



Canada Thistle

Cirsium arvense (L.) Scop.
Sunflower family (Asteraceae)

NATIVE RANGE

Temperate regions of Eurasia

DESCRIPTION

Canada thistle is an herbaceous perennial with erect stems 1½-4 feet tall, prickly leaves and an extensive creeping rootstock. Stems are branched, often slightly hairy, and ridged. Leaves are lance-shaped, irregularly lobed with spiny, toothed margins and are borne singly and alternately along the stem. Rose-purple, lavender, or sometimes white flower heads appear from June through October, generally, and occur in rounded, umbrella-shaped clusters.

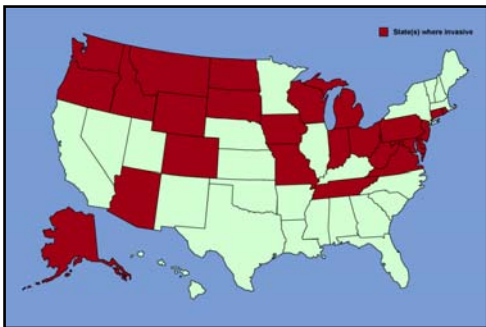


The small, dry, single-seeded fruits of Canada thistle, called achenes, are 1-1½ inches long and have a feathery structure attached to the seed base. Many native species of thistle occur in the U.S., some of which are rare. Because of the possibility of confusion with native species, Canada thistle should be accurately identified before any control is attempted.

ECOLOGICAL THREAT

Natural communities that are threatened by Canada thistle include non-forested plant communities such as prairies, barrens, savannas, glades, sand dunes, fields and meadows that have been impacted by disturbance. As it establishes itself in an area, Canada thistle crowds out and replaces native plants, changes the structure and species composition of natural plant communities and reduces plant and animal diversity. This highly invasive thistle prevents the coexistence of other plant species through shading, competition for soil resources and possibly through the release of chemical toxins poisonous to other plants.

Canada thistle is declared a "noxious weed" throughout the U.S. and has long been recognized as a major agricultural pest, costing tens of millions of dollars in direct crop losses annually and additional millions costs for control. Only recently have the harmful impacts of Canada thistle to native species and natural ecosystems received notable attention.



DISTRIBUTION IN THE UNITED STATES

Canada thistle is distributed throughout the northern U.S., from northern California to Maine and southward to Virginia. It is also found in Canada, for which it was named. Canada thistle has been identified as a management problem on many national parks and on preserves of The Nature Conservancy in the upper Midwest, Plains states, and the Pacific northwest.

HABITAT IN THE UNITED STATES

Canada thistle grows in barrens, glades, meadows, prairies, fields, pastures, and waste places. It does best in disturbed upland areas but also invades wet areas with fluctuating water levels such as streambank sedge meadows and

wet prairies.

BACKGROUND

Canada thistle was introduced to the United States, probably by accident, in the early 1600s and, by 1954, had been declared a noxious weed in forty three states. In Canada and the U.S., it is considered one of the most tenacious and economically important agricultural weeds, but only in recent years has it been recognized as a problem in natural areas.

BIOLOGY & SPREAD

Canada thistle produces an abundance of bristly-plumed seeds which are easily dispersed by the wind. Most of the seeds germinate within a year, but some may remain viable in the soil for up to twenty years or more. Vegetative reproduction in Canada thistle is aided by a fibrous taproot capable of sending out lateral roots as deep as 3 feet below ground, and from which shoots sprout up at frequent intervals. It also readily regenerates from root fragments less than an inch in length.

MANAGEMENT OPTIONS

Management of Canada thistle can be achieved through hand-cutting, mowing, controlled burning, and chemical means, depending on the level of infestation and the type of area being managed. Due to its perennial nature, entire plants must be killed in order to prevent regrowth from rootstock. Hand-cutting of individual plants or mowing of larger infestations should be conducted prior to seed set and must be repeated until the starch reserves in the roots are exhausted. Because early season burning of Canada thistle can stimulate its growth and flowering, controlled burns should be carried out late in the growing season for best effect.

In natural areas where Canada thistle is interspersed with desirable native plants, targeted application of a systemic herbicide such as glyphosate (e.g., Roundup® or Rodeo®), which carries plant toxins to the roots, may be effective. For extensive infestations in disturbed areas with little desirable vegetation, broad application of this type herbicide may be the most effective method. Repeated applications are usually necessary due to the long life of seeds stored in the soil.



USE PESTICIDES WISELY: Always read the entire pesticide label carefully, follow all mixing and application instructions and wear all recommended personal protective gear and clothing. Contact your state department of agriculture for any additional pesticide use requirements, restrictions or recommendations.

NOTICE: mention of pesticide products on this page does not constitute endorsement of any material.

CONTACTS

For more information on the management of Canada thistle, please contact:

- Daniel Roddy, National Park Service, Wind Cave National Park, SD; dan_rodny at nps.gov
- U.S. Geological Survey, Biological Resources Division, Flagstaff, AZ
<http://www.nbs.nau.edu/FNF/Vegetation/Exotics/Cirsium/cirsiumarvense.html>

OTHER LINKS

- <http://www.invasive.org/search/action.cfm?q=Cirsium%20arvense>
- <http://www.lib.uconn.edu/webapps/ipane/browsing.cfm?descriptionid=46>

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PHOTOGRAPH

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REFERENCES

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Hutchison, M. 1992. Vegetation management guideline: Canada thistle (*Cirsium arvense* (L.) Scop.). *Natural Areas Journal* 12(3):160-161.

The Nature Conservancy. Canada Thistle: Element Stewardship Abstract. In: Wildland Weeds Management & Research Program, Weeds on the Web.