

Controlling cacti with cochineal in the SA Arid Lands

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Summary Cochineal, as a biocontrol agent, has become a vital tool in tackling Opuntoid cacti infestations in the SA Arid Lands region. Traditionally, foliar spray or stem injection of herbicides was used for control, with varying degrees of success. Chemical control proved time and labour intensive, was expensive, difficult in steep terrain and required ongoing follow-up control due to regrowth. In recent years, host-specific cochineal has proven an effective biocontrol for specific *Opuntia* and *Cylindropuntia* species and is providing a reinvigorated approach to tackling *Opuntia*. Cochineal has been used effectively on *Opuntia robusta*, *O. stricta* and *Cylindropuntia imbricata* in the North Flinders district for over 10 years, supported by dedicated volunteers. Following on from this success, we have been collecting and spreading cochineal on properties in the region for the past five years with promising results. Since 2017, Biosecurity Queensland has supported South Australian Arid Lands Landscape Board by providing *Dactylopius tomentosus*

lineages suitable for *Cylindropuntia fulgida* var. *mamillata*, *Cylindropuntia prolifera* and *Cylindropuntia pallida*. These lineages have been released and monitored at a number of properties. A partnership with Port Augusta City Council allowed the development of a cochineal nursery where four species of cochineal are bred. This cochineal has been provided to pastoral properties, mining enterprises, Department of Defence properties and townships within the SA Arid Lands, as well as neighbouring Landscape boards for release in their regions. This presentation looks at the progress of our cochineal breeding and release program and discusses the benefits, partnerships, community engagement and issues encountered as part of an integrated management plan. It will feature case studies where cochineal has given land managers fresh hope in eradicating Opuntoid cacti from their properties.

Keywords Biocontrol, Cochineal, Opuntoid cacti, Cactus, SA Arid Lands