



# Feeling more optimistic than ever about saltland

**Case study:** Wolford and Marie Parsons  
**Location:** Port Vincent, Yorke Peninsula, SA  
**Farm area:** 620 ha  
**Enterprise:** Cropping and wool, but moving into wool and meat



**E**nthusiasm spurred on by production and environmental successes for Wolford and Marie Parsons has only increased since SALT magazine first profiled their farm business nearly four years ago. Wolford tells the next chapter of their story to Bruce Munday.

Four years after our first article for SALT magazine (April 2000) we are now emerging from our best cropping year on record. At the same time we are adjusting out of cropping, planning to run this as a grazing enterprise in tandem with another family property in the Burra district.

When salinity first 'visited us' we saw the result as just a wasteland – good cropping land, now useless. Twenty or so years on, as we move more into grazing, we are seeing this saltland as a significant asset with real potential to increase in value. All our saltland is now fenced out and we are working towards getting it into sustainable production, not as a separate entity but as a valuable part of the farming system.

When we started trying to manage salinity the message was generally 'trees will fix it'. We also picked up on saltbush as something that would obviously grow on saline land and apparently had some grazing value.

We still believe trees have an important role to play, but they need to be the right species in the right place. The local *Melaleuca halmaturorum* does particularly well around the margins of saline land, but some of the 'salt-tolerant' eucalypts we were encouraged to plant for agroforestry are really struggling, either for lack of moisture



Wolford Parsons at trial paddocks for measuring animal production from saltbush and puccinellia with supplements.  
Photo: Bruce Munday, NDSP South Australia

now that the water table seems to have retreated or because their root zone has become salted out.

Saltbush has been something of a focus for us, and now a few years down the track we are even more enthusiastic. Whilst sheep apparently don't gain weight on saltbush alone, they certainly do well when there is a pasture sward of puccinellia between the rows. This is a great boon for us in autumn when there is generally a feed shortage that might otherwise have to be filled with grain. We have gradually introduced 'pucci' into all our older saltbush plantations, but with new areas we find it much better to start with the pucci and then establish the saltbush.

A couple of years ago Jim Franklin-McEvoy, a student at the University of Adelaide, did some research here on the

value of roughage and energy-rich supplements to improve the performance of sheep grazing saltbush. He found that supplementing saltbush with grain is indeed a profitable exercise and this has now led on to further more detailed research by the CRC for Plant-based Management of Dryland Salinity.

Slashing saltbush after heavy grazing has kept the bushes nice and leafy and within the reach of lambs and this appears to be a sustainable practice. Last year we fertilised with urea which certainly improved production, but we are yet to determine if it is profitable.

Addressing the recharge areas on the farm is more of a challenge, partly because we cannot be sure where the main areas of recharge are or even if they are on our farm. We don't have any test wells or piezometers

on the farm, but the fact that post holes on the valley floor don't immediately fill with water seems to suggest the water table has fallen. This might be because we have reduced recharge on these sites or perhaps it is local draw-down or both.

At this stage most of the area we have used for annual crops will be replaced with annual pastures such as oats and vetch, mainly because it is so difficult to find perennial pasture species that will persist under grazing on these soils in this climate.

We do intend sowing about 60 ha of lucerne and in fact we had planned to do this last year. However strong and persistent winds in September did a lot of damage to the prepared ground, highlighting just how risky this strategy can be.

Right now we feel very optimistic about the way we are managing our salinity problem. The saltland is a sustainable part of the whole farm system, and a landscape that used to look depressing is now quite stunning.

We are also excited that we are now networked into the salinity R&D scene because this has enabled us to have our issues listened to and puts us up close to the results as they emerge. We look back now at how little we knew when we started this journey, the pain of all the trial and error; the uncertainty about how far the salt would spread and of course the difficulty of getting any support from the banks.

Over the years we have learned a lot, mainly from other farmers doing what we are doing, but also from reading and asking. But it is always a step further on to take something that works elsewhere and apply it successfully on your own farm where conditions might be very different. This is one reason we are so impressed with the Land, Water & Wool Sustainable Grazing on Saline Land (SGSL) program.

It allows farmers to find answers to questions relevant to their local conditions.

• Bruce Munday is NDSP Communication Coordinator (SA).

## Key points

- Saltland is now a valuable part of our farm system.
- Managing saltland productively involves more than just planting salt-tolerant pastures.
- Revegetating saltland has dramatically improved our work environment.
- We have learned much through collaboration with researchers.

## CONTACT:

- Bruce Munday, NDSP Communication Coordinator (SA), Tel. (08) 8538 7075, E-mail: bruce@clearconnections.com.au

## The science behind the story

# 'Grazing feedlot' systems the key to profitable groundwater management

By Dr Dean Revell

Wolford and Marie Parsons have a positive view of their saline land because they have discovered how to incorporate it into their whole farm system. It wasn't that long ago when saline land was treated as a separate and unrelated component of the farm, 'fenced and forgotten' in the hope that a wire fence would tame the beast within. We can now see the merit in carefully designing forage systems on these saline areas.

The Parsons were forced to respond to salinity given its scale on their property, but even farms with small salt scalds have an opportunity to develop a 'grazing feedlot system' that can be used strategically when other pasture sources on the farm are in low supply or of poor quality. Even greater benefits will arise when we respond holistically to control salinity by increasing perennial vegetation in the recharge zones of the landscape.

Salt-tolerant forages such as saltbush should be viewed as just a component of a

grazing animal's diet, not a complete feed. Without appropriate inter-row plants and/or supplementation, the level of animal performance is likely to be disappointing, limited by the high salt content of the plant material, the presence of secondary plant compounds, or nutrient imbalance. For profitable production, it is important to manage pastures and forages on saline land with the same rigour as pastures in non-saline areas. The amount of forage on offer needs to be estimated (harder with shrubs like saltbush than conventional pastures, but not impossible) and the nutritive value should be measured so that appropriate supplementation or grazing strategies can be developed.

Forage production on saline land often provides a green feed resource in summer-autumn, when the value of digestible energy is considerably higher than at any other time of year, making supplementation and fertiliser application potentially a good investment.

The Parsons have also demonstrated the benefit of a combination of plant species (e.g. shrubs, grasses and legumes). The different nutritional attributes of the species provide resilience to the system and exploit the natural feeding/browsing behaviour of ruminants, sampling a range of familiar feedstuffs in search of the best combination.

• Dr Dean Revell, Discipline of Animal Science, The University of Adelaide, Roseworthy Campus is leader of the CRC for Plant-based Management of Dryland Salinity's sub-program 12: Animal Systems for Recharge Areas.

## CONTACT:

- Dr Dean Revell, Tel. (08) 8303 7911, E-mail: dean.revell@adelaide.edu.au or visit the CRC Salinity on-line: [www.crcsalinity.com](http://www.crcsalinity.com)