

## SHOWY TICK TREFOIL

*Desmodium canadense* (L.) DC.  
plant symbol = DECA7

**Contributed by:** USDA, NRCS, Plant Materials Program

### Description

Showy tick trefoil, *Desmodium canadense* is a tall 4 feet (1.3 m) native perennial warm-season legume that is widely distributed; occurs in prairies, wet meadows in valleys along spring branches and open thickets primarily silt loam sites. Its leaves are clover-like, made up of 3 long-oval leaflets that are ½ to 4 inches long (usually 3 to 8 times as long as broad). The lower surface of the leaflets is covered with dense hairs; stems have fewer hairs. Showy tick trefoil flowers are small and purple; the ½-inch blossoms occur in clusters atop hairy stems. Showy tick trefoil is open-pollinated. Seed pods are flat, deeply lobed or jointed, the joints often breaking apart and adhering to clothing and to animals by means of small hooked hairs; the pods have three or more segments, resembling a flattened chain of beads. *Desmodium canadense* differs from *Desmodium illinoense* by having a branched inflorescence with larger flowers that are rose-purple and change to blue with age. *D. canadense* is a more robust plant and has a fruit with one straight margin and one curved or obtusely angled margin.



### Improved Cultivars

Seed of Alexander Germplasm showy tick trefoil was collected from a native stand in Southern Illinois in Alexander County. It was selected from 27 accessions for its vegetative characteristics, excellent seeding vigor, and high quantity of seed production. It was released by the Elsberry PMC in 1997. Alexander prefers silt loam soils, but is adapted to heavier clay soils.

### Uses

Showy tick trefoil is used for wildlife food and cover. The fruit is eaten by wild turkey, bobwhite quail, pheasants, and other birds. The leaves are browsed by deer, rabbits, and livestock. They are nutritious and high in protein and energy. Alexander is also considered good cover and escape habitat for small animals and birds. It can provide some winter cover from snow by remaining somewhat rigid in structure until the following spring when growth resumes.

### Adaptation

Showy tick trefoil occurs in prairies and wet meadows, along spring branches, and in open thickets. It ranges from Quebec to North Dakota and Saskatchewan, south to Virginia, West Virginia, Ohio, Indiana, Illinois, Missouri, and Oklahoma.

For a current distribution map, please consult the Plant Profile page for this species on the web site [www.plants.usda.gov](http://www.plants.usda.gov)

The species is adapted to a wide range of soil types, but prefers silt loam soils that are well drained, full sunlight to partial shade. It is a medium lived perennial native warm season legume.

## Establishment

Prepare a clean weed free seedbed by disking and harrowing. Firm the seedbed by cultipacking. Seedbed should be firm enough to allow the seed to be planted 1/4 inch deep. A brilliant seeder works well in the seeding operation, although other types of seeders or drills may be used. Seeding dates are similar for other native warm season legumes. Spring (April to May), or dormant seeding (November to March). Scarify seed and inoculate with EL culture if possible.

**Wildlife Planting** seeding rate for showy tick trefoil as a single species is 5# Pure Live Seed (PLS) per acre. In a mixture with other species 2# PLS/acre is adequate.

**Seed Production** rates are 12 Pure Live Seeds (PLS)/ row foot and that equals 2# PLS/acre in 36 rows. Scarified inoculated ("EL" Culture) seed should be used when possible. There are approximately 88,000 clean seeds in one pound of showy tick trefoil. The 2# PLS/acre rate in 36 inch rows has been successful in production plots at the Elsberry PMC yielding 125#PLS/acre. The seedlings are vigorous; therefore, new plantings can be established quickly. The production plot planted at the Elsberry PMC resulted in a harvest in the same year. It is ordinarily ready for harvest from September in the South to October in the northern part of the region. Since the seed does shatter when mature, harvesting should be considered when observations reveal some early shattering. Harvesting can be done mechanically using a combine.

## Management

Selective **herbicides** will provide weed control and encourage a good stand when planted as a single species. Pursuit (imazethapyr) was used preemergence on production plots at the Elsberry PMC just after planting for broadleaf weed control. Poast (sethoxydim) was used for annual grass control, post emergence. All herbicides need to be applied according to label. **Note:** These herbicide products may not be registered on this legume species in your state. Reduce weed competition by mowing at a height that will not affect the tick trefoil seedlings. Mowing of escape weed competition will enhance the stand during the establishment year to provide sunlight to the developing seedlings.

**Fertilizer:** Apply no fertilizer the establishment year unless soil test indicates a severe deficiency of potassium and/or phosphorus. Use no nitrogen during the establishment year as this can encourage weed competition. The soil pH needs to be above 5-7 range for this legume.

## Environmental Concerns

The fruit's point of attachment to the parent plant is loose enough that it can easily attach to fur or clothing, so transporting of the fruit can easily be dispersed from the planted site. The plant species can propagate from seed that is dispersed.



Cleaned Seed

## Contributed by:

Jerry Kaiser  
Plant Materials Specialist, USDA-NRCS  
Elsberry, Missouri

Steven Bruckerhoff  
Plant Materials Center Manager, USDA-NRCS  
Elsberry, Missouri

For additional planting guides of other species visit the Web at <http://Plant-Materials.nrcs.usda.gov>

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