

Red Bartsia

Odontites vernus (Aka Late Flowering Eyebright, Red Rattle)



Fred Paulson, Interlake Weed District



<http://commons.wikimedia.org>

Overview:

Red Bartsia is an annual in the figwort family that was introduced to Manitoba in the mid 1950s. It arrived at the Gimli Canadian Armed Forces Base in packing crates from Germany. It escaped into areas adjacent to the runways which local farmers mowed for hay. The plant soon spread throughout the Interlake Region.¹ It is currently found in every province except British Columbia as well as in parts of the Northeastern U.S.²

Red Bartsia infests mostly pastures and hayland because it does not compete well with annual crops. It is unpalatable to livestock, so it quickly overtakes forage stands, causing losses of 50-70%. Recent surveys have shown that Red Bartsia is now moving into native grasslands. Some researchers speculate that seeds transported on the all terrain vehicles (ATVs) used by hunters is one probable cause for these new infestations.³

Red Bartsia is a hemiparasite. It can survive on its own but will also feed off the roots of a wide range of grass and forb hosts when conditions are adverse.³ Each plant can pro-

duce up to 1400 seeds. The seeds easily float and stick to animal fur, clothing and equipment, aiding in dispersal.⁴

Habitat:

In Manitoba, seedlings typically emerge from mid-May to mid-June suggesting that the plant requires warmer temperatures for germination. Several flushes can occur over the growing season.⁴ Red Bartsia does not persist under cultivation¹ and appears to thrive in a variety of soil types.

Identification:

Stems: Erect, 10-50 cm tall, usually branched and hairy.⁵

Leaves: Opposite, 1-4 cm long, lance-shaped with 2-3 pairs of blunt teeth and hairy.⁵

Flowers: In spike-like racemes. Individual flowers resemble tiny snapdragons. Petals pinkish-red, about 1 cm long, with two lips; the upper straight and the lower shallowly 3-lobed.⁵

Seeds: Numerous, in hairy capsules, 6-8 mm long.⁵ Individual seeds tiny, beige and oval with small wings.⁶

Prevention:

Red Bartsia is mostly spread by humans in contaminated hay and on equipment and ATVs.³ Buyers need to check sources of hay to ensure that bales are weed-free. Producers and hunters should routinely inspect and clean equipment before entering uninfested areas.⁴ Purchasing certified seed is also an effective tactic since Red Bartsia is classified as a prohibited noxious weed in the Canadian Seeds Act and Regulations.⁷

Control:

Cultural: Research is exploring the use of compost mulches to control Red Bartsia in native grasslands. Preliminary results showed that mulches suppressed the annual weed while allowing native perennials to penetrate through the compost layer.³

Cultivation: Cultivating an infested pasture and planting annual crops for at least 9 years

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to deplete the Red Bartsia seed bank can be effective strategy.⁴

Mechanical: Mowing is not recommended and can help to spread the problem.⁴ Small populations can be hand-pulled but vigilance is required to ensure that plants appearing in successive flushes over the summer are removed before they go to seed.²

Chemical: Currently no selective herbicides are registered for use on red bartsia. 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: There are no known biocontrol agents for Red Bartsia.



Roadside Infestation

Emmet J. Judziewicz Wisconsin State Herbarium



Emmet J. Judziewicz Wisconsin State Herbarium



Emmet J. Judziewicz Wisconsin State Herbarium



Emmet J. Judziewicz Wisconsin State Herbarium



Seedling

Fred Paulson, Interlake Weed District



Leaf & Stem

Michèle Ammeter, Macdonald Weed District

REFERENCES

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- 4 Winters, Daniel. 2010. German invader turning fields Red. Manitoba Cooperator, March 25 <http://www.agcanada.com>
- 5 Moss, E.H., 1983. Flora of Alberta, University of Toronto Press
- 6 Seed ID Workshop, Ohio State University <http://www.oardc.ohio-state.edu/seedid>
- 7 <http://laws-lois.justice.gc.ca>
- 8 Forage Crops Chart of Recommended Herbicides <http://www.agric.gov.sk.ca>