

BLUE MUSTARD

Chorispora tenella (Pallas) DC.

Family: *Brassicaceae* (Mustard).

Other Scientific Names: None.

Other Common Names: Tenella mustard, purple mustard, cross flower, bean-podded mustard.

Legal Status: Not categorized.



Identification

Growth form: Winter annual forb.

Flower: Flowers are small and bluish purple, have 4 petals, and are connected by a stalk to a rough central stem.

Seeds/Fruit: Fruits have a conspicuous beak, about one-third the length of the pod. These fruits break apart transversely into numerous 2-seeded sections instead of splitting longitudinally as with most mustards. Seeds are rectangular, with one flat side and one rounded side (Stubbendieck et al. 1995).



Leaves: Leaves are alternate and oblanceolate, with wavy or coarsely toothed margins, and are partially covered with minute, gland-tipped hairs.

Stems: Mature plants are 10–50 cm tall, with branches that spread mainly from the base. Stems are partially covered with minute, gland-tipped hairs.

Roots: Shallow taproot.

Seedling: Seedlings form rosettes with deeply lobed leaves.

Other: Foliage has a disagreeable odour.



Similar Species

Exotics: None known.

Natives: None known.

Impacts

Agricultural: Blue mustard invades disturbed habitats and cultivated lands, reducing crop yields and affecting crop quality (Whitson et al. 1996). It is a problem in winter annual crops, such as winter wheat (Klein et al. 1985). Blue mustard gives off a disagreeable odour

(like stale dishrags), and dairy animals eating it may produce off-flavour milk.

Ecological: No information available.

Human: None known.

Habitat and Ecology

General requirements: Blue mustard is commonly found in dry areas such as grain fields, along roadsides, rights-of-way, and disturbed habitats. It can tolerate a wide range of environmental conditions and soils.

Distribution: Blue mustard is frequent in the low-elevation areas of the BC Interior. It is also found throughout the western US.

Historical: Introduced from Siberia in 1929 (Klein et al. 1985).

Life cycle: Blue mustard seeds germinate in late

summer and autumn. The plant overwinters as a rosette. The flower stalks usually bolt in March. Flowers appear in early April, and viable seeds can be produced approximately 10 days after bloom (Klein et al. 1985).

Mode of reproduction: By seed.

Seed production: No information available.

Seed bank: No information available.

Dispersal: No information available.

Hybridization: No information available.

Management

Biocontrol: None.

Mechanical: Small infestations can be pulled. Plants are easy to pull in the spring before they flower and when soils tend to be soft and moist.

Fire: No information available.

Herbicides: Metsulfuron-methyl provides excellent control. Blue mustard can be controlled with dicamba, 2,4-D, or glyphosate applied before plants bolt. 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: In heavily infested crop fields, changing the crop rotation will help decrease the blue mustard population (Klein et al. 1985). In late spring

crops, blue mustard must be killed through tillage or with a contact herbicide (Klein et al. 1985) before planting.

Integrated Management Summary

Controlling blue mustard can be challenging because the plant flowers early and herbicides are often applied too late to be effective. Blue mustard should be controlled by preventing seed production until the soil seed bank is depleted. Cut, pull, or treat plants with herbicide before seed-set.

References

Klein, R. N., D. J. Lyon, and G. A. Wicks. 1985. Blue mustard control. NebGuide G95-1272-A. Cooperative Extension, University of Nebraska Institute of Agriculture and Natural Resources. <http://ianrwww.unl.edu/pubs/weeds/g1272.htm> [26 Feb 99].

Stubbendieck, J., G. Y. Friisoe, and M. R. Bolick. 1995. Blue mustard. *Weeds of Nebraska and the Great Plains*. Lincoln: Nebraska Department of Agriculture, Bureau of Plant Industry.

Whitson, T. D. (ed.), L. C. Burrill, S. A. Dewey, D. W. Cudney, B. E. Nelson, R. D. Lee, and R. Parker. 1996. Blue mustard. *Weeds of the West*. Western Society of Weed Science, in cooperation with the Western United States Land Grant Universities Cooperative Extension Services, Newark, CA.

