

# HOUNDSTONGUE

Cynoglossum officinale



## CONTROL

### Hand Pulling

Hand pulling, especially with the aid of a shovel, can be a very effective method of control on patches of both rosettes and flowering houndstongue plants at any time during the growing season. Pulled plants that are in or past the flowering stage should be placed in plastic bags and removed from the site to prevent seed dispersal. Prioritize flowering, which occurs in the spring.

### Mowing

Mowing can be an effective method of control for bolting individuals if done before flower, but will not effect rosettes of houndstongue.

### Biological control

N/A

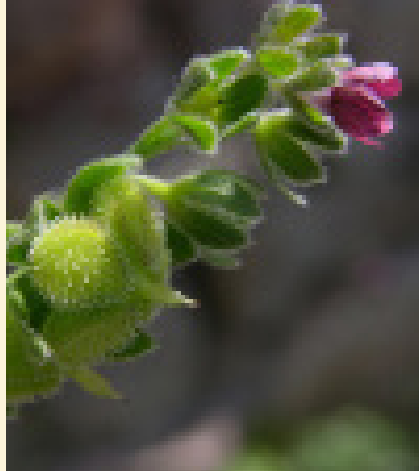
### Grazing

Grazing is not a recommended method of control for houndstongue due to it containing high levels of pyrrolizidine alkaloids that are poisonous to livestock. Grazing will only increase pressure on competitive desirable species.

Ideal Timing for Treatment Options		
Spring	Summer	Fall
Hand-pulling		
Mowing		
Foliar		Foliar

### Herbicide

The use of herbicides on houndstongue should focus on individuals that are in the rosette or bolting stages, as flowering individuals will already die at the end of the season (houndstongue is a biennial). The herbicide chart on the back lists approved controls for houndstongue. Always consult product labels and read them carefully to ensure correct species/land management usage and chemical application. Application should occur during the rosette stage and prior to bud stage.



## Houndstongue Life Cycle

Life Cycle	Root	Leaves	Stems	Flower	Seed/Fruit	Toxic
Biennial	Taproot	Rosette leaves are up to 12 inches long, velvety, lack teeth or lobes. Stem leaves alternate and smaller as move up stem.	1 to 4 feet tall with branches near the top.	Reddish-purple with 5 petals. Clustered at the top of the plant, unrolls like a scorpion tail.	Each flower produces 4 sticky burs, 1/3 inch long and somewhat flat.	Horses, cattle, sheep, goats

## Herbicides for Houndstongue, *Cynoglossum officinale*

Active Ingredient	Rate	Efficacy	Comments
2,4-D	4 pt product/acre	Postemergence when plants are growing rapidly Spring	Selective herbicide for broadleaf species. In areas with desirable grasses, 2,4-D can be used without non-target damage.
Aminocyclopyrachlor + Chlorosulfuron	4.75-8 oz/acre	Preemergence or postemergence	Broad spectrum control of many broadleaf species. Can suppress or injure certain annual and perennial grass species. Do not treat in root zones of trees.
Aminopyralid + metsulfuron	2.5-3.3 oz/acre	Rosette, mid-bolt, when plants are actively growing	Crop rotation restrictions while using product, up to 4 years potential harm, refer to label for transferring livestock back into broadleaf crop areas.
Glyphosate	1-2pt/acre	Postemergence when plants are rapidly growing	May mix with glyphosate in the fall. Avoid drift to sensitive crops. Dicamba will damage clovers in pastureland.
Chlorsulfuron	1 oz/acre	Preemergence or postemergence. Spring.	Selective herbicide effective for controlling broadleaf weeds and some grasses.
Imazapic	8-12oz/acre	Preemergence or early postemergence	Selective herbicide effective for controlling broadleaf weeds and some grasses.
Imazapyr	1 pt/acre	Preemergence or postemergence	Surfactant is recommended. Effective in removing broadleaf species. Cover plant but do not spray until runoff.
Metsulfuron	1 oz/acre	Early postemergence Spring	Selective broadleaf. Can be used safely around desirable grasses.
Sulfometuron + chlorsulfuron	0.75-2.25 oz/acre	Preemergence or postemergence	Effective for broadleaf and some grasses. Long soil residual activity.

Information on diagnostic identifying characteristics adapted from "Montana's Noxious Weeds" by Pokorny and Mangold, Montana State University Extension Bulletin EB0159.