

Category C—Low

Field brome (*Bromus arvensis*)

Identification and Impacts



Photo credit: P. Rothrock



Photo credit: J.M. Randall, TNC



Photo Credit: J.M. DiTomaso

Key ID Tips

- Different venation seen on the first set of glumes versus the second.
- Spikelets are smooth while leaves and sheath are hairy.
- Branch to spikelet is long.

Origin
Native to Eurasia

Description
Field brome is an annual grass that grows between 14 –40 inches tall. Leaf blades are flat and covered with soft, thin hairs while hairs on the leaf sheath are denser. Ligules are small while auricles are absent. The inflorescence is an open panicle 2-7 inches long with drooping branches and 6-10 smooth spikelets. The first glumes have 3-5 veins while the second have 5-9 veins. Awns on the seeds are between 1/4 to 3/4 inches long. They have shallow roots and can grow with multiple stems in a clump.



Photo credit: Daderot

Biology
Field brome, sometimes called Japanese brome, grows in grasslands and disturbed sites, including shrublands, pinyon-juniper woodlands, low elevation forests, and agricultural sites. They can grow in a wide variety of soils. Plants germinate in the fall. Seeds can remain viable for several years, with most viable between 2 to 5 years.

Locations
Small populations have been detected on the Navajo Nation.

Ecological Threat and Management Concerns
Field brome can outcompete native perennial grass species and can reduce the amount of available forage for livestock and wildlife. While it can be used for grazing or as a cover crop, its ability to crowd out more desirable vegetation can alter native plant biodiversity and increase erosion. As an annual grass species, dead plants can accumulate thatch and alter fuels and fire risk. Field brome is included as one of several non-native annual brome species that have impacted rangelands in the region.

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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 suppress bromes and facilitate perennial grass establishment.

Biological

No biological control organisms are available.

Cultural Control

Targeted grazing can be used to control field brome 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
- Indaziflam
- Metribuzin

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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