



Have a yarn

talking salt with Bart & Denella Hulls

“Cattle thrive on saltbush diet”

Saltbush is commonly renowned as a useful sheep feed in dry seasons yet it's not so commonly used as feed for cattle.

But saltbush is exactly what Trayning farmers Bart and Denella Hulls used to look after their land and provide feed to their steers after a tough, dry season. The Hulls have planted saltbush since 1996 and in 2003 they applied for a grant in the Sustainable Grazing on Saline Lands (SGSL) program.

The program was tailored to their farm, and measured how well a group of steers would perform on a saltbush diet.

The 14 steers were put into 14ha of saltbush on 11 April 2006 at an average weight of 323.3kg. During the first 30 days the steers ate the grass and summer weeds, as well as available understorey, making a weight gain of 25kg up to 348.3kg when weighed on 8 June 2006.

The steers were then left with only the saltbush to eat and a bale of barley straw intermittently. When weighed again on 18 July they had maintained their weight gain, on average.

Mr Hulls said the steers performed better than expected on the saltbush. The cattle were later trucked to the family's 925ha Gingin property to be finished off. The Hulls run 7360ha at Trayning with about 300ha affected by salinity.

They became aware of the SGSL program through a local landcare coordinator and applied for funding for saltbush to help manage their salt-affected land better.





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The Hulls have planted four separate paddock blocks to saltbush in the past 10 years, doing it in stages as the salinity spread. The SGSL trial proved saltbush could be a valuable feed source for sheep and cattle.

Mr Hulls said due to the poorer season last year (2006), the steers were transported to Gingin to be finished off on serradella pastures.

The steers went to the Gingin abattoir to supply the domestic and export markets.

“Over the first 30 days of the trial they put on weight and then maintained that while on the saltbush,” he said.

Mr Hulls said on the Trayning property they had 300ha affected by salinity and a further 150ha looking like it was going saline.

He said the saltbush had not stopped the salinity spreading but at least it had helped them use the land.

“It has been bloody handy,” Mr Hulls said. *“We have used it as a source of feed for our sheep when we were short on feed.”*

“It is hard to put a dollar value on what it is worth.” Mr Hulls said the saltbush grew well

even during the dry season last year.

“The dry season has not hampered the growth of the saltbush as the land is sub-irrigated,” he said.

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The Hulls planted old man saltbush across 90% of the saline land with the remaining 10% to Rivermor.

“The old man variety seems to do better on heavy flats with clay type soils, while Rivermor does better on lighter soil types.”

“We will continue to plant saltbush on salt-affected land and possibly do some deep drainage as well,” Mr Hulls said.

“Our neighbour has done some deep drainage and it appears to have helped his salinity problems so we are looking at running our drains into his, which flow into the salt lake system.”



The Hulls have 5000ha of cereal crops that includes 640ha lupins on their Trayning property, and ran 4688DSE and 107 steers last year.

Mr Hulls said they had undertaken so much saltbush planting because they wanted to provide a valuable property for their children if they wished to remain on the land.

The Hulls enjoy living in the Trayning community and see the cropping and livestock industries in a positive light for the future.

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QUICK FACTS



Location: Trayning Shires

Rainfall average: 325mm

Enterprise mix: Wheat, sheep & cattle

Trial size: 14ha

Trial aim: Determine whether cattle are sustainable in the wheatbelt when cell grazed on saltbush' whether balansa clover or barley hay is the best supplement to saltbush in the system.

Saltland Pasture mix: Old man saltbush

Original vegetation: Morrel/gimlet woodland

Paddock cover before trial started: Minimal cover of iceplant and barley grass

Soil type: Heavy morrel soil

Watertable: -2.17m

Water salinity: Two thirds seawater

Water pH: 3.26



A word from the gate...

A diet comprising saltbush alone is not sufficient for livestock to maintain weight. First, the organic matter in saltbush is only moderately digestible.

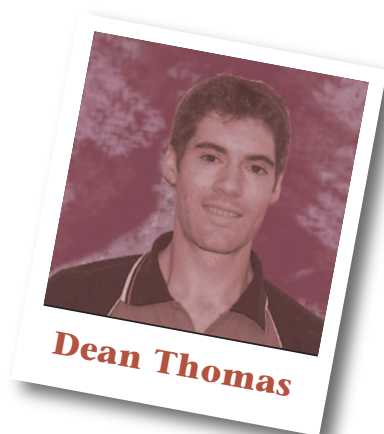
Second, the high salt levels in saltbush reduce the digestibility of organic matter and limit the intake of the grazing animal.

In saltbush-dominant pastures, a suitable low-salt supplementary feed can improve the value of a saltbush pasture as a feed resource.

Cattle on the Hulls' property grazed a saltbush pasture (predominantly old man saltbush) for 58 days and were offered a barley straw supplement during this time (about 7 kilograms per head per day).

Carbon isotope analyses of the faecal samples from the site indicated that the cattle were eating 29% saltbush as a proportion of total dry matter intake. The cattle gained 430g/day liveweight during the trial, which was considerably higher than would be expected from a diet consisting of only saltbush and barley straw.

The barley straw had a dry matter digestibility of 47% (Independent Lab Services) and the



digestibility of organic matter in saltbush as a percentage of total dry matter would have been similar. Note that the nutritive value of saltbush is difficult to determine and methods are still being refined.

Although feed intake may have increased with the provision of the barley straw (a low-salt supplement), the overall nutritive value of the straw/saltbush combination should have provided enough energy for, at best, liveweight maintenance. It is likely that the cattle also ate high-quality understorey species, which were observed to have germinated on the site as a result of unseasonal rain that fell prior to and during the trial, although this could not be measured.

Any problem with the cattle refusing to eat the straw, given they apparently had access to the green feed, was not observed. This may have been because the supply of green feed was limited. The combination of saltbush, straw and understorey on offer appears to have been an appropriate match for the diet selected by the cattle.

Dean Thomas is a Research Officer with CSIRO with a particular interest in livestock utilisation of feed.

"The Sustainable Grazing on Saline Lands program (SGSL) aims to support sheepmeat producers and woolgrowers profitably manage by dryland salinity on their farms.

SGSL involves building a network for testing and exchanging information, providing farmers with useful, timely and relevant information and conducting on-farm research into saltland production options.

The program operates in WA as a producer network of regional farmer groups undertaking individual sustainable grazing projects on local salt-affected farms as well as a Research & Development project through the CRC Salinity of which CSIRO and DAFWA are principal contributors.

The SGSL is a National program initiated and funded by Australian Wool Innovation, MLA and the Federal Government's Land, Water and Wool agency. In WA the project is co-funded, administered and delivered by the Department of Agriculture and Food WA, in conjunction with the CRC Salinity and CSIRO."

Further products in this series available at www.landwaterwool.gov.au

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