

Weed Sheet

Declared weed sheet : Lincoln weed



Government of South Australia
South Australian Murray-Darling Basin
Natural Resources Management Board

Lincoln weed

(Diplotaxis tenuifolia)

Lincoln weed is an erect branching perennial herb belonging to the *Brassicaceae* family that reproduces by both taproot and seed. It is a weed primarily occurring in neglected areas, roadsides, railway easements and pastures of South Australia.



Lincoln weed



Image: A Harvey



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What is it?

Lincoln weed is an erect branching perennial herb belonging to the *Brassicaceae* family that reproduces by both taproot and seed. It is a weed primarily occurring in neglected areas, roadsides, railway easements and pastures of South Australia.

What does it look like?

Growth: Lincoln weed is an erect branching herb whose seedling forms a rosette. It occasionally reaches 1m and is often between 30 and 80cm high.

Leaves: The leaves are dark green, fleshy, lanceolate and occur mainly on the lower stems. Lower leaves reach 10-15cm long, are slender, hairless and lobed or divided resulting in segments with upper leaves being smaller and less divided.

Flowers: Flowers are bright yellow, have four petals between 8-15mm long and present themselves singly at the end of the stems in small clusters.

Fruit: Lincoln weed produces fruit in a cylindrical pod 2-5cm long and 1-2mm wide with a small beak. Each fruit can contain approximately 50-80 seeds.

Seed: Seeds are brown or yellow-orange, egg-shaped and are up to 2mm long occurring in two rows within the seed pod.

Roots: A single long-lived deep taproot exists and is often branched from which new growth occurs each year.

Why is it a problem?

Lincoln weed has varying impacts depending on the situation in which it is growing. It invades poor quality pastures and readily reduces the quality of cereal crops by discolouring the harvested grain. Lincoln weed is rarely eaten by stock except occasionally when in flower; it is reported to be poisonous to stock and has on occasion been suspected of causing death of both stock and humans. If grazed it has the potential to taint meat and dairy produce.

Another characteristic making Lincoln weed a problem is its low level of susceptibility to herbicide if sprayed when not actively growing, often resulting in the need for re-treatment to obtain effective control.

Flower



Image: Google Images

Seed

Cover images: A Harvey

Affected land uses : Crop/Pasture, rangelands grazing, roadsides, railway yards and easements.

Where is it found?

Prior to the 1960's Lincoln weed was often sown on the Eyre Peninsula as a pasture plant and has occasionally been used to bind sandy soils in the North East of the state. It is currently common throughout the Eyre and Yorke Peninsulas and also the upper north and Murray Mallee.

How is it spread?

Lincoln weed is primarily spread by seed and is commonly transported by vehicles, machinery, hay and fodder products and in the past has been widely distributed by rail cars. Seeds are also transported by animals, on clothing, in mud and water and occasionally by wind.

How do we control it?

Prevention:

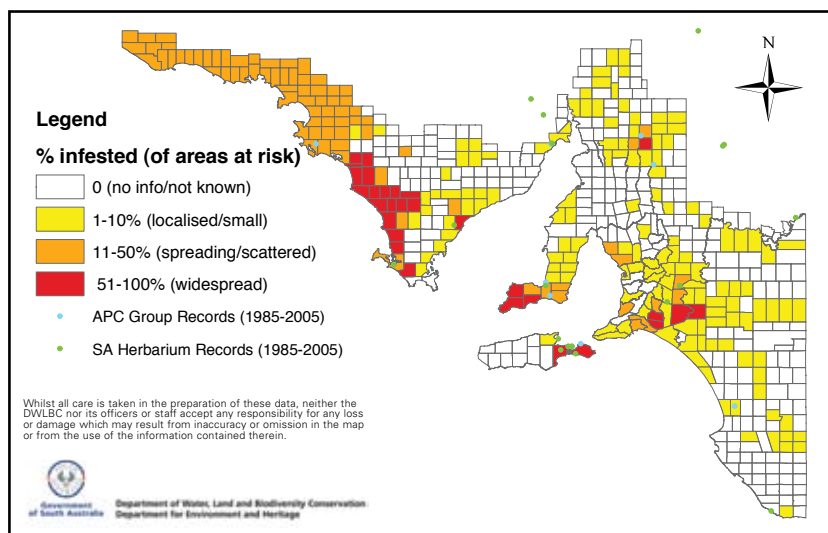
Lincoln weed rarely invades established undisturbed sites and therefore an effective method of preventing invasion is to maintain a healthy undisturbed ground cover and avoid the transportation of seed by machinery, vehicles, stock or clothing. Ensure hay and fodder products are free of Lincoln weed.

Physical control:

Hand removal is an effective method of control for Lincoln weed, however it is time consuming and only suitable for individual plants, young seedlings and if the soil is loose or moist enough to allow most of the taproot to be removed.

Deep ploughing is seen to be effective due to burial of the main taproot although it is essential to ensure repeated workings take place to control seedlings and regrowth from segments of the taproot. This method may not be suitable to all soil types, especially light sands or in certain climatic conditions e.g. drought.

It is essential to follow up any form of physical removal of Lincoln weed with establishment of heavily competitive perennial ground cover to prevent the occurrence from both seedlings and root segments in following years.



Infestation Level of LINCOLN WEED (*Diplotaxis tenuifolia*) by hundreds in the State of South Australia (2005 data)

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Active growth	Active growth	Active growth	Active growth	Active growth	Active growth	Active growth	Active growth	Active growth	Active growth	Active growth	Active growth
Flowering	Flowering	Flowering	X	X	X	X	X	X	Flowering	Flowering	Flowering
Seed set	Seed set	X	Seed set	Seed set	Seed set	Seed set	Seed set	Seed set	Seed set	Seed set	Seed set
Germination	Germination	X	X	Germination	Germination	X	Germination	Germination	Germination	Germination	Germination

X Occurrence given suitable conditions

Growth stages of Lincoln weed (*Diplotaxis tenuifolia*)

- Active growth
- Flowering
- Seed set
- Germination

Chemical control:

Chemicals registered in South Australia for the control of Lincoln weed include Glyphosate, Diquat, MCPA, 2,4-D, Metsulfuron methyl and Chlorsulfuron. In most cases re treatment is necessary to obtain effective control. Spot spraying actively growing isolated plants with Glyphosate is also effective.

Biological control:

There are currently no biological control agents known to be effective on Lincoln weed.

References

Parsons, W.T. and Cuthbertson, E.G. (2001) *Noxious Weeds of Australia* 2nd Edition, CSIRO Publishing.

Cunningham, G.M., Mulham, W. E., Milthorpe, P.L. and Leigh, J.H. (1981) *Plants of Western New South Wales*, N.S.W Government Printing Office.

Contact us



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Legislation

Lincoln weed is declared under the Natural Resource Management (NRM) Act 2004.

Declared Plant Class: 3F
Declared Plant Category: 2

The following provisions of the NRM Act 2004 are to be applied throughout the State of South Australia:

175(2) – relates to the movement of plants on public roads within a control area.

177(1)(2) – relates to the sale of plants, produce or goods carrying plants.

The following provisions of the NRM Act 2004 are to be applied in Council areas specified within the 'South Australian Government Gazette':

182(2)(3) – relates to the obligation of an owner of land to control and keep controlled the plant and take any measures prescribed by the relevant authority.

185(1) – relates to the ability of the NRM authority to recover the costs of control on roadsides from adjoining landholders.



Natural Heritage Trust

Helping Communities Help Australia

An Australian Government Initiative

Head Office

Mannum Road
PO Box 2343
Murray Bridge SA 5253

Telephone : (08) 8532 1432
Facsimile : (08) 8531 1843
www.samdbnrm.sa.gov.au
enquiries@samdbnrm.sa.gov.au

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