



United States Department of Agriculture  
Natural Resources Conservation Service  
Plant Materials Program

# Grant Germplasm Panicleleaf Tick-Trefoil

*Desmodium paniculatum* L.

A Conservation Plant Release by USDA NRCS Rose Lake Plant Materials Center, East Lansing, MI



Grant Germplasm Panicleleaf Tick-Trefoil in bloom

The U.S. Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS), Rose Lake Plant Materials Center, Wisconsin Land & Water Conservation Association, Inc, and the Wisconsin Department of Natural Resources announce the release of a tested ecotype of panicleleaf tick-trefoil (*Desmodium paniculatum* (L.) DC.) for the Great Lakes Region.

## Description

Grant Germplasm Panicleleaf Tick-Trefoil is a multi-stemmed, native perennial legume that grows up to 47 inches tall. The thin branching stems of flower clusters rise above pointed, tri-part leaves. The flowers bloom July thru August and are pink to purple pea flowers in doubly branched clusters atop stems. The fruit is a 3-6 segmented pod covered with hooked hairs. The pod breaks into single-seed segments at maturity.

The common name of this species tells quite a bit about the plant. "Panicle" refers to the branched flower cluster, "Tick" refers to the segments of the fruit that break off and cling to clothing and "Trefoil" means "three leaves."

## Source

Forty nine collections of tick-trefoil (various species) were assembled from 8 states and 16 Major Land Resource Areas. Seed 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 propagations 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 Grant 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 Grant collection and two others accessions were selected for increase due to their superior survival, emergence, vigor, and foliage production.

## Conservation Uses

Grant Germplasm is intended for use in wildlife food plots as an alternative to introduced plant species. Seed from *Desmodium* species are used as a food source by several upland game birds and songbirds. Grant Germplasm is also an excellent deer browse.

## Area of Adaptation and Use

This species range is throughout northern North America. The anticipated area of use is within the Great Lakes regions, which is well within the species range. Grant Germplasm inhabits dry, sandy, open woods and slightly shaded areas.



*Desmodium* plant



Close-up of *Desmodium* in bloom

### Establishment and Management for Conservation Plantings

A clean, firm seedbed is essential for establishing panicled leaf 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 1/8" to 1/4" 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 inoculants supplier for recommendations on specific *Rhizobium* strains for panicled leaf tick-trefoil. Seeding rates for panicled leaf tick-trefoil should be 2 to 4 oz. pure live seed per acre 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 seedlings. For grassy weed control use a grass herbicide and follow label directions, as 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

Grant Germplasm Panicled leaf 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 seeds by hand or with a combine 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

Foundation seed will be maintained by the USDA-NRCS Rose Lake Plant Materials Center and is available in limited quantities to commercial growers.

*For more information, contact:*  
Rose Lake Plant Materials Center  
7472 Stoll Rd., East Lansing, MI 48823

Phone: 517-641-6300  
Fax: 517-641-4421

### Citation

Release Brochure for Grant Germplasm Panicled leaf Tick-Trefoil, *Desmodium paniculatum*, USDA-NRCS Rose Lake Plant Materials Center, East Lansing, MI 48823 Published August, 2006. Revised January, 2012.

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/>>

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