



Weed Common Name

Houndstongue, Gypsy flower

Botanical Name (Scientific Name)

Cynoglossum officinale L.

Points to Consider

- Houndstongue is a biennial that thrives in rangelands, pastures, riparian areas, rights-of-way, forest clearings, campgrounds, and other disturbed sites.
- One of the most famous features is the Velcro-like burr that it produces.
- Its ingestion by horses, cattle, and sheep can cause liver failure, although sheep tolerate it better.

Integrated Pest Management of Houndstongue

Importance

The key feature that distinguishes houndstongue is the Velcro-like burrs that it produces. The burrs are known for getting stuck to clothing, wool, and fur and for being transported long distances. Houndstongue burrs have significant negative impacts on recreation, wildlife, and livestock. Its vegetation is also toxic to horses, cattle, and sheep, the latter to a lesser extent. When sufficient quantities are ingested, it causes liver failure.

Description, Biology, and Ecology

Houndstongue is a biennial or short-lived perennial broadleaf weed introduced from Europe, likely as a seed contaminant. It commonly invades rangelands, pastures, roadsides, forest clearings, campgrounds, and other disturbed sites. While shade tolerant, houndstongue grows best in full sunlight.

Seedlings typically appear in the spring and early summer (Figure 1). During its first year, the plant forms a rosette (Figure 2). In the second year, flowering stems emerge and reach 1.5–2.0 feet in height. Leaves are oblong, covered with soft white hairs, and resemble a dog's tongue — hence the common name “houndstongue.” The plant develops a thick, woody taproot. Each flower has five petals and the ability to produce four seeds or



Figure 1. Houndstongue seedling. Courtesy of Joseph M. DiTomaso, University of California-Davis, Bugwood.org.



Figure 2. Houndstongue rosette. Courtesy of Joseph M. DiTomaso, University of California-Davis, Bugwood.org.

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nutlets. Flowers are reddish purple, each with five petals, and typically bloom from May to June (Figure 3). They are primarily pollinated by bumblebees. Each flower can produce four prickly nutlets, each containing one seed (Figure 4). A single plant may produce between 50 and 2,000 seeds. Fortunately, seed longevity in the soil is short – about 2–3 years – with roughly 98% germinating within the first year.

Management

Primary Management Tactics

Maintaining healthy, desirable vegetation is one key to preventing weed infestations. First, adopt cultural management practices that maintain a healthy stand of beneficial plants. Limit bare-ground plantings and re-seed if necessary. Second, use mechanical or chemical methods to control weeds before they produce seed. The best weed control programs consistently use an integrated pest management approach.

Prevention

- Check clothing and animal fur for burrs when leaving infested areas. Properly dispose of burrs in a garbage bag or burn them completely in a fire.
- Maintain healthy vegetation.
- Prevent overgrazing.
- Minimize environmental disturbances.

Mechanical

- Hand-pulling can be an effective option. Make sure to remove at least 3”–4” of the tap root, because it can regenerate from the root crown. Bag and burn plants if they have already produced seed.
- Tillage may be an effective option in some areas. Till before seed is produced. Tillage should be followed by re-seeding desirable vegetation.
- Repeated mowing decreases seed production.

Cultural

- Grazing management: Always favor beneficial plants and provide them with the best conditions to compete with houndstongue. Houndstongue is toxic to horses and cattle, but they usually avoid it unless there is no other feed source available.



Figure 3. Flowering houndstongue. Courtesy of John M. Randall, The Nature Conservancy, Bugwood.org.



Figure 4. Developing burrs that contain seeds. Courtesy of Mary Ellen (Mel) Harte, Bugwood.org.

The best way to prevent poisoning is to ensure that other feed sources are available.

- Grazing does not control houndstongue, but it is helpful as an integrated pest management tool. Leave proper residuals and avoid overgrazing, which encourages the growth of houndstongue.

Biological

Although not approved for official release in the United States, *Mogulones crucifer* (a root-feeding weevil) reduces houndstongue infestations in Canada

and parts of the United States, where it has naturally migrated. Until approved for use as a biological US control agent, however, it is illegal to transport it.

Chemical

- Confirm houndstongue's inclusion in target weed lists for the product you are using.
- Confirm that the product you choose is labeled for your intended use.
- Because many herbicides have significant soil activity or are volatile at higher temperatures, carefully apply herbicides in or near the root zone of nontarget plants, like trees, shrubs, and garden plants, or when temperatures are high.
- See the [PNW Pest Management Handbooks](#) website for recommendations for herbicides to use in the management of houndstongue.
- Consult herbicide labels to identify optimal application timing.
- Use surfactants to break the surface tension and allow a spray to stick to its hairy leaves.

Further Reading

Idaho State Department of Agriculture. n.d. "Houndstongue [sic] (Containment)." *Invasive Species of Idaho*. <https://invasivespecies.idaho.gov/houndstongue-factsheet>.

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Mangold, J. 2021. "Houndstongue Root Weevil (Mogulones crucifer)." Montana State University Extension. <https://s3.wp.wsu.edu/uploads/sites/2072/2013/11/Houndstongue2006.pdf>.

Utah State University. n.d. "Houndstongue." <https://extension.usu.edu/rangeplants/forbs-herbaceous/houndstongue>.

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Zouhar, K. 2002. "Cynoglossum officinale." In *Fire Effects Information System* [Online]. United States Department of Agriculture/US Forest Service. <https://www.fs.usda.gov/database/feis/plants/forb/cynoff/all.html#ECOSYSTEMS>.

Caution: Read Pesticide Labels

Pesticide labels override other recommendations.

ALWAYS read and follow the instructions printed on the pesticide label. The pesticide recommendations in this UI webpage do not substitute for instructions on the label. Pesticide laws and labels change frequently and may have changed since this publication was written. Some pesticides may have been withdrawn or had certain uses prohibited. Use pesticides with care. Do not use a pesticide unless the specific plant, animal, or other application site is specifically listed on the label. Store pesticides in their original containers and keep them out of the reach of children, pets, and livestock.

Trade Names — To simplify information, trade names have been used. No endorsement of named products is intended nor is criticism implied of similar products not mentioned.

Groundwater — To protect groundwater, when there is a choice of pesticides, the applicator should use the product least likely to leach.