



CLIMA Media Release

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ROCKY TIMES FOR GENETIC CRADLE

Two decades of below average rainfall, exposure to over-grazing and intensive cropping have jeopardised the pasture genetic resource cradle that supplied Australia with some of its most successful pastures, such as Casbah biserrula.

Returning from a Grains Research and Development Corporation (GRDC) supported mission to Morocco, Department of Agriculture pasture genetic resource curator, Richard Snowball said many species with potential for Australia verged on extinction, while many may have already been lost from the native Moroccan environment.

Despite the sombre news, he returned to the Centre for Legumes in Mediterranean Agriculture (CLIMA) at the University of WA (UWA) with 326 accessions, including 56 species and 17 genera, reinforcing the value of Morocco's dwindling genetics.

“With the co-operation of the Institut National de la Recherche Agronomique (INRA) and Moroccan authorities, germplasm was identified expressing greater variability than anything we'd previously found,” Mr Snowball said.

For example, it was only the third collection of bladder clover (*Trifolium spumosum*) in the last 75 years in the region. The species can flourish in fine textured soils and commercial release of a line selected from genetic material collected from Cyprus in 1987 is expected soon in WA.

A UWA/CLIMA research project examining genetic diversity of bladder clover using molecular and ecogeographic data, should benefit from the 2004 mission's success.

CLIMA research associate, Dr Kioumars Ghamkhar of UWA said the new germplasm extends the geographic range of the species and is important to include in the study.

Moroccan clover, found at 22 of the 49 sites visited, was an important find since this species is known to have good tolerance to waterlogging and moderate salinity.

“Emphasis was placed on low altitude sites with medium to low rainfall and infertile sandy soils. Target species weren't easy to collect in these areas, often taking hours to find these rare seeds, despite the region receiving above average rainfall in the past two years,” Mr Snowball explained.

Other participants in the seed collection included: curator of the forage seed collection in Morocco, Nezha Saidi; chief of forages, Chaouki Al Faiz; INRA rhizobiologist, Imane Thami Alami and deputy curator, Perth pasture seed collection, Kris Gajda.

“The germplasm this mission gathered is likely to benefit Australia’s pasture industry for years to come, but CLIMA and the GRDC must actively encourage and support sustainable conservation of genetic resources in Morocco,” Mr Snowball said.

“The subsequent development of new pasture species that are aerial seeded for easier harvesting and better adapted to hostile soils and short pasture phases will have a major impact on the future sustainability and profitability of WA farming systems.”

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