

Iowa Germplasm Rattlesnake Master

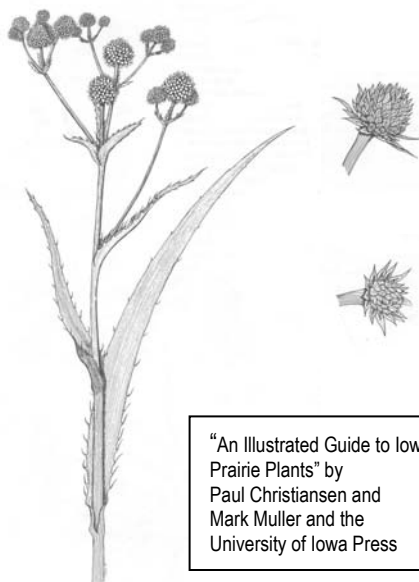
Eryngium yuccifolium is a native forb, a desirable component in warm-season grass prairies. It provides diversity in prairie plantings. The seed is readily utilized by a variety of wildlife species.

Cooperating agencies in these releases were Natural Resources Conservation Service (NRCS), University of Northern Iowa (UNI), Iowa County Integrated Roadside Vegetation Management Program (IIRVMP), Iowa Department of Transportation (IDOT), and the Iowa Crop Improvement Association (ICIA).

The Iowa Germplasm Rattlesnake Master is recommended for use in plantings on roadside revegetation, critical areas, wildlife food and habitat, parks, and recreational areas, and prairie restoration. Each zone is recommended for planting within its zone of origin. Zone 1 (Northern) is from the Northern three tiers of counties in Iowa, Zone 2 (Central) is from the Central three tiers of counties in Iowa and Zone 3 (Southern) is from the Southern three tiers of counties in Iowa. Zone 3 was released in 1998 and Zones 1 and 2 were released from 1997.

Description

Rattlesnake master is a tall native warm season perennial native forb that grows to a height ranging from 2 to 6 feet tall from short thick rootstock. The bluish green basal leaves are up to 3 feet long and up to 1 ½ inch wide. The leaves along the stem are much shorter, but they may be as wide as the basal leaves. All the leaves are thick and parallel veined and have soft or weak prickles along the edges. The bristles are spaced far apart. The leaf bases clasp the single, erect stem. The flower heads are on stout peduncles at the tip of the stem. Each head is made up of many small flowers. Whitish bracts stick out sharply from the flowers, which gives the flower head a rough, prickly feel and appearance. The heads have a 'honeylike' odor. Individual fruits, which mature in the spherical flower head, are less than 1/10 inch long. The root of rattlesnake master has been used medicinally by Native Americans and pioneers.



Origin

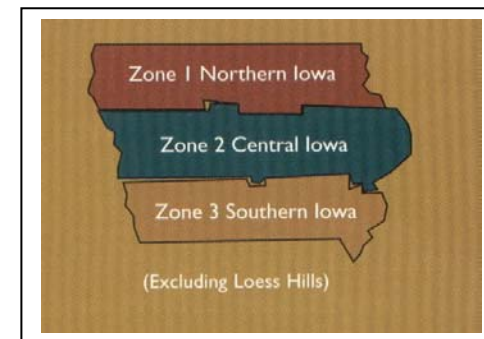
Northern, Central, and Southern Iowa Germplasm Rattlesnake Master releases were collected from locations in Northern, Central and Southern three tiers of counties in the State of Iowa.

Adaptation

This plant grows naturally in diverse habitats such as dry prairie, open woodland soils, well-drained or sandy prairies in all but the northern portions of the tallgrass region, becoming uncommon north of Iowa.

These three releases of Rattlesnake Master, Zones 1, 2, and 3, originate from counties located in the Northern, Central and Southern counties of the state of Iowa, thereby making these selections well adapted to these counties. The area of adaptation for the Iowa Germplasm Rattlesnake Master releases includes all counties located in the state of Iowa.

Recommended Area of Use for Iowa Germplasm Rattlesnake Master



Establishment

Rattlesnake master can be established by using a native grass drill with a legume seed box attachment. For a solid stand seeding, plant in late fall or early spring into a firm seedbed at a rate of 8-10 pounds PLS per acre. Seed should be planted at a depth of ¼ inch. Use stratified seed when seeding in the spring, and unstratified seed when making a fall dormant planting. The number of seed per pound averages 177,700. Stratify seed in cold storage 34-40° Fahrenheit for 60-90 days. If seeding rattlesnake master in a mixture, decrease the seeding rate to the percent composition desired in the mixture.

Management

Weed control is essential especially during the establishment year and can be accomplished by mowing over the height of the rattlesnake plants or tilling between rows of plants. A grass herbicide, such as Poast controls grassy weeds.

Use label recommendations for application. Little maintenance should be necessary when grown with native warm season grass species.

Commercial Production

For a solid stand seeding, plant late fall or early spring into a firm seedbed at a rate of 8-10 pounds PLS per acre. Plant unstratified seed in late fall and stratified seed in the spring to stimulate germination. For optimum seed production, rows should be spaced 30 inches apart, or at a spacing to accommodate available equipment. During establishment, irrigate only to avoid plant stress and not at all between germination and the 4-5 leaf stage. For pure stand, apply fertilizer at a rate of about 300 pounds of 5-10-5 per acre during seedbed preparation providing weeds are not a problem. Two years are usually necessary for stands to develop and produce. Some plants may flower the first growing season with favorable growing conditions. Seed yields should average approximately 250 bulk pounds per acre on a well-managed stand.

Availability

G0 and G1 seed of Iowa Germplasm Rattlesnake Master has been allocated to the Iowa seed growers by the USDA-NRCS.

For More Information

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

USDA-NRCS
Elsberry Plant Materials Center
2803 N. Hwy 79
Elsberry, Missouri 63343
Phone: 573 898-2012
FAX: 573 898-5019

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A source-identified
conservation plant
developed by the
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Materials Center,
Elsberry, Missouri

