



**25 YEARS**  
1991-2016

## FAST FACTS

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### THE DATES:

Start: July 2014

Finish: March 2015

### PROJECT PARTICIPANTS:

SARDI: Ross Ballard.

### THE PROBLEM:

Researchers and agronomists need to be brought up-to-date with the latest findings in nitrogen fixation research.

### THE RESEARCH:

The conference was held in Adelaide from Sunday 28 September to Thursday 2 October 2014.

# SAGIT RESEARCH SUMMARY

## S114: 17th Australian Nitrogen Fixation Conference Sponsorship

### IN A NUTSHELL

Professor Euan James from the James Hutton Institute in Scotland was one of three international keynote speakers at the 17th Australian Nitrogen Fixation Conference, which was held at the Plant Research Centre in Adelaide from Sunday 28 September to Thursday 2 October 2014. A total of 59 papers were presented by the 71 delegates from seven countries who also attended a field tour of research sites in the Mid North. The conference also provided an opportunity for Australian and New Zealand researchers to develop closer ties for future research collaborations.

### BACKGROUND

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The Australian Society for Nitrogen Fixation has hosted 16 previous nitrogen fixation conferences around the country, where latest research findings are presented

### RESEARCH AIMS

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The objective of the project was to host the 17th Australia Nitrogen Fixation Conference at the Plant Research Centre in Adelaide, with SAGIT sponsorship funding the attendance of nitrogen fixation specialist Professor Euan James, from the James Hutton Institute in Dundee, Scotland, as well as the conference field tour.

### IN THE FIELD

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Several SAGIT, GRDC and SARDI legume research projects in the Mid-North were featured on the field tour, including pea variety and inoculation trials, variety and agronomy trials and the Hart Field Site.

Presentations addressed emerging issues including the detrimental impact of herbicide residues on legume nitrogen fixation, likely benefits gained from non-symbiotic nitrogen fixation, improving the survival of rhizobia on seed, the solubilisation of phosphorus by some strains of rhizobia in New Zealand, and the gaps pertaining to the practices and knowledge of nitrogen fixation and inoculation by Australian farmers.

The SAGIT-funded keynote speaker, Euan James, spoke about a diverse group of recently discovered nitrogen fixing bacteria that may present future opportunities for grain growers.

The Beta-rhizobia can form nodules on legumes but are not related to the rhizobia currently used in commercial inoculants.

Two other keynote speakers, Professor Barbara Reinhold-Hurek, from the University of Bremen, Germany, and Dr Michael Russelle, from the US Dairy Forage Research Centre, also presented at the conference.

## RESULTS

There were 59 presentations delivered at the conference from Sunday 28 September to Thursday 2 October.

There was representation from seven countries, with 71 delegates attending the conference. Of those, 70 per cent were from Australia and the remaining 30 per cent were from countries including New Zealand, the UK, Germany, USA, South Africa and Botswana.

All feedback from delegates was very positive.

## VALUE FOR GROWERS

Proceedings are available from the University of Adelaide website: <http://agwine.adelaide.edu.au/research/farming-systems/legumes-nitrogen/17th-australian-nitrogen-fixation-conference-2014.pdf>

A large contingent of delegates from New Zealand provided a forum for interaction between Australian and New Zealand researchers, creating an opportunity to widen the scope of research collaborations.

### MORE INFORMATION:

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Professor Barbara Reinhold-Hurek (Germany), Associate Professor Flora Pule-Meulenberg (Botswana), Dr Michael Russelle (USA) and Dr Mike Ewing (Australia) at the Hart Field Site.

Photo: Rebecca Jennings

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