Forbs Legumes

showy ticktrefoil

Desmodium canadense, (L.) DC.

Alternate Common Names

tick clover, Canadian tick trefoil, showy tick-trefoil, Canadian tick-trefoil, Canada ticklover

Scientific Synonym

Meibomia canadensis (L.) Kuntze

Functional Group

legumes

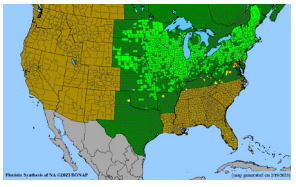
Family

legume and pea family (Fabaceae (Leguminosae))

Description

- **Life cycle/growth form:** Perennial from a woody taproot.
- **Height:** 2-6 ft
- **Leaves and stem:** Leaves alternate, divided into three leaflets with rounded base and pointed tips, with sticky (hooked) hairs on undersides and narrow pointed bracts (stipules) on either side of the leaf petiole. Petiole is shorter than the stalk of the terminal leaflet (in contrast to Illinois ticktrefoil). Stem is usually unbranched, hairy.
- **Flower:** Irregular, pea-shaped, 1/2 in long flowers, pink-purple with 2 yellow spots near the base of the upper lobe, arranged in spike-like racemes from stem tip and upper leaf axils.
- **Fruit/seed head:** Fruits are jointed pods called loments, 1-2.5 in long, covered in tiny hooked hairs to latch onto passing mammals, with 3-5 sections each containing one bean-like seed.
- **Pollination:** bees

Habitat and Range



Dry-mesic to wet-mesic soil; full sun; prairies, shorelines, woodland openings, roadsides, prairie remnants. Wetland Indicator Status is Facultative Upland (FACU) for the Midwest. Moist, fertile, well-drained loamy soils are preferred for seed production.

Conservation Status

Global- G5, secure; Delaware and Maryland- SH, possibly extirpated; Virginia- S1, critically imperiled; Kansas- S3, vulnerable (NatureServe)

General Comments

Showy ticktrefoil is an important component of black soil prairies, increasing with spring burning. Its seeds are an important food source for upland game birds.

Establishment for Seed Production (Appendix A)

Direct seeding:

Row spacing:	30-36 in	7 in and solid stand
PLS lbs/acre:	2.0	6.0

- **Seeding depth:** 1/4 in
- **Seeding method:** native seed drill
- **Seeding time:** Dormant fall seeding of unscarified seed. Scarify and inoculate seed for spring planting (Desmodium EL inoculum).
- **Weed control:** Prepare clean, firm, weed free seedbed prior to seeding.

Greenhouse:

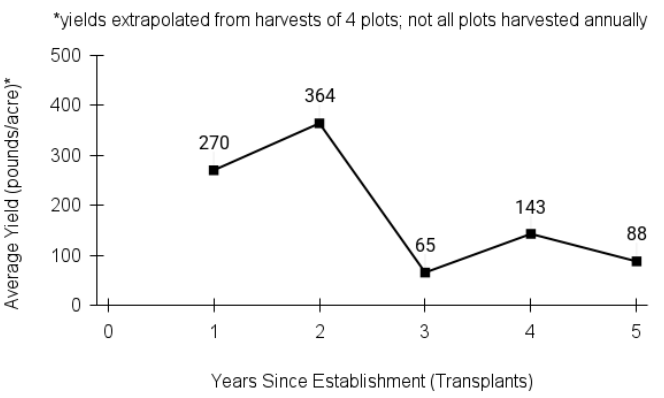
- **Seed pre-treatment:** Scarify seed (see Propagation of Native Species: Seed Treatments). Moist stratification generally isn't required, but seed should be stored in dry, cold conditions until sowing.
- **Sowing:** Sow seed in greenhouse two months before last frost free date. Inoculate seed with appropriate rhizobium at time of sowing, if desired. Seedlings form a fleshy taproot with few lateral roots unless allowed to grow until taproot is air-pruned as it reaches the bottom drainage holes of the container. Plug flats with vertical grooves and wide drainage holes facilitate air-pruning.
- **Transplanting:** When plants have sufficient root development to form sturdy plugs and danger of frost is past, transplant into bare soil in rows convenient for tillage equipment or into a weed barrier at 8-12 in intervals. Use care when transplanting to keep soil intact around the root system.

Stand Management

- **Weeds:** For direct seedings, mow stand above showy ticktrefoil seedling height during establishment year to reduce weed competition and increase light to seedlings. Poast (sethoxydim) herbicide can be used for annual grass control, post emergence. Pursuit (imazethapry) can be used post-seeding for broadleaf weed control. Note: These herbicides may not be labeled for this species in your state, always check the label and follow recommendations.
- **Pests:** Invasive Japanese beetles form feeding clusters on the inflorescences and in bad years can decimate flowering and seed production. For small scale production systems, a perimeter of beetle traps spaced about 5 m apart surrounding the plot can reduce damage. Traps are constructed of pheromone lures in funnels mounted atop 5-gallon buckets of soapy water. Seed weevils may infest and seriously curtail seed production. Aphids cause distortion of shoot tip growth and may inhibit flowering. Herbivory by deer, rabbits, and groundhogs may be an issue on young plants.
- **Diseases:** Powdery mildew may affect foliage.

Seed Production (Appendix B)

- **First harvest:** Seedling growth is vigorous, and flowering and seed set may occur at end of first growing season from greenhouse grown transplants and well managed direct seeded stands.
- **Yield:** 60-360 bulk pounds/acre (extrapolated from harvests of 4 plots; not all plots harvested annually)
- **Stand life:** Stand may persist for 5 -10 years.
- **Flowering date:** mid-July - mid-August in northern Iowa
- **Seed maturity/Harvest date:** Month spelled out
- **Seed retention:** Low risk of shattering; most seed loss begins late September into October
- **Harvest date range at TPC (2003-2021):** Sept 1 - Oct 10
- **Recommended harvest method:** Combine. Devise a system for collecting clumps of the sticky pods that don't pass through the sieves and are ejected out the back of the combine.



Seed Cleaning Process (Appendix C)

Use a brush machine to remove hulls (loments). Re-brush any seed still in the hull, if necessary. Airscreen to clean (see Appendix C for settings).

Seed Characteristics (Appendix D)

- **Seeds per ounce:** 5,500 (IA NRCS)
- **Seeds per pound:** 88,000 (IA NRCS)
- **1000 seed weight:** 5.11 g (Seed Information Database)
- **Description:** Seeds are small beans, about 2.5-3 mm (about 1/8 in), olive green to tan.
- **Seed storage:** Cool/dry (33-50° F, 30-50% RH)
- **Typical seed test:**

  PLS: 95% (n = 11)
  Purity: 100% (n = 11)
  Germination: 76% (n = 10)
  Hard: 10% (n = 10)
  (averages obtained from n tests of purchased seed lots)

Released Germplasm

- **Source Identified material:** Natural Selections/Iowa Ecotype Project Zone 1 (northern Iowa), Zone 2 (central Iowa), and Zone 3 (southern Iowa)
- **Selected germplasm:** Alexander Germplasm (IL).

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Species Updated: 12/04/2025

Notes