



Summer feed potential from perennials

By Jill Griffiths
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ABOVE: FFI CRC plant breeder Dr Daniel Real.

Research into legumes for low rainfall areas has tended to focus on annuals, due to the difficulties in finding perennial legumes other than lucerne and tagasaste that survive summer. However a perennial forage legume from the Canary Islands is showing great promise.

FFI CRC plant breeder Dr Daniel Real has been working on two botanical varieties of *Bituminaria bituminosa* – *albomarginata* and *crassiuscula*.

“There is a third variety (*Bituminaria bituminosa* var. *bituminosa*) that is prohibited from introduction into Australia and is regarded as unpalatable,” Dr Real said.

The two varieties that Dr Real is investigating are considered palatable as they are traditional forage for sheep and goats on the Canary Islands. They are perennial whereas var. *bituminosa* found elsewhere in Europe is biennial.

Dr Real explained the exciting thing about the plants is their remarkable ability to maintain green foliage throughout the summer. Trial plantings at five sites in Western Australia survived the 2006-07 summer, which was one of the driest on record.

Trial plots at Newdegate and Buntine were defoliated by locusts in November/December 2006 when they were five months old, yet by March/April 2007 they were about 30 cm tall. There was no irrigation at all to these plants.

“The plants are very drought tolerant and productive,” Dr Real said. “There is less than 200 mm annual rainfall in their native area.”

Grazing trials have proven the plants palatable and able to resprout after heavy grazing. They have 65 per cent digestibility and 15% protein.

Dr Real said they do not yet know how closely together the *Bituminaria* can be planted – whether they need to be spaced apart or if they will be able to form a sward.

A new project to investigate the plants is set to start in June 2008. Currently a plot is



Bituminaria bituminosa
var. *albomarginata*

being planted under irrigation at Medina to provide seed for the future work.

“Plant physiologists, plant ecologists, animal production researchers and many other disciplines will be involved,” Dr Real said.

“We will have PhD students and some honours students looking at many aspects. We expect to find out a lot very quickly to aid the breeding process while developing the agronomic package for this promising species.”

More information

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key points

- Perennial legumes from the Canary Islands have the potential to provide green feed throughout summer
- Identified varieties show promise in terms of digestibility and regeneration after grazing
- Trial plantings at five sites in Western Australia have survived extreme drought conditions.