

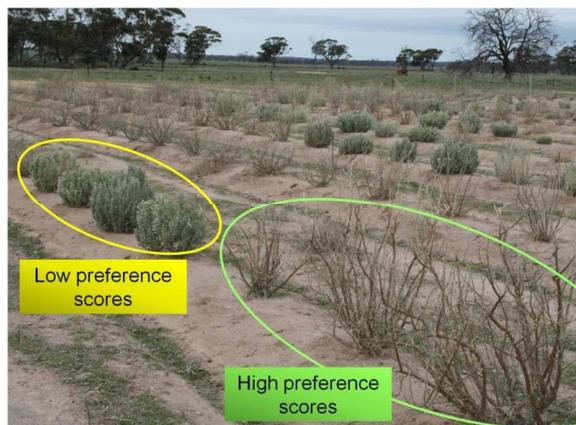
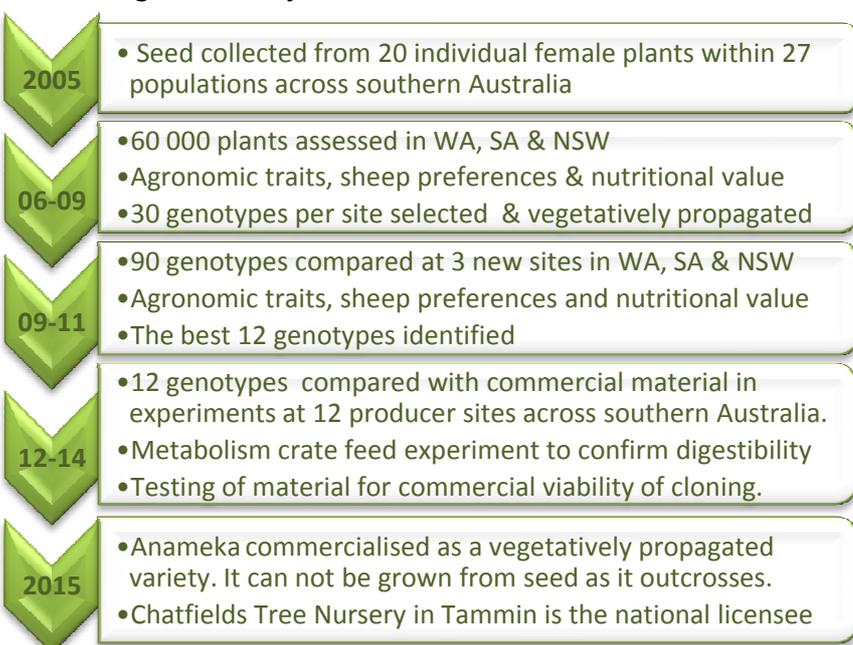
# Anameka Saltbush

Old man saltbush (OMSB) has been planted for stock feed in saline and infertile soils in the low to medium rainfall zones of Australia for many years. OMSB is native to the semi-arid areas of Australia, this means it's already well adapted to dry and challenging environments. Once established, it can persist for decades provided it is not subject to extended waterlogging. Compared with other forages, there have been few systematic plant improvement activities for OMSB.

Whole farm economic modelling indicates that improving the energy value of OMSB would have the greatest impact on farm profitability<sup>1</sup>. Improving digestibility by 10% would be three times more profitable than increasing biomass production by 10% or reducing the cost of establishment by 10%. In addition, improving the relative palatability of OMSB would reduce the likelihood of overgrazing the understorey and associated soil erosion issues.

CRC FFI funded a project to select OMSB genotypes with:

1. Higher digestibility (therefore higher energy value)
2. Improved relative 'palatability' to sheep
3. Optimal biomass production and persistence amongst plants meeting the first objectives.



Sheep preferences were largely consistent between research sites and years. Laboratory analyses indicated that sheep selected genotypes with higher digestibility of the organic matter and lower salt. When compared with the original 'wild' populations, the best 12 genotypes had 20% higher digestibility, lower salt and produced 8 times more biomass. Among the most digestible genotypes, sheep still showed clear and consistent preferences. This is likely to be associated with mineral profiles and plant secondary compounds.



## Is Anameka saltbush for you?

Anameka has been selected for higher digestibility and improved preference to sheep. Across a range of environments, it had a mean **organic matter digestibility of 64%, crude protein of 19.5% and 25% ash**. We anticipate this nutritional profile and improved relative palatability will lead to increased voluntary intake, higher energy values and increased livestock productivity. Animal house feeding studies confirm the digestibility data. Paddock-scale comparisons of sheep or cattle productivity through use of Anameka over existing OMSB varieties has not yet occurred. Be warned - selecting for higher palatability to sheep could result in higher predation by other critters and overgrazing if paddocks are set stocked. The need for vegetative cloning may increase the price compared to populations grown from seed. To optimise productivity we suggest that you plant it in the better classes of 'marginal' soils on your farm.

<sup>1</sup> O'Connell *et al* (2006) *Agr. Syst.* 89, 371-389  
Monjardino *et al* (2010) *Agr. Syst.* 103, 187-197

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For more information contact Dustin or Lisa at Chatfields:  
[info@chatfields.com.au](mailto:info@chatfields.com.au) or 0427 371075

