

Camelthorn (*Alhagi camelorum*)



Photo credit: NPS



Photo credit: S. Dewey, USU



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Navajo Name
Ch'ilhoshí

Origin
Native to the Mediterranean region and western Asia.

Description
Camelthorn is an herbaceous perennial that grows in a shrub form, between 3 to 6 feet tall. They have alternate simple leaves with long thorns extending from each petiole. Leaves are hairless to nearly hairless and covered in tiny red dots. They have extensive, creepy, woody roots that can grow to a depth of 6 feet and up to 30 to 40 inches away from the main plant. Flowers are magenta to pink pea-like flowers, with two to six on each stalk. Fruits are a reddish-brown seed pod with a beaked tip.



Photo credit: S. Holiday

Biology
Camelthorn prefers sites where their roots can access ground water and is often found in clay soils. They can tolerate some salinity. Their roots associate with nitrogen fixing bacteria, which can change soil chemistry to alter suitability. In cool climates, its leaves become deciduous and in moist sites, its thorns are fewer and smaller while its leaves are larger and more numerous. Flower production is also lower at moist shaded sites. Hard frost can kill above ground parts. Plants reproduce locally through root sprouts, while seeds allow for dispersal at greater distances. Seeds can also survive for at least 8 months when submerged and can survive in soils for more than 20 years in arid soils with viability decreasing in cooler, moister climates.

Locations
Heavy infestations documented near Shiprock, Tuba City, Chinle Wash, the San Juan River Basin, and along the Little Colorado River.

Ecological Threat and Management Concerns
Camelthorn has extensive, tough roots, which make them hard to eradicate. Their roots store extensive reserves that allow them to regrow in response to disturbance. They can grow through pavement and structures, while thorns can flatten tires. Its sharp spines also deter animals from eating the foliage and can interfere and harm animals and humans.

Key ID Tips

- Long thorns the branches and stems at the leaf petioles.
- Tiny red dots on the leaf surface.
- Magenta to pink pea-like flowers.

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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

Most manual and mechanical removal methods are not effective as they stimulate root spread and regrowth. Tilling can also cause resprouting but if done repeatedly during the growing season, it can exhaust underground stores over time.

Biological

No biological control organisms are available.

Cultural Control

Sheep and cattle can graze camelthorn when young and before thorns develop. Cattle may also feed on pods, reducing dispersal to new sites. Burning is not effective as it can stimulate root spread and regrowth in response.

Chemical

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

Recommended herbicides include:

- Clopyralid
- Imazapyr
- Metsulfuron methyl
- 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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