

Prairie Blazing Star
***Liatis pycnostachya* Michx.**
plant symbol = LIPY

Contributed by: USDA NRCS Elsberry Plant
Materials Center



Alternate Names
Button Snakeroot

Key Web Sites

Extensive information about this species is linked to the Plants web site. To access this information, go the plants.usda.gov, select this plant, and utilize the links at the bottom of the Plants Profile for this species.

Uses

Prairie blazing star can be used for roadside plantings, prairie restoration, wildlife cover, landscaping, and plant diversity in prairie communities.

Status

Please consult the plants.usda.gov and your State Department of Natural Resources for this plant's current status (e.g. threatened or endangered species, state noxious status, and wetland indicator values).

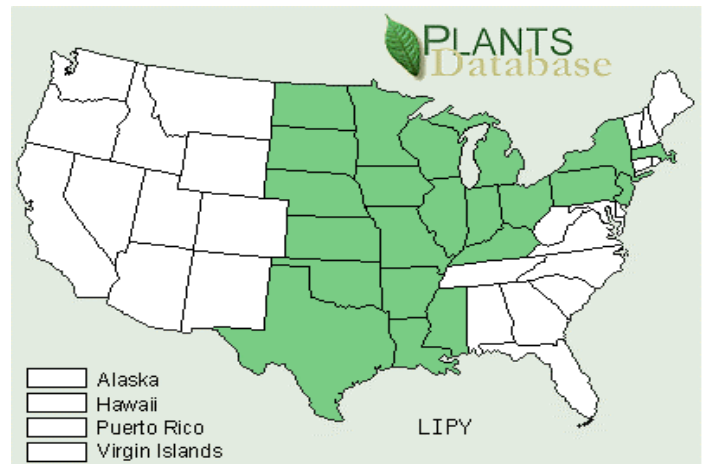
Description

Prairie blazing star is a hardy native perennial forb. Slender, spikelike plant up to 5 feet, with abundant grasslike leaves and usually hairy stems. The lowest leaves can be well over 1 foot long and up to ½ inch wide, with the stem leaves smaller and progressively reduced upward. The flower heads are in a dense spike at the top of the plant. Each small head is about ¼ inch wide, with an overlapping series of bracts that have hairy, outward-curving, pointed tips. There are mostly 5-10 small, 5-lobed, purple disk flowers per head, with 2 prominent threadlike style branches protruding from each flower. Forms of this plant with white flowers occasionally occur among groups of purple-flowered plants.

Habitat/Range:

Common in throughout the tallgrass region in seepage areas in upland prairie, moist prairie depressions, and mesic to dry prairies.

Known Distribution



Establishment

Prepare a clean weed free seedbed by disking and harrowing or using chemical weed control. Firm the seedbed by cultipacking. Seedbed should be firm enough to allow seed to be planted 1/8 inch deep. The seed of prairie

blazing star should be planted at a depth of 3mm. This species germinates well if seed is planted in the field in the fall (November-December). If a production plot is planted in the spring or is to be started from seedling plants, seed needs stratification for three weeks. Place seeds on a wet cloth and fold to fit a labeled ziplock bag. Refrigerate (35 – 40 degrees Fahrenheit) for about eight weeks. Spread seed to dry and row plant immediately. March to early April is a good time. For seedling plugs, place 1-3 seeds in each seedling cell, cover with a thin layer of growing medium and place in a sunny location where the soil temperature will rise to 77 degrees Fahrenheit. Check seedling soil for root filling after about six weeks in the greenhouse. Plant the potted seedlings in the ground about 15cm apart from last frost date to early June. Water seedlings in. There are approximately 136,000 seeds in a pound of prairie blazing star.

Seeding rates for prairie blazing star:

For seed production:

Solid stand – 40 pure live seed (PLS) per square foot or 12.8 pounds PLS per acre.

Wide row (beds) planting:

Seeding rate in 3-foot beds with 3 foot fallow between beds should be 12.8 pounds PLS per acre on planted beds. Plugs can also be planted on 1 foot spacing.

Seed production at the Elsberry Plant Materials Center has ranged from 100 to 250 pounds bulk per acre.

Prairie planting: mixture 1 – 5 PLS per square foot (0.3 to 1.6) pound PLS per acre.

Use no fertilizer the establishment year unless soil test indicates a low deficiency of less than 15 PPM of phosphorus and or less than 90 PPM of potassium. Use no nitrogen during the establishment year as this can encourage weed competition.

Management

Reduce weed competition by mowing over the height of the prairie blazing star plants or cultivating between the rows. Use a non-selective contact herbicide while dormant or a pre emergent herbicide to control annuals after the prairie blazing star is established. Remove dead plant material by shredding in the spring for faster green-up. Burning of dead plant refuge can weaken the plants unless done before it has broken dormancy.

Pests and Potential Problems

Prairie blazing star has been grown at the Elsberry Plant Materials Center for three years and there have been no indications of problems with any kind of pests. When the plants mature the stems weaken and often lodge making the harvesting process a little more difficult.

Environmental Concerns

Prairie blazing star is not known to invade in areas where this species does not naturally occur.

Cultivars, Improved, and Selected Materials (and area of origin)

According to the publication entitled 'Improved Conservation Plant Materials Released by NRCS and Cooperators through September 2002', there are six releases of this species, one cultivar, and five source identified releases from the Plant Materials Program.

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For more information about this and other plants, please contact your local NRCS field office or Conservation District, and visit the PLANTS <<http://plants.usda.gov>> and Plant Materials Program Web sites <<http://Plant-Materials.nrcs.usda.gov>>.

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