

Simple actions to prevent the spread of prickly acacia

The prickly acacia threat

Prickly acacia (*Vachellia nilotica*) is a serious weed in Queensland that can have major impacts on pasture production and the environment if it is allowed to dominate. Ecological research and management experience have identified a range of actions to prevent further spread and establishment. The actions presented below are of particular relevance to western Queensland for properties with prickly acacia or in close proximity to infestations.

Key actions

Maintain and expand areas that are free from prickly acacia

Significant negative impacts on production can be prevented by maintaining areas currently free of prickly acacia. This requires appropriate livestock management practices to reduce seed spread in addition to monitoring of susceptible areas and early control measures. Controlling prickly acacia in the least infested paddocks or areas provides the greatest area treated per dollar spent.

Monitor watercourses as a source of infestation

Prickly acacia seed pods may remain buoyant in agitated water for up to 12 days. However, field studies indicate most pods are deposited within 1 km of their source and nearly all within 7 km. The maximum recorded distance was 15.2 km, although greater distances are theoretically possible. Watercourses should be monitored at least once annually if there are upstream infestations, especially if they are within 15 km.

Manage the movement of livestock

Cattle, and to a lesser extent other livestock, may move prickly acacia seed over short and long distances through seed in their gut being deposited in manure. This may result in seed movement to clean paddocks or properties.

A weed seed risk occurs when cattle have access to prickly acacia pods, whether the pods are visually mature or otherwise. To eliminate this risk, cattle should be removed from the area with the seed source. If this isn't possible, risk reduction can be achieved by holding cattle in a prickly acacia free area for a period of at least six days and up to eight days before or after their transport or movement. Holding areas should be monitored for emerging prickly acacia seedlings with control undertaken as necessary.

Control high seed source infestations

Prickly acacia that grows in association with a permanent water source may produce high seed loads regardless of the prevailing seasonal conditions. Consequently, by controlling prickly acacia plants that grow on bore drains, dams and permanent waterholes, the invasion rate may be reduced.

Establish boundary buffer zones free of prickly acacia

The spread of prickly acacia and other weeds across paddock and property boundaries creates new infestations, expands existing infestations and threatens the investment made by landholders to control their weeds. To address this issue, the establishment of weed-free buffers along paddock and property boundaries is advocated, often through Good Neighbour Programs (GNP).

GNP case studies (<http://bit.ly/2wouhOp>) have found that weed-free buffers with a minimum width of 20 m on fence lines and 250 m upstream within defined watercourses from a boundary could be established relatively quickly at low to moderate costs. These buffer zones, which may also be applied to internal fence-lines, facilitate an immediate reduction in weed seed movement between paddocks and properties.

Maintain healthy pasture competition

Competition with Mitchell grass and other productive pastures may reduce prickly acacia seedling establishment and survival. Monitoring of pastures coupled with sustainable grazing practices will not only benefit livestock productivity but reduce future weed impacts and control costs.

Legal requirements

Prickly acacia is a restricted invasive plant under the Biosecurity Act 2014. The Act requires everyone to take all reasonable and practical steps to minimise the risks associated with this weed - this is called their General Biosecurity Obligation. Local Governments must also have a biosecurity plan which may outline actions to be taken on certain weeds including prickly acacia.

Summary

- Maintain and expand areas that are free of prickly acacia.
- Monitor watercourses at least once annually if there are upstream infestations.
- Manage the movement of livestock to reduce access to seed pods.
- Apply quarantine periods of at least six days and up to eight days if cattle have consumed seed pods and they are to be moved to areas free of prickly acacia.
- Control high seed source infestations to reduce seed production and invasion rates.
- Establish buffer zones free of prickly acacia on paddock and property boundaries.
- Maintain healthy pastures to reduce prickly acacia seedling survival and establishment.
- Take reasonable and practical steps to fulfil General Biosecurity Obligations.



**Image 1 (left) Maintain and expand areas free from prickly acacia.
Image 2. (right) Monitor watercourses for invasion from upstream sources.**



**Image 3. (left) Manage stock access to pods or undertake quarantine practices.
Image 4. (right) Control high seed producing trees on permanent water.**



**Image 5. (left) Establish prickly acacia free buffers on boundaries.
Image 6. (right) Maintain healthy pasture cover to compete with prickly acacia seedlings.**

Further information

Further information is available from SG NRM (call 1800 676 242 or visit <http://www.southerngulf.com.au/resources/fact-sheets/>) or from Biosecurity Queensland (call 13 25 23 or visit <http://bit.ly/2tZIGT9>)