

## **Musk Thistle: *Carduus nutans***



### **Description**

Musk thistle is primarily a biennial or winter annual but may occur as a summer annual. The leaves of musk thistle are deeply lobed, hairless, and are dark green with a light green mid-rib. A silver gray leaf margin is characteristic of each spine tipped lobe.

The leaf base extends down the stem to give the plant a winged appearance. Musk thistle is the first of the Kansas thistles to bloom in the spring. The terminal flower is large (1/2 to 3 inches in diameter), solitary and usually nodding or bent over slightly. The plant is freely branched and each branch may have one flower or more in addition to the terminal flower. The flowers are purple and are "powder puff" shaped. Seed dispersal begins 7 to 10 days after blooming. Seeds are straw-colored, oblong, and 1/8 inch in length.

The seeds are attached to parachute-like hairs (pappus) which allow for their dispersal by wind currents.

### **Prevention of Spread of Musk Thistle**

Musk thistle may be found throughout the State with heaviest infestations found in the north eastern one third of the State.

Musk thistle reproduces only by seed. The likelihood of new infestations will be reduced by any action to prevent the production and movement of seed. Planting weed free seed, feeding hay free of musk thistle seed and cleaning equipment before leaving infested areas are methods which will prevent the spread of musk thistle.

### **Musk Thistle Control Practices**

The control of musk thistle shall mean preventing the production of viable seed.

### **Cultural Control Practices**

**Mowing** - Mow with a rotary mower before the first appearance of pink on the flowers. Mowing at full

bloom will prevent seed production. Mow cleanly and closely and repeat as needed for control.

**Hand Cutting - Digging** - Cut between the first appearance of pink and the first appearance of brown on the pappus of the earliest head. Dig the root at least two inches below ground level and remove all soil from the roots. **Pick heads that are beyond the bud stage and place in a tight container.** Bury the container at a landfill or other site that will not be unearthed.

### **Herbicides Approved for Controlling Musk Thistle**

The following herbicides may be used for cost-share with landowners. Other products labeled and registered for use on this noxious weed in Kansas may be used in accordance with label directions but are not available for cost-share. Be sure to follow all label directions and precautions. For additional information consult the current KSU publication of AChemical Weed Control for Field Crops, Pastures, Rangeland, and Noncropland@.

- 2,4-D Amine or LV Ester. Apply during rosette stage of growth. 2,4-D Amine can be used in the fall if the soil moisture is favorable and air temperature exceeds 50 F. Follow label directions and precautions.
- Chlorsulfuron (Telar). Apply in spring from rosette to prebloom stages of growth. Follow label directions and precautions.
- Dicamba (Banvel, Clarity, Vanquish). Apply in spring during rosette stage of growth. Can be used for control in fall if the soil moisture is favorable and air temperature exceeds 50 F. Follow label directions and precautions.
- Dicamba + 2,4-D (Banvel + 2,4-D). Apply in spring during rosette stage of growth. Can be used for control in fall if the soil moisture is favorable and air temperature exceeds 50 F. Follow label directions and precautions.
- Picloram (Tordon). **Restricted use herbicide.** Apply during rosette stage in spring or in the fall, prior to soil freeze-up. Follow label directions and precautions.
- Picloram + 2,4-D (Tordon + 2,4-D). **Restricted use herbicide.** The addition of 1.0 pound of 2,4-D will improve the consistency of musk thistle control with picloram when environmental or biological conditions are not conducive to good herbicidal activity.
- Metsulfuron methyl (Escort). Use rates depend on the application site. Consult the label and supplemental labels for use directions. Follow label directions and precautions.
- Metsulfuron methyl + 2,4-D (Escort + 2,4-D). Use rates depend on the application site. The addition of 2,4-D will improve consistency of musk thistle control when environmental or biological conditions are not conducive to good herbicidal activity. Follow label directions and precautions.
- Imazapic (Plateau) Follow label directions and precautions.
- Clopyralid + Triclopyr (Redeem R&P). Follow label directions and precautions.
- Triasulfuron + Dicamba (Rave). Follow label directions and precautions.
- Aminopyralid (Milestone) Apply in the spring or fall, prior to soil freeze-up. Follow label directions and precautions.

### **Biological Control Plan**

Two insects for biological control of musk thistle are approved but must meet the requirements set forth in K.A.R. 4-8-41. Consult with your County Noxious Weed Director for more information.