



United States Department of Agriculture
Natural Resources Conservation Service
Plant Materials Program

Marion Germplasm Dillenius' Tick-Trefoil

Desmodium glabellum (Michx.) DC.)

A Conservation Plant Release by USDA NRCS Rose Lake Plant Materials Center, East Lansing, MI



Marion Germplasm Dillenius' tick-trefoil

The USDA-Natural Resources Conservation Service, Rose Lake Plant Materials Center and the Illinois Soil and Conservation Districts released Marion Germplasm Dillenius' tick-trefoil, a tested ecotype of Dillenius' tick-trefoil in June 2006, for the Great Lakes region.

Description

Marion Germplasm Dillenius' tick-trefoil is a member of the pea family. This native perennial legume grows from 3 to 5' in height. Its tiny flowers are pink or purple and irregular in shape. The flowers turn light blue when spent. Bloom time is from midsummer to early fall and last about a month. There is no floral scent. Seeds are produced in pods that are covered with hooked hairs. Those hairs can attach to animal fur or human clothing, thus providing a mechanism for seed dispersal. The leaves are alternate, composed of three entire leaflets. They are egg shaped with little or no point. There is little or no stipule where the leaf is attached to the stem.

Source

Forty-nine collections of tick-trefoil (various species) were assembled from 8 states and 16 Major Land Resource Areas. Seeds from each collection were planted in the greenhouse for preliminary observation of growth characteristics in 1989. In 1990, plants from 40 of the collections were placed in propagation beds for a 2-year evaluation of survival, vigor, seed weight, plant height and width, bloom period, disease resistance, foliage production, and flower abundance. Five accessions, including Marion Germplasm, were selected for further evaluation based on early and late season ranking summaries. Advanced evaluations were completed in 1992 on the five remaining accessions. The Marion collection and two other accessions were selected for increase due to their superior survival, emergence, vigor, and foliage abundance.

Conservation Uses

Marion Germplasm is intended for use in wildlife food plots as an alternative to introduced plant species. Seed from *Desmodium* species are used as a food source by several upland game birds and songbirds. Marion Germplasm is also an excellent deer browse.



Field of Marion Germplasm Dillenius' tick-trefoil in bloom

Area of Adaptation and Use

This species range is throughout northern North America. The anticipated area of use is within the Great Lakes region, which is well within the species range.

Establishment and Management for Conservation

Plantings

A clean, firm seedbed is essential for establishing Dillenius' tick-trefoil. A good seedbed can be prepared by disking and harrowing, followed by cultipacking. Planting into no-till conditions can be effective provided weeds are controlled and residue is managed prior to planting. Good seed to soil contact is important for germination and establishment. The seedbed should be firm enough to allow the seed to be planted 1/8" to 1/4 deep. Cultipacker seeders and band seeders followed by press wheels or a cultipacker help ensure shallow seed placement and good seed-to-soil contact. Inoculating seeds with *Rhizobium* before planting is recommended. Consult inoculum supplier for recommendation on specific *Rhizobium* strains for Dillenius' tick-trefoil. Seeding rates for Dillenius' tick-trefoil should be 2 to 4 oz. pure live seed per acre for wildlife planting or 0.5 to 10% of a mix for prairie restoration. Seed can be planted in the spring or early fall. Reduce weed competition by mowing at a height that will not affect the tick-trefoil seedling. For grassy weed control use a grass herbicide and follow label directions as weed control will encourage a good stand. Note: Some herbicide products may not be registered on this legume species in your state.

Ecological Considerations

Japanese beetle adults feed on flowers and leaves, which may cause reduced seed production. White mold has been observed on some *Desmodium* species.

Seed and Plant Production

Marion Germplasm Dillenius' tick-trefoil produces seed annually. Protection from deer browse may be needed to ensure seed production. Seed pods stay attached to the stem late into the fall, so shattering loss is not a big concern. Harvest seed by hand or with a combine harvester when seed pods and stems are brown and dry. A plant desiccant may be used to aid plant dry down. Seeds may or may not separate from the seed pod during harvest. Seeds can be separated from the pod using a brush separator, hammer mill or similar equipment. Seed can be further cleaned using a fanning mill.

Availability

Foundation seed will be maintained by the USDA-NRCS Rose Lake Plant Materials Center and made available in limited quantities to commercial growers.

For more information, contact:
Rose Lake Plant Materials Center
7472 Stoll Rd., East Lansing, MI 48823
Phone: 517-641-6300
Fax: 517-641-4421

Citation

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For additional information about this and other plants, please contact your local USDA Service Center, NRCS field office, or Conservation District <<http://www.nrcs.usda.gov/>>, and visit the PLANTS Web site <<http://plants.usda.gov/>> or the Plant Materials Program Web site <<http://www.plant-materials.nrcs.usda.gov/>>



Marion Germplasm Dillenius'
tick-trefoil blossoms

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