Managing pest plants

PEST PLANT CONTROL IN THE YORKE DISTRICT

Managing pest plants is important to help reduce their impact on the environment and to stop them from spreading further

A pest plant, or weed, is a plant that grows where it is not wanted. In most cases, agricultural or environmental pest plants have been introduced into an environment and become over abundant.

Pest plants often arrive unintentionally, carried into the district or onto properties by machinery, vehicles and animals, attached to clothing or footwear, or embedded in hay and fodder.

They can compete with crops and pasture for moisture and nutrients; contaminate crops; compete with native flora and fauna; reduce the agricultural and conservation value of the land; and in some cases they may be toxic to people, livestock and native animals.

Pest plants have a major impact on Australia's agricultural productivity and environment. Each year, more than four billion dollars is lost through decreased production and the cost of control programs.

How are pest plants categorised?

Pest plants are categorised based on how invasive they are, their potential to spread and their environmental, economic and social impact.

Weeds of National Significance (WoNS) are very invasive, high impact pest plants that are difficult to manage without a coordinated management program. There are 32 pest plants on the WoNS list and their management is coordinated nationally between all levels of government, as well as organisations like Natural Resources Northern and Yorke and individual landholders.

Alert List weeds are declared plants not yet established in South Australia and pose a serious threat.
Landowners must report alert weeds found on their property. Early detection is important so the plant can be destroyed before it becomes a problem. With appropriate intervention, Alert List weeds can be successfully contained or eradicated.

Declared plants are those that present a significant threat to agriculture, the environment and public health and safety. They are supported by legislation.

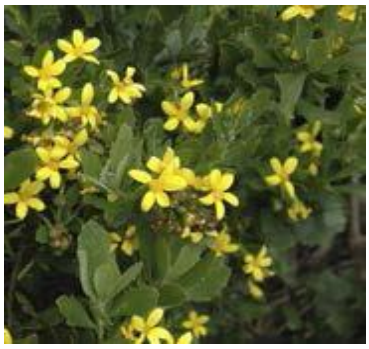
Priority weeds are not restricted to WoNS or declared plants, but have been identified as a priority plant to manage within a particular district or region.

Priority plants for Yorke District

African boxthorn *(Lycium ferocissimum)* – *WoNS*
Management strategy - manage weed

The thorny bushes of African boxthorn form impenetrable thickets that can become a problem along fence lines, and watering points and disturbed areas; preventing stock access and crowd out desirable pasture plants. African boxthorn can also easily invade intact coastal areas and native vegetation. Seeds are spread in contaminated soil or produce, and by birds and mammals that eat the berries. It can also regrow from root segments.

Boneseed (*Chrysanthemoides monilifera* ssp. *monilifera*) *WoNS*
Management strategy - destroy infestations



Boneseed is a highly invasive and competitive pest plant that spreads quickly in disturbed situations and outcompetes native species. Vigorous growth and a lack of natural enemies make it an aggressive invader of native vegetation.
After a fire boneseed is able to regenerate quickly and outcompete other species. Seeds are spread by birds, rabbits, foxes and cattle, as well as in contaminated soil.

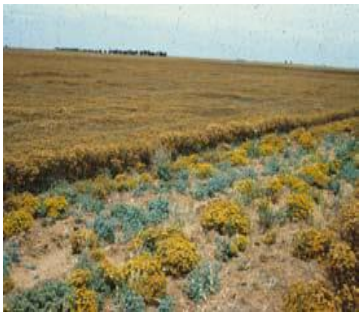
Bridal veil *(Asparagus declinatus)* – *WoNS*
Management strategy - destroy infestations

Bridal veil is a highly invasive and competitive environmental pest plant. It has thick tuberous root masses and very dense foliage that outcompetes native vegetation. Bridal veil spreads when fruit is dispersed by birds or ground dwelling animals. Roots and tubers can also be dispersed in soil. Bridal veil is a strong competitor whose dense canopy overshadows native plants and blocks sunlight during the winter growing season. It also competes for soil space and nutrients though the dense mat of tubers developed along its rhizomes.

Buffel grass (*Cenchrus ciliaris*) – *declared plant*
Management strategy – destroy infestations

An introduced perennial pasture plant, buffel grass can dominate the ground layers in many plant communities. Used in other parts of Australia as a pasture plant and to minimise dust, buffel grass can reduce plant diversity over time. Pasture production may also decline. Seeds are spread by wind, water and animals. Dry buffel grass foliage forms a continuous flammable ground layer. It can carry intense and extensive fires at much shorter intervals than the native understory, altering native plant communities over time.

Calomba Daisy *(Oncosiphon suffruticosum)* – *declared plant*
Management strategy - contain spread



Calomba daisy is widespread in the northern Adelaide agricultural landscape and is slowly moving around the top of Gulf St Vincent along roadsides and through Clinton CP. Calomba daisy is unpalatable to stock. Dense stands can also reduce the yield of cereal crops.

Caltrop *(Tribulus terrestris)* - *declared plant*
Management strategy - manage weed

Caltrop has seeds that remain dormant in the soil for up to five years. They germinate after summer rain. Plants grow rapidly, flowering and forming new burrs within three to five weeks. The flowers are small, less than 1cm in diameter, and yellow with five petals. Wedge-shaped burrs are formed in clusters of five, each with four or more long sharp spines.

Creeping knapweed *(Rhaponticum repens)* – *declared plant*
Management strategy – destroy infestations

Creeping knapweed has no current records within the district. A perennial herb with an extensive creeping root system, creeping knapweed can grow up to one metre high. Although it mainly spreads by seed, new plants can grow from fragmented root sections. Creeping knapweed is potentially poisonous to stock and is very difficult to eradicate once established.

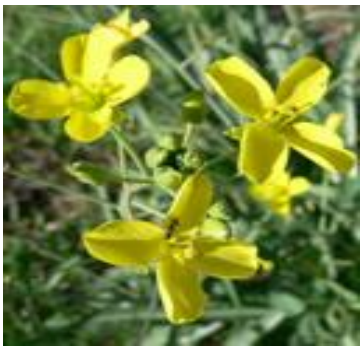
Horehound *(Marrubium vulgare)* – *declared plant*
Management strategy – manage weed

Horehound is an erect or spreading bushy, aromatic perennial herb. Horehound thrives on poor soil and in waste places. It invades poor pastures where there is little competition, and is unpalatable for livestock. It is also an important environmental weed because of its ability to invade disturbed native vegetation. It spreads by seed primarily dispersed by animals, as the burr readily attaches to wool, fur and clothing. Mature plants can produce in excess of 20,000 seeds/year.

Khaki weed *(Alternanthera pungens)* - *declared plant*
Management strategy – alert weed - eradicate

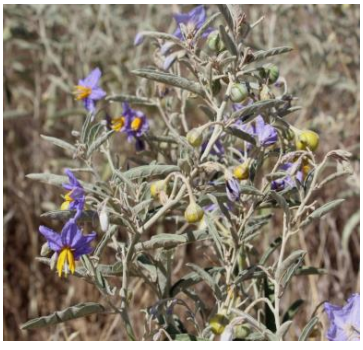
Khaki weed is a prostrate herb with a perennial root system and annual top growth. Produced as either a single spine or a spiny burr, the seeds can become lodged in tyres, shoes, clothing, animal fur and wool, spreading over large areas. The stem of khaki weed can also form roots at the node, increasing patch size very quickly. The spines cause mouth and foot problems for stock.

Lincoln Weed *(Diplotaxis tenuifolia)* – *declared plant*
Management strategy – manage weed



Lincoln weed is an erect branching perennial herb. It reproduces by both taproot and seed. It is a weed of community and agricultural concern. It is widespread in the SYP landscape and is slowly moving north along roadsides. Seeds are spread by vehicles, machinery, hay and fodder products. Lincoln weed has a low level of susceptibility to herbicide if sprayed when not actively growing, often resulting in the need for re-treatment to obtain effective control.

Silverleaf nightshade *(Solanum elaeagnifolium)* – *WoNS*
Management strategy – contain spread



Silverleaf nightshade (SLN) is a deep rooted perennial plant that is drought tolerant. Once established, Silverleaf nightshade is very difficult to eradicate, as it has a very high tolerance to standard weed management practices. Widespread in the Mid-North and UYP landscape Silverleaf nightshade is slowly moving south into the district. Limiting stock movement in infested areas when berries are present, and sound hygiene practices are important actions to curb the spread of this weed.

Other declared local action pest plants

Aleppo pine (Pinus halepensis) ***declared plant***

Aleppo pine is an evergreen tree up to 20 metres in height from the Mediterranean. It is common throughout South Australia as it has widely been planted as windbreaks.

Beach daisy (Arctotheca populifolia) ***local action***

Beach Daisy has grey-green fleshy leaves which are covered with woolly white hairs. It is a low spreading plant, similar to a pumpkin vine with yellow daisies, small petals and a large seed head.

Western Coastal Wattle (Acacia cyclops) ***local action***

In South Australia the native range of A.cyclops is considered to be west of Ceduna. In other areas of the State it is considered to be a non-indigenous and invasive plant. Landholders are advised to seek advice prior to any control work.

Cutleaf mignonette (Reseda lutea) ***declared plant***

Cutleaf mignonette is a deep-rooted perennial weed of rotational broad acre cropping and pasture. It is widely scattered in southern South Australia.

Fountain grass (Cenchrus setaceus) ***declared plant***

Fountain grass is invasive in native vegetation and farmland. Outcompetes native plants in drier habitats including coastal dunes and mallee. Can increase fuel loads to affect intensity and spread of fires.

Gazania (Gazania sp.) ***declared plant***

Gazania is a rapidly-spreading garden escape that invades native vegetation and some farming systems. Spreads along road reserves, degrading remnant native vegetation and invades and degrades coastal dune vegetation.

Innocent weed (Cenchrus longispinus and C. incertus) ***declared plant***

A fast-growing annual grasses that produce spiny burrs, causing problems in the wool and dried fruit industries. They are widespread across SA.

Olive (Olea europaea) ***declared plant***

A distinction is made between olive trees that were deliberately planted and wilding olives, defined as 1) feral olives that have grown from self-sown seed; and 2) no longer maintained such that they pose a high risk of giving rise to feral olives.

Polygala (*Polygala myrtifolia var. myrtifolia*) ***declared plant***

A South African garden escape, a shrub growing up to 3 metres tall. It has become established in some coastal areas on Yorke Peninsula. It is most significant as an invader of coastal dune scrublands, where it can form a monoculture replacing Acacia longifolia subsp. sophorae.

White weeping broom (Ratama raetam) ***declared plant***

White weeping broom competes with native shrubs in coastal vegetation. It invades nutrient-poor to fertile, well-drained soils and has a high tolerance to drought and frost.

Pest plants – whose responsibility?

Pest plants don't recognise property boundaries. By working collaboratively, Natural Resources Northern & Yorke and landholders have the best chance of controlling priority pest plants in Yorke District.
Each pest plant has a different life cycle and characteristics. Management should be targeted for each plant type. Often, a combination of methods will be required to achieve effective control. Vehicle, plant and equipment hygiene is also important.

Private land:
Landholders have a legal responsibility, under the Natural Resources Management Act 2004, to control declared plants on their land. They should know their pest plants, their responsibilities and the resources that are available to them.

On roadsides:
Roadsides are part of public road reserves, which are owned by the Crown. Under the Natural Resources Management Act 2004, regional NRM boards are responsible for ensuring that declared pest plants are controlled on roadsides.

Landholders are encouraged to control declared plants on roadsides that adjoin their property. Where the Board undertakes the work, under the NRM Act, landholders may be issued with accounts.

As approvals may be required, landholders should contact the Natural Resources Centre in Clare, before undertaking control work on roadsides. Care should also be taken to avoid any off-target damage to native vegetation.

The Natural Resources Centre in Clare can provide the following:

- A free weed identification service to help landholders determine if pest plants are present on their property.
- Advice about the most appropriate management method for plants on their property.

The Northern and Yorke NRM Board encourages landholders to work together to control pest plants across districts

For more information

Natural Resources Centre
Northern and Yorke
155 Main North Road, Clare SA 5453
p: (08) 8841 3400 **e:** DEW.NRNY@sa.gov.au
www.naturalresources.sa.gov.au/northernandyorke

Control Methods
Biosecurity SA Weed Control Handbook
www.pir.sa.gov.au/biosecuritysa

Weed Management Guides for WoNS weeds
www.weeds.org.au/WoNS

SA Weed Control App *(free)* available from App Store

Images provided by DEW and Biosecurity SA.