

APAI PhD Scholarships for Nitrogen Use Efficiency

The Faculty of Science
The School of Agriculture, Food and Wine
The Australian Centre for Plant Functional Genomics

Applications are invited for the following scholarship leading to the degree of PhD in Science.

Four scholarships are available and will be supported by The University of Adelaide and The Australian Centre for Plant Functional Genomics.

Field of Study:

The PhD projects on offer aim to improve the nitrogen use efficiency of the cereal crop maize, by increasing the efficiency of mechanisms plants use to accumulate and utilise nitrogen.

Projects will use the latest gene technology, biochemistry and plant physiological techniques to define nitrogen use efficiency traits, which will aid in the improvement of nitrogen use in maize and other cereal crops.

The project involves a close collaboration with our Industrial Partner DuPont-Pioneer (Johnston, Iowa US). ACPFG offers professional development and a mentoring program for PhD students.

Maize is an important global crop where approximately 818 million tonnes is produced annually. Maize provides an important staple of global agricultural food production where it is used for both animal and human consumption.

The production of maize, like most cereal crops, is heavily dependent on the supply of nitrogen fertilisers to overcome inherent soil nitrogen deficiencies that limit growth and economic yields. Unfortunately, the use of nitrogen fertilisers by cereals is poor, where only 30-40% of the applied nitrogen is actually accessed and used by the plant. While plants need nitrogen to grow, the inefficient use of nitrogen in agriculture is a growing global concern as it impacts a direct cost to the grower but more importantly a larger indirect cost to the environment through increased nitrogen pollution.

We seek motivated students with backgrounds in the following areas:

- Agriculture
- Biology
- Biomedical Sciences
- Biotechnology
- Genetics
- Molecular Biology
- Plant Physiology
- Science

Eligibility: Applicants must be Australian Citizens or Permanent Residents of Australia who are acceptable as candidates for a PhD degree at the University of Adelaide. International applicants may apply, however, as Tuition Fees are not included as part of this award, applicants must be able to meet the cost of Tuition Fees.

Stipend: Each scholarship will be for the period of three years and has a stipend of AUD\$ 27,222 per annum (start date negotiable). It is tax exempt, subject to Taxation Office approval.

Enquiries: Further information regarding the project is available from www.acpfg.com.au or contact Dr Brent N Kaiser (brent.kaiser@adelaide.edu.au) or Professor Steve D Tyerman (steve.tyerman@adelaide.edu.au).

Applications: Will be accepted through until December 2012. Applications to be emailed to Dr Monica Ogierman, ACPFG Education Manager at monica.ogierman@acpfg.com.au and must include the following documents

- A current resume, including the names and contact details of two professional referees
- Scanned copy of your academic transcript
- A letter outlining why you are interested in this project

Should you be awarded a scholarship, you will be required to apply for Admission into the PhD program. Application forms are available from the web page:

<http://www.adelaide.edu.au/graduatecentre/scholarships/postgrad/pgforms.html>