



**p2** Ornamental eucalypts for export

**p7** Recent Waite outreach activity

**p6** Pregnant women's nutrition problem

**p8** ARC Wheat Research Hub launched

## From the Dean's office

It was an honour and a privilege to recently be appointed as Dean of the Waite Campus and Head of the School of Agriculture, Food & Wine for five more years until the end of 2020. I am looking forward to working with colleagues, students and our many stakeholders to strengthen the excellent education and research that are offered by the School and Waite Campus in the coming years.

The School of Agriculture, Food and Wine, associated research centres and Waite co-located partners have a well-earned reputation for excellence in research and education. But it is crucial that we don't take for granted our privileged place at the Waite in society more generally. The Waite Strategic Leadership Group convened a strategic planning workshop in July to chart the future of the Waite Campus co-location partnership. One of the important outcomes of that workshop was recognition that we need better communications on the Campus. We are now planning to launch a new website that will provide information about seminars, events, jobs, campus works and other on-campus activities. It will also be a portal to the School, and co-located partners, including SARDI, Australian Wine Research Institute, and the local CSIRO presence. The website will also have RSS functions to enable everyone to receive up-to-date information on a timely basis. The new website will be launched in the fourth quarter of this year.

## APPS meeting recognises service of Waite researchers

Professors Eileen Scott and Amanda Able attended the biennial conference of the Australasian Plant Pathology Society (APPS) in Fremantle, Western Australia, 13-16 September, as outgoing President and Vice-President, respectively, of the Society. Eileen presented the Society's awards and the presidential address, choosing research supervision as her topic. Both Eileen and Amanda presented papers and posters on their research. SARDI researchers Barbara Hall and Sue Pederick also completed two-year terms as executive secretary and assistant secretary of the society at the meeting.

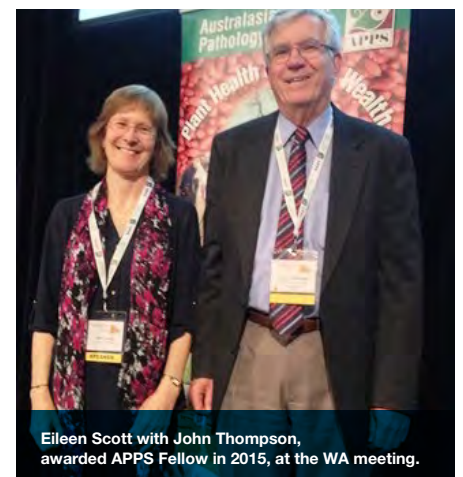
The Australasian Plant Pathology Society, founded in 1969, is dedicated to the advancement and dissemination of knowledge of plant pathology and its practice in Australasia. By studying diseases and the pathogens that cause them, plant pathologists seek to reduce the impact of diseases on the community and the environment.

APPS has members across the world, particularly in the Pacific and South East Asia, and many of its activities are of international significance. The APPS management committee keeps the

business of the Society running smoothly, including overseeing awards that promote and recognise excellence in the field and supporting the Society's conferences and publications.

Members of this and many other such societies represent a broad range of scientific interests, including research scientists, teachers, students, extension professionals, administrators, and related industry people. Members are generally elected to office-holder and management committee positions for a fixed term; without their voluntary time and efforts, societies such as this would not be able to continue their valuable work in gathering and disseminating knowledge, supporting discipline-specific training, influencing policy and maintaining important networks.

Numerous Waite researchers and academic staff are engaged in this kind of work for various scientific societies as well as serving on the editorial committees of major international scientific journals.



Eileen Scott with John Thompson, awarded APPS Fellow in 2015, at the WA meeting.

# Agriculture Tour of China 2015



Participants in the Agriculture Tour of China 2015 in Yangling

Twenty two final-year students of Agricultural Sciences travelled to China on 4-20 July for an agricultural tour, the third year this tour has been run. The group visited and viewed a wide range of agricultural sites and activities, including beef feedlots, a sturgeon farm, a deer farm, the National Gene Bank, a Biotechnology Company, a large collective farm at Xinglongcun, and high-tech greenhouses in Beijing. They saw cultivation of maize, soybean, Chinese gooseberry (Kiwi fruit), wine grapes, dragon fruit, rice, conventional and organic vegetables, many kinds of mushrooms and lotus root.

In addition to the agricultural sites and enterprises, the students also visited the Forbidden City, Temple of Heaven, Summer Palace, Great Wall, Terra Cotta Army, and the old city in the centre of Xi'an. The tour was led by Mike Keller and Ian Nuberg, and supported by Hannah Wang. The group was hosted by the Chinese Academy of Agricultural Sciences and China Agricultural University in Beijing, Northwest A&F University in Yangling, and Shanghai Jiao Tong University in Shanghai.

## Ornamental Eucalypts - turning an Australian icon into an export opportunity

Adelaide Research & Innovation and the Eucalypt Breeding Program at the Waite have been awarded \$250,000 in Federal Government funding under the Accelerating Commercialisation element of the Entrepreneurs' Programme to commercialise a cloned hybrid ornamental eucalypt.

The Entrepreneurs' Programme is the Australian Government's flagship initiative for business competitiveness and productivity at the firm level. It forms part of the Australian Government's new industry policy outlined in the Industry Innovation and Competitiveness Agenda. This Agenda is a business-focused element of the Australian Government's broader Economic Action Strategy and brings together and builds upon economic reforms to make the most of Australia's strengths and business opportunities.

Accelerating Commercialisation offers eligible small and medium businesses, entrepreneurs, and researchers access to Commercialisation Advisers with experience and connections to address the challenges associated with commercialising novel products, processes and services.

Industry and Science Minister Ian Macfarlane said \$5.1 million in funding under the programme's Accelerating Commercialisation element would help these businesses to take their products into Australian and international markets.

"The Government's Entrepreneurs' Programme provides innovative Australian businesses with access to expert advice, experience and networks crucial for attracting investment and getting new ideas into the marketplace", Mr Macfarlane said.

"The Eucalypt program has been running for over 15 years, and aims to breed exciting and unique varieties for the Australian and international horticulture industries, by designing trees for tough urban environments", said Principal Researcher, Dr Kate Delaporte.

"We have a number of lines under trial at Waite and Roseworthy and other sites around Australia. This funding is enabling us to set up trials of our best lines in overseas markets. We have a beautiful product and now is our chance to get it out to the world".

Dr Delaporte's focus over the next two years will be on consolidating these opportunities. "This project would not be possible without the support of The University of Adelaide, ARI, our commercial partners, and RIRDC, HIA and the Playford Trust", she said.



# Professor Mike McLaughlin joins GRDC Southern Regional Panel

Professor Mike McLaughlin is one of several new members appointed to the Grains Research and Development Corporation's Southern Regional Panel for the next two years.

In announcing the appointments, GRDC Chairman Richard Clark said the Southern Panel's chair Keith Pengilly would be supported by a team with substantial cross-industry experience.

"The role of the GRDC's Regional Panels is critical in linking GRDC to growers, researchers, scientists, agribusiness and grower groups," Mr Clark said. "The GRDC Board considers the appointment of members to the Regional Panels as crucial to the GRDC's success," he said.

Panel chair Keith Pengilly agreed, saying: "The GRDC Panel process is very important in ensuring grower concerns, ideas and priorities are fed into GRDC,



The GRDC's new-look Southern Regional Panel at the Hart Field Day

and the new Panel consists of personnel who not only offer a broad cross-section of expertise and experience, but also geographical representation.

"Grain growers in just about every pocket of the southern cropping region have a direct voice through the Panel members who will be serving growers' interests over the next two years," Mr Pengilly said.

"The new Panel is well rounded in terms of industry experience and expertise. Members come from diverse backgrounds – they include growers, researchers, consultants and advisers – and all are highly respected by their peers."

"The GRDC Southern Regional Panel is designed to be the conduit of information and insights between the grass-roots industry and the GRDC, so I encourage all

growers and consultants to make themselves known to their local Panel members."

The GRDC's three Regional Panels – northern (NSW and Queensland), southern (South Australia, Victoria and Tasmania) and western (Western Australia) – are a key strength of the organisation, playing an important advisory and strategic role in GRDC investments. The panels are renewed every two years.

The Regional Panels help to ensure that the GRDC investment plan responds to the regional and national priorities of grain growers and the Australian Government, and is aligned with the GRDC's corporate strategies.

# New leadership team at The Plant Accelerator®

A new management team has been appointed to lead The Plant Accelerator® into its next phase. Dr Bettina Berger (Scientific Director), Ms Helli Meinecke (Managing Director) and Dr Trevor Garnett (Director, Technology Development) will continue to work in close collaboration with the High Resolution Plant Phenomics

Centre in Canberra to enhance plant phenomics research infrastructure in Australia. The two facilities, known as the Australian Plant Phenomics Facility (APPF), provide state-of-the-art phenotyping technologies and expertise to help academic and commercial plant scientists understand and relate the performance of plants to their genetic make-up. The Plant Accelerator®, Adelaide node of the APPF, is located at the Waite Campus of the University of Adelaide. Digital imaging technologies, high capacity computing and robotics are combined at the purpose built facility to allow the automated, high throughput, non-destructive measurement of plant growth and function ("phenomics"). Information on APPF services and how to access the facility is available at <http://www.plantphenomics.org.au/access/>



Image courtesy of LemnaTec GmbH.



'Seed to Store' student winners with Cosi (far left) and Malcolm Buckby (far right) at the Royal Adelaide Show

## Seed to Store video competition winners announced at the Royal Adelaide Show

The 2015 Grains Ambassador and TV and radio personality, Andrew 'Cosi' Costello, visited the Waite Campus in July with the Ag Communicators team to learn more about the R&D underpinning the grains industry and to produce a short example video for the 'Seed to Store – The Story of Australian Grains YouTube Competition'. Supported by the GRDC and SAGIT and running in conjunction with the Royal Adelaide Show, the competition was designed to promote the grain producing sector and highlight the processes, innovation and people involved in the Australian grains industry – from seed in the ground to food in a store.

Cosi, the South Australian Grain Industry Trust's Malcolm Buckby, and Kathleen Allan, representing the Grains Research and Development Corporation, were there to award the top three places in the student and community categories in a special Grains Day presentation at the Show. The Waite's own Professor Diane Mather and her laboratory team, who had helped host Cosi's Waite visit, won third prize in the community section of the competition for their video entry, 'The Wheat Beat'.

Mr Buckby said it was exciting for SAGIT as a research and development organisation to be part of an initiative which fielded entries from across Australia and promoted the industry on behalf of its grain grower levy-payers.

"It's fantastic that students are being encouraged to take up a career in the grains industry. The diversity and number of jobs available is exciting and it was great to be involved again in this year's program to promote the industry's opportunities," Cosi said.

Cosi and the AgCommunicators team have visited more than 1000 school students in the Mid North, Yorke Peninsula and Adelaide area during the past couple of months. Students were engaged in an interactive presentation covering new technologies, best practices and careers in the grains industry.

## Stressed plants send animal-like signals

Research at The University of Adelaide's Waite Campus has shown for the first time that, despite not having a nervous system, plants use signals normally associated with animals when they encounter stress.

Published recently in the journal *Nature Communications*, the researchers at the Australian Research Council (ARC) Centre of Excellence in Plant Energy Biology reported how plants respond to their environment with a similar combination of chemical and electrical responses to animals, but through machinery that is specific to plants.

"We've known for a long-time that the animal neurotransmitter GABA (gamma-aminobutyric acid) is produced by plants under stress, for example when they encounter drought, salinity, viruses, acidic soils or extreme temperatures," said senior author Associate Professor Gilliam, ARC Future Fellow in the University's School of Agriculture, Food and Wine.

"But it was not known whether GABA was a signal in plants. We've discovered that plants bind GABA in a similar way to animals, resulting in electrical signals that ultimately regulate plant growth when a plant is exposed to a stressful environment."

By identifying how plants respond to GABA the researchers are optimistic that they have opened up many new possibilities for modifying how plants respond to stress.

"The major stresses agricultural crops face like pathogens and poor environmental conditions account for most yield losses around the planet – and consequently food shortages," says co-lead author Professor Stephen Tyerman.

"By identifying how plants use GABA as a stress signal we have a new tool to help in the global effort to breed more stress-resilient crops to fight food insecurity."

Despite a similar function, the proteins that bind GABA and their mammalian counterparts only resemble each other in the region where they interact with the neurotransmitter – the rest of the protein looks quite different.

"This raises very interesting questions about how GABA has been recruited as a messenger in both plant and animal kingdoms," says co-lead author Dr Sunita Ramesh. "It seems likely that this has evolved in both kingdoms separately."

The researchers say these findings could also explain why particular plant-derived drugs used as sedatives and anti-epileptics work in humans. These drugs are able to interact with proteins in the GABA-signalling system in both plants and animals – suggesting that future work on other plant GABA signalling agents will also benefit the medical field.

The work also involved researchers at CSIRO Canberra, the University of Tasmania, the Gulbenkian Institute in Portugal and the University of Maryland, USA.

# Dr Caitlin Byrt wins Tall Poppy Science Award



Congratulations to Dr Caitlin Byrt (pictured), an ARC DECRA fellow working at both the Waite's ARC Centres of Excellence with a focus on salt tolerance in plants, who recently became a 2015 recipient of the prestigious Young Tall Poppy Science Award.

Dr Byrt's research involves engineering plants to improve their productivity for the food and fuel industries and has already contributed to significantly increasing the yields of durum wheat in saline soils.

Dr Byrt has also been proactively involved in science communication and outreach activity, and as a 2015 Tall Poppy, she will be engaged in further education and

community outreach programs, becoming a role model to inspire school students and the broader community about the possibilities of science.

The Young Tall Poppy Science Awards are presented annually by the Australian Institute of Policy and Science (AIPS) and aim to recognise the achievements of outstanding young Australian scientific researchers and communicators. Dr Byrt and the other South Australian Tall Poppy winners for 2015 were presented with their awards at Government House in late July by the Governor of SA, the Honourable Hieu Van Le AO.

## Other recent achievements and awards ...

Congratulations to the following recent award recipients:

> **Dr Dagmar Hanold** has been awarded the biennial Geoff Cotton Memorial Award for 2015 by the South Australian Apiarist Association for "longstanding commitment in research work for the environment and conservation, especially in the field of Mundulla Yellows". Dagmar donated her prize money back to the project.



> **Dr Beth Loveys and Dr Karina Riggs** (pictured) have been acknowledged nationally with Office for Learning and Teaching Citations for Outstanding Contributions to Student Learning. These awards represent the very best Australian academics who share

a passion for innovative pedagogy. Their award was for 'leading cultural change in undergraduate teaching in agriculture, food and wine using innovative team-teaching approaches that engage students to become independent learners'. Drs Loveys and Riggs joined the School in 2011 and have been working together ever since to reinvigorate undergraduate teaching using innovative and novel teaching methods that improve student engagement, motivation and outcomes.

> **Dr Bertram Ostendorf** from the School of Biological Sciences and a group which included Dr Vinay Pagay won a People's Choice award in the 2015 Westpac Innovation Challenge. Their [Drones for Grapevines](#) project was selected as one of the top five innovative business ideas for the agricultural sector.

> **Professor Amanda Able** was recently named the University of Southern Queensland Research (and Academic) Alumnus of 2015. The Alumnus of the Year Awards (in a range of categories) formally recognise outstanding USQ alumni for their achievements within their professional and personal lives and who have been an inspiration to fellow alumni, current students and the community.

> The September Graduation ceremonies saw three FOODplus graduates celebrate the successful completion of their PhDs – congratulations to **Laura Blake, Dao Huynh and Jess Gugusheff**, pictured below with Dr Bev Muhlausler.



> Recent staff promotions include: **Dr Beth Loveys** to Lecturer, and **Dr Bettina Berger, Dr Beverley Gogel** and **Dr Michelle Wirthensohn** to Senior Lecturer.

> **Professors Peter Langridge** and **Petra Marschner** were named recently on the Thomson Reuters 2015 Highly Cited Researcher list, which recognises influential scientists whose papers are in the top 1% most cited in their subject field.

# Pregnant women not following nutrition guidelines

A research team led by Dr Jo Zhou, a lecturer and dietician with the School of Agriculture, Food & Wine's FOODplus Research Centre, recently published results from a study that found that none of the 850 pregnant women surveyed from across Australia were found to be correctly following the Australian Dietary Guidelines on consumption of the "five food groups". This was despite almost two-thirds of them believing they were eating the right diet.

The study, published in the journal *Public Health Nutrition*, was conducted by Dr Lenka Malek for her PhD at the University

of Adelaide's Women's & Children's Health Research Institute (WCHRI), in conjunction with the School of Agriculture, Food & Wine and Global Food Studies group. It attracted significant subsequent media attention due to the alarming nature of the findings and their implications.

Dr Malek, who is now a postdoctoral research fellow in Global Food Studies at The University of Adelaide, said:

"One of our main concerns is that 61% of pregnant women thought they were eating a healthy and balanced diet. If pregnant women already believe they are consuming a healthy and balanced diet they may not make changes to improve their eating habits. These results help to illustrate the need for greater awareness of what is considered to be a healthy diet, and a need for intervention programs aimed at helping pregnant women to meet the guidelines."

The research showed that only 56% of pregnant women consumed the daily recommendation of fruit, 29% consumed enough dairy, and less than 10% ate the

recommended levels of other food groups: vegetables, grains and lean meats.

Dr Zhou, senior author on the paper, said the research has implications for the understanding of women's health generally.

"Our research has found some groups of women are less likely to eat certain types of foods. For example, women who were born overseas and who were less physically active before pregnancy were less likely to keep to the daily fruit and dairy recommendations. Women who smoked during pregnancy, were overweight before pregnancy and had lower household incomes were also less likely to eat enough fruit. And women living in metropolitan areas were less likely to meet the daily intake of vegetables.

"More research would be needed to better understand exactly why women aren't consuming certain types of foods at the recommended levels. But there is a very clear need to raise awareness of this problem in the community," she said.

## New agreement for advanced fertiliser research

Research into advanced fertilisers that are more efficient and minimise environmental impacts has been given a boost with a new five-year, \$8.5 million partnership agreement between the University of Adelaide and US-based fertiliser producer The Mosaic Company.

Based at the Waite Campus, the [Fertiliser Technology Research Centre](#) was established in 2007 as a joint venture between the University and The Mosaic Company, the world's largest combined producer of phosphate and potash, to develop and evaluate more efficient fertiliser products.

"Over the past eight years with Mosaic's support, we've been able to significantly expand our research and develop new techniques for fertiliser formulation and evaluation," said Professor Mike McLaughlin, Director of the Fertiliser Technology Research Centre and Professorial Research Fellow with the School of Agriculture, Food and Wine.

"Research over the next five years will be focussed around developing fertilisers using nanotechnology and other novel materials and formulations for enhanced efficiency and minimised environmental impacts.

"We will also be working towards reducing the cost of manufacturing multi-nutrient fertilisers. Farmers and fertiliser users around the world will be the beneficiaries."

Outcomes from the Fertiliser Technology Research Centre to date have included:

- > a model to predict release rates of nutrients, in particular sulphur, from complex multi-nutrient fertilisers
- > manufacturing methods to optimise micronutrient fertiliser efficiency
- > rapid tests to evaluate fertiliser effectiveness
- > new dual-release micronutrient fertilisers
- > a better understanding of the impact of new raw materials on fertiliser quality.

"The Centre's work has been critical to Mosaic's new product development," says Dr Matt Clover, Manager, Research and Alliance with The Mosaic Company.

"Continuing our partnership will lead to a better understanding of how nutrients behave in the soil, and how enhanced efficiency fertilisers can increase yields while protecting nutrient losses to the environment."

### Want Waite news more regularly than our quarterly newsletters?

The [Waite Campus Blog](#) has now been launched and will run in parallel with this newsletter. If you would like to receive more regular Waite news updates via e-mail, subscribe now at <http://blogs.adelaide.edu.au/waite/subscribe/>.



## Recent Waite visitors

- > The Board and Managing Director of Elders.
- > Sixty science and maths-minded senior secondary school students from all over Australia did a site visit to the Waite as part of the ANZAAS Youth Conference in July.
- > Shanghai Jiao Tong University representatives visited the Waite Campus on 19-21 August for a three-day workshop to develop plans for future activity and collaboration in the UA-SJTU Joint Research Centre for Agriculture and Health. They met with staff from the Waite and Robinson Research Institutes and the School of Biological Sciences.

## New Lecturer in Soil Science

The School of Agriculture Food and Wine and CSIRO Land and Water have recently appointed Dr Divina Navarro (pictured) to a joint position as a lecturer in Soil Chemistry. Following a postdoctoral fellowship at CSIRO, Dr Navarro will be working closely with Prof Mike McLaughlin's soil chemistry and fertiliser group, which also works in environmental contaminant mitigation and technologies.

Dr Navarro's research interests are on the environmental applications, risk assessment and safety of nanomaterials in the terrestrial environment.

"My goal is to ensure that environmental applications of nanotechnology, particularly those that reach soils through agriculture and remediation, are developed safely," she said.



Part of the Shandong Province delegation at The Plant Accelerator with UA's Deputy Vice-Chancellor (Research) Professor Mike Brooks, SA Minister for Agriculture, The Hon Leon Bignell MP and Dr Bettina Berger.

- > Thirty Year 10 students from Scotch College, many of them boarders from rural areas.
- > A high-level Shandong Province delegation, led by the Party Secretary, Mr Jiang Yikang and hosted by the Department of Premier & Cabinet and PIRSA, came to the Waite as part of a two-day program in Adelaide to develop an action plan to share R&D and build exchanges, collaboration and investment links between SA and Shandong. They visited The Plant Accelerator and laboratories at AWRI, then heard from FOODplus and SARDI researchers while tasting samples of functional foods.
- > A group of retired Department of Agriculture leaders who maintain a keen interest in the sector.
- > Senior executives from Limagrain and The Mosaic Company.

## AFW outreach activity gets the Waite message out

The School of Agriculture, Food & Wine has had a presence at a number of public events in recent weeks, with Bianca Kyriacou, Paul Grbin and a team of staff and student volunteers running displays and activities to interest hordes of eager young science hopefuls at Science Alive, the University's Open Day and the Royal Show.

The Science Alive event was attended by more than 13,000 people on the Sunday alone and had a fantastic vibe. More than 2,000 terrarium kits were made and handed out by the team over the course of the weekend.

Helped by good weather this year, the University's Open Day at the North Terrace Campus attracted record crowds. The AFW display featured dietary fibre and wine press activities and generated plenty of interest in and questions about all four of our major degrees.

The Royal Show display this year built on the Healthy Soils = Healthy Plants = Healthy You concept with a few new aspects designed to demonstrate the many areas of study/disciplines on the Waite Campus and how we can share the lessons learned. This reflected well on the Campus and generated a great response from visitors. Over 800 terrariums were made by enthusiastic children while our staff and students spoke with the parents and family groups about our displays and gave away over 350 germinated ornamental eucalypts.

A Future Study Expo for existing undergraduate students was also held recently at the North Terrace Hub, showcasing the range of postgraduate options available across the Faculties. The School of AFW had a relatively large and impressive display with plenty of interest for students wanting to find out more about agriculture, and AFW staff gave talks every hour as part of a Sciences program.

Thanks to everyone involved for their fabulous off-site (and sometimes outside of business hours) efforts

# ARC Wheat Research Hub launched

New wheat varieties, bred specifically for Australia's harsh conditions, will be accelerated because of research within a new \$11.4 million Research Hub launched at the University of Adelaide's Waite Campus in early September.

The Australian Research Council (ARC) Research Hub for Wheat in a Hot and Dry Climate marks a new era in wheat breeding and research in Australia. It brings together wheat researchers and Australia's three major wheat breeding companies to exploit global diversity for wheat and advanced genomic technologies for faster development of heat and drought tolerant varieties which make better use of nitrogen fertiliser.

"Wheat is one of Australia's most important crops—worth over \$5 billion a year—and globally among the most important sources of protein and carbohydrate for the human diet," said Associate Professor Sigrid Heuer, Director of the Research Hub. "But yields in Australia are low, mainly due to water limitation and high temperatures. Typical yields are about 1.5 tonnes/hectare compared to 8 tonnes/hectare achieved in Europe.

"A single hot day at the wrong time can reduce yield by up to 50%. With the Wheat Research Hub, we will develop wheat that is tolerant of combined heat and drought stress, while maintaining high protein levels."

"With recent advances in genome sequencing and other technologies, and an ever-growing knowledge of plant biology, we now have the know-how and tools to translate this knowledge into plant breeding for the benefit of Australian grain growers and the economy."

The researchers have brought together over 1000 types of wheat and wheat-related plants from 57 countries around the world to find new genetic diversity. These plants will be screened for tolerance to Australian conditions.

"Using molecular marker technologies, we will be able to rapidly track traits of interest and integrate them into wheat breeding programs," said Associate Professor Heuer.

Another key objective of the Hub will be to break the negative link between high yield and desirable high grain protein.

"Although yields are low, Australian wheat is traded at high prices because of its superior grain quality, due to high protein. Unfortunately in high-yielding years the protein content drops because nitrogen is distributed to more grains, and diluted. We will study nitrogen-use efficiency and develop wheat varieties that make better use of nitrogen within the plant," said Associate Professor Heuer.

The ARC Research Hub for Wheat in a Hot and Dry Climate is led by the Australian Centre for Plant Functional Genomics at The University of Adelaide.

It is funded by the Australian Government through the Australian Research Council's Industrial Transformation Research Hubs scheme and the Grains Research and Development Corporation. Partners include breeding companies Australian Grain Technologies (AGT), LongReach Plant Breeders and Intergrain, the University of Sydney and the University of South Australia.



L to R at the launch of the ARC Research Hub for Wheat in Hot and Dry Climate – The University of Adelaide's Vice-Chancellor & President, Professor Warren Bebbington; Senator Anne Ruston; Hub Director, Associate Professor Sigrid Heuer; The Hon David Ridgway MP; and CEO of the Australian Research Council, Professor Aidan Byrne.