

## News Column

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### **Spring musk thistle control**

The musk thistle control season is now upon us. First found in Kansas in 1932, this statewide noxious weed is alive and doing well this spring. The Kansas Department of Agriculture reports that there are now nearly one million acres in Kansas infested by musk thistle. Nearly every county in Kansas has musk thistle. The species is known to occur on many sites, including rangeland, pasture, old alfalfa stands, fallow ground, fields, vacant lots, roadsides, railroad right-of-ways, and areas of disturbance.

Musk thistle is primarily a biennial or winter annual species. As a biennial, seed will germinate in the spring and plants remain as rosettes during the entire growing season. Upon surviving a winter, plants will bolt, flower, and produce seeds, thus taking parts of two growing seasons to complete their life cycle. Winter annuals emerge in the late fall with moisture. These plants will go through the winter, then produce seed the following year.



**Young musk thistle plant. Photos by Walt Fick, K-State Research and Extension.**



Musk thistle reproduces only by seed. Thus, the goal of any control program is to reduce and/or eliminate seed production.

Control options include mechanical, biological, cultural, and chemical methods.

- Mowing at the bloom stage will prevent seed production, but it usually takes two or three mowings at 2-4 week intervals to kill musk thistle. Another option is to cut off individual plants 2-4 inches below the soil.
- The musk thistle head and rosette weevils can also help reduce seed production.
- Cultural control practices, including prescribed burning and good grazing management, can help keep musk thistle populations at reduced levels. Burning by itself will not kill musk thistle but can remove excessive amounts of litter that prevent good coverage when spraying. Areas with musk thistle should be sprayed about 10-14 days after burning. Proper burning can stimulate warm-season grasses that compete more favorably against musk thistle. Proper grazing that maintains and/or improves the vigor of competing vegetation can also help keep musk thistle populations down.
- Musk thistle plants are most easily controlled by herbicides applied during the seedling and rosette stages of growth. Common herbicides such as 2,4-D, dicamba, and picloram are very effective on rosettes. Products containing metsulfuron, chlorsulfuron, and aminopyralid are also effective on musk thistle. Once plants begin to bolt, products such as picloram + 2,4-D (Tordon 22K + 2,4-D), metsulfuron + 2,4-D (Escort XP + 2,4-D), metsulfuron + chlorsulfuron (Cimarron Plus), metsulfuron + dicamba + 2,4-D (Cimarron Max), or aminopyralid alone (Milestone) or in combination with 2,4-D (ForeFront HL or GrazonNext HL) are more effective. Products containing clopyralid (Curtail and Stinger) provide excellent control of bolted to bud stage thistles. Treat musk thistle before it starts to bloom. Although some herbicides such as metsulfuron have been shown to reduce seed viability when applied at the bloom stage it is unlikely that all seed production will be eliminated. It only takes one seed to keep the population going.

Herbicide recommendations for musk thistle control can be found in the *2015 Chemical Weed Control for Field Crops, Pastures, Rangeland, and Noncropland* publications from K-State Research and Extension: <http://www.ksre.ksu.edu/bookstore/pubs/SRP1117.pdf>

Always read the label with particular attention to precautionary statements, grazing/haying restrictions, and rates of application.

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