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## Weed Identification and Control Sheet:

# Bull Thistle (Cirsium vulgare)

#### DESCRIPTION:

Bull Thistle is a biennial whose basal rosette can spread up to 3' before bolting in the second year. This member of the aster family is native to Europe, western Asia, and northern Africa, likely introduced to the eastern United States during the colonial times and the western United States in the late 1800s. It is currently found in all 50 states. This species is a prolific seeder and can spread rapidly in disturbed areas, making this a common weed in pastures, roadsides, old fields, weedy prairies and waste areas.

Bull thistle is typically noticed when it bolts in its second year to 3 to 6' in height. Hairy overall, the plant is extremely well armored with spines. The leaves have deeply cut margins and sharp, stiff spines at their tips and tend to wrap around and continue down the flowering stem. Lower leaves can be up to 16" long though the leaves become smaller. Flowers, from late-June to August, are clustered or solitary near the top of the plant. Flowers are 1.5-2" wide, magenta, and surrounded by spiny-tipped bracts. This species is somewhat similar to the weeds nodding thistle and Canada thistle. However, it is very similar to the native pasture thistle, which, while typically found in prairie remnants, can also be found in pastures. Pasture thistle can be differentiated from all of the exotic weedy thistles by the fact that the undersides of its leaves are strikingly white in color, and it also has fewer and less stiff spines as compared to bull thistle.

#### CONTROL METHODS:

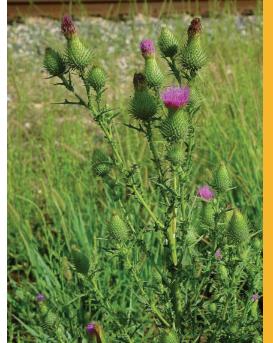
Since these plants only live for two years, the primary goal of management should be to prevent seed production. Once flowering has begun they can produce seeds even if you kill the plant.

**Organic:** Hand-pulling is not practical; the plants can only be handled with thick leather gloves and the root usually breaks off near the surface allowing the plant to re-sprout later. Cutting the root about 3" below the surface with a sharp shovel or "Parsnip Predator" is effective. This is best done before they flower, otherwise the flower heads (or entire plant) will need to be removed and disposed of. Bull Thistle can still produce flower heads after mowing, often at or below mowing height, however repeated mowings will reduce seed production.

**Chemical:** Many systemic herbicides will be effective. We recommend a foliar application of the broad spectrum herbicide glyphosate (Round-Up®) due to its low toxicity, or triclopyr (Garlon® 3A) which is more selective and will not kill grasses. Herbicides are most effective on rosettes however the spray must penetrate the thick layer of hairs. Overall, we recommend seeking out and treating these plants before they bolt. However herbicide can also be applied on second year plants before the flowers have opened. If the plants have already begun flowering, cutting or mowing can set them back again so that herbicides can be applied later. Fall herbiciding can be done even after the first hard frost if the plants still appear lively and the temperature is above 40 degrees. Always carefully read herbicide labels carefully before use and always apply according to the instruction on the product label.

#### NATIVE ALTERNATIVES:

Pasture thistle (Cirsium discolor) is a native prairie plant which, though not aggressive, is very similar to bull thistle, and even provides seeds and fluff that goldfinches and other wildlife enjoy. Overall, we recommend a diverse selection of prairie species to replace and compete against exotic thistles in order to develop a more stable and productive plant community for the site. Contact us for specific recommendations.











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