

FLOWERS OF THE PRAIRIE

July is the month the prairies are in their glory. New varieties are unfolding continuously giving them new faces almost every week. A number of common flowers to watch for are listed below:

Pasque Flower --- The first to bloom, April to June. A short, hairy-stemmed plant with blue-gray flowers. Nicknamed "prairie smoke" by the pioneers.

Shooting Star - - Streamline, deep pink flowers with pistils and stamens forming a spear-like tip. Petals turn backward to resemble tiny shooting stars. Blooms April to June.

Black-Eyed Susan - - Rough, hairy stems. Golden ray flowers curve backward around a brown disk. These and other prairie sunflowers are Composites, the largest family of flowering plants. Composites have individual flowers clustered into a head composed of outer ray flowers and tubular flowers in the center disk. This head is often mistaken for a single flower.

Yellow and Purple Cone Flowers - - Branching plants growing to 3 feet. Single, showy heads with a series of drooping ray flowers and cone-shaped center disk covered with minute, grayish florets.

Lead Plant - - Dense hair giving a whitish appearance. Small, purple flowers grow on a large stem crowned into a spike-like cluster.

Compass Plant - - Coarse, tall perennial with a yellow, sunflower bloom. Lower leaves vertical with edge oriented from north to south. Flowers said to follow the sun from east to west, July to September.

New Jersey Tea - - Low-growing shrub with pointed leaves and small, white flowers in umbrella-like clusters. During Boston Tea Party days, when oriental tea from English ships was unpopular, the fresh or dried leaves were used as a substitute.

Spiderwort - - May to August. Three petals opening in the morning, withering by noon. Blue, white, pink and lavender combinations.

Culver's Root - - Stout, erect plant reaching 3 feet. Small flowers bloom on a branching 9-inch cluster from June to September.

Butterfly Weed - - Little orange flowers with "horns" pointed downward arranged in a flat cluster. Often this member of the milkweed family is accompanied by a group of butterflies.

Prairie Phlox - - Rosy-pink to violet. A tufted plant with slightly hairy, nearly erect stems.

Turks Cap Lily - - A lily often 5 or 6 feet tall. Nodding flowers resemble miniature tiger lilies. Sometimes 50 flowers are on a single plant, July to September.

Purple and White Prairie Clover - - Upright, dotted stems and small flowers in dense heads. Purple blooms from June to September. White, June to July, has smooth stems and is shorter.

Blazing Star - - A spike-like ornamental with tufted flowers on an elongated spire. Purple to lavender flowers. Blooms August and September.

Yarrow - - This flower is often mistaken for fern by the dissected leaves. White, sunflower-like blossoms grow in flat-topped clusters.

Prairie Rose - - Our pinkish-white state flower blooms after May 30.

Common Mullein - - Densely woolly both on foliage and stems. Basal leaves from a large, compact rosette from which the leafy stem bears compact flowers in a dense yellow spike.

Goldenrod - - Numerous small, yellow flower heads grouped into compact, branching clusters.

Ox-eye-Daisy - - Grows 2 to 5 feet with terminal yellow flower heads. One of many prairie daisies.

Daisy-Fleabane - - Slender stemmed plant, 1 to 3 feet, with slightly downy stems and flattened, lavender flower heads.

Jerusalem Artichoke - - Grows 6 to 10 feet with many yellow flower heads. Roots were cooked and eaten by the Indians and early explorers. Tubers are connected in necklace fashion.

False Indigo - - A tall shrub, sometimes 15 feet, with sumac-like foliage and flowers in a dense, spire-like cluster of deep blue each with a single petal. Blooms May to June.

Ironweed - - Stiff, erect plants with coarse stems growing 3 to 6 feet. Flower heads form a loose, open cluster at the summit of the stems and branches. Tubular, blue flowers have a fringed effect.

Rattlesnake Master or Soapweed - - The stems are partially in the ground. Showy, greenish-white flowers have a soapy appearance. Leaves are erect and pointed.

Puccoon - - Densely hairy, 16-inch plants. Roots yield a red dye. Flowers in a one-sided cluster of yellow, funnel-shaped blossoms.

Blue Vervain - - Stiff, 4 sided, rough, hairy stemmed plant growing to 6 feet. The slender, terminal, compact flowers are in a spike standing upright like a pencil. Often purple, pink or white as well as blue.

Milkweed (Common and Whorled) - - Coarse, stout stemmed plants. Clusters of flowers are in umbels at the axis of the upper leaves. Whorled milkweed has leaves whorled around the stems and flowers. Milky sap in the stems and leaves.

Joe-Pye-Weed - - Purplish stems with spreading clusters of small, purple flower heads. Often 10 feet.

Queen Anne's Lace - - Greenish-white flowers on a bristly stem, fern-like foliage.

Cinquefoil - - A rose with leaves arranged in five-fingered manner. Yellow flowers bloom on a stout stem in spreading clusters.

Bedstraw - - This plant has 4-angled stems and minute, yellow flowers in tight clusters, often sprawling.

Ground Nut - - Also known as wild bean. A twinning, climbing plant with edible tubers. Pea-like flowers with fruit in bean pods.

Vetchling - - Yellow, pea-like, 1-inch flowers become pale purple when mature.

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NATURAL PRAIRIES

a living heritage



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IOWA PRAIRIES

Before cultivation changed the fields of blazing star, cone flowers, and rattlesnake master, to corn, oats, and wheat, Iowa was known as the prairie state. Instead of miles of neatly plowed fields, early pioneers found miles of prairie flowers and grasses, some growing higher than a man was tall, extending as far as the eye could see.

For better preservation of these prairies the state has purchased four such areas to help familiarize Iowans with this part of their pioneer heritage. Getting acquainted with prairie life and knowing these plants existed before man even dreamed of America or

a state named Iowa, adds much to a man's sense of pleasure in historical knowledge. The best way to enjoy these flowers is to get out and experience this part of nature firsthand. Walk through the bluestem grass; touch the delicate shooting star; and inhale the fresh aroma of prairie clover.

HAYDEN PRAIRIE

Gently rolling Hayden Prairie, the largest of the Iowa prairies, was purchased in 1945 making it the first prairie acquired by the state. Of its 240 acres, about 140 are upland or dry prairies and the remainder lowland. It is 4 miles west and 4½ miles north of the junction of U.S. 63 and Iowa 9 near Cresco.

During the 78 years this unplowed piece of prairie was in one family, it was cut for hay and occasionally pastured, but otherwise remains as it was in pioneer days.

In mass and from a distance, the blue-gray pasque flower, earliest of the prairie flowers, was often mistaken by pioneers as prairie smoke. According to *Ecology of Native Prairies in Iowa*, by John Moyer, ox-eye daisy, wild aster, yarrow, *Coreopsis* (tickseed), sunflower, lead plant, wild indigo, prairie clover, willow, quaking aspen and golden Alexander are the principal flora and shrubs to greet Hayden Prairie visitors. There are at least 149 species of plants.

Virgin prairies such as Hayden once covered 5/6 of Iowa but with cultivation, now only the characteristic soil profile remains to mark its boundaries. Owing to fire and, at times, a high water table, trees were unable to establish themselves on these areas even though soil



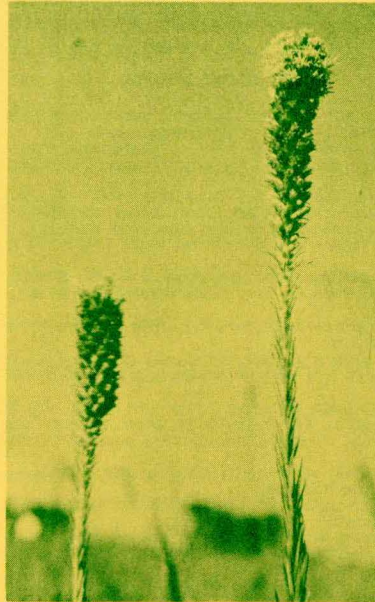
Pasque Flower



Butterfly Milkweed



Wild Rose
(Iowa State Flower)



Blazing Star

Cayler

are the principal flowers. These and many others combine to make Kalsow an enchanting, fragrant reminder of pioneer days.

Bluegrass is common to all prairies especially when an area has been over-grazed. Managed burning is helpful in controlling bluegrass. Prairies can survive burning as the plants were adapted to fires but spraying is fatal. Although other factors have contributed, the ultimate culprit in vanishing prairie flora from Iowa was the plow.

CAYLER PRAIRIE

Cayler Prairie was purchased as the third prairie preserve in 1960. Relatively undisturbed except for the activities of biologists in the summer, and of hunters in the fall, this tract of unplowed, ungrazed prairie remains much the same as it appeared when the early pioneers first settled in Iowa.

Just west of the Iowa Great Lakes Region in Dickinson County, Cayler Prairie is in close proximity to the Iowa Lakeside Laboratory.

About 75 of its 160 acres

and climate would permit their growth. Forests were limited to areas of deeper soil concentration sheltered from fires.

KALSOW PRAIRIE

In southeastern Pocahontas County, one mile west, 4½ miles north of Manson, is 160 acre Kalsow Prairie. This full quarter section was purchased by the state in 1948. Most of this prairie is somewhat flat upland and the remainder lowland.

Kalsow has at least 230 species of plants. A beautiful 80 acre stand of blazing star, in damper soil, makes its appearance in July. Wild asters, ox-eye daisy, compass plant, wild indigo, sunflowers, lead plant, prairie rose, golden Alexander, goldenrod, purple cone flower and blazing star



Jerusalem Artichoke

are rolling upland prairie and the remainder intermediate and lowland prairie. A few more species are found here due to the potholes where aquatic flowers grow, such as three types of milkweed found only in this area. Rattlebox is unique to both Cayler and Sheeder. Lowland blazing star, and earlier variety with more scattered flowers and stiff goldenrod with its ridged, stiff, flat heads are also unique to Cayler.

This prairie tract, representative of vegetation of hilly morainal areas, is of special interest for its rich, varied flora and the number and diversity of its flowers and grasses. A total of 265 species and 53 plant families of flowering plants have been found here.

Lead plant heads the list of most common flowers with blazing star, prairie rose, goldenrod, purple prairie clover, yarrow, prairie scouringrush, mugwort, pasque flower, silver-leaf, stiff goldenrod, prairie thistle, wild pea, yellow cone flower, prairie lettuce, ground cherry, daisy-fleabane, tickseed, false gromwell and prairie violet following in this order.

Upland Cayler is dry and characterized by big bluestem grass while on the intermediate, upland-lowland area, meadow-rue, Culver's root, ox-eye, larkspur and golden Alexander are common. In the slough grass, (moist prairie) community, water-hemlock, pale-spike lobelia and sunflower prevail.

In the sandbar willow community, .2 acres, nettles and catnip are the only invaders because of dense shrub-like growth of small trees. In the bull-rush-arrow-head-cattail community, one finds rich, varied flora, accounting for many of the plants collected from Cayler Prairie.



Purple Cone Flower

SHEEDER PRAIRIE

Sheeder Prairie is 4 miles west of Guthrie Center on Iowa 44, one mile north and ½ mile west. This 25 acre prairie was acquired in 1961 making it the most recent of the four natural monuments of native vegetation which originally occupied 84 percent of Iowa.

Its closeness to Springbrook State Park, the location of the Conservation Education Center has made it the object of study by students attending the Center.

Outstanding flowers to watch for on Sheeder include butterfly weed, turks cap lily, pasque flower, blazing star and various sunflowers. No native species has entirely disappeared under the disturbance of cultivation, pasturing and mowing; the original flora has been preserved. The prairie has been a closed community excluding most invaders. This stability is increased by the long life-span of many, as only 5 percent are annuals.

LOCATIONS

The public is invited to visit these interesting plant communities and appreciate their many seasonal aspects as they unfold the flowers and fruits of their 300 or more plant species. These are not picnic areas but are set aside to study, enjoy and preserve.