

AGSA 2020 Conference Report

“Solving the great grain science challenges”

The **first Online Conference**, hosted by the **Australasian Grain Science Association (AGSA)** and Chaired by **Prof. Chris Blanchard**, was a huge success.

The conference theme was **“Solving the great grain science challenges”** and comprised 4 sessions:

1. Grains: Solving our great health challenges
2. Overcoming the challenge of measuring grain functionality
3. Creating value through processing
4. Unravelling the mysteries of starch and genetics

AGSA 2020 Conference Chair’s Report

It was with some trepidation that we made the decision to move the 2020 Conference to an online format, however, we were very pleased that we did. Our participant numbers were higher than any other conference in recent years with more than 230 registrants. The online format also provided us with the opportunity to engage with colleagues around the world as evidenced by the strong international presence at the conference, particularly from Asia and North America. A format consisting of sessions with a keynote presentation followed by short presentations appeared to work well. Informal sessions on careers, publishing and the AGSA Advisory committee also seemed to work well.

I’d like to thank the conference organising committee for their hard work. In particular, I’d like to thank the IT team consisting of Siong Tan and Stephen Cork who made sure the technology ran smoothly.

Congratulations to the following prize winners:

- **Best Rapid-Fire presentation:** Oscar Fung, *Investigating the Role of the Iron-Deficiency Inducible Transcription Factor OsIRO3 in Rice Using CRISPR-Cas9 Genome Editing*
- **Best Student Poster:** Allister Clarke, *Predicting rice whole grain yield*
- **Poster with Greatest Industry Impact:** John Kalitsis, Ken Quail, Alex McBratney, Budiman Minasny, *Flour mill optimisation utilising new sensor technology*
- **Poster with Novelty Innovation:** Esme Gill, Sirithon Siriamornpun, Colin Wrigley and Linda Pravinata, *Encapsulation of Thai jasmine rice tea extract in alginate gel particles*

Congratulations also to the two Guthrie Award winners, Dr Joe Panozzo and Prof. Les Copeland. We look forward to hearing their presentations next year.

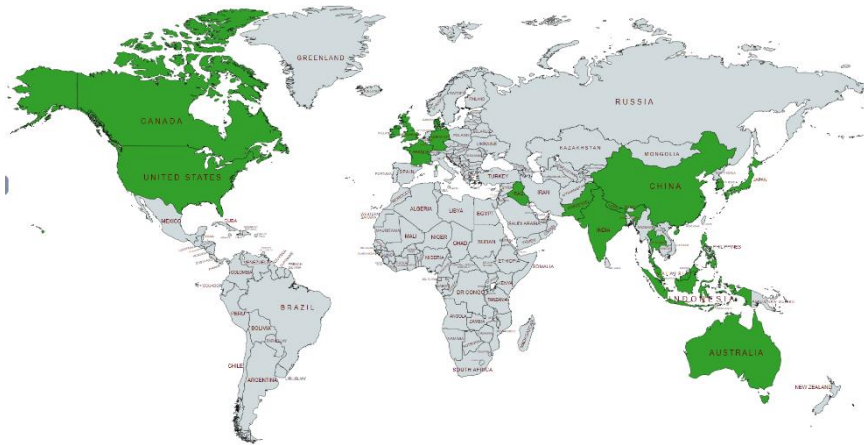
While we hope that we will return to a face-to-face format next year, we now know that we do have the capacity to run our conference virtually which may be necessary if the current COVID 19 pandemic continues.

Chris Blanchard
2020 AGSA Conference Chair

Conference Fast Facts:

- **32 presenters:** 4 sessions with 8 speakers
- **28 additional poster presentations** in conference handbook

- **100+ online participants** throughout the day (on average)
- **204 unique viewers**
- **240 registrants**
- **19 countries** represented, Australia, Canada, China, Denmark, France, Germany, India, Indonesia, Iraq, Ireland, Japan, Nepal, Pakistan, Philippines, Singapore, South Korea, Thailand, United Kingdom, United States of America



Conference presentation recordings

AGSA members can access the **online conference recordings** by:

1. Logging in to the **“Members”** area of the AGSA website
<https://www.ausgrainscience.org.au/>
2. Selecting **“Past Conferences”** from the drop-down menu
<https://www.ausgrainscience.org.au/past-conferences/>
3. Click on **“2020 Conference recordings”**

This will show the session recording links which will redirect you to the YouTube video recordings when you click on each link.

Guthrie Award Recipients

This year was a F B Guthrie Award year and the Committee is pleased to report that for the first time since the Award was founded, two awards were awarded due to the outstanding contributions made in different fields to science, grains research and the Australian Grains Industry.

Emeritus Professor Les Copeland AM

Professor Copeland has had a distinguished career as a researcher and teacher.

Les Copeland is an agricultural chemist whose academic interests are at the interface between food science and agricultural production. He has published extensively on food starches, grain science, and plant biochemistry. Les is Editor-in-Chief of the journals Cereal Chemistry and Agriculture, a Director of the Australian Government Cotton Research and Development Corporation, and a member of the Research Advisory Committee of the Australian Farm Institute.

He is a former Dean of Agriculture, and was the Foundation President of the Australian Council of Deans of Agriculture. He graduated as a BSc and PhD in Biochemistry from the University of Sydney and held research appointments at Yale University, the University of Buffalo and the University of California, Davis in the USA, and at the Australian National University. He is a Fulbright Alumnus and the recipient of an Excellence in Teaching Award from the American Association of Cereal Chemists-

International. Les was awarded a Member of the Order of Australia (AM) “for significant service to agricultural science as an academic and researcher” in the Queen’s Birthday 2019 Honours. Professor Copeland is the author of more than 150 publications in refereed scientific journals and has supervised 34 PhD completions.

Dr Joe Panozzo

Dr Joe Panozzo is a Research leader within Agriculture Victoria Research and leads the Seed Phenomics and Quality Traits Laboratory. In this role he provides project leadership for the development and application of high throughput phenomic technologies to quantify quality traits for cereals, pulses and oilseeds.

Joe commenced his career as a wheat quality scientist and developed a strong interest in developing methodologies to determine quality traits in wheat and later applied his experience to malt-barley, pulses and oilseeds. Joe’s initial research was in the field of near infrared spectroscopy and worked closely with the three wheat-breeding programs to determine quality traits in the early generations of the breeding program. Joe has maintained his interest in NIR and lead the development of multi-spectral image analysis research and NIR-hyperspectral imaging. The impact of this research has meant that breeding programs have been able to develop genomic selection strategies which allow for a more effective quantitation of quality traits.

In 1991, Joe commenced his PhD investigating the effects of heat and drought stress on protein synthesis and quality traits. The extensive multilocation field-based study described how storage proteins are synthesised in response to different abiotic conditions and the impact on quality.

Joe has authored/co-authored over 100 papers in peer reviewed scientific journals and has supervised 12 PhD completions. Joe has served as editor of seven Royal Australian Chemical Institute – Cereal Chemistry Division conference proceedings and associate editor for the Cereal Chemistry

Joe is highly regarded by scientific peers for his scientific outputs, leadership and commitment to his work. He has academic associations with Charles Sturt University (Associate Professor), University of Melbourne (Senior Research Fellow), Swinburne University of Technology.

In 2015 Joe was awarded the prestigious Farrer Memorial Medal which honours William Farrer, Australia’s pioneering wheat breeder.

Joe has served on many professional bodies including serving as Chairman of the RACI Cereal Chemistry Division, the Australasian Grain Science Association as three times Conference Chairman. His broad knowledge and skills meant that he served on several expert committees and advisory groups including American Association of Cereal Chemists- International; Scientific Advisory Panel; the ACCI Pulse Quality Technical Sub-committee; Wheat Quality Objectives Group and National Association of Testing Authorities (NATA) accredited assessor and Chairman of the International Pulse Quality Committee.

Conference Awards

- **Best Rapid-Fire Presentation:** Oscar Fung, University of Melbourne, Australia
“Investigating the role of the iron-deficiency inducible transcription factor OsIRO3 in rice using CRISPR-Cas9 genome editing”
- **Best Student Poster:** Allister Clarke, Charles Sturt University, Australia
“Predicting rice whole grain yield”
- **Poster with Greatest Industry Impact:** John Kalitsis, Ken Quail, Alex McBratney, Budiman Minasny, AEGIC Sydney, Australia
“Flour mill optimisation utilising new sensor technology”

- **Poster with Novelty Innovation:** Esme Gill, Sirithon Siriamornpun, Colin Wrigley and Linda Pravinata, University of Leeds, United Kingdom
“Encapsulation of Thai jasmine rice tea extract in alginate gel particles”

Thank you to the following award judges and sponsors

- **Rapid Fire award sponsor:** CI Scientific



- **Rapid Fire judges:** Sushil Dhital and Jesse Beasley
- **Poster judges:** Colin Wrigley and Mike Sissons
- **Awards Committee members:** Lindsay O’Brien, Phil Downie, Mike Gidley