

## Missouri Germplasm Rough Blazing Star

*Liatris aspera*, rough blazing star, is a native prairie forb and a desirable component in warm season grass mixtures. It is an excellent food source for a wide variety of wildlife species. The striking flowers of this species make it highly desirable for beautification of any landscape venue.

Northern Missouri and Western Missouri Rough Blazing Star (or Rough Gayfeather), (*Liatris aspera*, Michaux) are two sources of this plant made available through the USDA Plant Materials Program and were released in 2001.

Cooperating agencies in these releases were Natural Resources Conservation Service (NRCS), Missouri Department of Conservation (MDC), and Missouri Audubon Society.

Northern (Zone 1) and Western (Zone 2) Missouri Germplasm Rough Blazing Star is recommended for use in prairie restoration, Conservation Reserve Program (CRP) diversity, wildlife food and habitat, roadside revegetation, parks and gardens. These releases are recommended for planting within their zones of origin. Northern Missouri Germplasm, Zone 1, was collected from glaciated plains (all counties within the political boundaries of Missouri north of the Missouri River). Western Missouri Germplasm, Zone 2, was collected from the Missouri Osage Plains (all counties within the political boundaries of Missouri, south of the Missouri River and west of the line formed by the eastern boundaries of Saline and Green counties).

## Description

Rough blazing star is a moderately long-lived perennial that grows 0.1 to 1 meter tall. Each plant carries one to few unbranched stalks. Lower leaves are narrowly linear up to 38cm with a petiole; upper leaves are sessile and graduate to much shorter lengths. Twenty to 40 small tubular rose-purple flowers are packed tightly in a head surrounded by a 2cm sessile cup of rounded bracts. There could be a few to 150 of these heads on a stalk. The flower heads are widely spaced on the stalk. They bloom in order from top downward from August to October. Fruits are kernels 1-2mm wide by 4-6mm long crowned by a 7-8mm gray-pink pappus tightly packed in each head.



Line drawing provided by "An Illustrated Guide to Iowa Prairie Plants" by Paul Christiansen and Mark Muller and the University of Iowa Press.

### *Liatris aspera*, Michaux

Drawing copyright "Mark Muller"

## Adaptation

Rough blazing star is native to the prairies and glades from Ohio and North Dakota south to Louisiana and eastern Texas. It prefers well drained uplands, often sandy sites, disturbed, gravelly soils and will tolerate all, but saturated soils.

Northern and Western Missouri Germplasm Rough Blazing Star originated from counties located within their corresponding zone. These zones serve both the geographic area represented by the genetic material of the parent seed and the potential market of the end product, which is commercially available Missouri Ecotype Seed.

## Recommended Area of Use of Missouri Germplasm Rough Blazing Star Establishment for Commercial Production



Rough blazing star germinates well if seed is direct planted in the fall (November-December). Planting at a rate of 40 seeds per row foot at a depth of 3mm is advised. A seed production plot can be planted in the spring

with stratified seed or started from seedling plants. Seed needs to be stratified for eight weeks.

Place seeds on a wet cloth and fold to fit a labeled zip lock bag. Refrigerate (35° to 40° F) for about eight weeks. Spread seed to dry and row-plant immediately. Rough blazing star achieves the best stand when planted between March and early April. 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° F. 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. Seedlings will need to be irrigated after planting.

### Management

In seed production plots, weed control can be accomplished by mulching and with grass herbicides. A seed production plot could need some irrigation the first year, if it is planted in a well-drained soil. Remove dead plant material before new growth emerges in subsequent years. Do not till during blooming and seed set periods.

Rough blazing star can be included in CRP and prairie planting mixtures at <1% or 1 seed per 2 sq. ft. The number of seeds per gram averages 418 to 480, which extrapolates to 190,000 to 218,000 seeds per pound. It may take two growing seasons in order for seed to germinate, depending on conditions. When included in a short or tall grass planting, burning during the dormant season will

encourage a higher forb to grass ratio. Mowing after maturity will scatter the seed.

### Availability

Released G0 and G1 seed of Missouri Germplasm Rough Blazing Star has been allocated to Missouri seed growers by the USDA-NRCS.

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### For More Information

Visit our Plant Materials website at <http://Plant-Materials.nrcs.usda.gov> to find more information on solving conservation problems using plants.

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