

UNITED STATES DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE
EAST LANSING, MICHIGAN

NOTICE OF RELEASE OF MARION GERMPLASM DILLENIUS' TICK-TREFOIL
SELECTED CLASS OF NATURAL GERMPLASM

The U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) announces the release of a selected ecotype of Dillenius' tick-trefoil [*Desmodium glabellum* (Michx.) DC.] for the Great Lakes region.

As a selected release, this plant will be referred to as Marion Germplasm Dillenius' tick-trefoil to document its original collection location. It has been assigned the NRCS accession number 9005087.

This alternative release procedure is justified because there is an immediate need for native legumes as alternatives for non-native species for wildlife habitat enhancement.

Collection Site Information: Seed was collected in 1988 from Marion County, Illinois by B. H. Rountree. The collection site was in Major Land Resource Area (MLRA) 113, Plant Hardiness Zone (PHZ) 5B. The mean annual precipitation was 91 cm (36 inches). The original plants were grown from this seed then transplanted into evaluation plots.

Description: Marion Germplasm Dillenius' tick-trefoil is a multi-stemmed, native perennial legume that grows up to 12 dm (47 in) tall. Stems are erect to somewhat prostrate and somewhat villous. Stipules are slender. The petioled, trifoliate leaves are 10 – 25 cm (4 – 10 in) long. Leaflets are lanceolate, entire (not toothed), appressed-hairy above that generates a rougher texture than the sparsely villous and paler underside. The flowers are pink to purple, 6 – 13 mm (¼ - ½ in) long, and loosely clustered in terminal and axillary racemes. The fruit pods contain 1 to 5 segmented units covered with hooked hairs.

Method of Selection: Forty-nine collections of tick-trefoil (various species) were assembled from 8 states and 16 MLRAs. 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. See the attached *Data to Support Release of Marion Germplasm Dillenius' tick-trefoil* for additional information.

Environmental Impact Assessment: Marion Germplasm Dillenius' tick-trefoil is a selection of naturally occurring germplasm and has been unaltered. Marion Germplasm did not meet the assessment of a plant which could become invasive based on the environmental evaluation process adopted by the NRCS Plant Materials Program.

Anticipated Conservation Use: Marion Germplasm is intended for use in wildlife food plots as an alternative to introduced plant species. Seed from *Desmodium* species is used as a food source by several upland gamebirds and songbirds.

Anticipated Area of Adaptation: The anticipated area of use of Marion Germplasm is within the Great Lakes region, which is well within the species range. Marion Germplasm inhabits dry, sandy, open woods and slightly shaded areas.

Availability of Plant Materials: Generation 1, equivalent to Foundation Seed, will be maintained by the USDA NRCS Rose Lake Plant Materials Center, East Lansing, MI and is available in limited quantities to interested parties for increase purposes.

References:

Gleason H. 1963. *The New Britton and Brown Illustrated Flora. Vol. 3.* New York: Hafner Publishing Company. 595 pp.

Gleason H. and A. Conquist. 1991. *Manual of Vascular Plants of Northeastern United States and Adjacent Canada. 2nd Edition.* Bronx, New York: The New York Botanical Garden. 910 pp.

Newcomb, L. 1977. *Newcomb's Wildflower Guide.* New York: Little, Brown and Company. 490 pp.

Voss, E. 1985. *Michigan Flora. Part II, Dicots.* Cranbrook Institute of Science Bulletin 59 and University of Michigan Herbarium. Ann Arbor, MI: Cranbrook Institute of Science. 724 pp.

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Signatures for release of:

Marion Germplasm Dillenius' tick-trefoil [*Desmodium glabellum* (Michx.) DC.]

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East Lansing, MI

Date

Michael Hubbs, Ecological Sciences Division Director
United States Department of Agriculture
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Date

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