

SCENTLESS CHAMOMILE

Matricaria perforata Merat

Family: Asteraceae (Sunflower).

Other Scientific Names: *Matricaria maritima* var. *agrestis*;
Matricaria maritima var. *inodoura*.

Other Common Names: Scentless mayweed, false chamomile.

Legal Status: Provincial Noxious.



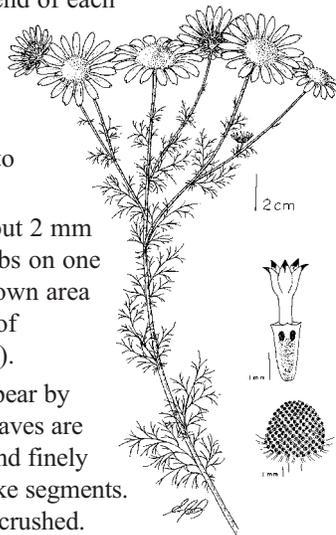
Identification

Growth form: Annual, biennial, or sometimes perennial forb.

Flower: Single white daisy-like flowers with yellow centres at the end of each stem. The numerous bracts of the flower head are arranged in overlapping rows. The receptacle lacks scales. Flowers from June to October.

Seeds/Fruit: Seeds are about 2 mm long, dark brown, with 3 ribs on one side and a broad central brown area on the other (BC Ministry of Agriculture and Food 1984).

Leaves: Basal leaves disappear by flowering time. The stem leaves are alternate, usually smooth, and finely divided into short, thread-like segments. Leaves are odourless when crushed.



Stems: Mature plants are 5–100 cm tall. The stems are erect to semi-erect, smooth, and branched.

Roots: Extensive, fibrous root system.

Seedling: The cotyledons (seed leaves) are rounded and stalkless. The first leaves are divided into narrow segments (Royer and Dickinson 1999).

Similar Species

Exotics: Several introduced plants have flowers and leaves similar to scentless chamomile. Leaves of wild chamomile (*Matricaria recutita*), stinking mayweed (*Anthemis cotula*), and pineapple weed (*Matricaria discoidea*) have a strong odour when crushed, while scentless chamomile leaves are almost odourless. Corn chamomile (*Anthemis arvensis*) has stems that are hairy below the heads, and the receptacle has scales (Frankton and Mulligan 1970). Oxeye daisy (*Leucanthemum vulgare*) has similar flowers, but the leaves on scentless chamomile are much more finely dissected.

Natives: None.



Impacts

Agricultural: Reduces yields in grain and seed fields, hayfields, pastures, and cultivated crops. On cropland, it is most problematic in areas with high soil moisture and minimal tillage (Harris and McClay 2001). It is unpalatable to livestock and can form dense stands in pastures and hayfields (Alberta Agriculture 1994).

Ecological: This plant is well adapted to heavy soils around shorelines and watercourses, and it germinates under periodic flooding conditions, which allows near monocultures to grow near ponds, streams, and other frequently flooded areas (Alberta Agriculture 1995).

Human: No information available.

Habitat and Ecology

General requirements: Grows from low- to mid-elevations in BC and is found on dry shorelines, roadsides, fencelines, disturbed areas, and perennial forage crops.

Distribution: Present in all of the province's

agricultural regions and is a major concern in the Kootenay, Okanagan, Peace River, and Thompson regions. It occurs in all provinces of Canada but is most common in the Maritimes and Prairies.

Historical: Introduced from Europe.

Life cycle: Annual, biennial, or short-lived perennial. Seedlings may emerge anytime from spring to autumn. The early-emerging plants flower during the year of germination, but later-emerging plants overwinter to develop into a large, multiple-branched plant. Flowering can occur from May to October, depending on geographic location, with overwintering plants flowering first. The plant has a long flowering season, and seeds are viable as soon as the flower is formed (Alberta Agriculture 1985).

Mode of reproduction: By seed.

Seed production: Up to a million seeds can be produced by each plant and up to 1.8 million seeds/m² can be produced in a dense stand (Alberta Agriculture 1995).

Seed bank: Seeds remain viable longer in undisturbed soil than in cultivated land.

Dispersal: Seeds float readily on water so that first infestations are often around watercourses (Alberta Agriculture 1985). Seeds also disperse in contaminated crop seed, in animal feed, and on equipment.

Hybridization: No information available.

Management

Biocontrol: The seed-head weevil (*Omphalapion hookeri*) and the stem-boring weevil (*Microplontus endentulus*) have both been released in BC. Monitoring is required to determine impact.

Mechanical: Frequent shallow tillage will manage seedlings effectively by encouraging germination of seeds after the current seedlings have been destroyed. Plants are less likely to re-establish if soils are tilled during hot, dry weather and before plants flower. Seed production can be reduced if plants are mowed before they flower in pastures, hay land, and non-crop land. Scentless chamomile produces new flowers below the cutting height of the swather. Mowing will be effective only if the stands are mowed early and often, with each successive mowing lower than the previous one (Alberta Agriculture 1997).

Fire: Burning seed heads can be effective to prevent spread.

Herbicides: Picloram, dicamba, and MCPP have been effective in non-crop areas. Apply herbicides early in the season before flowering. 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: Hand-pulling can prevent spread into new areas and can be effective on small infestations. Scentless chamomile does not compete well with vigorous plants. Avoid disturbance in natural areas and graze moderately to maintain competitive perennial plant communities (Alberta Agriculture 1997).

Integrated Management Summary

Management can be achieved through prevention of seed production and competition from desirable plants. An integrated approach using tillage, mowing, and cropping can be used to manage this plant (Alberta Agriculture 1997).

References

Alberta Agriculture. 1985. *Weeds of Alberta*. Agdex 640–4. Co-publishers: Alberta Agriculture and Alberta Environmental Centre.

Alberta Agriculture. 1997. Scentless chamomile: Biology and management.

<http://www.agric.gov.ab.ca/agdex/600/6406.html>

Alberta Agriculture. 1994. Scentless chamomile: Biology and control. Agdex 640–6. Co-publishers: Alberta Agriculture and Alberta Environmental Centre.

BC Ministry of Agriculture and Food 1984. Scentless chamomile. Agdex 640 Fact Sheet.

Douglas, G. W., G. B. Straley, D. Meidinger, and J. Pojar. 1998. *Illustrated Flora of British Columbia*.

Vol. 1: *Gymnosperms and Dicotyledons (Aceraceae through Asteraceae)*. Province of British Columbia.

Frankton, C., and G. A. Mulligan. 1970. *Weeds of Canada*. Publication 948. Ottawa: Canada Department of Agriculture.

Harris, P., and A. McClay. 2001. Scentless chamomile—*Matricaria perforata* Metat. Lethbridge, AB: Agriculture and Agri-Food Canada.

Royer, F., and R. Dickinson. 1999. *Weeds of Canada and the Northern United States*. Edmonton: University of Alberta Press.

