

USDA-NATURAL RESOURCES CONSERVATION SERVICE

NOTICE OF RELEASE

OF

ALEXANDER GERMPLOSM TICK TREFOIL, *DESMODIUM CANADENSE* L.

The United States Department of Agriculture (USDA) - Natural Resources Conservation Service (NRCS), Plant Materials Center (PMC) at Elsberry, Missouri announces the release of Alexander Germplasm Showy Tick Trefoil, *Desmodium canadense* L. DC., as "SELECT CLASS" for wildlife food and cover.

Alexander Germplasm has been assigned the NRCS accession number 9057110

Origin:

Alexander County, Illinois

Ecotype Description:

Showy tick trefoil is a tall (1.3 m) native perennial warm-season legume; one of three leaflets (leaflets are 1/2 to 4 inches long), 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 (with-out hairs); leaves cloverlike (three 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 to animals by means of small hooked hairs; fruit has three or more segments, resembling a flattened chain of beads; calyx 3 mm long or longer; *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 and one curved or obtusely angled margin. Articles are densely pubescent. Tick trefoil is open pollinated and occurs in prairies, wet meadows in valleys, along spring branches, and open thickets. Tick trefoil ranges from Quebec, Canada to North Dakota and Saskatchewan, south to Virginia, West Virginia, Ohio, Indiana, Illinois, Missouri, and Oklahoma.

Development:

Alexander Germplasm was selected out of an assembly of twenty-seven (27) collections of tick trefoil planted on the Plant Materials Center. After ten years of comparative evaluations, this accession was selected based on the following characteristics: Ease of establishment, seedling vigor, lodging, effectiveness of ground cover, quantity of seed production, and insect and disease resistance.

Seed Production:

Alexander Germplasm was the best seed producer of all the accessions included in this assembly from the tri-state area being served by the Elsberry PMC (Iowa, Illinois and Missouri). Average seed production ranges from 200-250 bulk pounds per acre from well managed stands. Establishment of tick trefoil is relatively easy when using scarified inoculated seed ("EL" culture).

This selection has approximately 150,000 clean seeds per pound. Average weight of a bushel of seed of tick trefoil is 60 pounds.

Establishment:

When establishing a planting of tick trefoil use scarified inoculated seed and plant at a rate of 3-4 pounds pure live seed (PLS) per acre (wildlife planting). Seed should be placed at a depth of not more than 1/4 inch in a firm seedbed. A brilliant seeder works well in the seeding operation, although other types of seeders or drills may be used.

For grassy weed control use Poast herbicide and follow label recommendations, as herbicide weed control will encourage a good stand. **Note:** This herbicide product may not be registered for this legume species in your state.

Site Description:

This collection was made from a native stand of tick trefoil located in Alexander County near the town of Mounds, Illinois in Section 14, Township 18 South, Range 1W.

Climate:

The average annual temperature for Alexander County, Illinois is 60 degrees Fahrenheit. July is the warmest month with an average high of 90 degrees and low of 72 degrees. January is the coldest month with an average high of 45 degrees and low of 30 degrees. The average annual precipitation for this region is 45 inches which is fairly uniformly distributed throughout the year. The average frost-free growing period runs from April 5 to October 30.

Availability of Plant Materials:

Breeders material is being produced by the Plant Materials Center, Elsberry, Missouri. Seed is available in limited supply.

Release Approved By:

Roger A. Hansen, Missouri State Conservationist, NRCS
Chairman, Plant Materials Advisory Committee

Date: 10-2-97

William Gradle, Illinois State Conservationist, NRCS

Date: 10-29-97

Leroy Brown, Iowa State Conservationist, NRCS

Date: 10-21-97

References:

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

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