Lincoln weed

Lincoln weed (*Diplotaxis tenuifolia*) 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 in shape 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 4 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.

Where is it found?

Prior to the 1960s 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.

Chemical control:

For advice on chemical control techniques contact your nearest landscape board. Please refer to the Weed Control Handbook for declared plants in South Australia for advice on chemical control. You can find it on Biosecurity SA's website at www.pir.sa.gov.au.

In most cases re-treatment is necessary to obtain effective control including spot spraying of actively growing isolated plants.

What are your responsibilities?

Lincoln weed is declared under the *Landscape South Australia Act 2019*. This means it is illegal to transport or sell this plant and all property owners have a responsibility to control it on their property.

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.

More information

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