

Bull thistle

Colorado Dept. of
Agriculture,
Conservation
Services Division
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303-239-4100



Key ID Points

1. Leaves are prickly-hairy above and cottony below.
2. Heads cobwebby-pubescent (hairy).
3. Flowers are composite and purple in color.

Bull thistle Identification and Management



Identification and Impacts

Bull thistle (*Cirsium vulgare* (Savi) Tenore) is a biennial forb that was introduced to North America as a seed contaminant and is now widespread. Gumdrop-shaped flowers are pinkish to dark purple in color and 1 ½ to 2 inches in diameter. The flower bracts are somewhat tapered and covered with spines. Seeds are capped with a circle of plume-like white hairs. Leaves are alternate. In Colorado, Bull thistles are the only species that are prickly hairy on the top and are cottony-hairy on the undersides of the leaves. In mature plants the leaves extend down, clasping the stem and are divided into segments. The plant has a short, fleshy taproot with several primary roots extending from the root crown. Seed leaves are round to spatulate, and smooth. Mature plants can produce up to 4,000 seeds per plant.

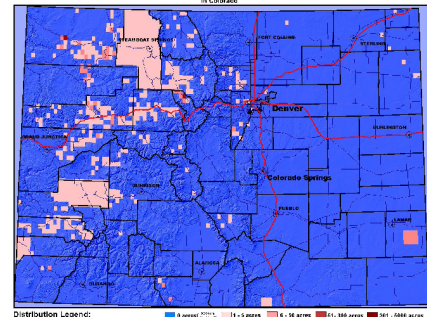
Habitats for Bull thistle include dry to moist environments. It thrives on nitrogen-rich soils, and it grows on gravelly to clay-textured soils. Bull thistle cannot withstand deep shade and is commonly seen in areas such as pastures, overgrazed rangeland, roadsides, and logged areas. Within Colorado Bull thistle infestations have been reported to occur in nearly all counties west of the continental divide, this plant has also been observed in the Upper Arkansas Watershed and in pockets on the plains. It is widespread throughout the United States and parts of Canada.

Hheavy infestations can reduce livestock forage. Additionally, the presence of bull thistle in hay decreases the forage value and lowers the market price. It is an aggressive weed, but it will not withstand cultivation. Bull thistle is often a transient species, appearing in recent clear cuts or disturbed areas and becoming a dominant species for several years. It has been reported to cause hay fever in some individuals and is often confused with musk thistle.

The key to effective control of Bull thistle is maintaining healthy pastures and rangeland, guarding against disturbance or overuse, and as with most biennial limit seed production. To reduce seed production, plants with buds or flowers should be collected and immediately disposed of or destroyed. Chemical control is most effective when plants are in rosette stage, spring or early fall. Mechanical controls can be used to eliminate small patches or plants in a later growth stages. Details on the back of this sheet can help to create a management plan compatible with your site ecology.

Bull thistle is designated as a "List BB" species in the Colorado Noxious Weed Act. It is required to be either eradicated, contained, or suppressed depending on the local infestations. For more information visit www.colorado.gov/ag/csd and click on the Noxious Weed Management Program. Or call the State Weed Coordinator at the Colorado Department of Agriculture, Conservation Services Division, 303-239-4100.

Bull thistle
2002 Statewide Survey
Distribution and Abundance
in Colorado
1,757+ infested acres



Photos © Kelly Uhing, Colorado Department of Agriculture, map above by Crystal Andrews, Colorado Department of Agriculture,

Cirsium vulgare (Savi) Tenore

**CULTURAL**

Prevent the establishment of new infestations by minimizing disturbance and seed dispersal, eliminating seed production and maintaining healthy native communities. Contact your local Natural Resources Conservation Service for seed mix recommendations. Maintain healthy pastures and prevent bare spots caused by overgrazing.

**BIOLOGICAL**

Urophora stylata, a fly predator, is used to help control this thistle. The female fly lays eggs in the seed head of the thistle. The maggot then consumes the seed in the flower. This species has overwintered in Colorado but the limited numbers will not allow for general redistribution. For more information, contact the Palisade Insectary of the Colorado Department of Agriculture at 970-464-7916.

**MECHANICAL**

Because biennial thistles do not reproduce from their roots, any mechanical or physical method that severs the root below the soil surface will kill the weed. It is necessary to revegetate the site with desirable plants. Tillage, hoeing, or even hand-pulling should be successful (not on rangeland), providing it is done before the reproductive growth stages.

Integrated Weed Management:

Prevention is the most effective control with Bull thistle, maintaining healthy pastures and rangeland and continually monitor your property for new infestations.

As with most biennials, limiting seed production is another key to controlling plant populations. Chemical and mechanical options to control Bull thistle are also effective.

Bull thistle

HERBICIDES

NOTE: The following are recommendations for herbicides that can be applied to range and pasturelands. Rates are approximate and based on equipment with an output of 30 gal/acre. Please read label for exact rates. Always read, understand, and follow the label directions. The herbicide label is the LAW!

HERBICIDE	RATE	APPLICATION TIMING
Clopyralid (Transline or Stinger)	0.13 to 0.5	Apply to rosettes in spring or fall.
Clopyralid + 2,4-D (Curtail)	0.2 + 1.0 to 0.3 + 1.5	Apply to rosettes in spring or fall.
Dicamba (Banvel, Vanquish, or Clarity)	0.5 + 1.0	Apply to rosettes in spring or fall if good growing conditions exist.
2,4-D or 2,4-D + dicamba (Rangestar)	1.5 to 2.0 1.0 + 0.5	Apply to rosettes in spring.
Picloram (Tordon 22K *restricted use chemical)	0.13 to 0.25	Apply to rosettes in spring or fall.
Chlorsulfuron (Telar)	0.047 (0.75 oz ai)	Spring from bolting to bud stages; add a non-ionic surfactant
Metsulfuron (Escort XP)	0.019 (0.3 oz ai)	Spring from bolting to bud stages; add a non-ionic surfactant.