

# HOARY ALYSSUM: Options for control

**Hoary alyssum** (*Berteroa incana*), a member of the mustard family is a **class B** noxious weed in Lincoln County, Washington. Hoary alyssum is an annual, or sometimes a biennial. An infestation in Lincoln County was discovered in 2010, and since has been added to the County Weed List.

The name “hoary” denotes the rough pubescence on the leaves, stems, and fruits. Leaves in the rosette are long-stalked and broader near the tip. Upper leaves are stalkless, taper to a long narrow point and clasp the stem. All leaves are alternate, and have smooth margins. All parts of the plant are covered with short, star-shaped hairs which give the plant a silver- grayish appearance. Stems are also a grayish-green in color, and can grow up to three feet tall. The flowers are similar to other mustards in that they are small, deeply lobed and have white petals.



Stems bolt from a basal rosette to flower. Rosettes are often confused with Hoary cress, a.k.a. Whitetop.



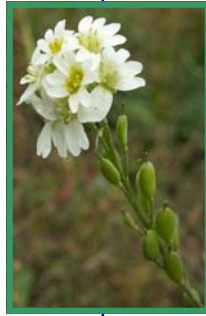
All parts of the plant are covered with star-shaped hairs, giving the plant a grayish-green appearance.



Upper leaves are small, and clasp closely to the stem.

plant reproduces only by seed.

Hoary Alyssum is particularly adapted to dry conditions such as occur on sandy or gravelly soils. It is invasive along roads, railroads, trails, gravelly stream and lake banks, in lawns, farmyards, vacant lots, overgrazed pastures and rangelands and in hay meadows. Hoary alyssum tends to increase in forages following drought or winterkill, regardless of the soil type of the field.



Because of an old belief that they cured rabies, the alyssums have been called madwort or heal-bite.

Hoary alyssum is **toxic** to horses and remains toxic in cured hay. Horses experience depression and lameness; such as swelling of the lower legs, stiffness in joints, reluctance to move, 12—24 hours following ingestion of the plant. consumption of large amounts of this plant can result in dehydration, diarrhea and cause abortions. However, if treated early, most horses recover.



Four white petals of each flower are deeply divided.



Long slender stalks are stiffly erect, with flowers clustered at stems tips.



A close-up of the plant infesting a mountain roadside.

## Key identifying traits

- Flowers are white with 4 petals, deeply divided
- Usually only branched at the top of the plant
- Leaves are alternate, blades are simple
- Fruit is oblong, with two compartments containing 2 to 6 seeds
- Seeds grow close to stem, are round to oblong, narrowly winged, grayish-brown and rough

## Biology and ecology

- Can be an annual, winter annual, biennial, or a short-lived perennial
- Most abundant in disturbed sites but is also found in meadows and pastures
- Starting to be an invader in alfalfa crops
- 1 to 2 ½ feet tall
- Can be **toxic to horses** if it comprises 30% or more of their diet
- Spreads rapidly due to the high number of seeds per plant; spreads **only** by seed
- Likes direct sunlight but can also tolerate shade

# CONTROL MEASURES:

For this and other publications, see our website at: [www.co.lincoln.wa.us](http://www.co.lincoln.wa.us)

## Prevention:

- Learn to identify plants; know your property; beware of fill dirt, hay and seed from outside your area. Early detection is vital to prevent invasion.

## Biological:

- No known biological control.

## Cultural:

- Good competitive vegetation helps, but does not prevent an infestation.

## Mechanical:

- Hand pulling or digging can be very effective for small infestations but should be done before flowering.
- Mowing will not control hoary alyssum.

## Chemical:

- 2,4-D applied in spring, when actively growing and prior to bolting. If the plant is in flower, it is too late to spray for the year.
- Metsulfuron applied at 0.5 oz. per acre.
- **Read the label** instructions before applying.

**Seed Establishment:** Seeds can germinate from early spring to late fall, limited mainly by open space and water. Seedlings establishing in early July or sooner can flower and produce seed by early fall. Seedlings establishing in late July or later will remain as rosettes and produce flowers and seeds the following year.



## Clinical Signs and Toxicity

Most poisonings occur from contaminated hay. Horses experience depression and a "stocking up," or swelling of the lower legs, 12 to 24 hours following ingestion of hoary alyssum in hay or on pasture. A fever and occasionally short term diarrhea have also been observed. These clinical signs normally subside 2 to 4 days following removal of the alyssum source. In more severe cases, an apparent founder with a stiffness of joints and reluctance of the animal to move has been observed. Recovery of animals with clinical evidence of founder may take several additional days. In field cases where a large number of horses were known to be involved, only approximately 50% of the animals ingesting hay containing 30 to 70% hoary alyssum demonstrated **any** of the clinical signs of toxicity. The cases of severe "stocking up," apparent founder, and death have only been observed in horses ingesting hay containing 30 to 70% hoary alyssum. Only mild "stocking up" has been observed in horses on pasture or those ingesting hay with low percentages of alyssum. Hoary alyssum is noted to retain its toxicity for up to nine months.



Hoary Alyssum found East of Sprague.



Petals are deeply notched.



Photos and references courtesy of: USDA, NRCS; WSNWCB, Written Findings; Stevens County Noxious Weed Control Board; Hoary Alyssum: Toxicity to Horses, Forage Quality, and Control, R.L. Becker, N.P. Martin and M.J. Murphy; Thomas Schoepke; University of Minnesota Extension.

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