

BULL THISTLE

Also known as spear thistle

Cirsium vulgare

Sunflower Family (Asteraceae)

DESCRIPTION

Bull thistle is a biennial commonly found on recently disturbed sites and forest clearings, but it also invades native grasslands. It thrives on moisture.

Bull thistle's erect spiny stems and spreading branches reach 2–5 feet. The upper surface of the leaves is grayish-green with short, stiff hairs; the undersides are a woolly gray. The leaves are alternate, stout, and have a winged appearance, with pointed lobes and a long yellow spine at the tip. Bull thistle produces a rosette of low-growing leaves in the first year. A fleshy taproot can grow up to 30 inches long.

REPRODUCTION

Bull thistle reproduces solely by seed. It bolts and flowers generally in the second year, from June to September. Flowers are terminal, 1.5–2 inches across, and rose-colored to magenta or purple. The base of the flowers is cone-shaped and densely covered with green spines. Light brown, oblong seeds are ripe for release from July to October. Each plant produces seed only once before dying, but can produce thousands of seeds. The seeds are wind-dispersed, although research suggests that most drop within a few feet of the parent plant. Seeds germinate in spring and fall.

IMPACT

Bull thistle can establish in grassland and scrub habitats, quickly colonizing open patches. It also reduces the value of forage lands.

KEY FACTORS

- u Spines necessitate the use of heavy leather gloves when working on this plant.



- u Copious production of wind-dispersed seeds.
- u Seed longevity thought to be at least 10 years.
- u High germination success rate.
- u Resprouts from taproot unless removed from below crown.

TREATMENT OPTIONS

- u Pull bull thistle by hand before the flowers open. To spare yourself the spines, step on the stem so that the thistle leans over to one side before you bend down to pull it. If the ground is hard, loosen the soil with a pick and then pull up as much of the taproot as possible. Clip any flower heads that are beyond the bud stage if population size is small.

- u **Cut** the stems to at least 1–2 inches below ground with a sharp-edged shovel before the flowers bloom. Remove flower heads when feasible, i.e., in small populations. The plant may continue resprouting if the root is left in the ground, so follow-up is important.
- u **Mow** after the thistles have bolted but before they flower. A second mowing one month later is usually necessary. Thistles must be cut close to the ground. Yosemite National Park has had some success using this technique.

DISPOSAL

The stems can be left to decompose on-site. Any clipped flower heads should be removed (and bagged, if plants are on the cusp of developing seed), as thistle flowers can mature and produce viable seed even after being cut off the stem.

FOLLOW-UP

Not all bull thistles flower in the second year, so follow up for several years to catch those plants still in the rosette stage. Dig up rosettes each year or chop out 1–2 inches below ground. Replanting the area with native species will discourage bull thistle, which thrives more on open, exposed sites with little competition from other species. There is also evidence to suggest that bull thistle does not tolerate deep shade, so you might have success using a weed fabric barrier in dense patches as a follow-up treatment. Clean equipment before leaving the infested site to prevent the spread of viable seed.

INTERESTING FACTS

Bull thistle is native to Europe, western Asia, and North Africa, and reached the United States as a crop seed contaminant during the colonial era. The taproots at the rosette stage are edible if cooked.

Notes