

**Category A—High**

**Canada thistle (*Cirsium arvense*)**

**Navajo Name**

Azéé hakani yázhí

**Origin**

Native to southeastern Europe and the eastern Mediterranean sea.

**Description**

Canada thistle is a perennial forb that can grow up to 3 to 5 feet tall in patches and clumps. It has an extensive creeping root system that can grow as deep as 15 feet. New shoots and stems form in the spring from the root base. Leaves are spiny, lance-shaped, and lobed, while base leaves are stalkless and clasp the stem. Flowers are small and can be white to purple, with clusters at the end of each branch with a purplish involucre. It is dioecious, meaning male and female plants grow separately.

**Biology**

Canada thistle can spread through adventitious root buds or by seed. Root fragments as small as 1 cm can resprout to form new plants. A single plant can produce between 1,000 to 5,000 seeds per stem, which are not carried far from the plant, but can if eaten by birds or other animals. It grows in disturbed sites and while it prefers moist soils, it can tolerate a wide range of soils.

**Locations**

Small populations have been detected on rangelands and along roads near Window Rock and Leupp.

**Ecological Threat and Management Concerns**

Canada thistle grows aggressively, crowding out native plants. Its deep and extensive root system can also resprout, making eradication difficult. Canada thistle can reduce the productivity of agricultural fields and rangelands. Livestock tend to avoid it and it can cause abrasions and infections when animals rub against the mature plants, which can increase maintenance costs. They are also hosts for numerous agricultural pests.



Photo credit: R. Bartz



Photo credit: S. Dewey, USU



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Photo Credit: J.M. DiTomaso

**Key ID Tips**

- Small clusters of flowers at the end of each stem.
- Grows in thick clumps with several stems
- Rhizomatous root system.
- Has either solely male or female flowers on the plant.

Additional safety measures and limitations may apply for each method. Refer to the [Navajo Nation Integrated Weed Management Plan](#) for more information.

**Mechanical/Manual Removal**

Mowing can reduce root storage and suppress flowering, but must be done every 3 to 4 weeks during the growing season with other control methods. Tilling and grubbing can increase Canada thistle as root fragments can resprout and survive for at least 100 days. Any cultivation should be done every 3 weeks during the growing season.

**Biological**

Several biological control agents have been studied in the United States. However, none have been approved for use on the Navajo Nation.

**Cultural Control**

Grazing and fire are not effective for Canada thistle management as both can stimulate resprouting and spread.

**Chemical**

Use of herbicides can be effective. Refer to the product labels for information application rates, timing, and approved application methods.

Recommended herbicides include:

- 2,4-D
- Aminopyralid
- Clopyralid
- Dichlobenil
- Indaziflam
- Picloram\*

\*Restricted Use by U.S. EPA

**References**

DiTomaso, J.M., G.B. Kyser et al. 2013. *Weed Control in Natural Areas in the Western United States*. Weed Research and Information Center. University of California. 544 pp.

USDA, NRCS. 2023. PLANTS Database. Available at <https://plants.sc.egov.usda.gov/>. National Plant Data Team, Greensboro, NC 27401-4901 USA



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