

Saltbush instead of Samphire on the salt flats



Project Snapshot

Land Manager Names:	Dean and Tanya Butler
Property Size:	4,000 hectares arable
Location:	Bruce Rock
Annual Rainfall (mm):	300 mm
Enterprise Mix:	75% cropping, 25% grazing
Soil Types/Vegetation Types:	Mix of everything



Above: Tanya Butler with children Lenny and Indi

Key Messages

- Unviable saltland has now become a valuable feed source for sheep.
- Zoning landscapes according to soil type and productivity can be a helpful way to reassess land use and isolate areas that require landcare.
- Soil properties have a direct affect on the types of vegetation that inhabit them.

Their story

Dean and Tanya Butler farm between Bruce Rock and Merredin in the Belka Valley. In 2004 the family purchased a neighbouring farm which included saline water courses making up much of the non-arable land (approximately 100ha). Over the years the Butler family have actively sourced available funding to try and transform this salt affected area. Without any financial assistance to improve the landscape it remains marginal grazing land. To paint a clearer picture, it is characterised predominately by samphire (*Halosarcia* spp.) and bluebush (*Maireana brevifolia*) vegetation, interspersed with clay flats and deteriorating areas of York Gum bush. "If overstocked the area is severely eroded by wind" Dean added, "To make matters worse, secondary salinity was creeping into our cropping paddocks. Something had to be done".

The Butler's were prompted to plant Old Man saltbush (*Atriplex nummularia*) for the first time in 2006 after observing salt starting to claim their arable country. They strategically planted the saltbush along a recharge zone and across cropping land where grain production had been lost to salinity. A noticeable improvement was soon realised as Dean explained, "The soil became stable and then grasses and clovers started to re-establish. The area had quickly become a valuable feed source for our sheep".

Around the same time a trial site was also established through another funding scheme. This trial design was based on the Enrich Programme and its aim was to search for perennial forage shrubs which could cope with saline situations. Dean mentioned, "We have planted saltbush in and around this site for the past five years and the transformation has been fantastic. What was a liability is now turning out to be a major grazing area and asset to our farm". Dean explained, "The saltbush has greatly improved the area's carrying capacity, it provides shelter belts for ewes at lambing resulting in higher survival rates of lambs, and offers the opportunity to spell other areas of the farm".

Testing the tolerance of saltbush in 2012

The Butler's didn't need to 'fix something that wasn't broken' and therefore wanted to keep going with the strategy of planting saltbush. Rather than just plant saltbush on unproductive cropping land however, they wanted to push into harsher environments. Using a Chatfield one-pass tree planter approximately 10,000 Old Man saltbush seedlings were planted to augment prior plantings. Weeds were not controlled in this instance as Dean and Tanya wanted to retain as much cover as possible to hold the site together. Tanya said, "It's a great feeling seeing the samphire flats being rejuvenated with the addition of all this new shrub land".

Lessons Learnt

The most unexpected lesson Dean and Tanya learnt was in 2012 (the year of Wheatbelt NRM project), when they experienced one of the driest winters ever. With only 50 mm of rain recorded after establishment they still achieved 90% survival. Dean boasted, "We were amazed at the ability of saltbush to survive and thrive in one of the most inhospitable environments there is, saltland". Survival rates like this give the family the confidence to keep on with the strategy. The only thing they may do differently is to increase the variety of forage shrubs. Dean said, "Next time we will add more river saltbush, because they're water-logging tolerant and the sheep like them. We look forward to seeing further results from the Enrich program as we'd like to include a greater variety of forage species for this environment".

Through the Wheatbelt NRM project and others trials conducted on the property, the Butler's have learnt to better manage land of lower productivity. "We have identified those areas which consistently under achieve, and have changed the land use to perennial forage shrubs." Dean went on to say. "Trying to crop an unproductive area just makes it worse, and the sooner you can take it out of cropping production and convert it to shrubs the better".

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