

Nodding thistle

Carduus nutans

What does it look like?

Nodding thistle is a biennial plant that grows from over-wintering rosettes and has a long, fleshy taproot. The flowering stems grow up to 1.5m tall bearing red-purple or, occasionally, white flowers that droop or nod when mature. Sharp spines densely cover the stems and leaf margins.

Nodding thistle is predominantly a weed of pasture (particularly pasture grazed by sheep) and also invades roadsides, wasteland and crops such as lucerne. It will grow in most soil types but does not grow well in excessively wet, dry, or shady conditions and does best under higher soil fertility.

Why is it a problem?

Nodding thistle is considered to be the most aggressive thistle in New Zealand. It can invade pastures at all stages of development, particularly those grazed by sheep, and quickly establish in pastures suffering from summer drought. Its main economic impact is that it prevents stock from eating plants growing in the vicinity of the thistle, replaces desirable vegetation and hinders stock movement.

Nodding thistle is a prolific seeder, with approximately 200 seeds produced per flower, of which two-thirds are viable. Seed may lay dormant in the soil for up to 20 years.



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Control Methods

Physical control

Grub out scattered plants or small infestations; remove at least first 5cm of taproot.

Herbicide control

Young seedlings may be sprayed with MCPB without any damage to pasture. Once rosettes get older, MCPA or 2,4-D will be needed, and these can cause suppression of clover growth following spraying.

Boom spray established infestations with 2-2.5L /ha 2,4-D ethylhexyl ester before September.

Pasture management

Good pasture management can prevent establishment. Prevent overgrazing especially in summer, ensure biocontrol agents are present.

CAUTION: When using any herbicide or pesticide, PLEASE READ THE LABEL THOROUGHLY to ensure that all instructions and safety requirements are followed.

Biological control

The nodding thistle receptacle weevil was released in the Wellington region in 1972, followed by the nodding thistle crown weevil in 1990, and the nodding thistle gall fly in 2005. The receptacle weevil is widespread and the other two agents have established in the region. Contact GW for more information.

Related Links

New Zealand Plant Conservation Network http://www.nzpcn.org.nz/flora_details.aspx?ID=3633

NZ Flora <http://www.nzflora.info/factsheet/Taxon/Carduus-nutans.html>

Massey University <http://www.massey.ac.nz/massey/learning/colleges/college-of-sciences/clinics-and-services/weeds-database/nodding-thistle.cfm>

Biocontrol <https://www.landcareresearch.co.nz/discover-our-research/biosecurity/weed-management/using-biocontrol/>