



Cicer milkvetch

Astragalus cicer (aka Chickpea milkvetch)

Provincial Designation:
Not Regulated



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Overview:

Cicer milkvetch is a long-lived perennial legume introduced from Europe. It reproduces both by seed and vegetatively from rhizomes.² Young plants develop a short, branched taproot and a dense mass of thick rhizomes. Cold-hardy underground root crowns prevent plants being damaged by frost. Flowers are pollinated by bees.¹ Seeds have a hard coat and require some method of scarification for germination but this also increases seed longevity.²

The purpose of introduction of cicer milkvetch was for pasture and forage but initially proved difficult to establish.¹ Development of new cultivars with better establishment has led to its favour as a safe, no-bloat legume for cattle grazing.³ This has also increased cicer milkvetch's wide range of adaptation. Trials in the US have shown good performance from coastal locations of Alaska to the Central Plains, the Rocky Mountains, and Cascade-Sierra ranges. As a forage crop, cicer milkvetch has nutrient levels similar to alfalfa but a higher leaf to stem ratio and leaf retention.¹

It is also popular in reclamation mixes because it is a nitrogen fixer, its prolific root system stabilizes soil, and can be used at high elevations - cicer milkvetch requires only 30 days of frost free growth per season.¹ Under favourable conditions plants can spread 1.2 m in diameter over a season. These 'swales' of cicer milkvetch smother other vegetation.

Cicer milkvetch is not widely considered to be invasive yet, but naturalized, expanding populations do exist in Alberta.

Habitat:

Cicer milkvetch will grow in all soil textures from clay to sand but does best on moderately coarse textured soils.¹ It tolerates slightly alkaline soils (pH 6.0-8.1)² and is moderately salt tolerant. It does well on wet sites but can also tolerate drought.¹

Identification:

Stems: Are hollow and grow upright early in the season, becoming decumbent or prostrate and trailing with growth, and grow 70-

120 cm in one season.²

Leaves: Are pinnately compound with 10-13 pairs of leaflets plus one terminal leaflet. Leaflets range from 1.5-4 cm long.¹

Flowers: The inflorescence is composed of 15-60 pale yellow to white flowers growing in a compact raceme. Seed pods are bladder shaped, contain 8-10 seeds, and turn black at maturity. Seeds detach within the pod and rattle. Pods can remain intact through the winter. Seeds are bright yellow or pale green and about 4 x 2 mm.¹

Prevention:

Cicer milkvetch is a poor competitor when plants are young therefore healthy, desirable vegetation will be resistant to cicer milkvetch establishment. Do not use cicer milkvetch in seed mixes to be used in or adjacent to natural areas. Mature stands can out-compete many grasses.

Control:

Grazing: Not applicable. Invasive plants should never be considered as forage.

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Mechanical: No information on tested control methods on cicer milkvetch are available. The energy reserves of the extensive root system would need to be depleted to kill plants. Repeated removal of top growth over the growing season might be effective.

Chemical: Currently no selective herbicides are registered for use on cicer milkvetch. Always check product labels to ensure the herbicide is registered for use on the target plant in Canada by the Pest Management Regulatory Agency. Always read and follow label directions. Consult your local Agricultural Fieldman or Certified Pesticide Dispenser for more information.

Biological: None researched to date.



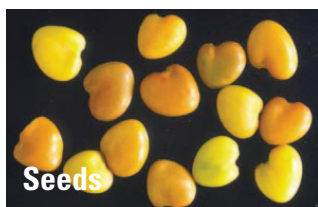
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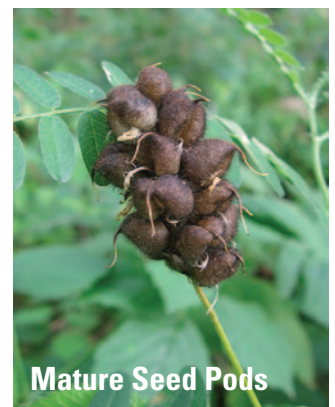
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REFERENCES

- 1 Cicer milkvetch. Plant Guide. USDA Natural Resources Conservation Service. www.nrcs.usda.gov
- 2 Cicer milkvetch. Alberta Agriculture and Rural development. [www1.agric.gov.ab.ca/Sdepartment/deptdocs.nsf/all/faq11270/\\$file/cicer_milkvetch.pdf](http://www1.agric.gov.ab.ca/Sdepartment/deptdocs.nsf/all/faq11270/$file/cicer_milkvetch.pdf)
- 3 Tough to Establish But Tough to Kill Once it Grabs Hold. Posted April 5, 2010. www.agcanada.com/canadiancattlemen/2010/04/05/