

Rural and regional

Mining germplasm



**THE CROP
DOCTOR**

JOHN LOVETT

COLLECTING germplasm can literally be a minefield.

A troupe of globetrotters has just returned from a mission to Tajikistan where they collected exotic germplasm to improve Australian cereal and grain legume crops from near the landmine-laden northern border with Afghanistan, among other places.

In the 20 years he spent with the famous Russian Vavilov Institute, mission interpreter and logistics expert Sergey Shuvalov had not previously accessed some of the areas surveyed this August by an international team supported by the Australian Centre for International Agricultural Research, US Department of Agriculture and Grains Research and Development Corporation.

According to Mr Shuvalov, Tajikistan mission participants Drs Farqhot Kasymov and Tosh Narzulloev were responsible for negotiating the team's access to areas many veteran collectors only dreamt of visiting.

After assembling in Dushanbe on August 2, the team spent more than two weeks in Tajikistan collecting land race seeds from fields, harvest bundles, roadside wilds, orchards, threshing room floors and cottage gardens in remote mountain villages.

This land race germplasm could contain hardy genes which, when crossed into modern crops, would provide extra resilience under stressful conditions, such as drought, saline landscapes and hostile soils.

While many believed there was no soil more hostile than one with a land mine in it, it was the calcareous infertility of Tajikistan which produced the seeds of interest.

So tough were the land race varieties that local growers retained them in favour of modern varieties provided as part of international aid.

Growers and the Federal Government have supported many international collection missions through the GRDC, but in association with ACIAR, this tour penetrated previously inaccessible parts of the globe to capture some of the world's most robust germplasm.

□ The Crop Doctor is GRDC managing director Professor John Lovett: phone (02) 6272 5525.



□ Sergey Shuvalov starts his day with a close shave before embarking on the hairy task of collecting germplasm from 'landmine country' in Tajikistan.