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## Fall Musk Thistle Control Efforts

There aren't many weeds forage managers can control this time of year, but musk thistle is one. In fact, fall musk thistle control efforts will likely have more efficacy than spring ones.

The reason has everything to do with growth cycle. Musk thistles are biennial or winter annual species. Biennials take two growing seasons to complete their life cycle - thistles germinate in spring and spend the entire summer as a rosette, live through the winter, and bolt the next year in May/June. Winter annuals germinate with moisture and warm temperatures in the fall, live through the winter and bolt the following year.

This means the rosette growth stage in fall is an excellent time to implement a herbicide control program. Fall also gives us a measure of safety when applying herbicides since field crops are harvested, and trees have lost their leaves. Control now, particularly in areas where sensitive vegetation is an issue, can be much safer than in spring.

The fall herbicide application window is open until the ground is frozen, and musk thistle plants have shut down activity until spring. Freezing *temperatures* will start to damage musk thistle plants (yellowing/curling leaves), but plants are susceptible to herbicides as long as green tissue exists. For best results, apply control products on a warm, sunny day.

Numerous products are available. Products containing 2,4-D can be effective (LVE formulations tend to be better over amine formulations during this control window). Residual products containing picloram (Tordon 22K) and aminopyralid (Milestone, Chaparral, etc...) might be options to consider as well.

For information on product trials, check out a recent KSU Agronomy eUpdate at <a href="https://eupdate.agronomy.ksu.edu/article\_new/musk-thistle-control-in-the-fall-411-3">https://eupdate.agronomy.ksu.edu/article\_new/musk-thistle-control-in-the-fall-411-3</a> or the KSU Chemical Weed Control Guide available from any of our District Offices. Your county noxious weed director is a great resource as well – for herbicide product purchases and recommendations. As with any pesticide product, always read and follow label directions.

## Turf Fertilization Window #2 - Now Open!

If you're doing split applications of nitrogen to turf grass, a first application in September should now be followed up with a November application. Despite the slowed top growth as a result of cooler temperatures, plants are still producing carbohydrates. This energy is used first for top growth, with excess stored in the crown/roots to be used for early season growth next season. This allows us to skip early spring nitrogen applications that promote excessive shoot growth at the expense of needed root growth. Hold off on spring applications until May. Along the way, we help improve winter hardiness, root growth, and shoot density.

Application rates should be limited to one to one and a half pounds of actual nitrogen per thousand square foot of lawn area. Urea or ammonium sulfate containing products are good options (avoid slow release formulations). If you want to balance phosphorous and potassium needs of the turf, now is a great time for a soil test to do so as well.