## **BULL THISTLE CONTROL PROGRAM June 1, 2000**

#### **DESCRIPTION**

Bull thistle is a biennial that reproduces solely by seed. The lance-shaped rosette leaves are green on the upper side and light green on the lower side. The woolly character of the lower side may give it an almost grayish appearance. Mature leaves are moderately to coarsely lobed, with 3 to 4 points per lance-shaped lobe. Each point ends in a long stout, yellow spine, with numerous shorter spines between. Short, stiff hairs and frequently spines are found on the upper leaf surface. Leaves are short and broad, usually less than 12 inches in length, and very wavy or crinkled. Mature leaves are alternate and growing down the stem beyond their bases, causing the stalk to be "winged" and prickly, lobed leaf-like structures. The stems are stout, erect, branched and leafy to the heads. Considerable branching may be found in very young flower stalks. One to several small to intermediate sized purple flowers terminate the short, prickly-winged branches. Bull thistle flowers from July to September. Seeds are light, straw colored and oblong. The seeds are attached to parachute-like hairs (pappus) which allow for their dispersal by wind currents.

#### PREVENTION OF SPREAD OF BULL THISTLE

Bull thistle may be found throughout the State but occurs most frequently in the central and south central counties.

Bull 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 bull thistle seed and cleaning equipment before leaving infested areas are methods which will prevent the spread of bull thistle.

## **BULL THISTLE CONTROL PRACTICES**

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

## **CULTURAL CONTROL**

**Mowing** - Mow with a rotary mower between the first appearance of color and the first appearance of brown on the pappus of the earliest heads. Mow cleanly and closely and repeat as needed for control.

**Hand Cutting - Digging** - 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 BULL 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.

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, 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, Vanquish + 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 bull 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 bull 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.

#### **BIOLOGICAL CONTROL PLAN**

Any biological plan must meet the requirements of K.A.R. 4-8-41.