Column Name- The Heartland Minute

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Musk Thistle Control

Growing up I know we all had chores that we despised. For some that may have been fixing fence, or stacking square bales. For me, my most despised task was digging up musk thistles. It wasn't until I was in high school I found out they actually made a spray to control musk thistles.... When I asked my dad "well why don't we just spray it, seems a lot easier" his response (in typical dad form) was "why spend money on spray when you have two perfectly good hands". I could not argue with that logic.

There are a few reasons why a pasture may have poor musk thistle control. Those include:

- Heavy Infestation: Small rosettes may be under leaf cover of other thistles
- *Heavy plant growth:* Thick weeds of other plant growth above rosettes can result in reduced spray coverage on musk thistles
- *Inadequate volume of spray used per acre*: Low spray volume can result in poor spray distribution and coverage.
- Dry soil or cool temperatures: This can result in little or no translocation of the herbicide.
- *Mature Plants:* Treating musk thistles at stages later than the recommended stage can result in less effective control.
- Improper calibration and adjustment: Improper nozzle height may result in incomplete spray coverage or excess application. Improper sprayer speed or pressure can result in inaccurate rates of application.

Walt Fick, K-State Research and Extension's Rangeland Management Specialist, states 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.

There are many different methods of control to think about when working to control musk thistles, both biological, cultural and chemical control. The first line of defense against musk thistle should be proper grazing management. Musk thistle invasion is stunted on grasslands properly stocked to maintain a good cover of vigorous competing vegetation. If you need assistance going through all the different options to control musk thistle on your operation, the Greenwood County Extension office would be happy to help.

For more information regarding Agriculture and Natural Resources, 4-H Youth Development, or K-State Research and Extension call the office at 620-583-7455, email me, Lindsay Shorter, at lindsayshorter@ksu.edu, or stop by the office which is located inside the courthouse. Be sure to follow K-State Research and Extension- Greenwood County on Facebook for the most up-to-date information on Extension education programs and the Greenwood County 4-H program.