

# Musk Thistle

## Interesting Facts

- ✓ A single flower head may produce 1,200 seeds and a single plant up to 120,000 seeds
- ✓ Seed may remain viable in the soil for over ten years
- ✓ Unpalatable to wildlife and livestock
- ✓ Can grow to 6 feet

## Description

Musk thistle is a non-native biennial forb that reproduces solely by seed.

**Stems** are upright, green-grayish, and can grow to 6 feet tall with spiny wings .

**Leaves** The leaves are spiny, waxy, and dark green in color with a light green midrib.

**Flowers** are purple, large in size (1.5 to 3 inches in diameter), nodding, and terminal.

**Seed/Fruit** can produce thousands of straw-colored seeds adorned with plume-like bristles.

## Habitat

Musk thistle grows from sea level to about 8,000 ft elevation, in neutral to acidic soils. It invades open natural areas such as meadows, prairies, and grassy balds. It spreads rapidly in areas subjected to frequent natural disturbance events such as landslides and flooding but does not grow well in excessively wet, dry or shady conditions.

## Ecological Impacts

Because musk thistle is unpalatable to wildlife and livestock, selective grazing leads to severe degradation of native meadows and grasslands as wildlife focus their foraging on native plants, giving musk thistle a competitive advantage

## Control

**Mechanical:** Musk thistle will not tolerate tillage and can be removed easily by severing its root below ground with a shovel or hoe. Mowing can effectively reduce seed output if plants are cut when the terminal head is in the late-flowering stage. Gather and burn mowed debris to destroy any seed that has developed.

**Chemical:** Apply herbicides such as Picloram, Aminopyralid, Dicamba, or 2,4-D to musk thistle rosettes in spring or fall. Apply chlorsulfuron up to the early flower growth stage.

**Biological:** Two weevils have been introduced from Europe and released in the United States as a biological control for musk thistle, the thistlehead-feeding weevil (*Rhinocyllus conicus*) and the rosette weevil (*Trichosirocalus horridus*). These weevils have been released in a number of western states with some notable successes achieved. However, recent observations of unintentional and unanticipated impacts of the thistlehead-feeding weevil to native thistles, including some rare species, has raised a concern about its continued use, at least in the western U.S.