



Government
of South Australia

Plant Policy

Soldier Thistle (*Picnomon acarna*)

Soldier thistle is a common annual crop and pasture weed with a widespread distribution in the southern part of South Australia.

Weed Risk

Invasiveness

Soldier thistle has wind-borne seeds but these disperse only for short distances. Alternatively, the whole dead plant may break off at the base and move as a tumbleweed. Seed production can be high in dense infestations, but there is no means of vegetative spread. It has generally been moved between properties in fodder or on machinery.

Impacts

Soldier thistle establishes on soils of high fertility, in waste areas and roadsides. It is most predominant where it is not controlled in crops and is allowed to dominate regenerated pastures especially where grazing management removes perennial grasses from volunteer pastures. It is not a major weed of sown permanent pastures.

Dense stands of soldier thistle indicate lack of perennial grasses and a decline in legumes. The major loss due to thistles occurs where dense infestations restrict access to adjacent pasture. It is not found as large infestations in well-managed pastures, but remains as a weed of waste areas, drains and road verges.

Potential distribution

Soldier thistle is native to the Mediterranean basin of southern Europe and northern Africa. Like most thistles, it has a high requirement for soil nitrogen and is found mainly on soils of high fertility. It is common in the better cereal growing areas, with heavy red-brown earth soils, generally receiving about 400 mm rainfall. Because soldier thistle flowers from December to February, it is limited to areas with a long growing season extending into summer.

Feasibility of Containment

Control costs

It is easily controlled in crops as germination is encouraged by cultivation, and the rosettes are susceptible to herbicides routinely used in cereals. However, if not treated early it can become very competitive.

Persistence

Soldier thistle is an annual with few seeds surviving more than a few years. It therefore does not accumulate a seed bank in the soil.

Soldier Thistle

Current distribution

Soldier thistle has not become a widespread weed around the world, being introduced outside its native range only in Afghanistan and Australia.

The main infestations in South Australia are in the Mount Lofty Ranges through the Mid North as far as the southern end of the Flinders Ranges, also in the Murray Mallee and Upper South East. Isolated infestations have been found on Yorke Peninsula and Kangaroo Island but it is absent from Eyre Peninsula.

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
Crop/pasture rotation	low 29	high 23	monitor
Grazing - southern	high 114	medium 42	protect sites

Considerations

Soldier thistle was introduced to South Australia later than the other common thistle species, but was established in the Adelaide area by 1908.

The highest level of management action indicated by the risk assessment is protecting sites in southern grazing areas. This is done as necessary by land owners. Soldier thistle has not increased its range although there have been no enforced control programs for several decades. None of the Natural Resources Management Boards now require enforced control of soldier thistle to implement their weed management plans.

Therefore, soldier thistle is not declared under the *Natural Resources Management Act 2004* in South Australia.

Soldier Thistle

Synonymy

Picnomon acarna (L.) Cassini, Dict. Sci. Nat. 40: 188 (1826)

Basionym:

Carduus acarna L., Sp. Pl. 2: 820. (1753).

Nomenclatural synonyms:

Cirsium acarna (L.) Moench, Suppl. Meth. 226 (1802).

Cnicus acarna (L.) L., Sp. Pl. edn 2, 1158 (1763).

Taxonomic synonyms:

Carthamus canescens Lam., Fl. Franç. 2: 10 (1779).

Another common name is yellow-plumed thistle.

Hon Ian Hunter MLC
Minister for Sustainability, Environment and
Conservation

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