

UNITED STATES DEPARTMENT OF AGRICULTURE  
NATURAL RESOURCES CONSERVATION SERVICE  
ELSBERRY, MISSOURI

and

MISSOURI DEPARTMENT OF CONSERVATION  
JEFFERSON CITY, MISSOURI

**NOTICE OF RELEASE OF NORTHERN MISSOURI GERMPLASM  
TICK TREFOIL  
SOURCE IDENTIFIED CLASS OF NATURAL GERMPLASM**

The Natural Resources Conservation Service (NRCS), U.S. Department of Agriculture, and the Missouri Department of Conservation (MDC) announce the release of a source identified ecotype of Tick Trefoil (*Desmodium spp.*) for Northern Missouri counties.

As a source identified release, this plant will be referred to as Northern Missouri Germplasm tick trefoil to document its original collections. Northern Missouri Germplasm tick trefoil is released as a source identified type of certified seed (natural track). It has been assigned the NRCS accession number 9079012.

This alternative release procedure is justified because there are no existing commercial sources of tick trefoil collected from numerous native sites throughout this specific region. Propagation material of specific ecotypes is needed for roadside plantings and prairie restoration and enhancement. The potential for immediate use is high.

**Collection Site Information:** Collections were taken from native prairie remnants within the counties in Missouri north of the Missouri River.

**Ecotype Description:** Tick trefoil is a tall (1.3m) native perennial warm-season legume; one of three leaflets, usually 3-8 times as long as broad, mostly linear-lanceolate to lanceolate; lower surface of leaflets with hairs, when present usually opened (lying parallel to the surface pressed against it); stems nearly glabrous; leaves cloverlike (3 long-oval leaflets); flowers small and papilionaceous, terminal or axillary racemes in summer, mostly purple; blossoms (1/2 in.) in clusters at the summit of a hairy, leafy stem; calyx with a short tube, more or less two-lipped; wings joined to the knee; pod flat, deeply lobed or jointed, the joints often breaking apart and adhering to clothing and animals by means of small hooked hairs; fruit has 3 or more segments; calyx 3mm long or longer;

The most dominant species among this release is *Desmodium canadense*. Since the desmodium prairie species are very similar, *Desmodium illinoense*, *Desmodium canescens*, *Desmodium sessifolium*, *Desmodium rigidum*, and *Desmodium paniculatum* may also be present. *Desmodium canadense* differs from *Desmodium illinoense* by having a branched inflorescence with larger flowers that are rose-purple and change to blue with age. *Canadense* is a

more robust plant and has a fruit with one straight margin or one curved or obtusely angled margin. Articles are densely pubescent. Tick trefoil is opened pollinated.

**Ecological Considerations and Evaluation:** Northern Missouri Germplasm tick trefoil is a collection of naturally occurring germplasm and has been unaltered. Northern Missouri Germplasm tick trefoil did not meet the assessment of a plant that could become invasive based on guidelines adopted by the NRCS Plant Materials Program. It does not differ in rate or spread, seed production, and vigor from naturally occurring tick trefoil. Northern Missouri Germplasm tick trefoil was “okay to release” when evaluated through the “Worksheet for Conducting an Environmental Evaluation of Plant Materials Releases”.

**Anticipated Conservation Use:** Tick trefoil can be used in a range seeding, a pasture seeding, prairie restoration, prairie landscaping, and wildlife food, cover and roadside plantings.

**Potential Area of Adaptation:** Tick trefoil occurs in prairies, wet meadows in valleys, along spring branches and open thickets. Northern Missouri Germplasm tick trefoil is found throughout northern Missouri north of the Missouri River in MLRA’s 107-109, 113, and 115. It lies within USDA plant hardiness zones 4b, 5 and 6a.

**Availability of Plant Materials:** G1 material is being produced in limited supply by the Elsberry Plant Materials Center. For information contact USDA, NRCS, Plant Materials Center, 2803 N. Hwy 79, Elsberry, Missouri 63343 (573 898-2012).

**References:**

Flora of Missouri; p. 912; Steyermark, J.A.; Iowa State University Press, Ames, Iowa, 1968.

A Field Guide to Wildflowers; p. 224, 248; Peterson, R.T. and McKenny, Margaret, Houghton Mifflin Company, Boston, Mass, 1968.

Wildflowers of the Tallgrass Prairie, The Upper Midwest, p. 165; Runkel, Sylvan T. and Roosa, Dean M.; Iowa State University Press, Ames, Iowa, 1986.

Guide to the Vascular Flora of Illinois; p. 297; Mohlenbrock, Robert H.; Southern Illinois University Press, Carbondale and Edwardsville, Illinois, 1986.

Tallgrass Prairie Wildflowers; pp. 65, 97, and 191; Ladd, D.; Falcon Press Publishing Co., Helena and Billings, Montana, 1995.

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**Signatures for release of:**

**Northern Missouri Germplasm tick trefoil (*Desmodium spp.*)**

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Date

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