

Horehound

Marrubium vulgare

What does it look like?

Erect, much branched, downy, perennial about 50 cm tall. Flowers are small with white petals and grow in dense clusters at regular intervals around the stem. Dried flower parts adhere to wool and clothing. Sepals (tiny leaf-like structures surrounding the flowers) have hooked teeth and can be prickly to touch when dry. Leaves are in opposite pairs, wrinkled and densely covered in soft downy hairs underneath. Very common in drier areas, especially in Canterbury and Otago; less common north of the Volcanic Plateau

Plants have a bitter taste and are largely avoided by animals. Especially a problem weed in lucerne but also in open, dry pastures.

Horehound seeds germinate in autumn to early spring, under cool, moist conditions. Most seeds are normally dormant, with the dormancy broken by a few weeks of cool, moist conditions. Plants may be long-lived although many die during the first few years after establishment. One plant can produce up to 74,000 seeds a year. Seeds are contained in a hooked calyx (ring of sepals just below the petals) which may remain attached to the stems of plants for several months, but easily break off when brushed by animals, livestock, or socks.

Why is it a problem?

Horehound tends to invade heavily stocked areas and is only found in disturbed places, especially on calcareous soils.

Horehound seedlings do not compete well with other plant species.

Horehound can taint meat and dry seed heads contaminate wool. Leaves have a bitter taste and are hairy, both of which discourage livestock from grazing them. Dried horehound flowers can reduce the value of wool.

Horehound is rarely a problem in well-managed pasture with adequate nutrients and appropriate grazing. Grows on poor soils and where there is little competition in autumn.



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Control Methods

Physical control

Ensure sheep are not moved from infested paddocks to clean paddocks. Destroy small new infestations by hand pulling them. Sowing improved pastures with appropriate pasture species, adequate fertiliser and well-managed grazing can prevent horehound from establishing. In arable land seedlings are easily controlled by cultivation, but established plants may need blade ploughing, disking or repeated cultivation. Topping of horehound will remove the flower stems and improve stock access to pasture.

Herbicide control

Effective herbicides include glyphosate, chlorsulfuron, hexazinone, metsulfuron-methyl, triclopyr and fluroxypyr. Some of these can persist in the soil for many months and care should be taken not to spray non-target plants as these may also be killed. Winter treatment of lucerne with herbicide is probably the most effective treatment for control of horehound. Recent research in Central Otago supported earlier work showing that glyphosate and atrazine can be used successfully as a winter herbicide on lucerne when the crop is dormant (July or August) and lucerne cover below 100 kg DM/ha.

Biocontrol

Two moths, *Wheeleria spilodactylus* and *Chamaesphecia mysiniiformis*, as biological control agents for horehound were approved for introduction by EPA in December 2018. Larvae of the horehound plume moth (*Wheeleria spilodactylus*) attack the above ground vegetation, and larvae of the horehound clearwing moth (*Chamaesphecia mysiniiformis*) attack the roots.

Contact GWRC for further information.

Related Links

AgPest <https://agpest.co.nz/?pesttypes=horehound>

Manaaki Whenua Landcare Research <https://www.landcareresearch.co.nz/discover-our-research/biosecurity/weed-management/approvals/horehound/>