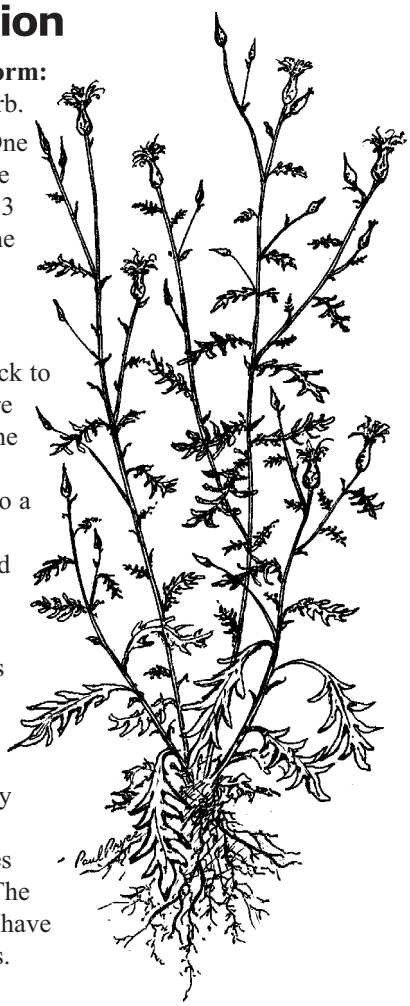
COMMON CRUPINA

Crupina vulgaris Cass.

Family: *Asteraceae* (Sunflower).
Other Scientific Names: None.
Other Common Names: None.
Legal Status: Provincial Noxious.

Identification

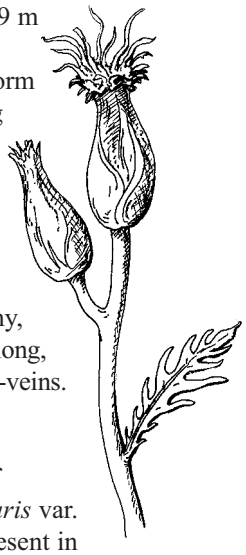


Growth form: Annual forb.

Flower: One or more rose to purple flower heads about 1.3 cm long, located at the end of each branch (Thill et al. 1999).

Seeds/Fruit: The black to silvery beige seeds are 0.3–0.6 mm long, cone shaped, covered with fine hairs, and taper to a blunt point. A pappus of 0.6-cm-long barbed hairs surrounds the wide end of the seed.

Leaves: Young plants begin with smooth basal leaves but become toothed, then lobed, then finely dissected as the plant develops. Basal leaves can be 7.5 cm long. The alternate stem leaves have finely divided leaflets. Older leaves become prickly as stiff hairs develop (Thill et al. 1999).



Stems: Mature plants are 0.2–0.9 m tall and usually produce a single stem. Five to 15 branches will form near the top under good growing conditions, but if the plant is crowded or growing under poor conditions only 1–3 branches will form.

Roots: A short taproot.

Seedling: Seedlings have 2 fleshy, stalkless cotyledons 1.3–2.5 cm long, with prominent red or purple mid-veins.

Similar Species

Exotics: There are 2 varieties of common crupina (*Crupina vulgaris* var. *typica* and var. *brachypappa*) present in North America. Common crupina var. *brachypappa* is distinguished from var. *typica* by the large number of stem leaves (about 40), larger seeds, and longer pappus bristles. Both varieties are considered noxious in the US. Common crupina seedlings are similar to those of knapweeds (*Centaurea* sp.). Crupina can be identified by the fleshy cotyledons and the prominent mid-vein.

Natives: None known.

Impacts

Agricultural: Invades hayfields and grass seed fields. Common crupina seed can contaminate hay and other forage crops, reducing their value.

Ecological: Infests disturbed grasslands and open forest sites, where it can form dense stands and compete with native plant species.

Human: None known.

Habitat and Ecology

General requirements: Adapted to a wide range of conditions. Usually found on well-drained sandy or loamy soil, where annual precipitation varies from 40 to 75 cm, and at elevations of 300–975 m.

Distribution: Does not occur in BC. Presently, it occupies areas of Washington, Oregon, Idaho, and California.

Historical: Introduced from Eurasia.

Life cycle: This winter annual usually germinates in late summer or autumn, but it can germinate in spring. Plants overwinter as rosettes, bolt in April, and begin flowering during May and June. Flowering will continue until frost or until soil moisture is no longer available (Thill et al. 1999).

Mode of reproduction: By seed.

Seed production: From 2 to 23 seeds/plant, depending on growing conditions.

Seed bank: Most seeds germinate in the first autumn following an after-ripening period. Seeds can survive in the soil up to 32 months.

Dispersal: Seed can disperse short distances by wind and water, on the fur of rodents and other wildlife, as well as on hooves of cattle.

Hybridization: The 2 varieties of common crupina can hybridize.

Management

Biocontrol: None.

Mechanical: Hand-pulling or hoeing can be effective for small infestations. Plants should be controlled before they set seed, and follow-up treatments may be necessary.

Fire: Prescribed burning has reduced seedling populations, but long-term effects are unknown.

Herbicides: Clopyralid, 2,4-D, dicamba, and picloram have been effective. 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: Seed competitive grasses on disturbed sites to prevent invasion and promote control. Managing grazing animals to minimize disturbance and maintain perennial plant communities can effectively control this weed, provided the grasses are well adapted to the site. Clean livestock before moving them to a new area.

Integrated Management Summary

Successful management of common crupina requires site-specific integration of several control methods (Thill et al. 1999). Preventive actions and prompt control of new outbreaks will stop new infestations, while combinations of herbicides, prescribed burns, reseeding, and grazing management will control existing crupina populations.

References

Thill, D. C., C. T. Roche, and D. L. Zamora. 1999. Common crupina. In R. L. Sheley and J. K. Petroff, eds. *Biology and Management of Noxious Rangeland Weeds.* Corvallis: Oregon State University Press.