



CLIMA Media Release

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GROWERS RELIEVED BY BLADDER CLOVER

Growers will enjoy quicker access to new, more productive pasture legumes, following rationalisation of one of WA's important seedbank collections by the Centre for Legumes in Mediterranean Agriculture (CLIMA) and the Department of Agriculture and Food (DAFWA).

WA has a world class collection of bladder clovers (*Trifolium spumosum* L.), which exhibit good yields, easy harvesting, hard-seededness and suit the wheatbelt's fine textured soils and environments where subclovers and medics once grew well.

Seed has been accumulated from ancient Middle Eastern ruins, southern Italian vineyards, or towns nestled on the Adriatic coastline, all regions with WA-like Mediterranean climates and environments.

Australian Trifolium Genetic Resource Centre (ATGRC) curator, Richard Snowball of DAFWA, who developed and supervised the GRDC-funded project, said the collection was now so large and diverse that selecting promising wild accessions and genotypes was too time-consuming.

But all that is changing, due to rationalising the seedbank from 390 accessions to 32.

CLIMA researcher and project leader based at the University of Western Australia (UWA), Dr Kioumars Ghamkhar said growers would benefit from the smaller subset.

"Despite reducing the seedbank by 90 per cent, biodiversity across this core collection has only reduced by about 15 per cent, thanks to exploiting accurate molecular and eco-geographical techniques when making the selections," he said.

"This means the 32 core accessions strongly represent all available beneficial traits across the complete collection, while the time breeders need to search for specific traits to meet grower needs will substantially reduce.

"Once a core accession of interest is identified, our data can help them go back to the main collection and quickly and accurately select relatives of those accessions with similar traits," Dr Ghamkhar said.

Pasture consultant and Tincurrin grower, Neil Ballard, welcomed rationalising and speeding up the variety breeding process.

"Bladder clover has huge potential for southern Australia and is one of the species included in the National Annual Pasture Legume Improvement Program," he said.

"It's great that growers will soon benefit from an excellent pasture species, through the anticipated release of a first variety from DAFWA's conventional bladder clover breeding program in 2007.

“And thanks to the rationalised program and core collection project, they won’t have to wait long for further varieties bred for specific traits,” Mr Ballard added.

This project’s proven and efficient techniques will be adapted to develop a subterranean clover (*Trifolium subterraneum* L.) core collection from the 8000 or so accessions and genotypes at the ATGRC, with funding from the Australian Research Council, DAFWA and UWA.

Image: CLIMA researcher, Dr Kioumars Ghamkhar can now hold the new bladder clover seedbank in one hand, thanks to its rationalisation from 390 accessions to 32.

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