



Program to harvest students for agriculture

By Mandy Thoo

■ The need to attract the brightest students into agricultural careers was workshopped by the national Primary Industry Centre for Science Education (PICSE) at a forum organised in Canberra recently.

The forum included agrifood researchers and leaders, government representatives, PICSE science education officers (SEO), students and the GRDC.

Professor Jim Pratley from Charles Sturt University noted that the number of agriculture graduates has more than halved from 700 in 1988 to 300 in 2009. "We have more than 4000 graduate jobs per annum, but fresh graduates from agriculture and related courses can only fill about 700 positions," he said.

The GRDC's Dr Jody Higgins told the forum that training more young people was crucial to the ongoing competitiveness of the grains sector, which delivers 25 per cent of Australia's gross value of production (GVP) in agriculture and \$6 billion, and upwards, in exports.

PICSE was launched in 1998 to help bridge this expertise gap by stimulating high school students' interest in agriculture and encouraging them to pursue agricultural science in their tertiary studies. The PICSE program

is based on the Russell Model, developed at the School of Agricultural Science, University of Tasmania (UTAS) by PICSE's national director, Associate Professor David Russell.

Each year, PICSE conducts four large-scale activities across the country:

- sending SEOs to engage with Year 11 and 12 science classes about the opportunities and careers in primary industries;
- running a Science Investigation Awards program in which students investigate an agrifood topic;
- delivering industry or science-based professional development sessions for Year 11 and 12 science teachers; and
- providing an industry placement scholarship, which includes a five-day primary industry camp, followed by a placement with agricultural scientists or extension officers.

PICSE SEO Sue Lanham said that one reason for the diminishing interest in primary industries was a lack of awareness of "all the amazing science involved in food production"

"Students often have a superficial view of agriculture – gumboots and flannelette shirts – and a poor understanding of the sector.



The PICSE program links students and teachers with mentors from agricultural industries to ensure that primary industry becomes a priority career of choice.

"PICSE activities are designed to break this stereotype by showcasing cutting-edge agrifood research projects to students and teachers. They then see that food production involves exciting science, high technology and innovation, and is all about solving 'real world' problems."

Students who attended the forum reflected on their

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misconceptions about primary industries before becoming involved with the PICSE program, such as equating agriculture to driving tractors, long working hours and a poor standard of living. They were largely unaware that the sector was linked to innovative science, or the wide range of careers and opportunities available.

The main activity that dispelled these 'myths', the students said, was the camp and industry placement scholarship that allowed them to work in various agrifood sectors, such as grains research, microbiology, plant research, animal genetics, agronomy and horticulture.

Gabby Bennett, who won a PICSE scholarship in 2006, said she started out with a very limited understanding of the job opportunities available to scientists in primary industries. She was surprised to discover just how 'hands-on' agricultural science is, and she nominated fieldwork as the highlight of her industry placement.

Since its launch, PICSE has engaged with about 50,000 students and Associate Professor Russell said the merit-based selection of Year 11 and 12 students for the placement programs ensured that the best minds were attracted to the program.

To date he said 40 per cent of these students involved in the PICSE program delivered by the School of Agricultural Science at UTAS had decided to pursue agrifood-related courses in their tertiary studies, and even the remaining 60 per cent had gone on to study other relevant sciences. "About 95 per cent stay on the path of agriculture because the industry placement experience has given them a taste, allowing them to 'try before buying'," he said.

Dr Higgins also spoke of the importance of rebranding the grains industry. "We need to change the 'gloomy and drought-affected' image to the positive and prosperous outlook that this industry really has," she said.

"While we expose students to the sector and show them the available and diverse career paths, we also need to follow up with them through ongoing engagement and tracking their progress in school. An extra billion tonnes of cereal is needed to feed the world by 2050, and the grains industry will be depending on future generations to help secure this," Dr Higgins said. □

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More information: Associate Professor David Russell,
0438 304 935, david.russell@utas.edu.au,
www.picse.net; www.grdc.com.au/UT00019