



Government
of South Australia

Plant Policy

Buchan weed (*Hirschfeldia incana*)

Buchan weed is an annual or biennial weed of broadleaf crops and rotational grazing in the higher rainfall part of the agricultural zone.

Weed Risk

Invasiveness

Although seed production is high, the majority of the seed remains close to the parent plants. The main means of spread of Buchan weed is as a contaminant of fodder, and sometimes in oilseeds or vegetable seed. It is likely that some is also dispersed in the gut of livestock, and locally by dead plants scattering seed as they are blown about by the wind.

Impacts

Buchan weed is one of the crucifer weeds that compete with broadacre crops and pasture in some situations.

Buchan weed populations increase when broadleaf crops, such as oilseed rape and vegetable seed are grown. In pastures it may be present but not obvious due to grazing. When these pastures are cultivated it may dominate unless controlled by grazing, cultivation or herbicides.

Potential distribution

Although present since the 19th century, Buchan weed has only established in areas with a long growing season. It occurs in the southern Eyre Peninsula, Kangaroo Island, southern Yorke Peninsula and from the Mount Lofty Ranges to the lower South East, within the 450 mm isohyet which seems to mark its limit.

Feasibility of Containment

The areas suitable for Buchan weed growth are limited to the Lower South East, a few pockets in the Adelaide Hills and Kangaroo Island. It is already established in these areas.

State Level Risk Assessment

Assessment using the Biosecurity SA Weed Risk Management System gave the following comparative weed risk and feasibility of containment scores by land use:

Land use	Weed Risk	Feasibility of control	Response at State Level
Irrigated pastures	medium 67	high 20	protect sites
Vegetables	low 25	low 99	limited action

Regional Level Risk Assessment

Assessment by the South East NRMB found that in the region's grazing lands Buchan weed has a weed risk of 34 (low) and a feasibility of containment of 85 (low), corresponding to limited action and comparable to non-declared weeds such as bracken fern and sorrel. In the same region's cropping lands, its weed risk was scored as 16 and feasibility of containment as 85. Only in irrigated cropping or pasture did the weed risk rise to 56 (medium), corresponding to an action of site management by the land owners.

Considerations

Buchan weed has been established in SA since 1880. It was considered a weed in the Lower South East and Lower North in 1933. In 1953 it was a weed on roadsides and waste ground in the Port MacDonnell area.

The former Animal and Plant Control Commission had no policy of enforced control of Buchan weed. However, in 1990 the Commission accepted the advice of the Grant Animal and Plant Control Board that enforced control was necessary in that area, and recommended that Buchan weed be declared a local pest plant in the District Council of Grant and the City of Mount Gambier only, pending further review.

Where dense infestations occur, they are due to an increase in abundance rather than spread from roadside or adjoining properties. The incentive of seed growers to manage land to prevent a build up of population should be sufficient for them to control it on their land. In the South East region Buchan weed has been widespread for many years. Although enforced control programs in this regions may, at high expense to the community, reduce the obvious infestations they do little to overcome the impacts of the weed in vegetables or pasture.

To implement this policy, Buchan weed is not declared under the *Natural Resources Management Act, 2004* in SA.

Synonymy

Hirschfeldia incana (L.)Lagr.-Foss., Fl. Tarn. Garonne 19 (1847)

Nomenclatural synonyms:

- Sinapis incana* L., Cent. Pl. 1: 19 (1759)
- Brassica incana* (L.)Meigen, Deutsch. Fl. 3: 270 (1842)

Taxonomic synonyms:

- Hirschfeldia adpressa* Moench, Meth. 264 (1794)
- Brassica adpressa* (Moench)Boiss., Voy. Bot. Espagne 2: 38 (1839)
- Sinapis geniculata* Desf., Fl. Atlantica 2: 98 (1778)
- Brassica geniculata* (Desf.)Benth., Fl. Aust. 1: 65 (1863)

Other common names include hairy brassica, hairy mustard, hoary mustard, shortpod mustard.

Reference

South East Natural Resources Management Board (2009) South East Pest Management Strategy, Part 2: Pest Management Plan. 94 pp + appendices.

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Conservation**

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