

Camelthorn

Colorado Department of
Agriculture

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Key ID Points

1. Flowers are brown to reddish-purple in clusters of 1 to 8.
2. Perennial shrub that grows 1 1/2 to 4 feet tall.
3. Long stem with spines.

Camelthorn Identification and Management



Identification and Impacts

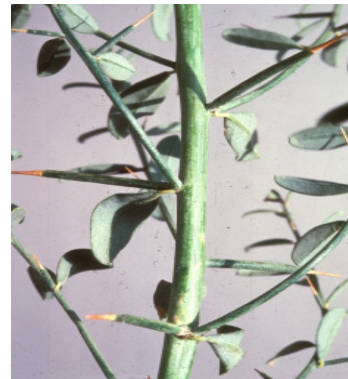
Camelthorn (*Alhagi pseudalhagi*) is an erect perennial shrub that grows from 1 1/2 to 4 feet tall. The stems are hairy when the plant is young and as it matures they become smooth and branched with sharp yellow tipped spines up to 1 3/4 inches long. Leaves are blue-green in color with smooth edges and are lance-shaped. They are more apparent on lower branches. Flowers are found towards the ends of the branches on short stalks of spines or small branches. Flowers are pea-shaped in clusters of one to eight with a brown to reddish-purple color.

Camelthorn is native from India to Asia minor and southern Russia. It grows well on dry and moist sites and can be found along roadsides, overgrazed pastures, irrigation canals, rivers, and disturbed areas. It can grow up through asphalt and housing structures. Camelthorn has a deep and extensive creeping root system. Small pieces of roots can grow into new plants. The plant is not yet identified to be in Colorado, yet it has been known to establish between 100 and 5000 feet in elevation. Due to camelthorn's rapid rhizomatous growth habit, quickly formed dense stands can be impenetrable due to

the spiny stems. Camelthorn out-competes native species and crowds out desirable wildlife and livestock forage.

The key to effective control of camelthorn is prevention as it is very difficult to control once established. Preventative measures include using certified weed-free hay, preventing overgrazing, and stopping activities that result in significant ground disturbances. Because of the deep rooted system and limited success of eradication, mechanical control is not recommended. Herbicides provide the best means of control and eradication. When using herbicides, be sure to use different chemicals each year to prevent the establishment of a herbicide-resistant population. Details on the back of this sheet can help to create a management plan compatible with your site ecology.

Camelthorn is designated as a "List A" species on the Colorado Noxious Weed Act. It is required to be eradicated wherever found in the State. For more information visit www.colorado.gov/ag/weeds and click on the Noxious Weed Management Program. Or call the State Weed Coordinator at the Colorado Department of Agriculture, Conservation Services Division, 303-239-4100.



Photos: Middle left photograph courtesy of Arizona Department of Transportation; above by Steve Dewey, Utah State University; all others from the Washington Noxious Weed Control Board.

Alhagi pseudalhagi



CULTURAL
Preventing the establishment of the camelthorn is crucial, so maintaining healthy native plant communities is a priority. Contact your local Natural Resources Conservation Service for seed mix recommendations. Bare ground is prime habitat for weed invasion, so prevent bare spots caused by overgrazing.



BIOLOGICAL
Biocontrol agents are not included in the prescribed management plans by the State for List A Species. Eradication is the management objective of all List A's. No biocontrol agent for camelthorn is available. For more information on biocontrol in Colorado, please contact the Palisade Insectary of the Colorado Department of Agriculture at 970-464-7916.



MECHANICAL
Mechanical techniques such as hand pulling, digging, or tilling are **not** recommended as an eradication treatment because of the deep and extensive creeping root system of camelthorn. Mowing is not an effective method for control because plants flower and seed all the way down to the base of the plant.

Integrated Weed Management:

Preventing the establishment of this plant in Colorado is crucial since it is not yet known to exist in the state. Monitoring your land for infestations is key to early detection. Eradication requires intensive and persistent control efforts to effectively eliminate weed infestations and soil seed reserves. The soil seed reserve for camelthorn is unknown.

The site must be monitored for at least 10 years after the last flowering adult plants have been eliminated and treatments repeated when necessary.

HERBICIDES

The following are recommendations for herbicides that can be applied to range and pasturelands. Always read, understand, and follow the label directions. *Rates are approximate and based on equipment with an output of 30 gallons per acre. Please read label for exact rates. The herbicide label is the LAW!*

Herbicide	Rate	Application Timing
Metsulfuron (Escort XP)	1 oz./acre + 0.25% v/v non-ionic surfactant	Apply during bolting to early flower growth stages.

Additional herbicide recommendations for other species can be found at: www.colorado.gov/agconservation/CSUHerbicideRecommendations.pdf

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