

Category C—Low

Red brome (*Bromus rubens*)

Identification and Impacts



Photo credit: J.M. Randall, TNC



Photo credit: M. Licher



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Key ID Tips

- Dense, erect panicle with flaring spikelets.
- Inflorescence starts with red tips and becomes entirely red as they mature.
- Smaller stature than other annual bromes.

Navajo Name
Bi'zé yilwo' lichíí

Origin
Native to the Mediterranean region.

Description
Red brome is a erect annual grass that grows to 10-40 cm tall, being smaller in stature than the other listed brome species. Leaves are thin with hair on both surfaces and only a few per stem. The inflorescence is its most distinct feature as they are 2-10 cm long, erect, and dense with panicle branches that don't droop. The spikelets flare out, are longer than the panicle branches, and are densely crowded. The seeds are linear to lanceolate and covered in small, short hairs.

Biology
Red brome grows in disturbed sites, wastes, fields and rocky slopes. It is more sensitive to cold than the other bromes. It expands with disturbance, which increases germination.

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

Ecological Threat and Management Concerns
Red brome increases the fire frequency of the areas its invades, especially in open rangelands and development areas. Its growth pattern 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, red brome can reduce production of cultivated grass species. The seeds can also damage grazing animals with their sharp tips. Red brome is included as one of several non-native annual brome species that have impacted rangelands in the region.



Photo credit: K. Gishi, NRCS

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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 mature. 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 be suppress bromes and facilitate perennial grass establishment.

Biological

No biological control organisms are available.

Cultural Control

Targeted grazing can be used to control red brome when young and before seed development. However, treatments should be followed with herbicide and should only apply moderate pressure. Burning can be 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:

- Atrazine*
- Fluazifop-P-butyl
- Glyphosate
- Imazapic
- Indaziflam

*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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