

# Drought and climate adaptation program

## GrazingFutures Case Study

### Prickly acacia treatment and operational changes on Eldorado Station

#### Summary

David and Helen Ogg, of Eldorado Station, Hughenden, have implemented a number of changes over time including:

- Lowering stock rates
- Removing prickly acacia to allow grass recovery
- Adapting their business and changing to an exclusive sheep operation
- Utilising training opportunities to achieve better results in prickly acacia treatment
- Taking a long-term management approach
- Working together with neighbours.



Road sign to Eldorado on the Winton – Hughenden Road

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## Background

David and Helen Ogg have been on *Eldorado* since 2002 and currently run a Merino sheep operation. The 16,000ha property near Hughenden in Queensland's central west, is predominantly Mitchell Grass Downs country.

While the Oggs initially ran both sheep and cattle, they now run Merino sheep exclusively. "Cattle need more bulk feed," says David. "Sheep can even survive on the likes of prickly acacia seed pods (Figure 1) so we made the decision to change the operation eight years ago due to the tough seasonal conditions."

David and Helen have raised their family on the property and their now grown children often provide assistance when needed. At other times the business employs casual workers from nearby Hughenden to assist.



Figure 1. Prickly acacia seed pods

## Challenges

Prickly acacia has been a constant challenge for the Oggs and they have been working hard to control it for years. "Prickly acacia is like a cancer," David says, "you have to cut it out completely. If you just clear some of it, it will soon return."

David grew up in the drought that peaked in 1965. This was one of the worst on record, and he feels that this year (2020) has been similar. Since then, a couple of grasshopper plagues, a major flood, and eight dry years have required both business and personal resilience. The grasshoppers alone strip the feed right back in a very short time.

The long-term carrying capacity of *Eldorado* is estimated at 10,000 sheep. Currently the property is only running 3,500 head. "We have had to change our stocking rates due to the drought. With all that going on, wool prices have also dropped as people buckle down," says David. "We do sell some wethers for meat which helps provide an alternative income stream."

## Changes

David has been treating prickly acacia on the property for thirty years and he continues to learn and improve techniques. "You never stop learning," he says. "Whether it is exchanging ideas with other landholders or attending field days or workshops."

This learning path has included a field day hosted by Desert Channels Queensland in Stamford in November 2018 where presentations were delivered by Dr David Phelps and Jane Tincknell from the



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Longreach DAF GrazingFutures team and Wayne Vogler from Biosecurity Queensland in Charters Towers. “You can learn what works, what doesn’t, and why – so you don’t waste money.”

This field day helped improve producer understanding of the ecology of prickly acacia and the impact of infestations on both pasture yield and ground cover. The field day also focused on Mitchell grass ecology and the improvements possible in pasture and land condition when best practice weed control is implemented. David learned that the difficulty he experienced killing trees around dams (Figure 2) was due to urea (from urine) in the ground where stock camp and congregate thus rendering Graslant™ pellets less effective. He has moved to basal bark spraying with Access™ in these areas and is now seeing better results.



**Figure 2.** Dam in Edgly paddock on *Eldorado* prior to treatment, June 2018. Stock congregating at the dam caused high levels of urea rendering Graslant™ ineffective. Basal barking with Access™ proved to be a better treatment.

David has tried different methods to attack prickly acacia and has found that a multi-pronged approach is best. He uses pellets on the downs country, while near natives and around dams, Access™ and diesel are sprayed from a quad bike. These are his predominant methods. He has also used a front loader to push in the prickly acacia trees around some of the dams.

By cutting down larger trees while the pods are green, sheep will eat the seeds and branches. Provided they are green, the seeds will be chewed completely and therefore not present a weed transfer problem. This is done hand in hand with spraying the little trees. Through these processes the trees are being used while good headway is concurrently being made against weed infestations. Removal of the prickly trees has had an additional benefit in making mustering easier while it also reduces the problem of spiking bike tyres.

David knows that using these methods, along with their current lower stocking rates, provides more chance for Mitchell grass tussock regeneration, development and growth in his paddocks. Grasses have also come back on creeks and in gullies which helps stabilise these areas. There is better infiltration and less runoff which means less erosion.

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While he is still waiting to see some long-term results, David knows removal of prickly acacia makes a difference. “I’ve seen a huge change on other properties in the past. Prickly acacia takes a lot of moisture and nutrients from the ground which should be for the grass.”

“In fact, research has shown that a 25% prickly acacia canopy cover results in a 50% pasture loss, while a 50% prickly acacia canopy reduces pasture yields by 75%. The prickly trees often take advantage of moisture in gullies and dams where they thrive. These trees are the seed factory. If you knock them out you can see a lot of good grasses come back.”

## The Cost

There is significant effort and cost involved in dealing with prickly acacia. David cuts down 8,000 to 9,000 trees each year and spends around \$20,000 – \$25,000 per year on weed control. He has even worn out four chainsaws in the process! He understands though that there is no middle ground and you have to aim for eradication.

**“Prickly acacia is like a cancer; you have to cut it out completely. If you just clear some of it, it will soon return.”**

## Building Resilience

The Oggs see that education plays a big part in being resilient and that there is always something to learn. “It’s about survival.” David says. “The more you can learn, the more you are able to cope with bad events and come out the other side.”

As a result of the prickly acacia control measures now in place, together with the reduced stocking rate on *Eldorado*, the Oggs have seen grasses return to creeks and in gullies. This has helped stabilise these areas. With the improvement in ground cover and increased percentage of desirable species on their land, the availability of quality feed for their stock has improved.

They also know that removal of prickly acacia will develop even more resilience in their lives and business. Land condition will improve, leading to increased useful pasture growth and a subsequently higher long-term carrying capacity.



**Figure 3.** The Oggs have transitioned from a beef and sheep enterprise to one of Merino sheep only



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## Producer Thoughts

*“You never stop learning – you can learn what works, what doesn’t, and why – so you don’t waste money.”*

With many years dealing with prickly acacia, the Oggs see prickly acacia as a highly adaptable plant that will reinfest if you don’t keep eliminating it completely.

They advise to be careful using herbicide pellets around native trees and they prefer to use spraying techniques in these areas, as the pellet chemicals can travel more than 30m and will kill native trees. They also recommend using correct personal protective equipment when handling chemicals for a long period of time.

They continue to work closely with neighbours in a concerted effort against prickly acacia and other weeds and they ensure regular follow up and monitoring. Figure 4 below shows a monitoring site which is recorded every year for prickly acacia seedlings as well as pasture composition and ground cover. All this helps to track progress and document improvements over time.

David and Helen are looking forward to continued improvement in their country’s ability to respond to its optimum potential when it rains. The likely increase in both carrying capacity and stock performance keeps them focused on continuing with the positive changes they have initiated.



**Figure 3.** A monitoring point in Edgly paddock taken as part of annual recording, December 2017

**Created by:** Jeff Poole, Desert Channels Qld, and DAF GrazingFutures team, Longreach

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