
BWSR FEATURED PLANT

MINNESOTA LIATRIS SPECIES

Family: Aster

Publication Date: 2-25-14

Also known as “Blazingstars” and “Gayfeather”, liatris species are some of the best known Minnesota wildflowers. Five species grow in the state, providing options for establishment in a wide range of moisture conditions and project types. They are commonly used in lakeshores, prairies, wet meadows and raingardens where they add beauty as well as ecological function. Liatris species act as butterfly magnets, attracting large numbers of monarchs, swallowtails, painted ladies, skippers, and sulfurs among others. Their flowers start blooming at the top of the stalk in mid-summer and progress downward over the course of a few weeks.

Identification

Liatris have flower heads with clusters of pink to purple flowers arranged in spikes or racemes (branching flower heads) and linear leaves. Plant height and the characteristics of flower clusters can vary among species. The following species are arranged by plant height from tallest to shortest.

Liatris pycnostachya - (Prairie Blazing Star) Up to 5 feet tall, dense spike up to 18 inches, 4-18 flowers per head with pinkish-red bracts that are narrow, pointed, and curving.

Liatris aspera - (Rough Blazing Star) Up to 4 feet tall, loose spike up to 18 inches, 16-35 flowers per head with rounded bracts that have jagged edges.



Monarch on *Liatris aspera*
photo by Dave Hanson



Liatris pycnostachya
photo by Dave Hanson



Liatris aspera
Photo by Dave Hanson



Liatris aspera bracts and flowers
photo by Dave Hanson



Liatris pycnostachya in
containers

Liatris ligulistylis - (Northern Plains Blazing Star) Up to 3.5 feet tall, loose raceme up to 18 inches, 30-80 flowers per head with green to purplish bracts that have rounded tips.

Liatris cylindracea - (Cylindric Blazing Star) Up to 2 feet tall, loose raceme up to 12 inches, 10-35 flowers per head with brown to purplish bracts that are pressed flat and pointed at the tip.

Liatris punctata - (Dotted Blazing Star) Up to 2 feet tall, tight spike up to ten inches long, 3-8 flowers per head with large, green to purplish bracts that are pressed flat and pointed at the tip and long white hairs on the edges.



Liatris ligulistylis



Liatris cylindracea
Photo by minneflora.com



Liatris punctata



Liatris ligulistylis photo by Dave Hanson

Range

Minnesota *Liatris* species are most commonly found in the south and western portion of the state as shown in the range maps. An exception is *Liatris cylindracea* that is mainly found in bluff prairies of eastern Minnesota. Across the United States species in the *Liatris* genus are mainly founded in the eastern half of the country. All five species in Minnesota grow in sunny habitats but are found in a range of plant communities. The following list summarizes key plant communities for each:

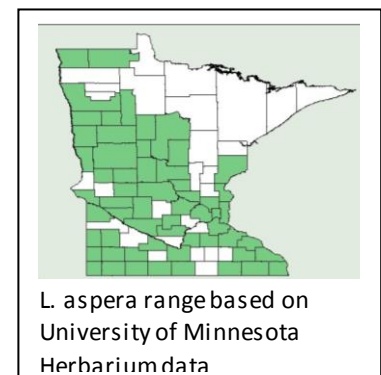
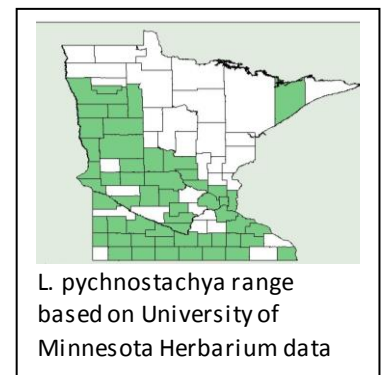
Liatris pycnostachya – Wet meadows, wet prairies, ditches

Liatris aspera – Bluff prairies, sand prairies

Liatris ligulistylis – Wet meadows, wet prairies, mesic prairies

Liatris cylindracea – Bluff prairies, outcroppings, sand prairies

Liatris punctata – Bluff prairies, sand prairies



Uses

Liatris species are beneficial as a pollen and nectar source for many pollinators. They are pollinated primarily by long-tongued bees (including bumblebees and honey bees), and butterflies. The caterpillars of the rare Glorious Flower Moth feed on the flowers and seed capsules of liatris (Illinois Wildflowers 2013).

Primary Uses:

- Pollinator Habitat
- Wildflower Gardens
- Shoreline Stabilization

The beautiful flowers and extensive roots of liatris make them excellent species for raingardens, bioretention areas and lakeshores where they aid infiltration and provide stability. The liatris that grow in dry soils are well suited to landscaping in dry conditions. The plants are often grazed by rabbit and deer but are generally avoided by cattle probably due to some toxic alkaloids in the plant; so they can persist under moderate grazing pressure. There are reports that Native Americans ate the carrot-flavored root, likely boiling them to remove the alkaloids.

Planting Recommendations

Liatris produce many seeds that have hairs to aid wind pollination. Seed should be collected as the flower heads start turning tan. The seed can disperse quickly so it is important to not wait too long. Seeds can be air dried after collection and then seeds can be shaken from the heads in a paper bag. The seeds require stratification which can be done in a refrigerator for about three months (in a sealed container) or they can be sown in the fall to natural stratify over winter. When grown indoors it is common to spread the seeds in a flat and cover them in a thin layer of soil. The seedlings grow slowly so they will need sufficient sunlight and air movement to prevent the development of mold. Once they are well established the seedlings can be transplanted into larger containers.

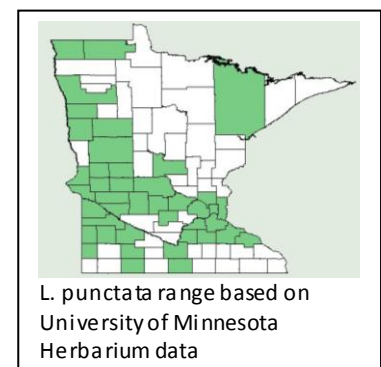
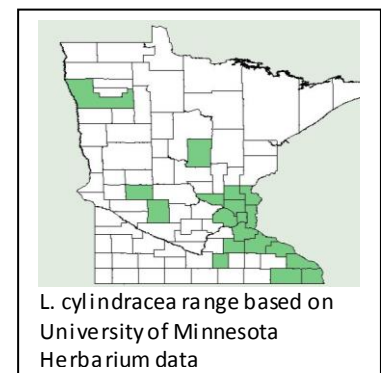
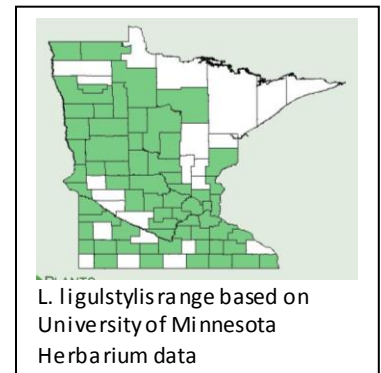
Planting Methods:

- Broadcast seeding
- Containers
- Transplanting

For smaller project sites such as lakeshore restorations and bioretention areas plants are usually installed from containers. Liatris have root structures called “corms” that can be separated from a clump and transplanted. The corms can be ordered from some nurseries or transplanted from other plantings in early spring. The corms should be planted about two-inches deep.

When seed is used for larger sites it should be broadcast at the surface and can be lightly raked, harrowed or rolled to ensure good seed to soil contact. It will be important to keep weeds mowed to around five to eight inches for the first year and possibly into the beginning of the second season to ensure sufficient sunlight for the slowly developing seedlings. Once established they can be long-lived – up to around 35 years.

Liatris seedlings grow slowly, making early weed management important



Liatris aspera
photo by Dave Hanson

Additional References

UW-Steven's Point Freckman Herbarium <http://wisplants.uwsp.edu/scripts/searchresults.asp?Genus=Liatris>

Minnesota Wildflowers: http://www.minnesotawildflowers.info/search?scientific_name=Liatris&wh

Illinois Wildflowers: http://www.illinoiswildflowers.info/prairie/plantx/rgh_blazingstarx.htm

Look-alikes



Hedge Nettle



Purple Fringed Orchid



Fireweed



Blue Vervain



Giant Hyssop



Purple Loosestrife (Invasive)