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Musk Thistle Control
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There seems to be an explosion of musk thistles this summer. Thistles can be particularly tough weeds to combat. Part of the problem is that thistles are typically forgotten about until the elongated stalks and purple flowers are seen. By then, control efforts are too late. MU Extension has a guide IPM 1010 "Biological and Integrated Control of Musk Thistle in Missouri" which discusses control measures for this noxious weed. Below is information from that guide sheet.

Chemical control can be effective if properly timed. Apply 2,4-D or other registered herbicides to the musk thistle rosettes in either fall or spring. Applications after the plant bolts are too late for good control. For optimum control, apply herbicides while musk thistles are in the rosette stage or pre-bud stage.

Since musk thistle seeds are long-lived in the soil, it is important to prevent plants from producing seed until new rosettes are no longer produced. Seeds can remain viable in the soil from five to seven years.

Mowing can inhibit seed production. The best time to mow musk thistle is within two days after the terminal flower head blooms. The problem with mowing musk thistle is that not all the plants in an infestation produce terminal flower heads at the same time.

There are biological control measures that can aid in regulating the spread of this weed. Such natural enemies include the musk thistle rosette weevil and the musk thistle flower head weevil, and a musk thistle rust fungus.

The rosette weevil undergoes one generation per year. Adult weevils emerge from hibernation in early October and begin feeding on the underside of the rosette leaves. After mating, egg laying occurs during the fall and warm days of winter. Eggs are usually laid in the midrib on the underside of rosette leaves or placed directly in the rosette crown. Hatching larvae burrow their way to the growing center or crown bud of the rosette. Larval feeding can kill a rosette outright or it can change the growth pattern of the thistle, giving rise to a shorter plant that produces fewer flower heads that are smaller and contain less seed.

Flower head weevils emerge in early spring and feed on the leaves of musk thistle rosettes. After mating, eggs are laid on the bracts of developing flowers. When the eggs hatch, the larvae tunnel into the base of the thistle flower where they feed.

To minimize adverse effects on the flower head weevil, herbicides can be applied from mid-March to late April, mowing can be done in mid-July, and herbicides can be applied again in September and October. Where the flower head and rosette weevil are considered together, mowing can still be practiced in mid-July, but spraying should be restricted to a narrow period from September to mid-October.

MU guide IPM1010 available at your local MU Extension center or on-line at www.extension.missouri.edu. University of Missouri Extension is an equal opportunity / ADA institution.