



Marion Germplasm Dillenius' tick-trefoil in flower. Photo by Sergio A Perez

NOTICE OF RELEASE OF

DILLENIOUS' TICK-TREFOIL

A selected class of natural germplasm

John W Leif, John C Durling,
and David W Burgdorf

ABSTRACT

A selected germplasm of Dillenius' tick-trefoil (*Desmodium glabellum* (Michx.) DC. [Fabaceae]) has been released for improvement of wildlife habitat in the Great Lakes region.

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KEY WORDS

Desmodium glabellum, Fabaceae, Marion Germplasm

NOMENCLATURE

USDA NRCS (2009)



Species | *Desmodium glabellum* (Michx.) DC.

Common Name | Dillenius' tick-trefoil

Plant Symbol | DEGL4

Accession number | 9005087

A selected germplasm of Dillenius' tick-trefoil (*Desmodium glabellum* (Michx.) DC. [Fabaceae]) has been released with the intent of improving wildlife habitat in 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.

Marion Germplasm Dillenius' tick-trefoil seedpods. Photo by Sergio A Perez

JUSTIFICATION

Marion Germplasm is released as a selected class of certified seed. This release procedure is justified because there is an immediate need for native legumes as alternatives to non-native species for wildlife habitat enhancement.

COLLECTION SITE INFORMATION

Seeds were collected in 1988 from Marion County, Illinois, by BH 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 in).

DESCRIPTION

Marion Germplasm Dillenius' tick-trefoil is a multistemmed, native perennial legume that grows to 119 cm (47 in) in height (Gleason and Conquist 1991). Stems are erect to somewhat prostrate and somewhat villous. Stipules are slender. The petioled, trifoliate leaves are 10 to 25 cm (4 to 10 in) long. Leaflets are lanceolate, entire (not toothed), appressed-hairy above, which generates a rougher texture than the sparsely villous and paler underside (Voss 1985). The flowers are pink to purple, 6 to 13 mm (0.2 to 0.5 in) in length, and loosely clustered in terminal and axillary racemes. The fruit pods contain 1 to 5 segmented units covered with hooked hairs (Newcomb 1977).

METHOD OF SELECTION

Forty-nine collections of tick-trefoil (various species) were assembled from 8 states and 16 MLRAs. In 1989, seeds from each collection were planted in a greenhouse for preliminary observation of growth characteristics. In 1990, plants from 40

of the collections were placed in propagation beds for a 2-y 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 5 selected accessions. The Marion collection and 2 other accessions were selected for increase due to their superior survival, emergence, vigor, and foliage abundance.

ECOLOGICAL CONSIDERATIONS

Marion Germplasm Dillenius' tick-trefoil is a selection of naturally occurring germplasm and has been unaltered. Based on the environmental evaluation process adopted by the NRCS Plant Materials Program, Marion Germplasm did not meet the assessment criteria of a plant that is likely to become invasive.

ANTICIPATED CONSERVATION USE

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

ANTICIPATED AREAS 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 (Gleason 1963; USDA NRCS 2009).

AVAILABILITY OF PLANT MATERIALS

Generation 1 (G1), equivalent to Foundation Seed, will be maintained by the USDA NRCS Rose Lake Plant Materials Center, East Lansing, Michigan, and is available in limited quantities to interested parties for increase purposes.

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