

Post Rock Extension District Column

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Have you got your musk thistle weed under control?

Even though the musk thistle weed is a brilliant purple color, it is definitely a weed that you do NOT want in your pasture, cropland or waste areas. The following is information that will help with your management questions.

Musk thistle is one of 12 state-wide noxious weeds in Kansas. It has been reported in nearly every county in Kansas and is found primarily in pastures, rangeland, hay meadows, alfalfa, fallow, roadsides, and waste areas.

“Musk thistle is primarily a biennial or winter annual species that takes two growing seasons to complete their life cycle,” according to Dr. Walt Fick, KSU Extension Rangeland Management specialist. Thistles that germinate in the spring will spend the entire summer as a rosette, live through the winter, and bolt the next year in May and June. Winter annual plants will germinate with moisture and warm temperatures in the fall, live through the winter, and bolt (shoot with a flowering stalk) the following year.

Most people recognize musk thistle during the early summer when the plants are actively blooming, however, musk thistle control is easiest as a rosette BEFORE it bolts.

Fick stresses that fall is an excellent time to spray musk thistle as all are in the rosette stage of growth. Another advantage for treatment in the fall is reduced risk of off-target drift. Waiting until most deciduous trees have lost their leaves and most crops are harvested will greatly reduce the likelihood of damage from herbicide drift. A wider window of opportunity for treating musk thistle also exists in the fall. The spraying window in the fall probably extends until the ground is frozen and the musk thistle plants have shut down activity until warmer temperatures in the spring. Freezing temperatures will start to damage musk thistle plants, with some yellowing and curling of leaves. However, the plants are susceptible to herbicides as long as green tissue exists.

Studies in Kansas indicated that a fall application of 2,4-D LVE at 2 lbs./acre was more effective (80% control) than a similar rate of 2,4-D amine (49% control). Dicamba + 2,4-D amine at 0.25 + 0.75 lbs./ acre and picloram at 0.125 lbs./acre were also effective (>90% control) on musk thistle treated in the fall.

Data presented in Table 1 were collected in July 2013 following treatment on December 6, 2012. Conditions at the time of treatment were 50 degrees F air temperature, 66% relative humidity, and 6-8 mph wind speed. Skies were overcast and cloudy. All treatments provided excellent control of rosettes present at the time of spraying (data not shown).

The data in the table below reflect residual control of rosettes that germinated during spring 2013. The number of rosettes on untreated plots increased 92% between December 2012 and July 2013, indicating spring

germination. The only treatment not providing nearly 100% residual control was 2,4-D LVE applied at 64 fl. oz./acre. The active ingredient in *Milestone* is aminopyralid. *Tordon 22K* contains 2 lbs./gallon picloram. *Chaparral* contains aminopyralid and metsulfuron. These products are all labelled for use on range and pasture. *Milestone*, 2,4-D, and *Tordon 22K* are also labeled for use on non-cropland sites including roadsides, right-of-ways, and industrial sites.

Table 1. Musk thistle control with herbicides applied on December 6, 2012.

Herbicide	Rate	% control, July 5, 2013
Milestone	3 fl. oz.	99
Milestone	4 fl. oz.	100
Milestone	5 fl. oz.	100
Tordon 22K	10 fl. oz.	100
2,4-D LVE	64 fl. oz.	43
Chaparral	1.5 oz.	100
Untreated	---	0

Fick points out that if you need to treat musk thistle this fall, herbicides exist that will not only control the rosettes at the time of application, but will carryover and control new emerging rosettes next spring. If possible, select a warm, sunny day when spraying musk thistle this fall.

K-State Research and Extension has an excellent (free of charge) publication, “2020 Chemical Weed Control” that provides an extensive guide for weed management for field crops, pastures, rangeland and non-cropland. This is available online or at any of our Post Rock Extension District Offices. If you have further questions on musk thistle management, contact Sandra at any Post Rock Extension District Office in Beloit, Lincoln, Mankato, Osborne or Smith Center.

Post Rock Extension District of K-State Research and Extension serves Jewell, Lincoln, Osborne, Mitchell and Smith counties. Sandra may be contacted at swick@ksu.edu or by calling Smith Center, 282-6823, Beloit 738-3597, Lincoln 524-4432, Mankato 378-3174, or Osborne 346-2521. Join us on Facebook now at “Post Rock Extension” along with our blog site at “postrockextension.blogspot.com. Also remember our website is www.postrock.ksu.edu and my twitter account is @PRDcrops.