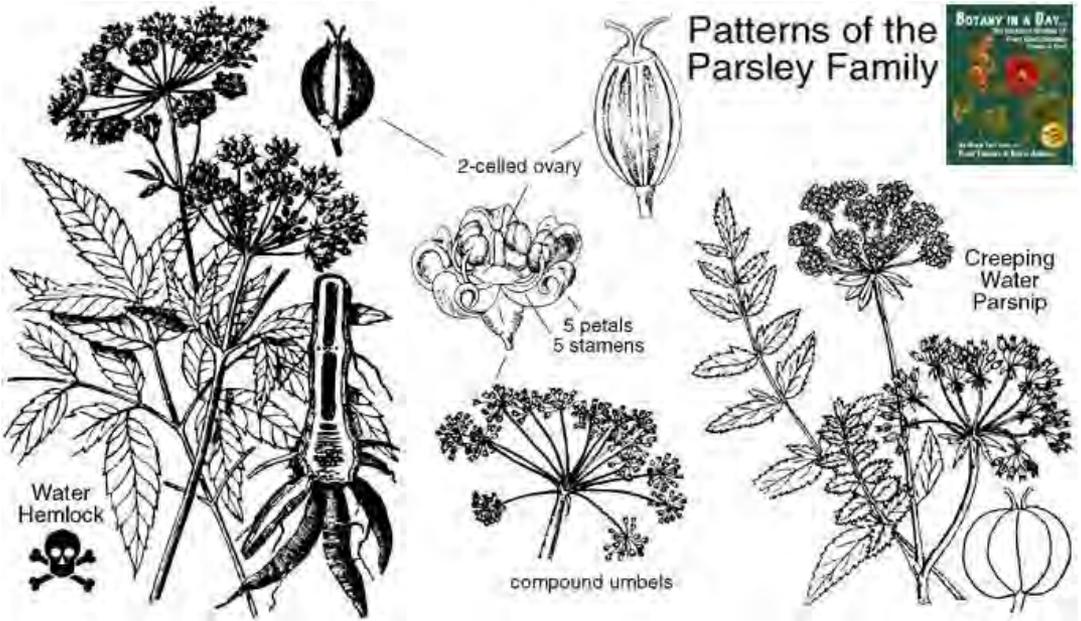


- Dried leaves used as flavoring and in teas.
- Oil from the leaves was formerly used to treat respiratory ailments.

Bloom Time

January	February	March	April	May	June	July	August	September	October	November	December
											

Parsley Family



Members of the Parsley Family all have hollow stems, compound umbels, and small flowers with 5 petals and 5 stamens.

Golden Alexander

Zizia aurea

Features flat-topped clusters (compound umbels) of tiny yellow flowers in late spring atop stems growing to 3' tall.



- Native Americans used this plant in a root tea for fevers, to heal wounds, or to help with insomnia. The flower stalks were used for headaches.

Bloom Time

January	February	March	April	May	June	July	August	September	October	November	December
											

Rattlesnake Master

Eryngium yuccifolium

Basal rosettes of parallel-veined, bristly-edged, sword-shaped, medium green leaves and tiny, stemless, greenish-white flowers tightly packed into globular, 1" diameter heads. Flower heads appear in branched clusters at the top of smooth stiff stems typically rising to 3-4' tall.



- Old belief that the roots heal rattlesnake bites.

Bloom Time

January	February	March	April	May	June	July	August	September	October	November	December
											

Wild Chervil / Canadian Honewort *Cryptotaenia canadensis*

Leaves are palmately divided into three elliptic to ovate leaflets with sharply toothed margins. Tiny 5-petaled white flowers. 1-3' tall.

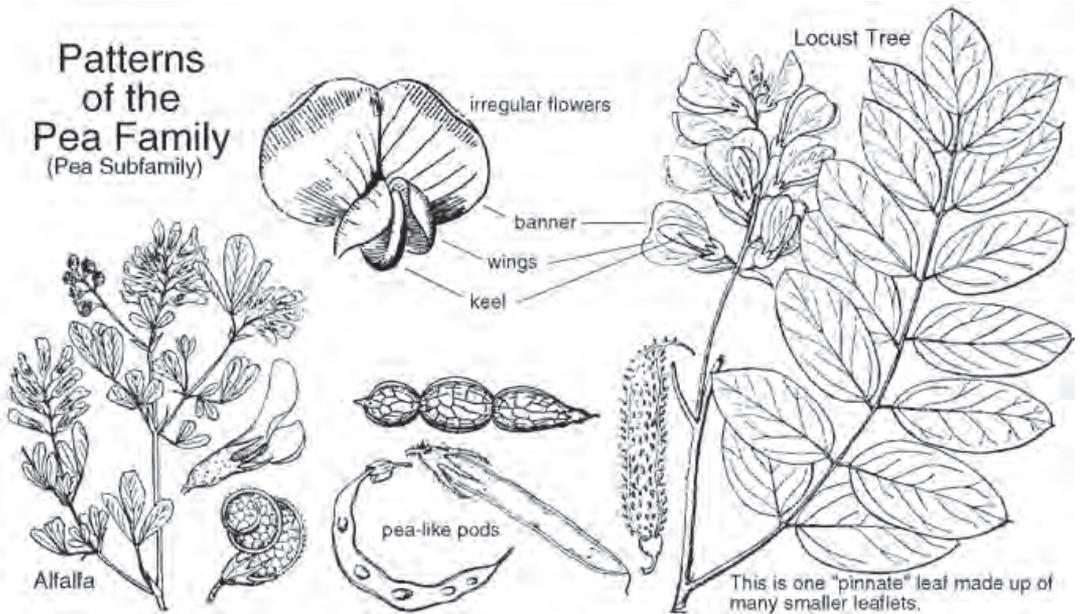


- Host plant for swallowtail butterfly.
- Edible. Leaves can be added to salads; roots can be cooked; seeds can be used as a spice.

Bloom Time

January	February	March	April	May	June	July	August	September	October	November	December
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Pea Family



Members of the Pea Family all have irregular flowers with a banner, wings, and keel.

False Indigo *Baptisia alba*

A bushy perennial with smooth leaves and white or cream-colored pea flowers in stiffly erect clusters; stem covered with whitish bloom. Clusters of large, seedpods often remain attached to the naked winter stems. 2-4' tall.



- Larval host plant for the wild indigo duskywing and Zarucco duskywing butterflies.
- Fruits are eaten by a variety of birds and the foliage is browsed by rabbits and deer.

Bloom Time

January	February	March	April	May	June	July	August	September	October	November	December
											

Purple Prairie Clover

Dalea purpurea

Tiny rose-purple flowers in cylindrical, head-like masses at ends of upright wiry stems. Compound, odd-pinnate leaves, with 3-5 narrow linear leaflets. 1-3' tall.



- A nitrogen-fixing plant that is an important component of Midwestern prairie restorations.

Bloom Time

January	February	March	April	May	June	July	August	September	October	November	December
											

White Prairie Clover

Dalea candida

Tiny white flowers in dense, cylindrical, elongated, cone-like heads atop erect, slender stems. Compound, odd-pinnate, dull green leaves with 5-7 narrow linear leaflets. 1-2' tall.



- A nitrogen-fixing plant that is an important component of Midwestern prairie restorations.

Bloom Time

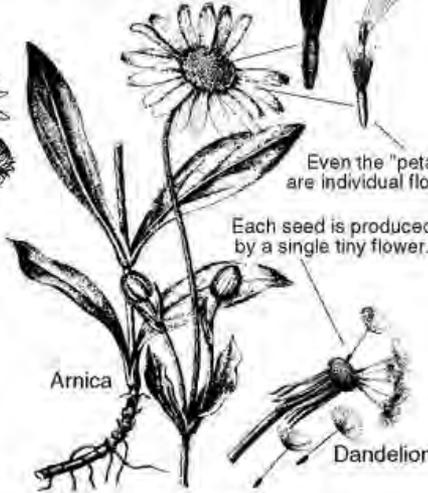
January	February	March	April	May	June	July	August	September	October	November	December
											

Sunflower Tribe

Patterns of the Aster or Sunflower Family

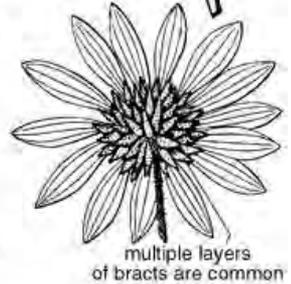
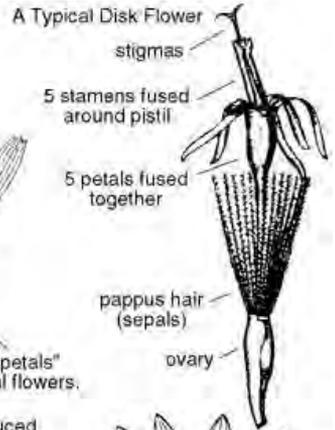
Asters are often easy to recognize from a distance.

Plants of the Aster family are "composites" of many small flowers in a disk-like flowerhead.



Even the "petals" are individual flowers.

Each seed is produced by a single tiny flower.



Members of the Sunflower Tribe all have a composite flower head.

Common Sunflower

Helianthus annuus

Coarse, hairy, leafy, fast-growing annual with stiff upright stalks. 3-6" wide sunflowers with orange-yellow rays and brown to purple center disks. 5-10' tall.



- The leaves are used as fodder, the flowers yield a yellow dye, and the seeds contain oil and are used for food.

Bloom Time

January	February	March	April	May	June	July	August	September	October	November	December
											

Sawtooth Sunflower

Helianthus grosseserratus

A giant perennial herb, usually branched, sometimes occurring in dense colonies of clumping stems. Lower stems often hairless, reddish, sometimes with a white waxy coating. Leaves are coarsely toothed. 3-12' tall.



- Provide nectar and pollen to a great variety of insects, plus a hunting ground for spiders, assassin bugs, and other predators.
- Seeds are a food source for birds.

Bloom Time

January	February	March	April	May	June	July	August	September	October	November	December
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Western Sunflower / Fewleaf Sunflower *Helianthus occidentalis*

Large ovate to oblong-lanceolate basal leaves form a 4-8" tall foliage clump. Sunflowers with orange-yellow rays and yellow disks appear on stiff, almost naked, flower stems that typically rise to a height of 2-3' tall.



- Provide nectar and pollen to a great variety of insects, plus a hunting ground for spiders, assassin bugs, and other predators.
- Seeds are a food source for birds.

Bloom Time

January	February	March	April	May	June	July	August	September	October	November	December
							☀️	☀️			

Bloom Calendar

Plant Name	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Ozark Witch Hazel	Yellow											
Musclewood		White										
Spicebush			Yellow									
American Hazelnut			Light Orange									
American Plum			White									
Aromatic Sumac			Yellow									
Eastern Hop Hornbeam				Brown								
Eastern Redbud				Pink								
Flowering Dogwood				White								
Missouri Gooseberry				White								
Pawpaw				Purple								
False Indigo Bush				Purple								
White Wild Indigo				White								
Showy Evening Primrose				Pink								
Deciduous Holly					White							
Green Hawthorn					White							
American Smoketree					Pink							
Arrowwood Viburnum					White							
Blackhaw Viburnum					White							
Carolina Buckthorn					Light Green							
Golden Alexander					Yellow							
Ninebark					White							
Roughleaf Dogwood					White							
White Prairie Clover					White							
Missouri Evening Primrose					Yellow							
Bumelia						White						
Buttonbush						White						
Eastern Wahoo						Purple						
Smooth Sumac						Light Green						
Coralberry						Pink						
American Elderberry						White						
Butterfly Milkweed						Orange						
Common Milkweed						Pink						
Pale Purple Coneflower						Purple						
Purple Prairie Clover						Purple						
Swamp Milkweed						Pink						
Black-Eyed Susan						Yellow						
Common Yarrow						White						
Common Evening Primrose						Yellow						
Rattlesnake Master						White						
Slender Mountain Mint						White						
Wild Bergamot						Pink						
Wild Chervil						White						
Biennial Gaura						Pink						
Common Sunflower							Yellow					
Winged Sumac							Light Green					
Sawtooth Sunflower							Yellow					
Western Ironweed							Purple					
Blue Sage							Blue					
Western Sunflower								Yellow				
Rough Blazing Star								Purple				
Tall Goldenrod								Yellow				
Common Witch Hazel										Yellow		

Resources

Botany in a Day by Thomas J. Elpel

<https://www.wildflowers-and-weeds.com>

Grow Native! Missouri Prairie Foundation

<https://www.moprairie.org/GrowNative>

Lady Bird Johnson Wildflower Center

<https://www.wildflower.org>

Missouri Department of Conservation

<https://mdc.mo.gov>

USDA National Resources Conservation Service

<https://plants.sc.egov.usda.gov/java/>

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