



Field Guide

Commonly
Encountered Native
Species
Johnson County, Kansas

Planting for Pollinators



Eryngo leavenworthii, Leavenworth's eryngo

Leavenworth's eryngo is a prickly, 20-40 inch annual with a leafy stem, broadly branched in the upper portion. Almost the entire plant has some shade of purple. Flowers are minute, purple, and mingled with small, spiny bracts in an elongated, terminal, head-like cluster. These are subtended by conspicuous spiny-tipped bracts. The leaves are deeply lobed, each segment edged and tipped with stiff spines. A tuft of small, rigid, spiny leaves grows out of the top of the flower head. The eryngos are not true thistles and are often confused with thistles, due to similarity in both appearance and habitat preference.

Stems: Erect, stout, branched above, glabrous, purplish.

Leaves: Alternate; lower stem leaves short stalked, broadly oblanceolate, 1 to 2.5 inches long, to .75 inch wide; upper stem leaves sessile, broadly ovate to circular, deeply palmately divided into narrow, spiny segments.

Inflorescences: Heads, ovoid-oblong, 1 to 1.5 inches long, 1 inch wide, purplish, terminal; bracts, spiny, pinnately cleft, subtending heads and projecting from tops of heads.

Flowers: Tiny, whitish to purple; petals 5; stamens 5, bluish.

Fruits: Dry, oblong, covered with whitish scales.

Habitat: Dry, rocky prairies, roadsides, open woodlands, and waste areas, most abundant on limestone or chalk soils.

Distribution: Principally southeast quarter of Kansas.

Comments: At first glance, this plant resembles a thistle, but it is actually a member of the parsley family. Named for its discoverer, Melines Conklin Leavenworth (1796-1862), an explorer, army surgeon, and botanist.



Eryngium yuccifolium, Rattlesnake master

Rattlesnake master is a perennial forb that grows from a thickened, corm-like crown. When not flowering, the plant forms a rosette of long, narrow, fibrous leaves, sometimes reaching up to 30 inches in length, but usually less. The leaves of rattlesnake master have parallel veins—one of relatively few dicotyledonous plants that has parallel-veined leaves—most have net-veined leaves (think about the leaves of oak trees, sunflowers, or cabbages!). These unusual leaves, with their linear shape, odd venation, and slender filiform teeth along the margins, are reminiscent of the Spanish-dagger or yucca plant (*Yucca* spp.); this inspired the plant's specific epithet, '*yuccifolium*' which means "yucca-like leaves."

Also Called: Rattlesnake master, button eryngo.

Stems: Erect, solitary, branching above, glabrous, blue-green waxy, ridged.

Leaves: Alternate, simple, rigid, bluish-green, broadly-linear, 4 to 32 inches long, .4 to 1.2 inch wide, parallel-veined, glabrous above and below, clasping; margins with widely-spaced weak bristles; upper leaves progressively smaller.

Inflorescences: Dense spherical to egg-shaped heads, each 1/2 to 1 inch in diameter and individually stalked; bracts 5-10, up to 3/5 inch long, spreading ascending, mostly entire, shorter than heads.

Flowers: Small, inconspicuous; bracts among flowers, spiny, whitish; sepals 5; petals 5, white; stamens 5; styles 2, threadlike, protruding.

Fruits: Dry, oblong, 1/6 to 1/3 inch long, angles with flattened scales.

Habitat: Moist meadows, wet or dry prairies, and rocky open woodlands.

Distribution: East 1/3 of Kansas.

Uses: Native Americans and pioneers used this plant medicinally. An infusion was held in the mouth for toothaches and taken for kidney disorders and neuralgia and a decoction used to prevent whooping cough. An infusion of the root was used as a snakebite remedy and the stem and leaves were chewed for nose-bleeds.

Comments: The name *yuccifolium* comes from "yucca" and Latin "folium" leaf - a leaf like yucca



Solidago spp, Canada goldenrod

Goldenrod stems are slender and can be singular or several; the stalks are usually erect, 1-6 ft tall. Blooms June – December, depending on species. Flowers are in golden clusters spiraling or branching near the top into smaller, flower-bearing branchlets. Each yellow (rarely white) “Flower” is actually a tiny composite flowerhead, structurally similar to a daisy or sunflower. Leaves are alternate along the stem and are usually linear (very narrow, like grass) or lance-shaped, and usually with a pointed tip.



Desmanthus illinoensis, Illinois bundle-flower

One to several erect stems grow from the base to 1-3 ft. (sometimes up to 5 ft.) in height. The leaves are twice pinnately compound. Six to 15 pinnae each have 20-30 leaflets. Leaves fold in strong sunlight and when touched. Small, ball-shaped clusters of greenish flowers occur on axillary stalks. An erect plant with ball-like clusters of small, whitish or greenish flowers on tall stalks rising in axils of compound leaves. Flat, leathery, twisted seedpods follow.

- Stems:** Erect, bushy-branched, angled, glabrous or sparingly hairy; branches longitudinally grooved.
- Leaves:** Alternate, short-stalked, even-bipinnately compound, 2 to 4 inches long; 6-16 pairs of segments, each with 15-30 pairs of leaflets; leaflets linear-lanceolate, less than 1/5 inch long.
- Inflorescences:** Heads, dense, spherical, less than 1/2 inch in diameter, terminal, on stalks 1 to 2 inches long in leaf axils.
- Flowers:** Small, white to greenish white; sepals 5; petals 5; stamens 5, filaments long, erect.
- Fruits:** Pods, sickle-shaped, 1/2 to 1 inch long, flat, many in dense clusters, dark brown when mature; seeds 2-5, about 1/6 inch long, brown.
- Habitat:** Rocky prairies, waste areas, open wooded slopes, stream banks, ditches, and roadsides, most abundant in clay or sandy soils.
- Distribution:** Throughout Kansas.
- Forage Value:** Illinois bundle-flower is high in protein. It is eaten readily by livestock and is considered an important indicator of range condition.
- Uses:** Native American children sometimes used the clusters of dried fruits as rattles.
- Comments:** The common name "bundle-flower" derives from the densely flowering, puffball-like heads. It is winter hardy and drought resistant. The leaflets are touch-sensitive, folding together when handled.



Liatris aspera, Blazing star

A spike of rounded, rayless, pinkish to lavender (sometimes white) flower heads along stiff erect stems covered with grayish hairs. One of the popular gayfeathers, this perennial has an erect, slightly zig-zag stem, 1-4 ft. tall. The stem is lined with short, narrow, bright-green leaves. Button-like, magenta-purple florets cover the upper 18-32 in. of the plant.

Also Called: Button gayfeather, button blazing star.

Stems: Stiffly erect, 1 to several, unbranched, glabrous or short-hairy.

Leaves: Alternate, simple, stalked, uppermost sessile, linear-lanceolate to linear, 2 to 8 inches long, .25 to 1.5 inch wide, often covered with resinous dots; margins entire; upper leaves reduced in size.

Inflorescences: Elongate, spike-like, to 18 inches tall, with few to many well-separated heads; heads sessile or short-stalked, .5 to 1 inch wide; bracts purplish, wrinkled, glabrous, rounded at tips.

Flowers: Ray florets absent; disk florets 16-40, rose-purple, corollas pubescent inside.

Fruits: Achenes, pubescent, ribbed, brown, tipped with many barbed bristles, enclosing small seed.

Habitat: Dry, open, rocky or sandy prairies.

Distribution: East half of Kansas.

Forage Value: When in the early growth stage, tall gayfeather is grazed by livestock.

Uses: Some Great Plains tribes of Native Americans used the boiled leaves and roots to treat intestinal pains.

Comments: The name button gayfeather comes from the button-like appearance of the flower heads prior to blooming. It is sometimes used in dried floral arrangements.



Silphium integrifolium, Rosinweed or Compass plant

A long-lived perennial member of the sunflower family. The large basal leaves can be 15-24 inches long and are deeply cut similar to a giant pin oak leaf. The rigid, sand paper like leaves orient themselves in a N/S direction to avoid direct midday sun, thus leading to the common name of compass plant. Large yellow flower heads from 2-4 in. across are conspicuous on the upper half to two-thirds of the stem in small clusters. Flowering begins in late June and proceeds through August.

- Stems:** Erect, occasionally branched above, nearly glabrous or velvety to rough.
- Leaves:** Evenly distributed along stem, variable, mostly opposite, sometimes in whorls of 3, simple, sessile, often clasping, ovate to lanceolate, 3 to 6 inches long, 1 to 2.5 inches wide, rough above, rough to velvety or nearly smooth below; margins entire or toothed.
- Inflorescences:** Heads, several, in open clusters, terminal, 2 to 4 inches wide; bracts ovate to elliptic, overlapping; margins fringed with hairs; tips usually curving outward.
- Flowers:** Ray florets 15-34, 1 to 2 inches long, yellow; disk florets numerous, corollas yellow.
- Fruits:** Achenes, rounded, flattened, about 1/2 inch long, winged, tipped with 2 sharp teeth, enclosing small seed.
- Habitat:** Open disturbed places and roadsides, most abundant in moist, rocky soils.
- Distribution:** East 2/5 of Kansas.
- Uses:** Native Americans used the root of whole-leaf rosinweed as an analgesic.
- Comments:** The plant contains a sticky resin, which gives it the name "rosinweed". *Silphium* species resemble sunflowers but differ in that their ray flowers produce seeds, while in sunflowers it is the disk flowers that produce the seeds.



Symphotrichum ericoides, common Aster

The Heath aster is the most common aster present in Kansas. This herbaceous perennial plant is up to 2" tall, branching occasionally to create a bushy appearance. The hairy stems are green initially, but often become brown as the plant matures. Heath asters thrive on the driest sand and gravel soils and is one of the last bits of color in the fall landscape.

Also Called: White aster, many-flowered aster.

Stems: Ascending or erect to almost prostrate, few to many, often clustered, slender, stiff, much-branched, rough hairy above.

Leaves: Alternate, simple, sessile or slightly clasping, linear to linear-lanceolate, 1/2 to 2 inches long, less than 1/4 inch wide, rigid, rough; margins entire; tips pointed; branch leaves much smaller and crowded; most basal and lower stem leaves absent at flowering.

Inflorescences: Panicles of numerous, densely crowded heads, primarily on 1 side of arching branches.

Flowers: Heads cylindric to bell-shaped, less than 1/2 inch across; bracts strongly overlapping, tipped with bristles; ray florets 10-18, white or rarely pinkish; disk florets 5-14, corollas yellowish to reddish purple.

Fruits: Achenes, small, appressed-hairy, purplish brown, tipped with white, hair-like bristles, enclosing small, silky seed.

Habitat: Dry open prairies, disturbed sites, pastures, and roadsides.

Distribution: Throughout Kansas.

Toxicity: Known to accumulate selenium, but livestock rarely consume it.

Comments: This is the most common Kansas aster. It grows in colonies and is drought hardy, with roots that descend 3 to 8 feet. Heath aster is one of the last plants to remain in flower in the autumn. Heath aster lowers the quality of prairie hay.



Symphotrichum novae-angliae, New England Aster

The New England aster occurs in eastern Kansas. One of the taller species, this plant may reach 3-4 ft. in height. The flowers are generally a shade of purple in color, although pink and white-flowered forms have been found. This is one of the showiest fall-blooming wildflowers, it will bloom until the first frost.

Stems: Clustered, rigidly erect, stout, much branched above, coarsely hairy.

Leaves: Lower leaves shed early; main stem leaves alternate, numerous, simple, crowded, prominently clasping, lanceolate to oblong, 1 to 4 inches long, 1/2 to 1 inch wide, rough or stiff-hairy above, softer hairy below; margins entire; tips pointed.

Inflorescences: Corymb-like clusters, spherical, terminal; heads 30-50, to 2 inches wide, on stalks covered with gland-tipped hairs; bracts narrowly linear, tips tapering, sharp-pointed, purplish green.

Flowers: Ray florets 40-100, reddish purple to violet-purple; disk florets numerous, yellowish orange to reddish purple.

Fruits: Achenes, silky hairy, tipped with reddish white, hair-like bristles, enclosing small seed.

Habitat: Stream banks, wet meadows, thickets, low areas, and roadsides, most abundant in moist or drying sandy soils.

Distribution: East third of Kansas.

Uses: Native Americans used teas made from the roots of New England aster to treat fevers and diarrhea.

Comments: New England aster is showy and often used in landscaping and flower gardens. The colorful blossoms attract butterflies and bees.

