United States Department of Agriculture

A Conservation Plant Release by Natural Resources Conservation Service
Rose Lake Plant Materials Center, East Lansing, MI

Marion Germplasm Dillenius' tick-trefoil

Desmodium glabellum (Michx.) DC.

Marion Germplasm Dillenius' Tick-Trefoil

The USDA-NRCS Rose Lake Plant Materials Center (PMC) and the Association of Illinois Soil & Water Conservation Districts released Marion Germplasm Dillenius' tick-trefoil, a tested-class ecotype of Dillenius' tick-trefoil, for the Great Lakes region in 2006.

Description

Marion Germplasm Dillenius' tick-trefoil is a member of the pea family. This native perennial legume grows from 3 to 5 feet 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 lasts about a month. There is no floral scent. Seeds are produced in pods that are covered with hooked hairs. The 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 Germplasm collection and two other accessions were selected for increase due to their superior survival, emergence, vigor, and foliage abundance.

Conservation Uses

Seed from *Desmodium* species including Marion Germplasm is a food source for upland game birds and songbirds and herbage is an excellent deer browse. Michigan NRCS technical specialists have determined that Marion Germplasm is useful or potentially useful with these Conservation Practice Standards:

Conservation Cover (327)
Critical Area Planting (342)
Early Successional Habitat Development/Management (647)
Field Border (386)
Forage and Biomass Planting (512)
Forest Trails and Landings (655)
Hedgerow Planting (422)
Restoration and Management of Rare or Declining Habitats (643)
Road/Trail/Landing Closure and Treatment (654)
Upland Wildlife Habitat Management (645)

Field of Marion Germplasm Dillenius' Tick-Trefoil in Bloom

Area of Adaptation and Use
This species' range is throughout northern North America. Marion Germplasm's primary 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 ⅛- to ¼-inch 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/a PLS 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 good 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 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
Marion Germplasm Dillenius' tick-trefoil, as well as other Rose Lake PMC releases, is available from commercial suppliers. Rose Lake PMC does not sell releases to the general public, although small quantities of seed are available to commercial seed or nursery growers for increase purposes.

For more information, contact:
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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