



# Grant Germplasm panicledleaf tick-trefoil

*Desmodium paniculatum* (L.) DC.



*Grant Germplasm Panicledleaf Tick-Trefoil in Bloom*

Grant Germplasm panicledleaf tick-trefoil was released in 2006 by the USDA-NRCS Rose Lake Plant Materials Center (PMC), the Wisconsin Land & Water Conservation Association, and the Wisconsin Department of Natural Resource as a tested-class ecotype for the Great Lakes region.

### Description

Grant Germplasm panicledleaf tick-trefoil is a multi-stemmed, native, perennial legume that grows up to 4-feet tall. The thin branching stems of flower clusters rise above pointed, tri-part leaves. Pink to purple pea-type flowers bloom from July through August in doubly branched clusters atop stems. The fruit is a 3- to 6-segmented pod covered with hooked hairs. The pod breaks into single-seed segments at maturity.

Panicledleaf tick-trefoil is an apt descriptor for this 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 eight 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 Germplasm collection and two others accessions were selected for increase due to their superior survival, emergence, vigor, and foliage production.

### Conservation Uses

Seed from *Desmodium* species including Grant Germplasm is a food source for upland game birds and songbirds and herbage is an excellent deer browse. Michigan NRCS technical specialists have determined that Grant Germplasm is useful or potentially useful with these Conservation Practice Standards:

- Conservation Cover (327)
- Critical Area Planting (342)
- Early Successional Habitat Development/Management (647)
- Field Border (386)
- Forage and Biomass Planting (512)
- Forest Trails and Landings (655)
- Hedgerow Planting (422)
- Restoration and Management of Rare or Declining Habitats (643)
- Road/Trail/Landing Closure and Treatment (654)
- Upland Wildlife Habitat Management (645)

### Area of Adaptation and Use

This species’ range is throughout northern North America. The area of use for Grant Germplasm is within the Great Lakes region, 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 panicledleaf 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 to a depth of  $\frac{1}{8}$  to  $\frac{1}{4}$  inch. 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 panicledleaf tick-trefoil. Seeding rates for panicledleaf tick-trefoil should be 2 to 4 oz/a PLS 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 good 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 reduce seed production. White mold has been observed on some *Desmodium* species.

### **Seed and Plant Production**

Grant Germplasm panicledleaf 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 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**

Grant Germplasm panicledleaf tick-trefoil, as well as other Rose Lake PMC releases, is available from commercial suppliers. Rose Lake PMC does not sell releases to the general public, although small quantities of seed are available to commercial seed or nursery growers for increase purposes.

*For more information, contact:*  
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### **Citation**

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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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