

## KANSAS DEPARTMENT OF AGRICULTURE

OFFICIAL CONTROL METHODS FOR  
HOARY CRESS

Lepidium draba L.

Revised May 20, 2020

**DESCRIPTION**

Hoary Cress is a perennial forb introduced from Eurasia. It reproduces by extensive root systems, rhizomes, and seeds. Stems are 0.5-3 feet tall and nearly hairless to moderately hairy. Leaves are alternate, oblong, 1-3 inches long, and grayish-green with toothed margins. The upper leaves are attached directly to the stem with a broad, forked base that appears to clasp the stem. The flowers are white, 4-petaled, 1/8 inch across, and borne in showy, compact racemes. The fruits are flattened, heart-shaped pods about 1/8-inch long. One granular, reddish brown seed is produced in each half of the pods. Flowering May-July; fruiting June-August.

**PREVENTION OF SPREAD**

The Noxious Weed Law (K.S.A. 2-1313a et. seq.) requires all landowners to control the spread of and to eradicate hoary cress on all lands owned or supervised by them. Methods used for control must prevent both the production of viable seed and destroy the plant's ability to reproduce by vegetative means. Infestation sites must be monitored after control methods have been accomplished to ensure that dormant seeds in the seedbank do not germinate and establish new infestations.

**HOARY CRESS CONTROL PRACTICES**

Hoary cress control means that both the roots and the flowers must be destroyed. Because hoary cress is a perennial, with the exception of herbicide applications, one or more of the following methods must be used together to control hoary cress.

**Cultural Control**

Cultural weed control involves land and vegetation management techniques used to prevent the establishment or control the spread of noxious weeds.

The use of sheep or goats to graze hoary cress may be used before flowering when the palatability of hoary cress decreases. Repeat at least two times per year to deplete the seedbank and provide control. Grazing hoary cress is considered impractical because of low acceptance by livestock and the potential for poisoning, especially in cattle.

Frequent surveys of fence lines, roadway, ditches and other susceptible areas for new infestations and the quick removal of any new plants will prevent hoary cress from becoming established.

**Mechanical Control**

Mechanical weed control involves the physical removal of all parts or just the reproductive parts of weeds.

As a perennial species, hoary cress is difficult to control mechanically.

The root system of hoary cress can be exhausted through repeated cultivation. This cultivation must be at least six inches deep and repeated within 10 days of weed emergence throughout the growing season each year to deplete the seedbank. It is important that no green leaves be allowed to develop between cultivations.

It is important to clean hoary cress roots and root fragments from equipment before entering uninfested areas of the field or other fields to prevent the spread of hoary cress.

Because of the resulting wind and water erosion or loss of income due to no crop returns, it is not practical to cultivate over a two to four-year period.

A second option is to cultivate when the plants are three to six inches tall post-harvest. Research has shown that cultivating hoary cress twice each fall after harvest annually provided complete control. The fall cultivation program has an advantage over the season-long program because it allows crops to be grown during the season and limits soil exposure to erosion. Two fall cultivations will reduce hoary cress infestations faster than one cultivation. However, a single cultivation may be a more practical management option when minimal tillage is desired, or soil erosion is a concern. It is important to clean hoary cress roots and root fragments from equipment before entering uninfested areas of the field or other fields to prevent the spread of hoary cress.

### **Chemical Control**

The following herbicides may be used for cost-share with landowners. Other products labeled and registered for use on this noxious weed in Kansas may be used in accordance with label directions but are not available for cost-share. Be sure to follow all label directions and precautions. For additional information consult the most recent edition of the KSU publication of “Chemical Weed Control for Field Crops, Pastures, Rangeland, and Noncropland”.

Any two or more of the herbicides listed below may be available for cost-share as a pre-mix or a tank mix if allowed on the respective labels. Contact your county weed program for availability.

<b>Herbicide</b>	<b>Mode of Action</b>
2,4-D LV Ester	4
chlorsulfuron	2
dicamba	4
imazapyr	2
metsulfuron methyl	2

### **Biological Control**

Biological control refers to the deliberate application of a living organism to control the spread of weeds. These agents will not eradicate their host plant, therefore other control methods must be used in addition to the use of biological control agents as part of an integrated pest management strategy. The importation of biological control agents is regulated by USDA-APHIS and is allowed by permit only.

There are no biological control agents available for hoary cress.