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### Provincial Designation: Prohibited Noxious

# **Common Crupina**

Crupina vulgaris (Aka Bearded Creeper)



USDA APHIS PPQ Archive, USDA APHIS PPQ, Bugwood.org

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### **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.<sup>4</sup> 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.<sup>5</sup>

Common Crupina disperses its seeds by June or early July.<sup>2</sup> The seeds are large and usually fall close to the parent plant.<sup>5</sup> Long distance spread is accomplished by attachment to animals or by floating down rivers and streams.<sup>4</sup> The seeds can survive pas-

sage though 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.<sup>3</sup>

#### **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.<sup>6</sup> In addition to agricultural sites like pastures and hayfields, it frequently infests gravel pits, roadsides and railroad rights-of-way.<sup>3</sup> It is rarely found in cultivated crops.<sup>5</sup>

#### **Identification:**

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

**Leaves:** Seedlings have large egg-shaped cotyledons (seed leaves) with a prominent purple or red midrib.<sup>2</sup> 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.<sup>6</sup> Mature leaves have short, stiff spines along the margin.<sup>2</sup>

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.<sup>7</sup> An average plant can have as many as 40 heads and each head produces 1-5 seeds.<sup>2</sup>

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

#### **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.<sup>3</sup>

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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.<sup>3</sup>

**Grazing:** Common Crupina is not toxic but livestock tend to avoid grazing it after the rosette stage when the leaves have developed spines.<sup>2</sup> 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: Control of Common Crupina in the U.S. has depended mostly on the use of herbicides.<sup>3</sup> Currently, no selective herbicides are registered for use on common crupina. 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:** Currently there are no biocontrols available for Common Crupina but several potential agents are being researched.<sup>3</sup> A fungal species, Ramularia Crupinae, has been found to cause serious damage to the weed<sup>8</sup>, but it is currently not available for use in North America.





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#### **REFERENCES**

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- 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/cruvul/se.shtml
- $\textbf{6} \ \ A \ Guide to \ Weeds in British \ Columbia\_Common \ Crupina \ http://www.agf.gov.bc.ca/weedsbc/pdf/common\_Crupina.pdf$
- $\textbf{7} \ \ \mathsf{Crupina} \ \mathsf{vulgaris} \mathsf{Flora} \ \mathsf{of} \ \mathsf{North} \ \mathsf{America} @ efloras.org$
- 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/yfg/weedlist/ccrupina/ccrupina.html

