IMPORTING RESISTANCE

Anyone thinking WA already packs a full deck of crop rusts after last year’s arrival of stripe rust, should think again as a potential menace could chop into WA’s world leading lupin production.

Lupin rust is a substantial problem in the United Kingdom and would devastate highly susceptible WA varieties, according to Centre for Legumes in Mediterranean Agriculture (CLIMA) and Department of Agriculture researcher, Mark Sweetingham.

“All WA lupin varieties except Tallerack proved highly susceptible to rust during UK trials,” he warned.

“We’re now developing DNA markers to help isolate and transfer Tallerack’s resistance into new varieties as part of CLIMA’s work to guard WA against the incursion of such exotic diseases.”

Dr Sweetingham reminded those who felt this Grains Research and Development Corporation and Grains Research Council supported project was overly concerned with diseases not present in Australia, that WA’s strain of wheat stripe rust arrived from overseas just last year.

“Even WA’s major existing lupin disease, anthracnose, arrived in 1996, cutting annual production around 20 per cent and shaking the industry’s confidence.”

Perhaps the most ominous of the international disease threats is Fusarium wilt, the number one lupin disease across much of northern Europe.

However, Dr Sweetingham’s pre-emptive breeding project now has valuable new genetics to combat Fusarium wilt, after recently negotiating to import 60 key selections for local breeding.

“The selections were chosen from more than 2000 Russian, Polish, German, Ukrainian and Portuguese breeding lines which were disease tested in the past three years,” he said.

“In return for access to that germplasm, WA is providing collaborators with local breeding lines demonstrating world leading anthracnose resistance. The anthracnose resistance in WA variety Tanjil has proved so robust that it also resists a second new strain of the disease which recently emerged in parts of Russia and the Ukraine, making our germplasm particularly valuable.”

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