

# COMMON CHICKWEED

*Stellaria media* (L.) Vill.

**Family:** Caryophyllaceae (Pink).

**Other Scientific Names:** None.

**Other Common Names:** Common starwort.

**Legal Status:** Not categorized.



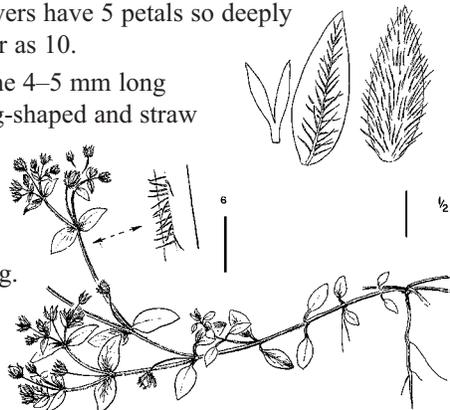
## Identification

**Growth form:** Annual to winter annual forb.

**Flower:** The stalked flowers arise either singly from the leaf axils or in small clusters at the end of the stems. The small (6 mm across), white, star-shaped flowers have 5 petals so deeply cleft they appear as 10.

**Seeds/Fruit:** The 4–5 mm long capsules are egg-shaped and straw coloured and contain many tiny reddish brown seeds 0.9–1.3 mm long.

**Leaves:** Basal leaves are absent. The fleshy stem leaves are opposite, oval, entire, and covered in hairs. The lower leaves are stalked, but the upper leaves are stalkless.



**Stems:** Stems usually are prostrate but may be upright. They are much branched and round in cross-section and have a conspicuous line of hairs on one side. Stems frequently root at the swollen nodes.

**Roots:** Roots are a slender rhizome that break easily when pulled.

**Seedling:** Seedlings have opposite, fleshy leaves that are oval with pointed tips. The first pair of leaves has a fringe of white hairs on the stalk (Royer and Dickinson 1999).

### Similar Species

**Exotics:** Grass-leaved starwort (*Stellaria graminea*) is found in the province, but common chickweed is distinguished by its broad leaves and line of hairs on one side of the stem. Mouse-ear, or field chickweed (*Cerastium arvense*), is a similar mat-forming weed, but it is a much hairier plant.

**Natives:** There are a number of native starworts (*Stellaria* sp.), but none have the line of hairs on one side of the stem.

## Impacts

**Agricultural:** This is a problematic weed in cultivated crops, gardens, and lawns. Its early, rapid spring growth can smother seedling crops, while its shade tolerance allows it to persist in tall crops, such as cereals. The succulent leaves remain green after cutting and tangle on moving parts of harvest equipment. Detached chickweed plants can re-sprout, and during cool, wet weather the mats will grow on harvested

swaths, delaying harvesting and complicating pickup (Alberta Agriculture 1995).

**Ecological:** Not competitive in established plant communities, though under cool, moist conditions it can establish on disturbed sites.

**Human:** No information available.

## Habitat and Ecology

**General requirements:** Chickweed is shade tolerant and well adapted to fertile soils and moist, cool growing conditions. In BC, it grows in grain fields,

cultivated fields, pastures, gardens, and disturbed habitats at low- to mid-elevations.

**Distribution:** Chickweed is present in all agricultural

reporting regions of the province. It is found across Canada and in much of the world (Frankton and Mulligan 1970).

**Historical:** Introduced from Europe.

**Life cycle:** Chickweed can germinate in both spring and autumn, although the winter annual form occurs only in mild climates. Plants grow quickly and begin flowering 4–5 weeks after emergence. The plant may also germinate throughout the growing season if weather conditions are favourable (Alberta Agriculture 1995).

**Mode of reproduction:** Mainly by seed, but plants can root at the nodes of the stems in moist, loose soil.

**Seed production:** Flowering continues over a long time and seeds mature quickly after flowering. A single plant can produce 15,000 seeds in a growing season (Cranston et al. 2000).

**Seed bank:** Seeds are immediately viable. Most seeds germinate within 3 years, but 30% are viable after 10 years (Royer and Dickinson 1999). Seeds require light to germinate, and deeply buried seeds can survive up to 60 years (Alberta Agriculture 1995).

**Dispersal:** Seeds can be transported on farm equipment and by contaminated soils. Ingested seeds can also be dispersed in animal manure.

**Hybridization:** None known.

## Management

**Biocontrol:** None.

**Mechanical:** Tillage can manage chickweed effectively, but different approaches are required for different situations. Shallow tillage is recommended in spring to encourage weed growth. It should be followed by a second tillage to remove the weed seedlings before seed-set. Autumn tillage will prevent seed production and overwintering, but plants should be deeply buried in the soil. Mowing is generally ineffective because the stems are so prostrate many flowers will be missed.

**Fire:** No information available.

**Herbicides:** Numerous herbicides can be used to manage this plant. Consult the most recent edition of BC Ministry of Agriculture, Food and Fisheries Crop Production Guides for specific recommendations.

**Before applying herbicides, read the label for full use and precautionary instructions.**

**Cultural/Preventive:** Common chickweed cannot compete with vigorous plant stands. Strong perennial crops can be used in rotation to suppress chickweed.

Vigorous annual crops can be produced by increasing seeding rates and by delaying seeding until emerging chickweed is managed. Similarly, thorough summerfallowing (spring and autumn) with repeated, deep tillage will give annual crops a competitive advantage.

### Integrated Management Summary

Chickweed infestations can be prevented or managed by maintaining competitive crops or perennial native plant communities. Management is achieved in established populations by stopping seed production and preventing plants from re-establishing after tillage. In temperate climates, where this weed is a winter annual, plant establishment and autumn seed production should be prevented.

## References

- Alberta Agriculture. 1995. Chickweed. <http://www.agric.gov.ab.ca/pests/weeds/64010020.html>
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- Frankton, C., and G. Mulligan. 1970. *Weeds of Canada*. Publication 948. Ottawa: Canada Department of Agriculture.

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