Australian Plant Phenomics Facility

CSIRO

High Resolution Plant Phenomics Centre

Knowledge Transfer –

Canberra student helps develop improved phenotyping tools for the Philippines

UK born PhD student Katherine Meacham's positive attitude to embrace a good opportunity when it comes along has seen her move to Australia to undertake a PhD on a project aimed at improving rice production in the Philippines.

Growing up in a small town near Staffordshire in England, Katherine enrolled in a philosophy course at university, as she had always enjoyed the humanities subjects taught at high school.

"A year and a half into the course, I realised that philosophy wasn't what I enjoyed after all and I decided to leave the course and enrol into a different degree in the following year," remembers Katherine.

To clear her head, Katherine decided to travel around Australia for three months, where she was offered to work as a Jillaroo on a cattle farm in Northern Queensland.

"I absolutely loved the experience and enjoyed learning about practical farming techniques," she recalls.

An agricultural exchange scholarship from AgriVenture enabled Katherine to spend another year on a farm; this time in country New South Wales.

With a new found passion for agriculture, Katherine embarked on an honours degree in agricultural science at the Royal Agricultural University in Cirencester when she returned to England in 2008.

Her second year university work placement at the High Resolution Plant Phenomics Centre (HRPPC) in Canberra was inspired by a talk on food security presented by Dr Bruce Lee (Director, CSIRO Food Future Flagship), which Katherine enjoyed whilst attending a conference in Oxford.

"The CSIRO funded industrial traineeship at the HRPPC was fantastic! My project was linked to a larger experiment that focused on increasing biomass in wheat. I was able to access novel phenotyping tools and learn a variety of new laboratory techniques," says Katherine. "Before returning to England, I was able to spend a month at the International Rice Research Institute (IRRI) in the Philippines, participating in a training course on rice production, which I thoroughly enjoyed."

Following the completion of her honours degree, Katherine was presented with an opportunity to work as a trainee farm manager in New Zealand, but chose to undertake her PhD at the HRPPC instead.

"My PhD is supported by a scholarship from IRRI and is part of a global rice science partnership program," says Katherine.

Investigating six rice genotypes from an IRRI diversity panel with contrasting morphology but similar yield, Katherine is developing and applying modelling techniques to accelerate biological output.

"The new techniques and tools developed at the HRPPC will help improve rice phenotyping at IRRI to accelerate scientific output and contribute to improved rice production in the country," says Katherine.

Written by Helli Meinecke (June 2013)