



Plant ID Contest

Study Guide

Sponsored by:
Smith County SWCD #426
USDA-NRCS
East Texas State Fair

2023



2023 East Texas Plant Identification Master Plant List

Name	Longevity		Season		Origin		Grazing Value			Wildlife Value		
	Annual	Perennial	Cool	Warm	Intro	Native	Good	Fair	Poor	Good	Fair	Poor
1 American Beautyberry		X		X		X			X	X		
2 American Pokeweed		X		X		X			X			X
3 Annual Ragweed	X			X		X			X	X		
4 Annual Ryegrass	X		X		X		X				X	
5 Bahiagrass		X		X	X		X					X
6 Bermudagrass		X		X	X		X					X
7 Bitter Sneezeweed	X			X		X			X			X
8 Blackberry/Dewberry		X		X		X			X		X	
9 Broomsedge Bluestem		X		X		X			X			X
10 Callery Pear		X		X	X				X			X
11 Chinese Privet		X		X	X				X			X
12 Common Boneset		X		X		X			X			X
13 Eastern Redcedar		X	X	X		X			X		X	
14 Eastern Redbud		X		X		X		X		X		
15 Florida Paspalum		X		X		X	X				X	
16 Goldenrod		X		X		X			X			X
17 Great Ragweed	X			X		X			X			X
18 Greenbrier		X		X		X			X		X	
19 Hogwort	X			X		X			X	X		
20 Indian Blanket	X			X		X		X			X	
21 Indian Woodoats		X		X		X	X			X		
22 Japanese Clover	X			X	X		X					X
23 Japanese Honeysuckle		X		X	X				X		X	
24 Johnsongrass		X		X	X		X				X	
25 Loblolly Pine		X	X	X		X			X			X
26 Longleaf Woodoats		X		X		X		X				X
27 Marsh Bristlegrass		X		X		X		X			X	
28 Partridge Pea	X			X		X	X				X	
29 Peppervine		X		X		X		X			X	
30 Plains Snake Cotton		X		X		X			X			X
31 Poorjoe	X			X		X			X			X
32 Purpletop Tridens		X		X		X		X			X	
33 Red Lovegrass		X		X		X			X			X
34 Red Mulberry		X		X		X			X			X
35 Rescuegrass	X		X		X		X					X
36 Silver Maple		X		X		X			X			X
37 Silverleaf Nightshade		X		X		X			X			X
38 Southern Catalpa		X		X		X		X			X	
39 Southern Red Oak		X		X		X			X			X
40 Splitbeard Bluestem		X		X		X	X			X		
41 Spotted Beebalm	X			X		X			X			X
42 Sugarberry/Hackberry		X		X		X			X		X	
43 Sweetgum		X		X		X			X		X	
44 Vasey's Grass		X		X	X			X				X
45 Virginia Creeper		X		X		X			X		X	
46 Virginia Wildrye		X	X			X	X				X	
47 Water Oak		X		X		X			X			X
48 Winged Elm		X		X		X			X			X
49 Yankeeweed		X		X		X			X			X
50 Yaupon		X	X	X		X		X		X		



EAST TEXAS STATE FAIR PLANT IDENTIFICATION CONTEST



American Beautyberry

Callicarpa americana



Alternate Names

French mulberry, sourbush, bunchbush, purple beauty-berry, wild goose's berries

Habitat

Occurs in dry open woods, moist woods, thickets and hummocks; as an understory species in upland pine forests, upper slope pine-oak forests, and old-growth maritime forests. Adapted to climates with hot humid summers and moderate winters.

Quick ID Tips: _____

Description

These small deciduous shrubs reach from 3 to 6 feet in height. The leaves are opposite, elliptical to ovate in shape, 2-¾ to 6 inches long, with serrate margins. The under-side of the leaves can be covered with white or rust-colored woolly hairs.

The inconspicuous blue, violet, pink, or white flowers are borne in axillary clusters that bloom from late spring to early summer. The flowers are funnel-shaped with four clefs.

The round, showy, violet or magenta drupes are roughly 5 mm in diameter. The very juicy fruits, containing from 2 to 4 seeds, begin to ripen in August or September. These colorful fruits remain on the shrubs long after the leaves drop.

Characteristics

- Warm season perennial native shrub
- Poor grazing value
- Good wildlife value

Edible: Fruit is edible but should only be consumed in small amounts.





EAST TEXAS STATE FAIR PLANT IDENTIFICATION CONTEST



American Pokeweed

Phytolacca americana



Alternate Names

pigeon berry, inkberry coakun, pocan bush, poke salad

Habitat

Grows in average to medium moisture well-drained soils in full sun to part shade. Prefers moist soils but will tolerate periods of drought.

Quick ID Tips: _____

Description

This showy shrub typically grows 4 to 10 feet tall with a spread of 3 to 5 feet. It is deeply tap rooted with roots growing up to 4 inches thick and over 12 inches deep.

The leaves are large (5 to 10 inches long and 2 to 4 inches wide), alternate, and lanceolate. They often exude an unpleasant aroma when crushed. Stems are red and showy.

The flowers bloom in late summer and are apetalous and bisexual ($\frac{1}{8}$ inch wide), forming on slender racemes 8 inches long. Each flower is composed of five showy petal-like greenish-white sepals, 10 stamens, and a pistil composed of united carpels. The grape-like fruits, up to $\frac{1}{4}$ inch across, emerge green but mature to a deep reddish-purple.

Characteristics

- Warm season perennial native shrub
- Poor grazing value
- Poor wildlife value

Allergen: Contact can cause skin irritation and a blister-like rash.

Edible: Shoots and leaves of young plants are sometimes boiled 4 to 6 times to remove toxicity and consumed as “poke salad”.

Poisonous: All parts of the mature plant are poisonous.





EAST TEXAS STATE FAIR PLANT IDENTIFICATION CONTEST



Annual Ragweed

Ambrosia artemisiifolia



Alternate Names

common ragweed

Habitat

Prefers full sun and average to slightly dry conditions. It is indifferent to soil type and will thrive in high amounts of clay, gravel, or sand. It prefers sterile soil for the reduced competition from other plants.

Quick ID Tips: _____

Description

This summer forb grows up to 3 feet tall with frequent branches. The hairy stems are green to light pinkish red. The leaves are up to 6 inches long and 4 inches across and are opposite or alternate along the stems. They are deeply pinnatifid, broadly lanceolate (in outline), and usually much wider at the base than the tip. Mature leaves are glabrous but small emergent leaves often have hairs on their undersides.

Many of the upper stems terminate in one or more cylindrical spikes of flowers about 1 to 4 inches long. One or two small spikes may develop near the base of the central flowering spike that are only half as long. The small flowers are initially green but later turn yellowish green or brown as they mature and develop into achenes. Each flower is about 1/8 inch long, the males producing a fine yellow pollen that is easily carried by the wind. Pollen is usually released during late summer or early fall. Numerous seeds are produced which can remain viable for 5 years or more. The extensive root system is fibrous.

Characteristics

- Warm season annual native forb
- Poor grazing value
- Good wildlife value

Allergen: Annual ragweed pollen is a leading cause of seasonal allergies affecting 23 million people in the U.S. alone.





EAST TEXAS STATE FAIR PLANT IDENTIFICATION CONTEST



Annual Ryegrass

Lolium perenne ssp. multiflorum



Alternate Names

Italian ryegrass

Habitat

Prefers rich moist soils in areas with mild climates but is adaptable to other soils. They do not survive harsh winters or hot dry summers.

Quick ID Tips: _____

Description

This subspecies of perennial ryegrass is native to Europe, annual or biennial, depending on climate or length of growing season. It may grow a little taller than perennial ryegrass (2 to 3 feet).

Plants have a bunchy form with numerous long narrow stiff leaves near the base of the plant. The under surfaces of leaves are bright, glossy, and smooth.

Inflorescence stems are nearly naked. Seeds form on 6 to 10 inch flowering spikes with alternate spikelets. Each fertile floret is replaced by an elongated grain. Blooming can occur spring to fall as long as weather remains cool enough for the plant to persist.

Characteristics

- Cool season annual introduced grass
- Good grazing value
- Fair wildlife value

Toxicity: Annual ryegrass toxicity, or “ryegrass staggers” is an often-fatal poisoning that can occur when ryegrass is infected by the bacterium *Rathayibacter toxicus*, carried by a nematode.

Additionally, ryegrass can be infected by the ergot *Claviceps purpurea* which can cause anorexia, abortion, and loss of ear tips, tail, and feet in cattle.





EAST TEXAS STATE FAIR PLANT IDENTIFICATION CONTEST



Bahiagrass

Paspalum notatum



Alternate Names

bahia grass, bahia

Habitat

Most productive on sandy soils with a pH of 5.5 to 6.5. It is more productive on drought prone, sandy soils with relative low fertility than other forages.

Quick ID Tips: _____

Description

This deep-rooted grass is adapted to a wide range of soils. It is low-growing and spreads with stolons and stout scaly rhizomes. Stolons are pressed firmly to the ground, have short internodes, and root freely from the nodes forming a dense sod. Bahiagrass is a prolific seed-producing plant.

The flat tough-textured leaves are usually glabrous, with blades $\frac{1}{8}$ to $\frac{1}{4}$ inch wide and 8 to 20 inches in length. Leaves are flat, folded, and involute, tapering to a fine point. Stems usually reach 8 to 30 inches tall.

The seed head usually consists of dual racemes with each attached to the top of a slender stem. Occasionally there may be a third seed head present below the terminal ones.

Characteristics

- Warm season perennial introduced grass
- Good grazing value
- Poor wildlife value

Invasive: As an introduced species, bahiagrass can be noxious and invasive, competing aggressively with native plants.

Note: Although there have been reports of bahiagrass toxicity, there are no documented cases.





EAST TEXAS STATE FAIR PLANT IDENTIFICATION CONTEST



Bermudagrass

Cynodon dactylon



Alternate Names

common bermudagrass; several hybrid variants have been developed and are marketed under various names including Tifton, Coastal, and Jiggs

Habitat

Prefers deep soils but produces well on moderately shallow sites under irrigation and good management. It persists on poor soils with fertilization. It withstands pH ranges from 5-8.5 and salinity up to 18 millimhos.

Quick ID Tips: _____

Description

Of probable Asian origin, bermudagrass was documented as an important grass in the United States by 1807. It is a long-lived and spreads by rhizomes, stolons, and seed. The stems are leafy, branched, and 4 to 6 inches tall. Under favorable conditions stems may be 12 to 18 inches high. Stems are short jointed. Leaves are flat and spreading. The ligule is a circle of white hairs. Leaves may be hairy or smooth.

The seed heads are usually in one whorl of 3 to 7 spikes, each about 1 to 2-½ inches long. Some robust forms may have up to 10 spikes in 2 whorls.

Characteristics

- Warm season perennial introduced grass
- Good grazing value
- Poor wildlife value

Allergen: Has a high production of pollen contributing to seasonal allergies.

Invasive: Although a desirable grazing forage, Bermudagrass is considered a noxious invasive affecting wildlife habitat and crops including cotton, corn, sugarcane, and vineyards.

Toxicity: Can become infected by an unknown tremorgenic mycotoxin that causes “bermudagrass staggers”.





EAST TEXAS STATE FAIR PLANT IDENTIFICATION CONTEST



Bitter Sneezweed

Helenium amarum



Alternate Names

sneezeweed, yellowdicks

Habitat

Primarily found on sandy soils in disturbed areas of upland plains, prairies, rocky glades, woodland margins, gravelly areas along railroad tracks, roadsides, pastures, and sandy/gravelly ground.

Quick ID Tips: _____

Description

This upright aromatic bushy plant of the composite family typically grows to 12 inches tall, but less frequently rises to as much as 24 inches on erect striate stems which are many-branched above. Stems are clad with alternate, wide-spreading and ascending, linear to linear-filiform thread-like leaves (to 3 inches long but less than 1/8 inch wide) with resinous glands.

Daisy-like flowers (to 3-inch diameter) bloom from mid/late summer into fall (August-October), with earlier blooms typically occurring in warm winter climates. Each flower features 5 to 10 wedge-shaped, golden yellow rays, each ray having three lobes at the tip. Rays droop downward from a spherical yellow (occasionally brown) center disk containing numerous tiny disk florets.

Characteristics

- Warm season annual native forb
- Poor grazing value
- Poor wildlife value

Poisonous: Toxic to mammals and insects but is rarely grazed if other forage is available.

Note: The pollen does not contribute to seasonal allergies, however a dried powder made from the plant was used by Native Americans as a snuff to relieve congestion or headaches leading to its common name.





EAST TEXAS STATE FAIR PLANT IDENTIFICATION CONTEST



Blackberry/Dewberry

Rubus spp. often *trivialis*, *aboriginum*, or *argutus*



Alternate Names

southern dewberry, blackberries, brier vines

Habitat

Prefers moist soil conditions often found in seasonally wet soils, open woodlands, savannas, prairies, meadows, sandy dunes, and disturbed areas in full sun to part shade.

Quick ID Tips: _____

Description

Most members of the genus *Rubus* share the traits of thorny or hispid stems and compound leaves. Also, flowers and fruit appear on last season's canes (branches), seldom on new shoots. Dewberry varieties tend to be prostrate and vining, while blackberry stems are more upright. Stems are covered in fine spines or stickers.

Leaves are alternate and compound occurring at intervals along the stem. They are usually trifoliate with 3 leaflets, less often 5 leaflets can occur. Leaflets are up to 3 inches long and 1 inch across, ovate, double serrate, and mostly hairless.

White flowers form in corymbs of 1 to 5 flowers, about 1 to 1-¼ inches wide. When fully open, flowers consist of 5 white petals, 5 lanceolate green sepals, and numerous stamens that surround a green cluster of carpels. Each fertilized flower is replaced with a compound drupe up to 1 inch long that ripens from green to red to purple-black or black

Characteristics

- Warm season perennial native subshrub
- Poor grazing value
- Fair wildlife value

Edible: Fruit of both species are edible.





Broomsedge Bluestem

Andropogon virginicus



Alternate Names

broomsedge, yellow bluestem, whiskey grass

Habitat

Found on the edges of forests and disturbed areas on low fertile soils.

Quick ID Tips: _____

Description

This bunch grass begins its growth when the average daytime temperature is between 60° to 65° F. The slender, erect culms are up to 4 feet tall. The flattened sheaths are overlapping and with a few scattered hairs.

The upper part of the plant is rounded, and the lower part is slightly flattened and keeled. The blade is 1/8 to 1/4 inch wide, 10 to 16 inches long and rough to the touch above. The ligule is small and membranous.

The inflorescence has a panicle of 2 to 4 racemes about 1 inch long. The bases of the panicle branches are enclosed in an inflated tawny spathe as long or longer than the spikelet. The upper lemma of the sessile spikelet has a straight awn that is 1/2 inch long. The pedicellate spikelet is absent. The seeds mature in 6 weeks to 2 months.

Characteristics

- Warm season perennial native grass
- Poor grazing value
- Poor wildlife value

Noxious: Can be an invader on disturbed lands and low fertility soils. It can cause gum ulcerations in horses when combined in other forages as hay.





EAST TEXAS STATE FAIR PLANT IDENTIFICATION CONTEST



Callery Pear

Pyrus calleryana



Alternate Names

Fruitless pear

Habitat

Prefers hummussy well-drained loams with consistent moisture in full sun. Tolerates some drought. Is adaptable to a wide variety of soils including heavy clays and is generally tolerant of urban conditions.

Quick ID Tips: _____

Description

This upright-branched ornamental tree grows pyramidal to columnar in youth but tends to become oval to spreading with age. It is noted for its early profuse spring bloom, quality glossy green foliage, and often excellent fall color. Shoots on some subspecies are thorny but other cultivars are thornless. It produces small, inedible, greenish-yellow fruits (to ½ inch diameter) which are of little practical value or ornamental interest.

Leaves are narrow-oval, glossy, and dark green (to 3 inches long) with distinctively wavy margins. Leaves dance in the breeze due to long petioles and turn an attractive reddish-purple to bronze-red in fall. Five-petaled, creamy white flowers (to ¾ inch wide) in dense corymbs appear in profusion in early spring.

Characteristics

- Warm season perennial introduced tree
- Poor grazing value
- Poor wildlife value

Invasive: Callery pear can become noxious and invasive and will form dense monocultured thickets. Seedlings grow rapidly in disturbed areas and possesses a general lack of natural controls like insects and diseases.





EAST TEXAS STATE FAIR PLANT IDENTIFICATION CONTEST



Chinese Privet

Ligustrum sinense



Alternate Names

common Chinese privet, common privet

Habitat

Can tolerate a wide range of conditions and will shade out and exclude native understory species. Alkaline tolerant, pollution tolerant, shade tolerant, and tolerant of poor soils.

Quick ID Tips: _____

Description

This ornamental shrub is native to Asia and grows 6 to 13 feet tall. Trunks usually occur as multiple stems with many long leafy branches. Leaves are opposite, oblong, 1 to 2-½ inches long, and ¼ to ⅜ inch wide. Foliage can be pubescent along the underside of the midvein.

Flowering occurs from April to June when panicles of white to cream flowers develop in terminal and upper axillary clusters. Blooms have a fetid odor that can be offensive to many people. Pollen can cause an allergic reaction in some people. The abundant fruits are spherical and ⅓ to ½ inch long. Fruit begins green, ripens to dark purple to black, and persists into winter. Birds and other wildlife eat the fruit and disperse the seeds. Seed soil viability is about one year. The plant also colonizes by root sprouts.

Characteristics

- Warm season perennial introduced shrub
- Poor grazing value
- Poor wildlife value

Poisonous: Berries are toxic to humans.

Invasive: Chinese privet is listed as a noxious invasive in Texas and will outcompete native understory vegetation.





EAST TEXAS STATE FAIR PLANT IDENTIFICATION CONTEST



Common Boneset

Eupatorium perfoliatum



Alternate Names

American boneset, feverwort, sweat plant, thoroughwort

Habitat

Prefers moist or wet conditions with a significant amount of organic matter and full to partial sun.

Quick ID Tips: _____

Description

This showy wildflower grows from 2 to 4 feet tall. The central stem is covered in long white hairs and is unbranched except for a few flowering side stems near the apex of the plant.

The narrow, lanceolate, opposite leaves grow up to 8 inches long and 2 inches across. The bases of the leaves tend to grow together making it appear as if the central stem perforates the leaves.

Two to 8-inch clusters of fragrant white flowers (with approximately 15 florets per flower head) appear in late summer or early fall. The florets produce wind-dispersed small dry seed with bristles. The fibrous root system frequently produces rhizomes which create small colonies.

Characteristics

- Warm season perennial native forb
- Poor grazing value
- Poor wildlife value

Poisonous: All parts of the plant are toxic; however, it was once utilized in folk medicine to treat flu and fever, and as an emetic.





EAST TEXAS STATE FAIR PLANT IDENTIFICATION CONTEST



Eastern Redcedar

Juniperus virginiana



Alternate Names

red cedar, Virginia juniper, eastern juniper, red juniper, cedar tree

Habitat

Found in prairie hillsides, fields, pastures, and occasionally in woodlands, in rocky, sandy, or clay soils.

Quick ID Tips: _____

Description

This medium-sized dioecious or rarely monoecious tree has a mature height of 33 to 66 feet. It is shaped like a pyramid or column, with reddish-brown to grayish colored bark that is fibrous and shedding. Branches are usually reddish brown. Leaves are opposite, simple, green or blue-green, closely appressed and overlapping the leaf above, scale-like $\frac{1}{16}$ to $\frac{1}{8}$ inches long, or needlelike and $\frac{1}{8}$ to $\frac{1}{2}$ inches long.

Male and female cones are on separate trees. The staminate cones are yellowish-brown, papery, solitary at the tips of branchlets, ovoid to ellipsoid, and $\frac{1}{16}$ to $\frac{1}{8}$ inches long. The ovulate cones are solitary at the tips of branchlets, dark blue or bluish purple, waxy and berrylike, $\frac{3}{16}$ to $\frac{1}{4}$ inch long. The female cones ripen from September through October. There are 1 to 3 seeds per cone. Redcedar seeds are yellow-brown and round, 2 to 4 mm in diameter, ridged near the base, and sometimes shallowly pitted.

Characteristics

- Evergreen perennial native tree
- Poor grazing value
- Fair wildlife value

Edible: Although “berries” are edible, they can be toxic in large quantities.

Noxious: Can become invasive in rangeland and pasturelands that are poorly managed.





EAST TEXAS STATE FAIR PLANT IDENTIFICATION CONTEST



Eastern Redbud

Cercis canadensis



Alternate Names

redbud, Judas tree

Habitat

Occurs in the forest understory in moist rich woods, along the banks of streams, in ravines, on bluffs, in open rocky woods, and abandoned farmlands.

Quick ID Tips: _____

Description

This deciduous understory tree or shrub may vary in form from dense and round (mature height 20 feet) when grown in sun, to an open, taller form (mature height 40 feet) when grown in the shade. The trees produce hundreds of small pink pea flowers in the very early spring even before other trees have leafed out. The bright magenta-pink to lilac flowers appear in small clusters primarily on older stems. The flowers are irregular, 3-½ to 5 inches long, with 10 stamens.

The unique, broadly cordate leaves are nearly circular (2 to 4 inches), with a long slender petiole. The leaves are alternate and have 5 to 9 prominent veins that radiate palmately from the base. New leaves are a light green that darken with age and finally turn yellow in the fall. The seeds are contained in a flat, thin pod (1-½ to 4 inches long), which turns from green to brown.

Characteristics

- Warm season perennial native tree
- Fair grazing value
- Good wildlife value

Edible: Eastern redbud flowers, young seed pods, and young buds are edible.





EAST TEXAS STATE FAIR PLANT IDENTIFICATION CONTEST



Florida Paspalum

Paspalum floridanum



Alternate Names

big paspalum

Habitat

Commonly found growing in grassy areas and wood openings, with low, moist, sandy soil and along fresh or brackish marshes.

Quick ID Tips: _____

Description

This hardy rhizomatous grass typically ranges in height from 3 to 5 feet and up to 8 feet with higher fertility. Plants are bunch-like but slowly spread from short thick rhizomes forming a sod over time, especially under grazing. New growth begins in early spring. Plants may be dark green or have a chalky cast that gives a bluish appearance.

Leaf sheaths and leaf blades may be pubescent or glabrous. The leaf blades are firm, flat or folded, approximately 3/8 to 3/4 inch wide and 14 to 20 inches long, with a dense tuft of long hairs immediately above the ligule. Leaf sheaths are open, rounded, and frequently covered in hair.

The seed heads are similar in appearance to other paspalum species, although with generally larger seed than most. Seeds are half-rounded and smooth and are crowded pairs along either side of the branches. The seed heads have 2 to 6 racemes that are each 3 to 4 inches long. Florida paspalum produces an abundance of large seed that mature over an extended period of time from late summer to late fall as new seed heads are continually produced from late July until frost.

Characteristics

- Warm season perennial native grass
- Good grazing value
- Fair wildlife value





EAST TEXAS STATE FAIR PLANT IDENTIFICATION CONTEST



Goldenrod

Solidago altissima or *Solidago canadensis*



Alternate Names

Canada goldenrod, meadow goldenrod, common goldenrod, giant goldenrod, tall goldenrod

Habitat

Typically grows in moist soil with medium texture and moderate levels of organic matter, Found in damp meadows, waterways, and ditches along roadsides and railroads. May also inhabit dry open slopes in upland prairies and deciduous and evergreen forests. It is not found on waterlogged sites and is only rarely found on very dry sites.

Quick ID Tips: _____

Description

This native long-lived perennial spreads by rhizomes and forms large, dense patches. Stems of *S. canadensis* are pubescent at the top but are otherwise smooth and are 1 to 7 feet tall. *S. altissima* have stems that are pubescent their entire length. Leaves are sharply toothed, lanceolate, pubescent, triple-nerved and 2 to 5 inches long. Flower panicles occur at the end of each stem, and when open, are 10 inches wide.

Flower heads occur mostly on one side of long drooping panicle branches, are $\frac{1}{8}$ inches tall, and have 10 to 17 short rays. Flowers bloom July through October. They are self-incompatible (out-crossing is obligatory) and pollination typically occurs by the aid of insects. Seeds are achenes with sparse hairs and numerous pale bristles at the tip.

Characteristics

- Warm season perennial native forb
- Poor grazing value
- Poor wildlife value

Note: Pollen from this plant rarely causes allergic reactions. Most pollen related allergies that occur when goldenrod is in bloom are attributable to common ragweed. While *altissima* and *canadensis* are not considered toxic and may possess medicinal use, other members of the *Solidago* genus that may be commonly confused are poisonous.





EAST TEXAS STATE FAIR PLANT IDENTIFICATION CONTEST



Great Ragweed

Ambrosia trifida



Alternate Names

bitterweed, buffalo weed, horse-cane, giant ragweed

Habitat

Found in disturbed areas of moist soils especially along the margins near woodlands or fields, disturbed areas of moist clay prairies, meadows in woodland areas or near rivers, thickets, and woodland borders.

Quick ID Tips: _____

Description

This cousin of common ragweed becomes 3 to 12 feet tall, branching occasionally. The green stems are covered with white hairs. The opposite leaves are up to 12 inches long and 8 inches across. The larger leaves are divided into 3 or 5 lobes, usually serrated along the margins, and have long petioles that are sometimes winged. The smaller leaves near the base of an inflorescence are lanceolate and often hairy underneath.

Many of the upper stems terminate in a cylindrical spike of flowers, about 3 to 6 inches long, with one or more smaller spikes near its base. The small flowers are yellowish green and devoid of petals and sepals. They occur in small drooping clusters less than ¼ inch across on short pedicels and are densely arranged all around each spike.

The fine pollen of the male flowers is easily carried aloft by the wind. This typically occurs during late summer or early fall. The seeds are large, tough-coated, and remain viable in the soil for several years. The root system is fibrous.

Characteristics

- Warm season annual native forb
- Poor grazing value
- Poor wildlife value

Allergen: Great ragweed, like common ragweed, contributes the allergenicity of its wind-dispersed pollen.





EAST TEXAS STATE FAIR PLANT IDENTIFICATION CONTEST



Greenbrier

Smilax spp.



Alternate Names

bullbrier, horsebrier, catbrier, brier vine

Habitat

Occurs in dry and wet woods, thickets, hummocks, and disturbed sites such as clearings, roadsides, fencerows, and old fields. Tolerates a wide variety of soils from fine sandy to rock soils, rich loams, and saturated swamps.

Quick ID Tips: _____

Description

This often-thorny vine has rhizomatous liana up to 26 feet in length. The quadrate stems and branches have scattered to numerous stiff prickles. There are two forms of rhizomes: ligneous, thickened, knotty tubers $\frac{3}{4}$ to 2- $\frac{1}{2}$ inches thick in clusters up to 7 to 9 inches across, and more slender rhizomes which give rise to the erect stems.

Leaves can range from simple entire with smooth upper and lower surfaces, lanceolate, cordate, deltoid, and round with prickles along the midrib on lower surface (depending upon species). Leaves are glossy green to mottled green and white with pronounced parallel venation.

Vines are dioecious. The inflorescence is an umbel borne on an axillary peduncle. The fruit is a one-seeded drupe.

Characteristics

- Warm season perennial native vine
- Poor grazing value
- Fair wildlife value

Edible: Greenbrier leaves, young shoots, tendrils, and berries are edible. First tendrils when eaten raw taste like green beans or asparagus. The roots can be dried and ground into a powder to make a thickening agent or boiled to make a mild jelly.





EAST TEXAS STATE FAIR PLANT IDENTIFICATION CONTEST



Hogwort

Croton capitatus



Alternate Names

goatweed, croton, woolly croton, doveweed

Habitat

Found in many soil types including deep sands, loam, and rocky soils that are well drained. Tolerant of drought periods.

Quick ID Tips: _____

Description

This plant is a common weed in open areas with erect, often multi-branched, stems covered with white or rusty brown woolly hairs.

The lanceolate, oblong, ovate leaves are simple and alternate with untoothed undulate margins. Leaves are covered with numerous white hairs and appear gray-green, 1 to 4 inches long and ¼ to ¾ inches wide with a rounded base and blunt tip.

Flowers are densely clustered at the stem tips with male flowers toward the tip and female flowers below. Male flowers have 5 tiny white petals and 10 to 14 anthers. Female flowers have 6 to 9 calyx lobes and lack petals.

Fruits are hairy spherical capsules about ¼ inch wide and split open to release 3 round or oblong seeds.

Characteristics

- Warm season annual native forb
- Poor grazing value
- Good wildlife value

Poisonous: Hogwort is poisonous to cattle and horses if mixed in hay.





Indian Blanket

Gaillardia pulchella



Alternate Names

firewheel

Habitat

Common along roadsides and field borders within its natural range. It is a drought tolerant forb frequently found on coarse textured, sandy soils.

Quick ID Tips: _____

Description

This showy wildflower typically grows 12 to 18 inches tall (less frequently 24 inches tall) on upright stems that are mostly leafless at the top, pubescent to hispid-pilose. Oblong to oblanceolate gray-green leaves are up to 3 inches long and aromatic.

Daisy-like flowerheads (to 2-inch diameter) feature rays in shades of red, yellow or red/yellow bicolor, with contrasting darker center disks (usually purplish). It typically blooms from February to December. The fruit is an achene.

Characteristics

- Warm season annual native forb
- Fair grazing value
- Fair wildlife value

Allergen: All parts of plant can cause contact dermatitis due to the presence of sesquiterpene lactones.





EAST TEXAS STATE FAIR PLANT IDENTIFICATION CONTEST



Indian Woodoats

Chasmanthium latifolium



Alternate Names

broadleaf wood-oats, creek oats, Indian sea-oats, inland sea-oats, broadleaf uniola

Habitat

Inhabits areas along streams and water banks, shaded slopes and bottomland hardwoods.

Quick ID Tips: _____

Description

This rhizomatous grass is often found in small colonies. The leaf shape and size are similar to many of the larger species of panic

grasses. The height of this grass and the inflorescence somewhat resemble domestic oats; thus, the common name “wood, creek, or sea oats.” The weight of the seed heads causes the inflorescence to droop.

Stems are glabrous, relaxed and can reach heights of 5 feet. Striated and glabrous leaves are found along the stem up to the base of the panicle. The leaves are broad ($\frac{1}{8}$ to $\frac{3}{4}$ inch) and 4 to 8 inches long. Blade sheaths are small and glabrous. Panicles are open and drooping with relaxed branching.

Spikelets have 9 to 26 florets and are broad and flattened. They range in lengths of $\frac{1}{2}$ to 1- $\frac{1}{2}$ inches and widths of $\frac{1}{8}$ to $\frac{3}{4}$ inches. Glumes and lemmas overlap; however, the glumes are smaller than the lemmas. The glumes are 7 to 9 nerved, keels rough to the touch, and range in lengths of 5 to 8 mm. The lemmas are 9 to 15 nerved, keels rough to the touch, and range in lengths of 8 to 13 mm. Paleas are 6 to 10 mm long with thin and dry margins. Caryopsis is flat, oval in shape and range in lengths of 4 to 5 mm.

Characteristics

- Warm season perennial native grass
- Good grazing value
- Good wildlife value

Edible: Seeds can be used as a cereal grain and ground into a flour for making bread or gruel. A food crop of the Cocopa peoples in Mexico.





EAST TEXAS STATE FAIR PLANT IDENTIFICATION CONTEST



Japanese Clover

Kummerowia striata



Alternate Names

common lespedeza, lespedeza

Habitat

Does best at 6.0-6.5 pH in soil textures ranging from sands to clays and at fertility levels from low to high.

Quick ID Tips: _____

Description

This low-growing, prostrate, spreading legume is introduced from Asia. The stems are purplish with appressed white hairs that point downward. The alternate compound leaves are trifoliate with leaflets being ¼ to 1 inch long and about ⅓ to ½ inch across. The leaflets are broadly oblong-elliptic to oblong-obovate in shape and margins are entire.

Flowers are ¼ inch long and 5 petaled. They appear in the leaf axils in groups of 1 to 3. They can be upright or horizontal. The shape is similar to pea flowers with the lower petal being pink or purple and the smaller upper petals are white. Bloom time is mid-summer for 1 to 2 months. Fruits are ¼ inch long pods and each contain a single seed.

Characteristics

- Warm season annual introduced legume
- Good grazing value
- Poor wildlife value

Invasive: This plant may become weedy or invasive in some regions and habitats and may displace desirable vegetation.





EAST TEXAS STATE FAIR PLANT IDENTIFICATION CONTEST



Japanese Honeysuckle

Lonicera japonica



Alternate Names

honeysuckle, golden-and-silver honeysuckle

Habitat

Adapted to a wide variety of habitats from full sun to shade.

Quick ID Tips: _____

Description

A deciduous to semi-evergreen, naturalized, twining, and rampant vine that is difficult to control and grows between 16 to 29-½ feet

long. It can be both a twining climbing vine or prostrate and trailing groundcover spreading both by rhizomes and above-ground runners. Younger stems are reddish and fuzzy or slightly pubescent. Older stems are hollow with brownish bark that peels in long strips. Leaves are opposite, simple ovate to oblong-ovate, and entire. They have lobed margins and are finely pubescent on both sides in the juvenile stage.

It has fragrant white flowers that fade to a creamy yellow and bloom from late spring throughout most of the summer, sometimes into fall. They are 1 to 1-½ inches in size and are borne in peduncled pairs in axils. The 2-lipped flowers are comprised of 5 petals united into a 1 to 2 inch long tube.

Fruits are rounded berries (7 mm) starting green, then to red, and then ripening to blue-black. One berry contains several seeds that are dark gray-brown and less than ¼ inch long. One side of each seed is 3-ridged while the other is either flat or concave.

Characteristics

- Warm season perennial introduced vine
- Poor grazing value
- Fair wildlife value

Invasive: Japanese honeysuckle is invasive and can become problematic in understory habitats.

Poisonous: Ingestion of the berries in large quantities can cause sickness and may lead to coma.





EAST TEXAS STATE FAIR PLANT IDENTIFICATION CONTEST



Johnsongrass

Sorghum halepense



Alternate Names

Johnson grass, Aleppo grass, Aleppo milletgrass

Habitat

Grows well in disturbed soils, along irrigation ditches or stream bottoms, and along roadsides or cracks between sidewalks.

Quick ID Tips: _____

Description

This rhizomatous grass is a highly variable species with many ecotypes. Rhizomes form a dense, tangled, tough sod. Most rhizomes occur in the top 8 inches of soil although rhizomes in soft, deep soil may extend deeper. Rhizomes vary in size from a few inches to several feet in length, and in thickness from ¼ to ¾ inch. Leaves and culms are coarse. Culms are 1-½ to 5 feet tall. Total plant height may reach 12 feet during flowering. The inflorescence is a 4 to 24-inch open panicle.

Spikelets of *Sorghum* species are paired: 1 is sessile and perfect; the other spikelet is pedicelled and staminate. Spikelets are 4 to 7 mm in length. There are about 35 to 350 spikelets per panicle depending upon ecotype. Lemmas are ciliate; they may be awnless or have short (1 to 15 mm), sometimes twisted awns that aid in seed dispersal. Seeds are about 2 mm long.

Characteristics

- Warm season perennial introduced grass
- Good grazing value
- Fair wildlife value

Toxicity: Following periods of drought, frost, or other stress, Johnsongrass can become a source of prussic acid poisoning and should not be grazed.





EAST TEXAS STATE FAIR PLANT IDENTIFICATION CONTEST



Loblolly Pine

Pinus taeda



Alternate Names

old field pine

Habitat

Performs best in climates with hot and humid summers and mild winters. Grows in medium to wet soils in full sun and prefers moist, acidic soils with poor drainage but will tolerate alkaline soils.

Quick ID Tips: _____

Description

A fast-growing, medium to tall conifer that is common to the southeastern U.S. Trunks are straight, tall, bearing branches typically above one's head. Young twigs quickly abort

except at apex. The upper branches tend to curve upwards while the lower branches droop, eventually falling off the tree as it ages. Red to grey-brown scaly young bark and red-brown furrowed rounded scaly plates with maturity. The plates are broad and flat.

Dark yellow-green needles (3 per fascicle) in bundles of three 6 to 10 inches long with 1-inch long sheaths and are clustered on dwarf shoots. They are finely-toothed, stiff, and slender. They drop during the tree's third year.

In the spring, the loblolly pine has red to yellow staminate flowers and yellow to purple pistillate flowers. Flowers bloom from March to April. The stalkless, ovoid-cylindrical to narrow conical cones (3 to 6 inch long) with sharply-spined scales appear in groups of 1 to 3. They release their seeds from fall to winter and stay on the tree for a year before dropping. They are rusty-brown, umbo dorsal and bearing a recurved spine. Smaller pollen cones are yellow-brown in groups of 6 to 12. Fruit displays from October to November.

Characteristics

- Evergreen perennial native tree
- Poor grazing value
- Poor wildlife value

Edible: Pine nuts are edible.

Toxicity: Pine straw can contain phytoestrogens which can cause miscarriages in cattle under certain conditions.





EAST TEXAS STATE FAIR PLANT IDENTIFICATION CONTEST



Longleaf Woodoats

Chasmanthium sessiliflorum



Alternate Names

longleaf uniola

Habitat

Grows in rich woods, meadows, and swamps, especially on the coastal plain.

Quick ID Tips: _____

Description

This shade-tolerant bunchgrass grows 24 to 60 inches in height and is associated with deciduous and pine woodlands. Stems are 2 to 3-½ inches thick at the nodes, unbranched and leafy for 40% of their height. Sheaths and collars have fine hairs. Ligules are entire and ¼ to ⅓ mm. Leaves are narrow (4-½ to 9-½ mm) and 8-20 inches long with sparse fine hairs adaxially.

Seed heads form between June and November. Panicles are 8 to 27 inches long with 4 to 10 mm long spikelets closely appressed. Caryopses (2 to 2-½ mm) are exposed at maturity.

Characteristics

- Warm season perennial native grass
- Fair grazing value
- Poor wildlife value





Marsh Bristlegrass

Setaria parviflora



Alternate Names

knotroot bristelgrass, yellow bristlegrass, foxtail, marsh bristle grass

Habitat

Grows best on moist or wet sites with sandy soils; in sloughs, acid flatwoods, and on salty prairie sites; also grows on salt marshes if water level is relatively low.

Quick ID Tips: _____

Description

A weak, warm-season rhizomatous grass with a height ranging from 1 to 3 feet. The leaf blade is flat, about 6 to 10 inches long, ¼ inch wide, with a prominent midrib, and upper surface pubescent. The leaf sheath is rounded with generally shorter than average internodes and often purple tinged. The ligule is a fringe of short hair.

The seed head is a spikelike panicle, 1 to 2 inches long, and yellowish in color with each spikelet surrounded by 5 or more yellow or purple bristles.

Characteristics

- Warm season perennial native grass
- Fair grazing value
- Fair wildlife value

Edible: Seeds are edible and can be used like rice or ground to make flour or porridge.





EAST TEXAS STATE FAIR PLANT IDENTIFICATION CONTEST



Partridge Pea

Chamaecrista fasciculata



Alternate Names

sleeping plant, prairie partridge pea, prairie senna, large-flowered sensitive-pea, golden cassia

Habitat

Grows on prairies, bluffs, riverbanks and river bottoms, as well as upland woods in sandy to sandy loam soils in full sun or part shade, and has low water requirements.

Quick ID Tips: _____

Description

A sub-erect legume that reaches a height of 1 to 3 feet. The leaves consist of 10 to 15 pairs of small, narrow leaflets that are somewhat delicate to the touch.

The showy yellow flowers, about 1 inch across, grow 2 to 4 together in clusters on the stem. Flowers normally bloom July through September.

The fruit is a straight, narrow pod 1-½ to 2-½ inches long, which splits along 2 sutures as it dries. The pod sides spiral to expel the seeds some distance from the parent plant.

Characteristics

- Warm season annual native legume
- Good grazing value
- Fair wildlife value

Toxicity: The fruit and seeds contain anthraquinones that can cause irritation of the digestive tract if consumed in large quantities. It is not recommended to allow cattle to graze on partridge pea while it is fruiting.





EAST TEXAS STATE FAIR PLANT IDENTIFICATION CONTEST



Peppervine

Nekemias arborea



Alternate Names

buckvine, cow itch, pepper vine

Habitat

Swamp forests, low woods, along fence rows, and in disturbed habitats.

Quick ID Tips: _____

Description

This member of the grape family (Vitaceae) is a high climbing woody vine, climbing by tendrils. Young stems and leaves are often reddish or bronze in color.

The leaves are alternate, bi- or tri-pinnately compound, glabrous, and deciduous. Leaflets are petiolate, ovate to elliptic in outline, with serrated margins.

Flowers are produced in cymes from the axils of the leaves. The flowers are greenish-yellow in color with a cup-shaped calyx. Each flower has 5 small petals. The fruit is a black drupe.

Characteristics

- Warm season perennial native vine
- Fair grazing value
- Fair wildlife value

Edible: Berry juice is edible and can be used to make a jam by filtering out and discarding any solids.

Note: Fruit contain a high calcium oxalate content that can cause throat irritation if the berries are consumed whole, as well as skin irritation if crushing berries by hand.





EAST TEXAS STATE FAIR PLANT IDENTIFICATION CONTEST



Plains Snake Cotton

Froelichia floridana



Alternate Names

Snake cotton, prairie cottonweed, cotton tails

Habitat

Prefers sandy soil and full sun. Found on open prairies, along roadways, sand dunes, and gravelly areas along railroads.

Quick ID Tips: _____

Description

Stems are stiff and erect, somewhat quadrangular and covered with fine flattened hairs to downy, longer hairs. Hairs are gray, white or brown. Leaves are opposite, restricted to about the lower third of the

plant, 2 to 5 inches long, 1/2 to 1 inch wide, lance elliptic, toothless, pointed or blunt at the tip, with or without a leaf stalk, silky hairy, often covered by fine, cobwebby hairs when young.

Dense spikes 1 to 4 inches long of small, conical flowers set in a tight spiral, with 5 flowers completing one turn of the stem; about 18 flowers per 1/3 inch of spike. Flowers lack petals but are formed by a calyx densely covered in woolly hairs that has a small creamy colored stellate opening at the tip with an orange-brown center. Inside the tube is a column of stamens and a single style.

Flowers bloom from the bottom of the spike up. A plant typically has a few to several spikes on a few branching stems, often with 1 to 4 spikes along the stem, the largest spike at the tip of the stem. A 1-seeded fruit develops inside the persistent calyx tube, the woolly hairs unfurling as the seed matures..

Early plants are more compact and covered by fine hairs and the flower spikes are short and erect. Older plants lose the fine longer hairs in their leaves and the spike becomes elongated, weighing the stem down so that it nods to one side.

Characteristics

- Warm season perennial native forb
- Poor grazing value
- Poor wildlife value

Toxicity: Marked nontoxic, however it contains phytoecdysteroids and should not be ingested. May cause photosensitization in grazing animals.





EAST TEXAS STATE FAIR PLANT IDENTIFICATION CONTEST



Poorjoe

Diodia teres



Alternate Names

rough buttonweed, poverty weed

Habitat

Prefers full sun, dry conditions, and poor soil containing an abundance of sand, gravel, or compacted clay. Will also tolerate partial sun and moist conditions with fertile soil, in which case it will be displaced by taller plants eventually. Drought tolerance is quite good because of the long taproot.

Quick ID Tips: _____

Description

A low-growing plant with erect or ascending stems about ½ to 1 inch long that can sprawl across the ground. Stems are sparingly branched, light green to red, bluntly 4-angled, and hairy. Leaves are opposite, linear, entire, involute, and sessile with prominent central veins. Leaf bases along each stem are joined with merged stipules that form shallow cup-like structures. Along the upper rim of each pair of merged stipules, there are long erect bristles up to ½ inch long.

Pink, white, or lilac flowers are solitary or in small clusters of 2 to 3, produced from the axils of the middle to upper leaves. They are ¼ inch long consisting of a tubular-funnelform corolla with 4 spreading lobes, 4 green lanceolate sepals, 4 stamens with pale yellow to white anthers, and an inferior ovary with a single white style.

Fertile flowers are replaced by schizocarps. Immature fruits are green, while mature fruits are brown. Eventually, fruits divide into 2 nutlets each. The nutlets are about ⅓ inch long, brown, and sparsely covered with persistent fine hairs.

The root system consists of a slender taproot with secondary feeder roots. This plant often forms colonies by reseeding itself.

Characteristics

- Warm season annual native forb
- Poor grazing value
- Poor wildlife value





EAST TEXAS STATE FAIR PLANT IDENTIFICATION CONTEST



Purpletop Tridens

Tridens flavus



Alternate Names

grease grass, redtop, redtop tridens

Habitat

Found in a variety of habitats including old fields, prairies, open woods, woodland openings, powerline and railroad rights-of-way, and roadsides.

Quick ID Tips: _____

Description

This bunchgrass has culms 2 to 6 feet tall arising from a rhizomatous crown. Leaves are 1/8 to 1/2 inch wide, 10 to 28 inches long, and taper to a point. Leaf surfaces are smooth or sparsely hirsute. Purpletop tridens can be identified by its ligule of stiff hairs on both sides of the leaf sheath at the collar.

The pyramid shaped inflorescence is open, drooping, 6 to 14 inches or more long with spreading lower branches 4 to 10 inches long. The inflorescence, which is purplish green in bloom stage to early maturity, is often covered in an oily substance giving it the origin of the common name "grease grass". Blooming begins in August and ends in November.

Seeds are whitish yellow, small, and about 1-1/2 to 2 mm long.

Characteristics

- Warm season perennial native grass
- Fair grazing value
- Fair wildlife value





Red Lovegrass

Eragrostis secundiflora



Alternate Names

None

Habitat

Adapted to open spaces on sand, loamy sand, and sandy loam soils.

Quick ID Tips: _____

Description

This tufted perennial has culms ranging from 12 to 30 inches tall. Blades are flat with long hairs above the ligule. Blades are usually 4 to 6 inches long and 2 to 2-¼ mm wide with green to blue green coloration.

Panicles are usually contracted but sometimes open, ranging from 2 to 12 inches long and ½ to 17 inches wide. The spikelets are in dense clusters on branches and branchlets. Spikelets are pedicellate, linear-oblong to ovate, strongly compressed with 10 to 26 florets, laterally flattened, pale green or violate to reddish in color.

Caryopses are dark red to brown with 3,759,533 seeds per pound.

Characteristics

- Warm season perennial native grass
- Poor grazing value
- Poor wildlife value

Edible: The Palute used red lovegrass seeds as food.





EAST TEXAS STATE FAIR PLANT IDENTIFICATION CONTEST



Red Mulberry

Morus rubra



Alternate Names

Mulberry, common mulberry

Habitat

Found in floodplains, river valleys, and moist hillsides.

Quick ID Tips: _____

Description

This native tree can reach 65 feet in height and 1-½ feet in diameter. It has a short trunk and stout, spreading branches that form a round-topped crown. The bark can be smooth or scaly and is dark brown in color. The branchlets are covered with short hairs.

The leaves are simple, alternate, and up to 8 inches long. The leaves are broad with three leaf forms: ovate, glove-shaped, and tri-lobed. The base of the leaf is square as if it has been cut off abruptly. The tip of the leaf is pointed. The leaves have sharply serrated margins. The upper leaf surface is rough to the touch. The lower surface is soft and pubescent. The petioles are ½ to 1 inch long and produce a milky fluid when broken.

The catkins that bear stamens are ½ to 2 inches long. The catkins that bear pistils are ½ to 1 inch long. Red mulberry has aggregate fruits that are ½ to 1 inch long. The fruits are juicy and have a dark purple color.

Characteristics

- Warm season perennial native tree
- Poor grazing value
- Poor wildlife value

Edible: Mulberry fruits are edible.



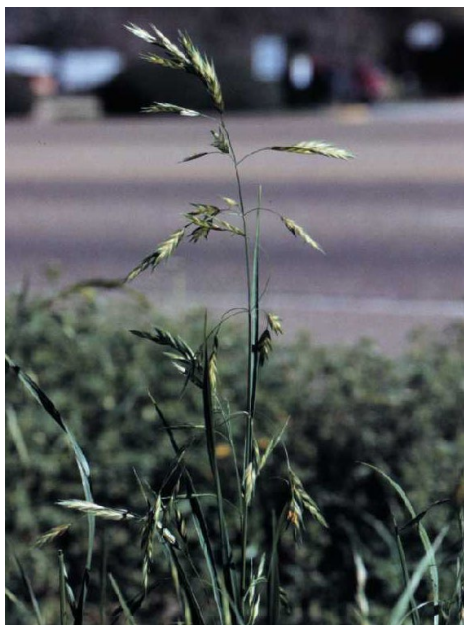


EAST TEXAS STATE FAIR PLANT IDENTIFICATION CONTEST



Rescuegrass

Bromus catharticus



Alternate Names

prairie grass, rescue grass

Habitat

Commonly found in disturbed areas, on roadsides, parks, gardens, orchards, vineyards, drainage lines, and crops. Occurs in natural habitats including grasslands, grassy woodlands, open woodlands, and riparian areas.

Quick ID Tips: _____

Description

This is a relatively short-lived tufted grass that can grow up to 3 feet tall. The stems are robust, glabrous, and unbranched. Where the leaf meets the stem there is a small ligule approximately ½ to 4 mm long.

It has large openly branched seed heads with a nodding appearance. The seed heads are made up of many flattened flower spikelets that are yellow in color. These seed heads are approximately ½ to 1-½ inches long and ⅛ to ¼ inch wide. The flower spikelets are made up of 6 to 12 relatively large florets that are ½ to ¾ inch long. The florets have short awns at the tip and break apart at maturity.

Characteristics

- Cool season annual introduced grass
- Good grazing value
- Poor wildlife value

Invasive: Rescuegrass can form dense swards, outcompeting native plants, and preventing natural regeneration.





EAST TEXAS STATE FAIR PLANT IDENTIFICATION CONTEST



Silver Maple

Acer saccharinum



Alternate Names

soft maple, silverleaf maple, white maple, river maple, swamp maple, water maple

Habitat

Found on stream banks, flood plains, and lake edges where it grows best on better-drained, moist alluvial soils. Silver maple can grow on sites where soils are usually saturated most of the growing season

Quick ID Tips: _____

Description

This tree has mature heights of 88 to 118 feet, usually with a short thick trunk and spreading, open, irregular crown of long curving branches with pendulous branchlets turning up at the ends. Twigs have a slightly unpleasant odor when crushed. Bark is gray and thin, becoming furrowed into long, shaggy, scaly ridges on older trunks and branches.

The leaves are deciduous, opposite, 3 to 6 inches long and nearly as wide. They are long petioled, deeply 5-lobed and long-pointed (middle lobe often 3-lobed) with V-shaped sinuses. Margins are doubly toothed. Leaves have three main veins from the base and are dull green above, silvery-white beneath, usually turning pale yellow or soft gold in the autumn, occasionally scarlet and crimson.

The flowers are greenish or yellow from reddish buds, about 6 mm long. The staminate flowers are fascicled, the pistillate flowers are in drooping racemes. Trees can be dioecious or polygamodioecious. The fruits are samaras 1-½ to 2 inches long, light brown with pink veins, in a long-stalked, wide-spreading pair. The common name refers to the silvery appearance of the underside of the leaves.

Characteristics

- Warm season perennial native tree
- Poor grazing value
- Poor wildlife value

Edible: Maple seeds and sap are edible, however in lower latitudes silver maples store less sugars and sap flow is unlikely to occur.





Silverleaf Nightshade

Solanum elaeagnifolium



Alternate Names

whiteweed, trompillo, white horsenettle

Habitat

Found on upland sites and appears to prefer loamy, droughty soils, but is found on virtually all soil types except for deep sands. It is shade tolerant, becoming quite abundant under trees and beside farm buildings. Because the plant is poisonous and avoided by livestock it tends to become more prevalent in overgrazed areas.

Quick ID Tips: _____

Description

The upright stem, or often multiple stems, arise 1 to 3 feet in height from deep, woody, creeping roots, branching in the upper portion, pale and silvery with stellate hairs covering the underside of leaves. Plants growing in humid regions do not normally have spines or prickles, while those found in arid regions are more commonly prickly.

Leaves are simple, alternate, lanceolate to oblong, 1 to 5 inches long, $\frac{3}{8}$ to 1 inch wide, silvery on the underside with wavy margins, pedicels about $\frac{1}{2}$ inch long.

Flowers are violet to pale purple with five petals united at the base, triangular lobes appearing stellate, anthers large and yellow. Flowers grow in clusters from leaf axils.

Fruit is a round berry about $\frac{1}{2}$ inch in diameter, yellow then turning dark at maturity and containing small tomato-like seeds.

Characteristics

- Warm season perennial native forb
- Poor grazing value
- Poor wildlife value

Poisonous: Plant is toxic to livestock and humans.





EAST TEXAS STATE FAIR PLANT IDENTIFICATION CONTEST



Southern Catalpa

Catalpa bignoniodes



Alternate Names

catalpa, catawba, bean tree, caterpillar tree, worm tree, fish bait tree

Habitat

Prefers moist, deep, well drained soil but is adaptable to dry or wet soils.

Quick ID Tips: _____

Description

At maturity, the height can vary from about 25 to 40 feet. The crown is often forked. The tree bark is separated into irregular shallow fissures with reddish-brown scales. On young tree seedlings the bark is thin and easily

damaged by impact or rodents. Twigs in winter have a unique identifying characteristic: sunken leaf scars which resemble suction cups. Their whorled arrangement of 3 “moon crater” scars per node is another trait easily identified. They are grayish brown in color.

Buds are small, red-brown, wider than long, and slightly hairy. Leaves are simple, may be opposite or whorled (3 per node), pinnately veined, 5 to 12 inches long, 4 to 6 inches broad, cordate at the base, and have a long petiole with entire margins and soft pubescence on the underside, which is also a lighter green than the top surface.

The flowers of catalpa occur in bell-shaped corollas of 5 lobes. Individual flowers are showy, with the 5 petals in each flower being unequal in size, white with purple spots and orange stripes at the throat, in upright branched clusters. The petals are up to 1-½ inches long.

Seedpods are slender and green in the summer growing from 6 to 24 inches long, ½ inch wide, and cigar-like. They mature in the autumn, turn brown, and split open lengthwise to let seeds fall in the spring. The seedpod is generally persistent.

Characteristics

- Warm season perennial native tree
- Fair grazing value
- Fair wildlife value

Note: No part of the tree is considered edible. They are the sole food source for the larval form of the catalpa sphinx moth.





EAST TEXAS STATE FAIR PLANT IDENTIFICATION CONTEST



Southern Red Oak

Quercus falcata



Alternate Names

swamp oak, swamp Spanish oak

Habitat

Prefers full sun to part shade on well-drained, acidic, sandy loam, gravelly or clay loam soils. It is drought tolerant but will tolerate occasional flooding.

Quick ID Tips: _____

Description

Mature height is 60 to 100 feet tall and spread 50 to 60 feet with a broad open rounded form. Small branches have smooth medium gray bark while twigs are orange-brown, angular, and short-pubescent. With age, the thin smooth light gray bark becomes dark gray in color with broad scaly ridges separated by deep narrow furrows.

Two types of leaves are present. One has irregularly 3 to 5 shaped lobes that are bristle tipped with the terminal lobe being longest and a U-shaped base. One is pear-shaped with 3 rounded lobes towards the end. They are 5 to 9 inches long and 4 to 5 inches wide. They remain on the tree late into fall with insignificant reddish brown fall color.

Flowers appear in spring in male catkins and in female clusters. Oval to round acorn have a warty bowl-shaped cap with hairs that covers the top 1/3 of the nut. Acorns require two growing seasons to mature. The fruit is borne solitary or in pairs.

Characteristics

- Warm season perennial native tree
- Poor grazing value
- Poor wildlife value

Edible: Although very bitter if not properly leached of tannins, acorns are edible and can be ground into a powder to be used as a thickening agent or roasted as a coffee substitute.





Splitbeard Bluestem

Andropogon ternarius



Alternate Names

broomstraw, bunchgrass, split bluestem

Habitat

Found on upland woodlands and woodland pastures and is commonly associated with little bluestem on well drained sandy sites.

Quick ID Tips: _____

Description

The plants usually begin growth in April and reach a mature height of 2 to 4 feet. Basal leaves are numerous, flat or rolled, 1/8 to 1/4 inch wide and 10 to 16 inches long.

The leaves can be glaucous, glabrous, or loosely villous. The leaf sheaths are villous and often purplish in appearance. The stems are long, slender, and erect, branching in the upper 2/3 of the plant.

The inflorescence is composed of paired racemes about 2 inches long, containing many sessile spikelets (1/8 to 1/4 inch) covered in silvery white hairs.

Characteristics

- Warm season perennial native grass
- Good grazing value
- Good wildlife value





EAST TEXAS STATE FAIR PLANT IDENTIFICATION CONTEST



Spotted Beebalm

Monarda punctata



Alternate Names

dotted horsemint

Habitat

Found in dry sandy soil.

Quick ID Tips: _____

Description

This herbaceous forb in the Mint family (Lamiaceae) is 12 to 40 inches high and thinly canescent. The leaves are lanceolate or narrowly oblong, ½ to 3 inches long and sparsely haired. The plant has square stems.

Flowers are both terminal and axillary and the stamens do not exert beyond the strongly arched upper corolla lip. The flowers appear in small, compact, head-like cymes of 2 to 5, or solitary on depauperate plants. The flowers are tubular, and 13 to 15 nerved. The corolla is pale yellow, spotted with purple and strongly bilabiate. The upper lip is narrow and entire and is about as long as the throat and slender tube together. The lower lip is broader.

Characteristics

- Warm season annual native forb
- Poor grazing value
- Poor wildlife value

Edible: High in thymol, beebalm can be brewed as an intentionally weak herbal tea. Stronger brews were used in herbal medicine to treat colds. Leaves can also be used as a flavoring in salads and cooked foods.





EAST TEXAS STATE FAIR PLANT IDENTIFICATION CONTEST



Sugarberry/Hackberry

Celtis laevigata or *Celtis occidentalis*



Alternate Names

Texas sugarberry, beaverwood

Habitat

Found growing in sandy loam or rocky soils along streams, in bottomlands, and in woodlands.

Quick ID Tips: _____

Description

Mature height is 100 feet tall and 3 feet in diameter. It has a broad crown formed by spreading branches that are often drooped. The bark is light gray in color and can be smooth or covered with corky warts. Stems can have a zig-zag appearance. The branches tend to droop, giving mature trees a cylindrical shape and the appearance of even and equal spread of branches. The branchlets are covered with short hairs at first and eventually they become smooth.

The leaves are alternated, simple, and slightly serrate. The leaves are 2 to 5 inches long and 1 to 2 inches wide. The lanceolate leaves gradually taper to a point that is often curved. They are pale green on both the upper and lower surfaces with conspicuous veins and often have an asymmetrical base.

The flowers appear just before or with the leaves in the spring. The drupes are subspherical and 5 to 8 mm in diameter. They have a thick exocarp and thin mesocarp, and the pit surface has a netlike pattern. The drupes range in color from orange to reddish-brown and are attached by pedicels that are 6 to 15 mm long.

Characteristics

- Warm season perennial native tree
- Poor grazing value
- Fair wildlife value

Edible: The fruit of both sugarberry and hackberry is edible.





EAST TEXAS STATE FAIR PLANT IDENTIFICATION CONTEST



Sweetgum

Liquidambar styraciflua



Alternate Names

red gum, bilsted, star-leaved gum, alligator-tree

Habitat

Occur in moist or wet woods, tidal swamps, along streambanks, in clearings and old fields, and in low swampy bottomlands where they often form pure stands.

Quick ID Tips: _____

Description

The trees can reach 95 to 130 feet in height and spread from 50 to 65 feet. The mature bark is rough, deeply furrowed and grayish brown. Young twigs are rusty red and frequently develop wings of corky bark.

The stellate leaves somewhat resemble maple leaves except that they are arranged alternately instead of opposite. The leaves are 3 inches wide with long, thin petioles (6-15mm). Actively growing leaves are fragrant when crushed. They are palmate in shape with five to seven lobes and serrate margins. Glossy-green in summer, the leaves turn bright yellow to deep red in the fall. The undersides of the leaves are pale green with a coating of fine white hairs.

The small, greenish inconspicuous flowers have no true petals. The woody ball-shaped pendulous burr-like fruits (1 to 1-½ inches) contain numerous small seeds (¼ inch) that are winged at one end. The seeds are contained in beaklike capsules to protrude from the surface (1 to 2 per capsule).

Characteristics

- Warm season perennial native tree
- Poor grazing value
- Fair wildlife value

Edible: The resin of the tree can be used to make a chewing gum, and as a stabilizer for cakes.





EAST TEXAS STATE FAIR PLANT IDENTIFICATION CONTEST



Vasey's Grass

Paspalum urvillei



Alternate Names

giant paspalum, vaseygrass

Habitat

Typically found growing in ditches, along streams, and around lakes and ponds as well as other moist places. Tolerates fire, drought, and flooding.

Quick ID Tips: _____

Description

A perennial bunch-type warm season grass that grows up to 7 ft tall with hairless stems. Roots are shallow. Leaves are hirsute at the base and have a long membranous ligule up to 6mm long. They are long and narrow with entire margins, indented midrib, and pointed tips. Leaf margins are crinkled. Leaf blades grow up to 15 inches long and ½ inch wide. Leaves are mostly hairless except some long hairs near their narrow bases.

The flowers have 4 to 30 erect branches. Flower growth occurs during the months of May through November. Spikelets are pubescent. Seeds are orange to brown, ovate, 2 to 3 mm long, and contains parts of the flower spikelets.

Characteristics

- Warm season perennial introduced grass
- Fair grazing value
- Poor wildlife value

Invasive: Vasey's grass can become invasive in native habitats and in moist soil where improved pasture grasses struggle, forming thick clumps that outcompete desirable vegetation.





EAST TEXAS STATE FAIR PLANT IDENTIFICATION CONTEST



Virginia Creeper

Parthenocissus quinquefolia



Alternate Names

woodbind, woodbine, false grapes, American ivy, thicket creeper

Habitat

Found in forests and on forest margins. It can also be found on the borders of clearings, on trees, and along fencerows and streambanks. Thrives in partial shade to full sun. It prefers acidic soil and tolerates a wide range of soils from dry sandy to moist loamy soils. The plant is also salt tolerant.

Quick ID Tips: _____

Description

A woody vine that may climb or trail along the ground. The vines adhere to surfaces by means of five to eight branched tendrils ending in cup-like adhesive tips. New stems are brownish-green and finely hairy but gradually acquire pale, raised dots and turn purplish-brown with age.

The leaves are compound, containing five leaflets. Leaflets range in size from 2 to 6 inches and have toothed margins. The leaflets are red when they first emerge but turn green as they mature. In the fall, leaves turn a bright red to maroon color.

The inconspicuous green color flowers are borne in small clusters during the spring and followed by small clusters of fruit in early summer. This fruit is a 4 to 6 mm diameter bluish-black berry that usually contains two to three seeds.

Characteristics

- Warm season perennial native vine
- Poor grazing value
- Fair wildlife value

Allergen: Its sap can cause contact dermatitis in some people.

Poisonous: Virginia creeper berries are highly toxic to humans and may be fatal if eaten.





EAST TEXAS STATE FAIR PLANT IDENTIFICATION CONTEST



Virginia Wildrye

Elymus virginicus



Alternate Names

wildrye

Habitat

Shade tolerant and adapted to open grasslands and wooded sites. Prefers moist soils with high fertility such as wet prairies, margins of wetlands, ditches, and riparian areas and floodplains.

Quick ID Tips: _____

Description

This native bunch grass is similar to Canada wildrye in appearance but is typically shorter in height with shorter awns on the seed head. The seed heads are more erect than those of Canada wildrye which typically bow or droop.

It reaches approximately 3 feet in height, lacks rhizomes and reproduces by seed and tillers.

Color may vary from green to silvery blue, and foliage often has a waxy appearance. The culms are tufted, strictly erect, or decumbent at the base. The ligule is a minute, truncated membrane. The alternately arranged leaves are approximately 12 inches in length and $\frac{3}{8}$ inch in width. Virginia wildrye is typically hairless but may have short pubescence on the leaf sheaths

Seed heads are typically 3 to 6 inches in length, erect, and have numerous coarse awns. Each spikelet has 2 or more florets that decrease in size as they extend to the end of the inflorescence. The glumes bow outward at the base producing a “U” shape and are strongly nerved. The spikelets are densely packed on the inflorescence. They are sessile, have a pair of glumes with a cluster of 2 to 4 lemmas, and their florets. Virginia wildrye blooms in the spring from March through May, and is wind pollinated.

Characteristics

- Cool season perennial native grass
- Good grazing value
- Fair wildlife value

Toxicity: Seed heads can become infected with a toxic ergot. Grazing should be deferred when wildrye goes to seed to prevent toxicity and to allow wildrye to reseed itself. Virginia wildrye will decrease without proper grazing management.





EAST TEXAS STATE FAIR PLANT IDENTIFICATION CONTEST



Water Oak

Quercus nigra



Alternate Names

Possum oak, spotted oak

Habitat

Found on a wide variety of sites from wet bottomlands to well-drained uplands. Prefers better-drained silty clay or loamy soils on high flats or ridges of alluvial stream bottoms.

Quick ID Tips: _____

Description

This fast-growing deciduous tree is a member of the red oak group. It usually grows to a height of 50 to 80 feet tall and 50 to 70 feet

wide. It has a conical to broad rounded habit with a trunk diameter of 3-½ feet. The bark is brown and smooth when the tree is young. As the tree ages it becomes gray black, furrowed, and rough. The stems are slender, thin, and reddish-brown. The buds are ovoid, ¼ inch long, angled above and pointed; scales imbricate and brown.

The leaves are 2 to 4 inches long and 1 to 2 inches wide, bluish green on the upper surface and appear paler and hairy on the undersides. They are alternate, simple, narrowly obovate to spatulate. The apex is shallowly 3-lobed or no lobes. Lobes are bristle-tipped to lacking bristles. The base is long and tapering from the middle of the leaf. They are entire and subcoriaceous. The midrib has two conspicuous spreading lateral veins where the leaf broadens, bearing pubescent tufts in axils. Leaves may persist throughout the winter in zones 8 and 9.

Male flowers are in drooping catkins and female flowers in spikes. The fruit is a ½ to 1-inch nearly black acorn with a flat, scaled cap that covers about ⅓ of the nut. The acorn requires two growing seasons to reach maturity. Involucral bracts are in shallow cups and are imbricated.

Characteristics

- Warm season perennial native tree
- Poor grazing value
- Poor wildlife value

Edible: Acorns were a staple food for some native tribes. They can be ground into a powder to thicken stews or be mixed with cereals for making bread.





EAST TEXAS STATE FAIR PLANT IDENTIFICATION CONTEST



Winged Elm

Ulmus alata



Alternate Names

wahoo elm, cork elm, witch elm

Habitat

Prefers full to partial sun and moist to dry conditions, but it tolerates different soil types including those that contain loam, clay, sand, or rocky material.

Quick ID Tips: _____

Description

A deciduous tree that may grow 40 to 60 feet tall and 1 to 2 feet in diameter. When grown in an open site it has a short bole with branches arching upward to form a rounded crown. In a forested site the tree tends to grow taller and straighter.

The bark is red-brown to ashy gray with flat topped ridges that are separated by irregular fissures. Scaly, shredding, patchy and grayish-brown, some reddish where bark exfoliates. Stems usually have two wide corky wings. Alternate, ovate to elliptic, pointed, rough-textured dark green leaves (1-½ to 3-½ inches long) with doubly toothed margins and asymmetrical bases. The leaves typically turn an undistinguished dull yellowish-green in fall.

Insignificant, ¼ inch, brownish-green flowers appear in clusters in late winter to early spring before the foliage emerges. The flower is typically very small with curling fuzzy stigmas. Fruit is a small drupe but very distinctive, covered with light colored fuzz, ½ inch long, tipped at the end with two long, curving bristles. The seeds mature in spring as the leaves reach full size.

Characteristics

- Warm season perennial native tree
- Poor grazing value
- Poor wildlife value





EAST TEXAS STATE FAIR PLANT IDENTIFICATION CONTEST



Yankeeweed

Eupatorium capillifolium or *compositifolium*



Alternate Names

Rosinweed, dogfennel

Habitat

Prefers moist but well-drained soils in full sun to part shade, although it does best with some afternoon shade in hot summer climates. It tolerates most soil types including dry, sandy soils. Plants have good drought tolerance

Quick ID Tips: _____

Description

Each plant produces several tall stiff woody-based often reddish upright stems clad with crowded feathery finely-dissected leaves which are pinnately divided into thread-like segments. Leaves are unpleasantly aromatic when crushed.

Minute greenish-white somewhat ornamentally insignificant flowers bloom in late summer. The small 3 to 5 flowered heads are numerous and arranged in large leafy pyramid-shaped end corymbs. Flowers bloom between September and November. Fruits are smooth achenes.

Characteristics

- Warm season perennial native forb
- Poor grazing value
- Poor wildlife value

Noxious: Can become a weedy nuisance when established in pastures.

Poisonous: Yankeeweed is poisonous and has been used as an insecticide and antifungal.





EAST TEXAS STATE FAIR PLANT IDENTIFICATION CONTEST



Yaupon

Ilex vomitoria



Alternate Names

yaupon holly, cassena, cassina, evergreen cassena, Indian blackdrink, Christmas berry

Habitat

Generally occurs in coastal areas in well-drained sandy soils. It can be found on the upper edges of brackish and salt marshes, sandy hummocks, coastal sand dunes, inner-dune depressions, sandhills, maritime forests, nontidal forested wetlands, well-drained forests and pine flatwoods.

Quick ID Tips: _____

Description

Evergreen shrub or a small tree (26 feet tall). The bark is light in color, from white to gray. The heartwood is hard and close-grained. The leathery leaf blades ($\frac{1}{2}$ to 1 inch long) are alternate, elliptical or oval with shallow teeth at the margins. The upper surface is a lustrous green with a lighter green lower surface. The leaves contain caffeine. Yaupon is the only native plant in North America that contains caffeine.

Flowers (5 to 5- $\frac{1}{2}$ mm) with four greenish white petals appear from March through May. Blooms appear on axillary clusters on year-old wood. Male flowers appear in clusters while female flowers grow either solitarily or in pairs. Young stems are covered with a purplish down which changes to whitish gray with age.

Female plants have beautiful round fruits that are a translucent red (5 to 6 mm in diameter) and contain four nutlets. The fruits frequently stay on the bush until the following spring.

Characteristics

- Evergreen perennial native shrub
- Fair grazing value
- Good wildlife value

Edible: The leaves can be brewed into a tea.

Poisonous: Yaupon berries are toxic to humans and have been used medicinally as an emetic.



Glossary

- Achene:** A small, dry, one-seeded fruit with a thin distinct wall that does not split open.
- Aggregate:** A fruit that develops from the merging of several ovaries that were separated in a single flower.
- Alternate:** Describes leaves, branches, buds, etc., scattered singly along the stems; not opposite.
- Annual:** A plant that completes its life cycle from a seed in 1 year or less.
- Anther:** The part of a stamen which contains the pollen.
- Appressed:** Lying against an organ as in the hairs on a stem or leaf may be appressed to the surface.
- Awn:** A slender bristle at the end or on the back of glumes and lemmas.
- Axil:** Angle between two organs; e.g., upper angle formed by a leaf and a stem.
- Berry:** A fleshy fruit, few to many-seeded.
- Biennial:** Requiring two growing seasons to complete the life cycle of the plant.
- Bilabiate:** Divided into two separate parts or lips.
- Bole:** The main wooden axis of a tree.
- Bract:** A reduced or modified leaf, usually below an inflorescence.
- Branchlet:** A small branch or twig of the second or higher order. Main branches from the axil are first order.
- Bristle:** Any short, stiff, hair-like growth. An awn is a kind of bristle.
- Bunch grass:** A grass that habitually grows in a well-defined tuft, as opposed to one that spreads by long stolons or rhizomes.
- Bud:** Small lateral or terminal protuberance on the stem of a vascular plant that may develop into a flower, leaf, or shoot.
- Burr:** A fruit or fruiting involucre bearing prominent spines or hooks.
- Calyx:** (plural calyces) Outermost whorl of modified leaves in a flower, usually green, but sometimes with showy colors.
- Canescent:** Gray-pubescent.
- Capsule:** A dry fruit of more than one carpel which splits at maturity to release the seeds.
- Carpel:** The ovule-containing receptacle of a pistil.
- Caryopsis:** An achene in which the pericarp is united with the seed; developed from a superior, one-carpel ovary.
- Catkin:** A scaly-bracted spike of unisexual flowers.
- Ciliate:** Having marginal hairs that form a fringe.
- Collar:** The outside area of a grass leaf where blade and sheath join.
- Colony:** A group of plants of the same species.
- Compound:** Composed of two or more similar parts united into a whole.
- Compressed:** Flattened laterally.
- Cone:** A usually globose or cylindrical structure involved in reproduction and composed of an axis with a dense spiral of bracts or scales.
- Cordate:** A heart-shaped base normally describing a leaf.
- Corolla:** In broadleaved plants, the inner covering of the stamens and pistils — usually showy if any part of the plant is. Its parts are called petals.
- Corymb:** A racemose type of inflorescence in which the lower pedicels are successively elongate, thus forming a flat-topped inflorescence in which the outer flowers open before the inner ones do.
- Culm:** The stem of a grass that has elongated internodes between the nodes.
- Cyme:** A form of inflorescence in which the main axis terminates in a single flower which opens before the lateral flowers arising beneath.
- Deciduous:** Losing leaves seasonally.
- Decumbent:** Said of stems which curve upward from a horizontal or inclined base.
- Deltoid:** Shaped like an equilateral triangle.
- Depauperate:** Much reduced and imperfect in structure and development.
- Dioecious:** Having male reproductive organs in one individual and female in another.
- Disk (flowers):** In Asteraceae (Composite family), small flower with tubular corolla in disk portion of head, contrasting with ray flowers.
- Drupe:** A fleshy or pulpy fruit with a pit or stone.

Elliptic: Longer than wide with regularly rounded ends.

Endocarp: The inner, usually woody layer of the pericarp of a fruit, such as the stone of a peach.

Entire: With smooth margins, not toothed or lobed.

Exocarp: The outermost layer of the pericarp of fruits, forms the skin of a peach or grape, epicarp.

Fascicle: (1) A bundle of leaves or flowers growing crowded together. (2) The vascular tissues that supply such an organ with nutrients.

Fibrous: Resembling or having fibers.

Filament: The stalk part of a stamen which bears the anther. The filament and anther together make up the stamen.

Floret: A small flower.

Glabrous: Bristles or hairs of any sort.

Glaucous: Having frosted or whitish waxy appearance from a waxy bloom or powdery coating.

Glume: One of a pair of dry membranous bracts at the base of the spikelet of grasses; the bract beneath each flower in a sedge or related plant.

Herbaceous: A vascular plant that does not develop woody tissue.

Hirsute: Covered with coarse and rather stiff hairs.

Hispid: Covered with stiff or rigid hairs that may penetrate skin.

Imbricated: Said of organs that are so placed as to overlap like the shingles on a roof.

Inflorescence: The entire flowering part of a plant.

Internode: The part of a stem between two successive nodes.

Involute: Leaf margins which are rolled inward from the edges.

Keel: The sharp fold at the back of a compressed sheath, blade, glume, or lemma.

Lanceolate: Lance-shaped, broadest at the base of a leaf blade. Much longer than broad, tapers to the leaf tip.

Leaflet: A single segment of a compound leaf.

Lemma: The palea or flowering glume of a grass.

Liana: A vine.

Ligneous: Having a wood-like texture.

Ligule: In grasses, a thin membranous, hairy, or ridge-like appendage on the inside of the leaf where blade and sheath join.

Linear: Long and narrow, with parallel edges.

Margin: Edge, the outer portion of a blade or other structure.

Membrane: A thin, soft, pliable sheet or layer serving as a covering or lining.

Mesocarp: The middle layer of a pericarp, as the fleshy part of certain fruits.

Midrib: The central vein of a leaf or leaflet.

Monocious: Having pistillate and staminate flowers on the same plant.

Node: Joint on a stem, represented by point of origin of a leaf or bud.

Nutlet: A diminutive nut, used to refer to any small, dry, nut-like fruit or seed, thicker walled than an achene.

Oblanceolate: Lanceolate with broadest part above the middle and tapering toward the base.

Oblong: Two or three times longer than broad.

Obovate: Egg-shaped with attachment at narrow end. Inversely ovate.

Opposite: Arranged two at each node, on opposite sides of the axis.

Oval: Twice as long as broad, widest at the middle, both ends rounded.

Ovate: Egg-shaped in outline, narrower at the tip.

Palea: A hyaline scale; specifically in the grasses, the upper bract of two sterile bracts, subtending a floret; in the Asteraceae, said of the scalelike pappus.

Palmate: With three or more lobes, veins or leaflets arising from one point, often five to seven.

Panicle: A loose, irregular compound flower cluster.

Pappus: The chaffy, scaly, bristle-like structure at the junction of the achene and the corolla in the Asteraceae.

Parallel veined: With main veins parallel to each other. Such leaves are typical of many monocots.

Pedicel: The stalk of a single flower in a panicle or raceme. Opposite to sessile.

Peduncle: Primary flower stalk, supporting either a cluster or a solitary flower.

Pendulous: Hanging.

Perennial: A plant that lives more than two years.

Perfect: Flowers that have both stamens and pistils.

Pericarp: The fruit wall, derived from the ovary wall and consisting of up to three layers: exocarp, mesocarp, and endocarp.

Persistent: An organ that remains attached after ceasing to perform its usual biological function.

Petal: A part of the corolla; the inner series of floral "leaves".

Petiole: The stalk of a leaf supporting the blade.

Pilose: Covered with distinct, long, soft, erect hairs.

Pinnate: Compound leaf with leaflets on either side of a central axis.

Pistil: The female reproductive organ of a flower consisting of the ovary, stigma, and style.

Polygamodioecious: Polygamous but chiefly monocious.

Polygamous: Having perfect pistillate and staminate flowers on an individual plant.

Prickle: A slender, sharp, epidermal outgrowth without vasculature; e.g. the armature of roses.

Prostrate: Lying flat upon the soil.

Pubescent: (1) Covered with short, fine hairs. (2) Covered with hairs of any type.

Raceme: Pedicled flowers along one stem.

Rachis: (1) Leaflet-bearing central axis of a pinnately compound leaf. (2) Axis of an inflorescence.

Ray (flowers): Flat or star-shaped type of corolla found in many Asteraceae, contrasting with disk flowers.

Resinous: Sticky with resin.

Rhizome: A horizontal underground stem that usually sends out roots and above ground shoots from the nodes.

Rhizomatous: Possessing a rhizome.

Samara: Dry, one seeded fruit with a membranous wing.

Scale: Bud covering or tiny, blunt leaf.

Schizocarp: A pericarp that splits into 1-seeded portions, mericarps.

Sepal: The lowermost set of leaf-like bracts making up the flower cup. The sepals together are called the calyx.

Serrate: Fine, sharp teeth that point upward or forward along the leaf margin; saw-toothed.

Sessile: With no stalk or petiole.

Sheath: The lower part of a grass leaf that encloses the stem.

Simple: With the leaf blade all in one piece; not divided into separate leaflets.

Spatulate: Spatula-shaped; gradually narrowed to base from a rounded summit.

Spike: An unbranched seed head in which the spikelets are sessile on a rachis.

Stalked: As in short-stalked, refers to leaf attachment more than sessile but shorter than a typical petiole.

Stalkless: Used interchangeably with sessile.

Stamen: Male organ in the flower, pollen bearing.

Stellate: Star-shaped or star-like, as in branched hairs with a central stalk and branch hairs arising at the top of a stalk.

Stem: The portion of a plant that supports the branches; in trees, also called the bole.

Stigma: The part of the pistil which received the pollen.

Stolon: A horizontal stem which grows along the surface of the soil and roots at the nodes.

Stipule: Leaf-like appendages on either side of a leaf at the base of the petiole.

Stone: A hard, one-seeded endocarp of a drupe.

Striate: With fine longitudinal lines or ridges.

Style: A structure within the flower that connects the stigma and ovary.

Subcoriaceous: Somewhat leathery.

Tendrils: A slender twining or coiling appendage or axis that enables plants to climb; often a modified leaf or basal node in a grass.

Tiller: (1) An erect shoot that arises from the crown of a grass. (2) A grass that is growing tillers. (3) The asexual development of a new plant from a meristematic region of the parent plant. (4) a branch or shoot originating at a basal node in a grass.

Thorn: A sharp-pointed, stiff, woody structure derived from a modified branch.

Truncate: Shape of leaf base that attaches to the petiole and ends abruptly as if cut off.

Tufted: A cluster or fascicle of trichomes, leaves, or elongated structures (stems).

Umbel: An umbrella-like flat-topped or ball-shaped flower cluster in which the stalks of the individual flowers all grow from about the same point on the main stem.

Villous: Densely beset with shaggy hairs.

Winged: A thin, membranous or flat extension or projection.

Whorl: A ring of leaves, flower parts, or flowers occurring at a single node.

References:

Chadde, Steve. *Wetland Plants of Texas*. Createspace Independent Pub, 4 Oct. 2012.

Diggs, George M., Jr., Barney J. Lipscomb, and Robert J. O'Kennon. *Shinners and Mahler's Illustrated Flora of North Central Texas*. Dallas: Austin College Center for Environmental Studies and the Botanical Research Institute of Texas. 1999.

Gates, Frank C. *Weeds in Kansas*. Kansas State Board of Agriculture, 1941.

Hitchcock, A.S. *Manual of the Grasses of the United States*. Washington: USDA Agricultural Research Administration. Miscellaneous Publication No. 200. Second edition, 1951.

Leithead, Horace L., Lewis, L. Yarlett, and Thomas N. Shiflet. *100 native forage grasses in 11 southern states*. Washington D.C.: Agriculture Handbook No. 389, USDA Soil Conservation Service. 1976.

Linex, Ricky. *Range Plants of North Central Texas—A Land User's Guide to Their Identification, Value and Management*. USDA Natural Resources Conservation Service. 2014.

University of Illinois, *Weeds of the North Central States*, Circular 718, 1954.

USDA-NRCS *National Plant Materials Manual*, Fourth Edition, July 2010.

USDA *Yearbook of Agriculture, Seeds*. 1961.

References

"APA: Alabama Plant Atlas." *Floraofalabama.org*, floraofalabama.org/. Accessed April 20,2023.

"FNA." *Floranorthamerica.org*, floranorthamerica.org/. Accessed April 20,2023.

"Illinois Wildflowers." *Illinoiswildflowers.info*, 2017, www.illinoiswildflowers.info/. Accessed April 20,2023.

"Invasive.org." *Invasive.org*, 2014, www.invasive.org/. Accessed April 20,2023.

"Lady Bird Johnson Wildflower Center - the Botanic Garden of Texas." *Lady Bird Johnson Wildflower Center*, 2022, www.wildflower.org/. Accessed April 20,2023.

Linex, Ricky J. *Range Plants of North Central Texas : A Land User's Guide to Their Identification, Value and Management*. Weatherford, Tx Natural Resources Conservation Service, 2014.

"Minnesota Wildflowers." *Minnesotawildflowers.info*, 2018, www.minnesotawildflowers.info/. Accessed April 20,2023.

"Noble Research Institute." *Noble Research Institute*, nobleapps.noble.org. Accessed April 20,2023.

"Plant Finder." *Missouribotanicalgarden.org*, 2019, www.missouribotanicalgarden.org/PlantFinder/PlantFinderSearch.aspx. Accessed April 20,2023.

"Plants | NC State University." *Ncsu.edu*, 2019, plants.ces.ncsu.edu/. Accessed April 20,2023.

"Start - Weed Identification." *Weedid.cals.vt.edu*, weedid.cals.vt.edu/. Accessed April 20,2023.

"Texas Invasives." *Www.texasinvasives.org*, www.texasinvasives.org/. Accessed April 20,2023.

"USDA Forest Service Data and Information Systems." *Www.fs.usda.gov*, www.fs.usda.gov/database. Accessed April 20,2023.

"Welcome to the PLANTS Database | USDA PLANTS." *Usda.gov*, 2016, plants.usda.gov/. Accessed April 20,2023.

