

Category C—Low

Cheatgrass (*Bromus tectorum*)

Identification and Impacts



Photo credit: L.J. Mehrhoff



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Photo Credit: B. Ackley

Navajo Name
Shíyínáldzidí

Origin
Native to Eurasia

Description

Cheatgrass is an erect annual grass that grows to 8–25 inches tall. The leaf sheaths and blades are covered in soft hairs and have thin, short, paper-like ligules. The panicle droops to one side, with open, branching spikelets. The panicle can appear green to reddish-purple becoming tan when mature. The florets taper to a sharp pointed awn, about an inch long that can spiral and curl. Lemmas are covered in soft hairs and barbs that allow them to attach to clothing and fur. They have shallow roots and can grow with multiple stems in a clump.

Biology

Cheatgrass is widespread across the United States and is well adapted to a wide range of conditions. It prefers well drained soils and does not do well in saline or wet soils. It grows in disturbed sites, rangeland, forests, and crop land. As a cool-season grass it germinates in the fall, and flowers in early spring. As the inflorescence matures, it becomes reddish-purple before dying in the late spring and summer. Seeds can survive in the soil for 2 to 3 years, with some instances of them surviving up to 5 years. As they grow, they accumulate thatch and dry material. It reproduces only by seed. They also spread easily by attaching to shoes, clothing, and animal fur.

Locations

Found throughout the Navajo Nation and problematic in rangelands and along trails.

Ecological Threat and Management Concerns

Cheatgrass increases the fire frequency of the areas it invades, especially in open rangelands and development areas. Its life cycle allows it to outcompete native grass species, crowding out perennial grass species. It is also responsive to disturbance, becoming one of the first plants to resprout. In agricultural settings, cheatgrass can reduce production of cultivated grass species. The seeds can also harm animals with their sharp tips.



Photo credit: Bureau of Indian Affairs

Key ID Tips

- Open inflorescence that droops to one side.
- Hairy leaves and leaf sheaths.
- Awns 1-2 cm long, that spread and curl and may be barbed

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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

Small infestations can be hand pulled or hoed in the early spring before seed maturation. Mowing is not recommended as it can initiate flowering if done before seeds matures. If necessary, repeated mowing should be done every 3 weeks to reduce seed production and followed with herbicide. Shallow tilling in the fall or early spring can also suppress bromes and facilitate perennial grass establishment.

Biological

No biological control organisms are available.

Cultural Control

Targeted grazing can be used to control cheatgrass when young and before seed development. However, treatments should be followed with herbicide and should only apply moderate pressure. Burning can be used when done in the spring before seed set and as part of a 2 to 3 year program.

Chemical

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

Recommended herbicides include:

- Glyphosate
- Imazapic
- Indaziflam
- Paraquat*

*Restricted Use by U.S. EPA

References

DiTomaso, J.M., G.B. Keyser 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.

Management Recommendations



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