

KANSAS DEPARTMENT OF AGRICULTURE
ATCHISON COUNTY, KANSAS

OFFICIAL CONTROL METHODS FOR

Bull Thistle

Cirsium vulgare Zouhar, Kris.

April 20, 2023

DESCRIPTION

Bull thistle is a biennial that reproduces solely by seed. The lance-shaped rosette leaves are green on the upper side and light green on the lower side. The woolly character of the lower side may give it an almost grayish appearance. Mature leaves are moderately to coarsely lobed, with 3 to 4 points per lance-shaped lobe. Each point ends in a long stout, yellow spine, with numerous shorter spines between. Short, stiff hairs and frequently spines are found on the upper leaf surface. Leaves are short and broad, usually less than 12 inches in length, and very wavy or crinkled. Mature leaves are alternate and growing down the stem beyond their bases, causing the stalk to be "winged" and prickly, lobed leaf-like structures. The stems are stout, erect, branched and leafy to the heads. Considerable branching may be found in very young flower stalks. One to several small to intermediate sized purple flowers terminate the short, prickly-winged branches. Bull thistle flowers from July to September. Seeds are light, straw colored and oblong. The seeds are attached to parachute-like hairs (pappus) which allow for their dispersal by wind currents.

PREVENTION OF SPREAD OF BULL THISTLE

The Noxious Weed Law (K.S.A. 2-1313a et. seq.) requires all landowners to control the spread of and to eradicate bull 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.

BULL THISTLE CONTROL PRACTICES

Because musk thistle is a biennial or short-lived perennial, you may be able to use mechanical controls alone as a control option because only the flower needs to be destroyed for control. Contact your county noxious weed director for more information.

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 bull thistle may be used during the rosette to bolting stage then repeated as necessary to prevent the production of flowers. Repeat grazing each year 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 bull thistle from becoming established.

Mechanical Control

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

Mowing - Mow with a rotary mower between the first appearance of color and the first appearance of brown on the pappus of the earliest heads. Mow cleanly and closely and repeat as needed for control.

Hand Cutting - Digging - Dig the root at least two inches below ground level and remove all soil from the roots. **Pick heads that are beyond the bud stage and place in a tight container.** Bury the container at a landfill or other site that will not be unearthed.

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
imazapic	2
metsulfuron methyl	2
picloram	4

Biological Control

Biological pest control refers to the deliberate application of a living organism to control the spread of weeds. These agents will not eradicate their host plant; other control methods must be used in addition to biological control agents. The importation of some biological control agents into the state is regulated by the USDA and is allowed by permit only, others are allowed to be imported into the state without a permit. The following agent is allowed for use on bull thistle without a permit.

Urophora stylata