

Media Release



FUTURE FARM
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Tastier saltbush could bring new feed to the drier parts of Australia

A plant selection program by Future Farm Industries CRC (FFI CRC) has shown that a tastier kind of saltbush could become a nutritional feed source for the drier saline and non saline parts of Australia.

Three trial sites set up by FFI CRC near Tammin (WA), Condobolin (NSW) and Monarto (SA) have been watching how sheep respond to having saltbush in the paddock.

FFI CRC Researcher Dr Hayley Norman (CSIRO) said seed for these trials was collected from 600 plants at 28 localities (provenances) around Australia where oldman saltbush is known to occur naturally, so trial sites have the widest genetic spread of the plant. Oldman saltbush is native to Australia and grows naturally in harsh, arid areas.

“Once the sheep were brought in, we observed that they left certain plants untouched. On closer examination, the east-coast sub species of oldman saltbush was strongly preferred to the western subspecies,” Dr Norman said. “Sheep also exhibited preferences between provenances of the same subspecies.”

Similar grazing preferences occurred at all three locations suggesting that palatability is a heritable genetic trait and separate from environmental factors such as soil type.

Saltbush grown naturally over salty land has its nutritional value diminished by the high levels of salt, minerals and other secondary compounds stored in its leaves. Reduce these factors and the plant’s potential as a food source opens up.

“Our preliminary research has also shown that we should be able to improve the digestibility of old man saltbush by ten percent which translates to one mega joule of energy per kg of organic matter consumed,” Dr Norman said.

Economic modelling suggests that improvements in digestible energy on this scale will substantially increase the economic value of the pastures.

“We already know that saltbush contains the antioxidants vitamin E and betaine, which are beneficial to livestock and human health. However, further work needs to be done to understand the factors influencing the nutritional value of saltbush to better determine how livestock can benefit from eating saltbush,” Dr Norman said.

The other attractive aspect of the old man saltbush is its efficient use of water which means it can grow in areas receiving annual rainfall in the range of 200-600mm.

The next stage of the project according to FFI CRC Researcher Dr Ram Nair (South Australian Research and Development Institute) involves setting up smaller grazing trials with clonal cuttings of the palatable and highly digestible plants taken from the three original sites to identify suitable individuals for release as commercial cultivars.

A story on the saltbush research being done by Dr Norman and other FFI CRC researchers features in a special Saltbush Edition of the *Focus on Perennials* magazine.

Copies of the magazine can be downloaded from: www.futurefarmcrc.com.au

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