

Category C—Low

Horehound (*Marrubium vulgare*)

Identification and Impacts



Photo credit: R. Kleinman, WNMU



Photo credit: P. Alexander



Photo Credit: B. Million, BLM

Key ID Tips

- Woolly, square stems
- Hooked spines at the top of seed pods.
- Small, bilateral white flowers.
- Woolly leaves with depressed veins.

Origin
Native to Eurasia

Description
Horehound is a perennial shrub that grows to about two feet tall. It has erect, densely hairy stems that appear grey or silvery. The cross-section of the stems are square and branched at the base. It has round to ovate leaves with round-toothed margins that are also covered in dense hairs. Leaves are opposite and have depressed veins, making the surface wrinkly. They also have a pungent smell. Flowers occur at the leaf axils and are in clusters with small, bilateral white flowers with spiny calyces. The seed pods are small oval pods that have hooked spines at the top, which can cling to animals, shoes, or clothing.



Photo credit: A. Smith-Muse, NMSU

Biology
Horehound grows in disturbed sites, including rangelands and roadside, preferring dry sites. It can expand under drought conditions and under heavy grazing pressure. Their seed pods can cling to animals and clothing, allowing them to travel great distances. Some evidence suggests seeds can survive in the soil for 7 to 10 years.

Locations
Horehound has been documented near Ganado, east of Lukachukai along BIA-13, and east of South Sheba Crater.

Ecological Threat and Management Concerns
Horehound colonizes disturbed sites and overgrazed rangelands and can be an initial colonizer at eroded sites. Livestock tend to avoid it as it is bitter tasting, giving it an advantage over more preferable native forage. This creates a feedback loop that allows horehound to displace native vegetation. Since it can also expand under drought conditions, horehound populations can further outcompete native plants, especially when combined with other land management practices.

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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

Hand pulling is effective for small populations and should remove the top of the taproot to limit resprouting. It should be repeated as new seedlings emerge. Mowing can restrict the growth of some populations. Tilling can be effective when soils are dry and is recommended only for agricultural areas.

Biological

No biological control organisms are available.

Cultural Control

Targeted grazing is not recommended because horehound is not a preferred forage and it can spread under intense grazing pressure. Burning is also not recommended as it can stimulate germination and should only be used in combination with other control methods.

Chemical

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

Recommended herbicides include:

- 2,4-D
- Metsulfuron methyl
- Picloram*
- Triclopyr

* 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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