

## HOARY CRESS

*Lepidium appelianum* and *L. Draba subsp. Draba and chalepense*  
(Aka whitetop, pepperweed, globe/lens/heart podded hoary cress)



### Overview:

Hoary cress is a long-lived perennial of the Mustard family. It develops an extensive system of deep, vertical taproots and horizontal, rhizomatous roots. It reproduces both by seed and sprouting from lateral roots – one plant can produce a large colony. Mustards are prolific seed producers – 1000 to over 4000 per plant – however the viability of hoary cress seeds is only about 3 years.

Native to Europe and Asia, it is believed that hoary cress was introduced to North America in the 1800's via seed contaminated ship ballast and/or contaminated crop seed. The seeds have been used to make pepper, hence the common name of "pepperweed."

Previously classified as *Cardaria* genus but DNA evidence prompted move to *Lepidium* genus. The three species listed above can be differentiated by the shape of the seed capsule.

- L. appelianum* globe-podded
- L. draba subsp. draba* heart-podded
- L. draba subsp. chalepense* lens-podded

### Habitat:

Hoary cress requires full sun and moderately moist to slightly dry soils. It will tolerate alkaline soils.

### Identification:

**Stems:** Are erect, slightly hairy and can grow up to 0.6 m tall. There may several stems per plant.

**Leaves:** Are gray-green or blue-green, arrowhead-shaped, 5 to 10 cm long, alternate and covered with soft, white hairs. Lower leaves are stalked and emerge from the root crown – upper leaves clasp the stem.

**Flowers:** Are white, about 3 to 4 mm wide, and have four petals. Numerous flowers are borne at the ends of stems in flat topped clusters. Flowering takes place early summer, and they are pollinated by insects.

**Seed Chambers:** Two per flower – contain 1 or 2 seeds each.

### Prevention:

Hoary cress requires disturbance to establish and is often spread in contaminated hay. Seeds can be spread by animals, vehicles and water. In the absence of competition from other plants, it can rapidly colonize an area. Insist on weed free forage and maintain healthy rangelands. Early detection offers the best chance of eradication. Once established, hoary cress infestations will require a variety of control methods repeated through the season for a number of years.

### Control:

**Grazing:** Hoary cress is unpalatable to grazers.

**Cultivation:** Tillage can be very effective but must begin early in the season and be repeated about every 10 days. Sow and fertilize competitive grasses/legumes.

**Mechanical:** Repeated mowing will prevent seed production and limit spread but the plants will re-sprout. By repeatedly re-moving the stems the energy in the roots will eventually be exhausted. Mowing is especially effective when followed by herbicide application.

**Chemical:** 2,4-D, Aminopyralid in a product mix with 2,4-D, Amitrole, Glyphosate and MCPA are registered for use on hoary cress. 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:** Searching and screening of agents is being done by the Hoary Cress Consortium<sup>1</sup>.

### References:

<sup>1</sup> <http://www.sidney.ars.usda.gov/hoarycress/people.html>

