

WATCH OUT *for* Houndstongue

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Invasive weeds are non-native plants that invade ecosystems and replace native plants. Noxious weeds are usually invasive and designated by State law as priority plants that require control by landowners. These weeds can reduce grazing land and impact wildlife habitat. Early detection and quick response is critical to slow spread and protect weed-free areas. The purpose of this bulletin is to provide early control methods for houndstongue (*Cynoglossum officinale*). Contact your county weed coordinator or Extension agent for management of large infestations.

Houndstongue (Borage Family), a native of Europe, was introduced to North America as a seed impurity. Houndstongue is a biennial or short-lived perennial forb. It forms a rosette in its first year of growth and produces a stem, flowers, and seeds in May and June during its second year and then dies. The rosette is composed of large leaves that are rough to the touch, resembling a hound's tongue. Flowers are reddish-purple and produced on a stout, heavy stem that can reach 4 feet tall. The seeds are distinctive, prickly, adhesive nutlets. Houndstongue has a thick, black, woody taproot that can reach 3 feet deep.

Habitat and impacts

Houndstongue grows on rangeland, pastures, abandoned cropland, roadsides, open woodlands, and waste areas. It is common on gravelly, alkaline soils. Houndstongue is a poor competitor with native plants and usually needs disturbed or bare areas to establish. Houndstongue contains alkaloids that are toxic to grazing animals, especially cattle and horses. Standing plants are not palatable, but become more palatable when dried or after herbicide treatment. Livestock are most likely to consume houndstongue in contaminated hay.

Biology and spread

Houndstongue reproduces solely from seed. Mature plants can produce up to 2,000 seeds. Buried seed survives less than 1 year. Seed remains viable on the parent plant for 2 to 3 years. The seeds stick to clothing and shoes, dogs, livestock, and wildlife. This enables the plant to spread long distances. Seeds are difficult to remove and reduce the value of wool. Seeds may also cause irritation to cattle.

Early control methods

Houndstongue can be dug up or hand-pulled, if soil conditions permit. Hand pulling may be difficult because the taproot is strong and grows deep into the soil. Plants may be more successfully removed with digging or herbicide treatments. Eradication requires follow-up management to remove overlooked plants and prevent reinvasion.

Herbicide selection and timing should be advised by your county weed coordinator and application must follow label directions. Applications of 2,4-D alone are not very effective. Roots may rapidly sprout new growth and repeated applications are usually required. But this herbicide may be the only cost-effective choice near water. Effective herbicide treatments on sites distant from surface or ground water follow. Include surfactants to improve herbicide performance.

- Metsulfuron (Escort®) applied at a rate of 1 to 2 ounces/acre.
- Chlorsulfuron (Telar®) applied at a rate of ½ to 1 ounce/acre.

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Houndstongue has large, rough leaves on a stout stem.

Photo by J. Randall (TNC)

Prevent houndstongue spread and colonization by locating and eradicating new plants and newly established patches. The key to eradication is 100% control to prevent reproduction. Prevent invasion by removing seeds from clothing, shoes, dogs, and gear and burning them or disposing in landfill-bound garbage. Remove houndstongue seeds from cattle before releasing them into weed-free rangeland. Revegetate disturbed areas with native grasses and maintain healthy and competitive native plant communities. Encourage outdoor users to clean equipment, remain on trails, and report new invasions.