

Canada Thistle (*Cirsium arvense*)

DESCRIPTION:

Canada thistle grows in meadows, prairies, fields, pastures and waste places. This Eurasia member of the aster family was introduced to North America in the early 1600s. One of the most tenacious and economically impacting agricultural weeds, it is listed as a noxious weed in 43 states. This perennial has a strong root system with horizontal roots that can extend 15 feet or more and vertical roots which grow 6 to 15 feet deep. It may produce 1,000 to 1,500 seeds per flowering stalk and seeds can remain viable in soil up to 20 years. Canada thistle's ability to rapidly spread both by adventageous roots and prolific seed-ing make it particularly difficult to manage.

In late-April or early-May, Canada thistle emerges as a small rosette, but new shoots can come up at almost any time of the year. Leaves are irregularly lobed with small spines along the margins. The upper surface of mature leaf is dark green with a paler underside. Mature plants reach 2-5 feet in height and begin flowering in June. The flowers are magenta in color and numerous, 3/4" to 1 1/4" in diameter. By July their seeds, windborn on delicate fluff (pappus), can be found all over the landscape. While other thistles are individual florets and stalks, this plant tends to grow in colonies. Unlike bull or musk thistle, the flowers and stems of Canada thistle do not have spines or prickles. Differentiate the native pasture thistle by looking for the nearly white underside of the pasture thistle leaves (as opposed to pale green).

CONTROL METHODS:

Organic: The extensive root systems of this plant make them resistant to tilling or digging. Mowing, cutting and pulling can be effective control methods only if they are done extremely regularly and thoroughly. Top killing all of the plants start-ing in early June and repeating every 3 weeks through the entire growing season is optimal for depleting the roots' energy stores. Leaving plants alive or waiting too long between treatments allows colonies to rebound quickly. Well established plants may take two years or more to kill off entirely. Late spring burns can be helpful in controlling this species, but must be done after the plants have sprouted. Smothering can be effective only if the entire colony is covered.

Chemical: Herbicide is most effective in the rosette stage of growth (6-10"), so the best times to spray are in late spring or after they resprout following mowing or other treatments. Another critical time is in June after flower buds are formed, but before flowers open. Fall herbiciding can be done even after the first hard frost if the plants still appear lively and the temperature is above 50 degrees. Glyphosate (Round-Up®) is only partially effective on Canada thistle and repeated treatments will be needed. Transline® and Milestone® are more effective, often controlling thistle in a single treatment and have the added benefit that they will not harm grasses and some other plants. Others may also work well but with potential negative environmental impacts. Always read herbicide labels carefully before use and always apply accord-ing to the instruction on the product label.

NATIVE ALTERNATIVES:

Since this is a full-sun weed we recommend a diverse selection of prairie species to replace and compete against thistles in order to develop a more stable and productive plant community for the site. Contact us for specific recommendations.

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Highly
Invasive

