

Saltbush in the farming system

The farmer's perspective



Case studies of four farmers who are successfully using saltbush on their farms

Meet the farmers

Matt Curtis – Mildura, Victoria

- 2500 hectares 70-90% crop and 1000 hectares bluebush, 750 Merino Ewes

John Arentz – Manangatang, Victoria

- 3300 hectares, 60-70% crop, 600 Merino ewes, 400 – 600 trade lambs (season dependent)

Brett Boyd – Kerang, Victoria

- 2800 hectares, 50% crop, 1000 Merino ewes, 100 head cattle, trade cattle

Brenton Kroehn – Waikerie, South Australia

- 5600 hectares, 65% crop, 1100 self-replacing Merinos ewes with poll merino Ram Stud



John Arentz talks to a group of farmers inspecting his saltbush in 2012

Why have they planted saltbush?

Matt Curtis

- 70 hectares of Old Man Saltbush planted to fill feed gaps that frequently occur during April-May and prior to harvest

John Arentz

- 110 hectares of Eyre's Green Saltbush planted as an alternative to non-profitable cropping on heavy, constrained soils. Also has 50 hectares of lucerne planted on marginal soils

Brett Boyd

- 120 hectares of Old Man Saltbush planted on poor soils where a high water table were threatening sustainability. Saltbush has been used to 'pump' groundwater and reduce the water table

Brenton Kroehn

- 160 hectares of Old Man Saltbush planted to cover the September to harvest feed gap created by a move to intensive cropping. Saltbush have also turned unproductive and non-arable ground into productive land



The location of saltbush on constrained soils at John Arentz's property

How have the saltbush sites been setup?

Matt Curtis

- 50 hectares of established saltbush and 20 hectares which has been recently planted
- Started planting in 2003, mainly funded through NRM incentives
- Saltbush planted on 4 x 4 metre spacing's
- Sites are fenced into 10 hectare lots



Saltbush at Matt Curtis's property

John Arentz

- 110 hectares of Eyre's Green and 50 hectares of lucerne
- Started planting in 2004, funded mainly through NRM incentives
- Planted in single rows with 10 metres between rows and 4.5 metres between plants within row. If he was to start again he would use 12 metre row spacing and 8 metres between plants within the row
- Initially sites were fenced into 20 hectare lots, however lot size has now been reduced to 10 hectares



*John Arentz's Eyres Green saltbush planted on 10 m row spacing's.
The wide spacing allows grazing cereals to be sown in the inter-row*

Brett Boyd

- 120 hectares of saltbush has been established since 2000
- Saltbush has been direct seeded at own cost
- Saltbush has been planted in single rows with 3 metres between rows and between rows and 1 metre between plants within rows. This configuration provided 3000 plants per hectare.
- If he was to start again he would establish pairs of 2 rows that were 2 metres apart with spacing of 10 metres between the paired rows. For high water table sites, at least 1000 plants per hectare is required.



Brett Boyd's saltbush that was established using direct seeding

Brenton Kroehn

- 160 hectares of saltbush planted since 1995. De Koch Old Man Saltbush has been planted with 16 hectares of Eyre's Green Giant. He has not noticed much of difference in the grazing value between the two varieties.
- Saltbush planted in single rows 3 metres apart with 1.8 metre between plants in the row resulting in about 2000 plants per hectare. If he was to start again he would plant the saltbush rows 5 metres apart with 2 metres x 5 metres and keep on top with management e.g. grazing and hedging
- Saltbush lots vary in size from 1.6 to 16 hectares. The size of the lots are determined by the area of marginal soil the saltbush area is targeted at. All are fenced as their own water source.



The benefit of having saltbush on-farm

Matt Curtis

- Saltbush have closed feed gaps in the pre harvest and April-May period
- Areas of saltbush are good areas for weaning lambs as they are a small area with good fencing
- The saltbush areas can also be used as confinement feed areas
- The saltbush is utilising land that is not suitable for cropping
- Locating sheep in saltbush areas allows for easier management of sheep at busy times

John Arentz

- The saltbush is used to fill feed gaps. Ewes go in from September to crutching in March
- Having sheep running on saltbush over summer maintains groundcover on paddocks. If conditions and prices allow, trade lambs may be purchased to lightly graze paddocks over summer.
- Saltbush areas are a good environment for sheep
- Without the saltbush, he would not be running many sheep without perennials
- Saltbush has drought proofed his livestock operation

Brett Boyd

- Saltbush is used as a supplementary feeding area: cattle are fed for 4-6 weeks with grain and hay followed by 4-6 weeks of grain and hay only
- Saltbush provide good protection for the animals: Every cow or sheep has its own bush to stick its head under!
- Having saltbush is a big bonus to the farm: you know the feed is available
- The saltbush patches also look good and enhance biodiversity: for example, Echidnas can be found in the saltbush area



Brett Boyd's cattle are fed hay and grain with saltbush for 4-6 weeks prior to moving into feedlot

Brenton Kroehn

- Planting saltbush has made non-productive land more productive and improved its value. The soil types that saltbush are targeted at are the heavy stony flat's and un-croppable deep sands. Saltbush was initially grown on some better soils but in hindsight should not have, even though it is the most productive saltbush patch.
- Saltbush areas improve the productivity of the livestock. They are great for joining as they are small paddocks and great conception rates are achieved. They are also fantastic lambing areas because of shelter provided and reduced risk of miss-mothering. Furthermore, because the ewes are drinking so much water, they seem to produce more milk and therefore have more success in carrying twins and triplets.
- Saltbush lots also double as feedlots for fattening wethers. Extra roughage from the saltbush reduces the amount of grain and hay they are eating.
- Saltbush helps close feed gaps around September and allows sheep numbers and the condition of stock to be maintained through that period. Saltbush will not fatten stock.
- As sheep have an alternative feed source, grasses can be sprayed out of the pastures in spring.



Brenton Kroehn adds value to his livestock by feedlotting merino wethers with hay and grain in saltbush lots

Management considerations

- Regular grazing at high stocking rates and management is needed to control plant height (<1metre). Matt's rule of thumb is 200 sheep for 1 month on his 10 hectare saltbush lots. Brett has rolled saltbush where plants have got out of control, however regular intensive grazing is his preferred management option. Brenton has trialled various strategies and is now having a rotary blade hedger custom built.
- Hedging of shrubs is best done from early establishment (first 2-3 years). The longer you leave it the harder it becomes. Shrubs hedged and managed from early in life tend to produce more edible feed when they become older.
- Saltbush itself is not a balanced diet. All farmers are supplementary feeding with hay or grain are trying to produce feed in the inter-row. Even with hay, livestock will only maintain weight. Livestock need feedlot rations supplied to gain significant weight.
- The cost of establishment is initially a large investment. Fencing is the biggest cost, especially the construction of fences on the heavy stony soils that the saltbush are targeted at.
- The cost of water can be high as livestock drink 2-3 times more water than usual. The Kroehn's have monitored water use by ewes on stubbles and found in hot weather they can drink 6 litres per ewe per day. However they think that ewes on saltbush are consuming 12-18 litres per ewe per day in any weather.
- Mustering can be an issue in dense saltbush plantations: Mustering problems can be reduced through site design such as wider row and plant spacing's and leaving space between fences and around gateways. Saltbush height also needs to be managed so that the musterer can see the livestock.



Matt Curtis leaves lots of room between fences and the saltbush to make managing and mustering sheep easier.