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Common Crupina (*Crupina vulgaris*)

aka Bearded Creeper

Provincial Designation:
Prohibited Noxious



Photo: USDA APHIS PPO Archive, Bugwood.org

Overview:

Common Crupina is a winter annual belonging to the sunflower family and native to the Mediterranean.¹ It was first discovered on 18 ha of rangeland in Idaho in 1968.¹ Currently Common Crupina has invaded more than 25,000 ha of rangeland and non-crop areas in Idaho, California, Oregon and Washington.³ Although not yet detected in Canada, British Columbia, Alberta and Saskatchewan appear particularly vulnerable to invasion.

Common Crupina quickly forms such dense stands outcompeting native plants. It can spread into forage crops and become a contaminant of both grass seed and hay.⁴ Common Crupina is listed as a Prohibited Noxious Weed in the Seeds Act and Regulations and thus crop seed containing it cannot be imported into or sold within Canada.⁵

Common Crupina disperses its seeds by June or early July.² The seeds are large and usually fall close to the parent plant.⁵ Long distance spread is accomplished by attachment to animals or by floating down rivers and streams.⁴ The seeds can survive passage through the digestive tracts of cows, horses and deer but not sheep.

Vehicles, and in particular recreational vehicles, are also recognized as a major means of spread for this species.³



Photo by E. Triano, picasaweb.google.com

Habitat:

Common Crupina is adapted to a wide range of soil and climatic conditions. In the U.S. it is usually found in areas with well-drained soil and an annual precipitation of 40-75 cm.⁶ In addition to agricultural sites like pastures and hayfields, it frequently infests gravel pits, roadsides and railroad rights-of-way.³ It is rarely found in cultivated crops.⁵

Identification:

Stems: Typically a single, erect, ridged stem up to 1 m tall with 5-15 branched near the top is produced.³ Under more crowded conditions only 1-3 branches are formed.⁶

Leaves: Seedlings have large egg-shaped cotyledons (seed leaves) with a prominent purple or red midrib.² The first true leaves are elongated and toothed. Rosette and stem leaves become progressively more lobed. At maturity they are finely dissected. The upper leaves are alternate and increasingly smaller toward the top of the

stem.⁶ Mature leaves have short, stiff spines along the margin.²

Flowers: Pink-purple disk flowers occur in narrow heads approximately 1.3 cm in length.⁶ The flowers are surrounded by one-several stiff, narrow, scale-like bracts.⁷ An average plant can have as many as 40 heads and each head produces 1-5 seeds.²

Seeds: Seeds (achenes) are 0.3-0.6 mm long, which is roughly the size of a wheat kernel.⁵ They are black-silvery beige, cone-shaped and covered with fine hairs.² A pappus of blackish-brown spreading bristles is located at the top of each seed.⁷

Prevention:

Prevention is the most important strategy for managing Common Crupina. Tactics to prevent establishment include using certified seed and weed-free hay and straw as well as cleaning equipment and vehicles before moving from site to site.³

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Common Crupina (continued)

Control:

Mechanical: Hand-pulling or hoeing plants prior to flower and seed production is recommended for small populations. Best results are achieved when the soil is moist. All specimens in flower should be bagged and disposed of carefully. The seed longevity of common Crupina in the soil is only three years. Therefore sites should be monitored for at least 4 years after clean-up to ensure that the population has been eradicated.³

Grazing: Common Crupina is not toxic but live-stock tend to avoid grazing it after the rosette stage when the leaves have developed spines.² Grazing with sheep could potentially be used to manage this plant at early growth stages. Grazing management is important because high stocking rates can lead to increased populations of Common Crupina.

Chemical:¹⁰ Control of Common Crupina in the U.S. has depended mostly on the use of herbicides.³ In Canada, glyphosate-based products may be used and are considered an effective control for Common Crupina. Care must be taken to protect non-target vegetation when using non-selective herbicides. Product labels should be checked carefully to ensure use is approved. Consult the Ag-Info Centre: 310-FARM (3276), or your local Agricultural Fieldman or IPM Specialist for more information.

Biological: Currently there are no biocontrols available for Common Crupina but several potential agents are being researched.³ A fungal species, *Ramularia Crupinae*, has been found to cause serious damage to the weed⁸, but it is currently not available for use in North America.

REFERENCES

- 1 Roche, C. and D.C. Thill. 2001. Biology of Common Crupina and yellow starthistle, two Mediterranean winter annual invaders in western North America. *Weed Sci.* 49: 439-447
- 2 http://www.nwcb.wa.gov/weed_info/written_findings/Crupina_vulgaris.html
- 3 Graham, J. and W.S. Johnson. Managing Common Crupina. University of Nevada Fact Sheet 03-44
- 4 Common Crupina Fact Sheet <http://www.colorado.gov/ag/weeds>
- 5 Canadian Food Inspection Agency Fact Sheet – Common Crupina <http://www.inspection.gc.ca/english/plaveg/invenv/pestrava/cruvul/cruvulfse.shtml>
- 6 A Guide to Weeds in British Columbia Common Crupina http://www.agf.gov.bc.ca/weedsbc/pdf/common_Crupina.pdf
- 7 Crupina vulgaris – Flora of North America @efloras.org
- 8 Hasan, S., R.Sobhian and L. Knutson. 1999. Preliminary studies on *Ramularia Crupinae* sp. nov. as a potential biological control agent for Common Crupina (*Crupina vulgaris*) in the USA. *Ann. Appl. Biol.* 135: 489-494
- 9 Idaho Weed Awareness Campaign; Virtual Field Guide; Common Crupina Photo Gallery <http://www.idahoweedawareness.org/vfg/weedlist/ccrupina/ccrupina.html>
- 10 Always follow the product labels. The use of pesticides in any manner not published on the label or registered under the *Minor Use of Pesticides* regulation constitutes an offence under both the *Federal Pest Control Products Act* and *Alberta's Environmental Protection and Enhancement Act*.

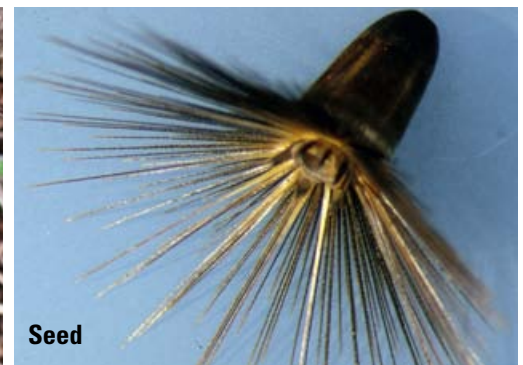


Photo: USDA APHIS PPQ Archive, Bugwood.org



Seedling

Photo: USDA APHIS PPQ Archive, Bugwood.org



Seed

Photo: USDA APHIS PPQ Archive, Bugwood.org



Leaf

Photo: Utah State University Archive, Bugwood.org



Stems

Photo: USDA APHIS PPQ Archive, Bugwood.org