

KANSAS DEPARTMENT OF AGRICULTURE

OFFICIAL CONTROL METHODS FOR
CANADA THISTLE*Cirsium arvense* (L.) Scop.

Revised May 20, 2020

DESCRIPTION

Canada thistle is a perennial forb native to Europe. It reproduces by seeds and whitish, creeping roots that send up new shoots every 8-12 inches. Stems are 2-4 feet tall, and usually branched above the middle. Leaves are alternate, oblong or lanceolate, irregularly lobed or toothed, spiny-margined, and hairless or white-haired. Flowers are pink to purple (rarely white) and borne in 0.5-1-inch-diameter heads clustered near the ends of branches. Male and female flowers are on different plants and can be difficult to tell apart without careful examination. For viable seed to be produced, plants bearing male flowers and plants bearing female flowers need to be in close proximity. The seed-like fruits are about 1/8-inch-long, smooth, light to dark brown, oblong, slightly flattened and slightly curved, and bear a terminal cluster of numerous white, 0.5-1 inch capillary bristles that aid in wind dispersal. Flowering June-August; fruiting July-frost.

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 Canada thistle 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.

CANADA THISTLE CONTROL PRACTICES

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

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, goats and cattle to graze Canada thistle grazing when rosettes are green and begin to sprout. Remove animals when grazing shifts to desirable species and then re-graze new sprouts repeat often enough during the season to prevent flowering. Grazing treatment will need to be repeated annually to deplete the seedbank and provide control.

Frequent surveys of fence lines, roadway, ditches and other susceptible areas for new infestations and the quick removal of any new plants will prevent Canada thistle 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, Canada thistle is difficult to control mechanically.

Repeated mowing of Canada thistle over a three-year period, timed for bud to early-bloom stage, should suppress infestations in forages. This mowing should be as low to the ground as practical.

Care must be taken to mow before any of the target plants sets seed; mowing after seed set will help disperse the seed.

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.

| Herbicide | Mode of Action |
|--------------------|-----------------------|
| 2,4-D | 4 |
| aminopyralid | 4 |
| chlorsulfuron | 2 |
| clopyralid | 4 |
| dicamba | 4 |
| diflufenzopyr | 19 |
| glyphosate | 9 |
| imazapyr | 2 |
| metsulfuron-methyl | 2 |
| picloram | 4 |

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.

The following agents are permitted for use on Canada thistle. Other agents may be available for use if the appropriate permit is obtained.

Ceutorhynchus litura
Urophora cardui

stem weevil
stem gall fly