

**WRITTEN FINDINGS OF THE
WASHINGTON STATE NOXIOUS WEED CONTROL BOARD
(2003)**

Scientific Name: *Berteroa incana*(L.) DC.

SY=*Alyssum incanum* L.

Common Name: Hoary Alyssum

Family: Mustard (Brassicaceae, Cruciferae) Family

Legal Status: Proposed as a class B noxious weed 2004
Designated for control in regions 1,2,5,6,8,9,10
Region 3: except portions of Okanogan County
And regions 7: except in the Lincoln and Spokane counties

Description and Variation: Annual to short-lived perennial herb growing erect. The leaves are alternate, 2-5 cm long, 0.5-1 cm wide, broadest toward the middle to occasionally oval-shaped, the apex is obtuse to sharply pointed, and entire. Flowers racemose; sepals equal; petals white, deeply two-cleft, about 3 mm long, more than 2 times longer than the sepals; short filaments flanked on each side by a short semicircular gland, anthers oblong; ovary with 2-6 ovules per locule; style elongate, persistent. Silicle fruit oval-shaped, slightly flattened parallel to the septum, 5-8 mm long, 3-4 mm wide, star-shaped and hairy, often only slightly; seeds 3-6 per locule, brown, roundish, 1.5-2 mm long, narrowly winged pods with star-shaped hairs (Hitchcock,1961).

Rosettes are often confused with *Crepis tectorum*, *Arabis divaricarpa*, *Arabis glabra*, and *Arabis hirsute*.

Economic Importance:

Detrimental: Hoary alyssum can out compete beneficial plants when areas are environmentally stressed.

Livestock are noted to become intoxicated after eating green or dried plants. The toxic dose has not been determined. Most poisoning occurs when the bare stems of hoary alyssum are mixed in with alfalfa hay (Kanara, 1995). Animal death has only been observed in horses ingesting infested hay with 30 to 70% hoary alyssum. Hoary alyssum is noted to retain its toxicity for up to nine months (Becker, 1991).

Berteroa incana

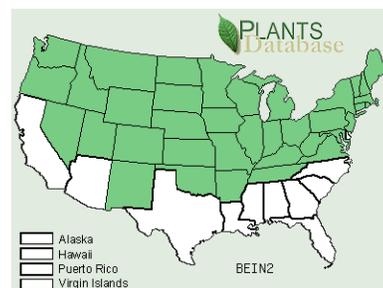


Signs associated with severe intoxication include stiffness, fever, diarrhea, intravascular hemolysis, and hypovolemic shock. Premature parturition or abortion may occur in pregnant animals (Becker, 1991).

Beneficial: None currently known

Habitat: Generally found in waste places, overgrazed pastures, or in stressed meadows. It is noted to be adapted to dry conditions on sandy or gravelly soils.

Geographic Distribution: This Native European Plant is noted to be distributed from Nova Scotia to Minnesota and from New Jersey though West Virginia, Ohio, Indiana, Illinois, to Missouri (Plants Database). The map at the right depicts the areas that Hoary Alyssum has been **noted at least once**.



History: Hoary Alyssum was first collected in Washington in 1969 in Pend Oreille county (UW Herbarium Data Base).

Currently it is noted in Ferry, Okanogan, Pend Oreille, Spokane, and Stevens counties.

Growth and Development: Hoary Alyssum is an annual with the basal rosettes appearing in early spring. The plant then bolts and produces a cluster of white flowers in late spring through the summer. The flowers cross-pollinate and produce hairy seed pods that are then dispersed (Frankton, 1987).

Reproduction: Reproduction is by seeds.

Response to Herbicide: No references with specific control recommendations for hoary Alyssum have been found.

It is generally felt that the measures denoted for control of general mustard species will also be effective on Hoary Alyssum. Information for control of other species in the mustard can be obtained through the PNW Weed Management Handbook under "Mustards weedy".

All herbicide applications must follow the label!!

Response to Cultural Methods: Well-maintained pastures are noted to provide sufficient suppression of hoary Alyssum through competition. Small patches of Hoary Alyssum can be pulled or dug out of the area (Stevens County). The patches should be surveyed and any new plants should be removed. The bare ground should be cultivated or replanted with native species.

Response to Mechanical Methods: Mowing/cutting the plant can keep it from going to seed but long-term effects are unknown.

Biocontrol Potentials: Non known

Rationale for Listing: This plant is becoming an increasing problem in the Northeast section of the state. This plant is noted to invade pastures and quickly spread through stressed areas. Hoary alyssum has recently been noted as a potential for animal poisoning and possible death.

References:

Becker R. L., N. P. Martin and M. J. Murphy. 1991. Hoary Alyssum: Toxicity to Horses, Forage Quality, and Control. University of Minnesota Extension publication FS-05567 <http://www.extension.umn.edu/distribution/livestocksystems/DI5567.html>

Hitchcock, C.L. and A. Cronquist, M. Ownbey and J.W. Thompson. 1961. Vascular Plants of the Pacific Northwest. University of WA Press. Seattle and London. Vol 2:459-460.

Kanara E.W., Murphy M.J., 1995. Ingestion of Hoary alyssum as a cause of Laminitis in Horses. Proc. 13th ACVIM Forum.

Frankton, C.; Mulligan, G.A. 1987. Weeds of Canada. Rev. of 1970 ed. Agric. Can. Publ. 948. 217 pp.

Stevens County Weed Alert <http://www.co.stevens.wa.us/weedboard/>

PNW Weed Management Handbook <http://weeds.ippc.orst.edu/pnw/weeds>

Plants Data Base <http://plants.usda.gov/>

Invaders <http://invader.dbs.umt.edu/linksearch/linksearch.asp>

University of Washington Herbarium <http://herbarium.botany.washington.edu/FMPro?-db=VP%20Inventory&-lay=web&-format=vpsearch.htm&-view>