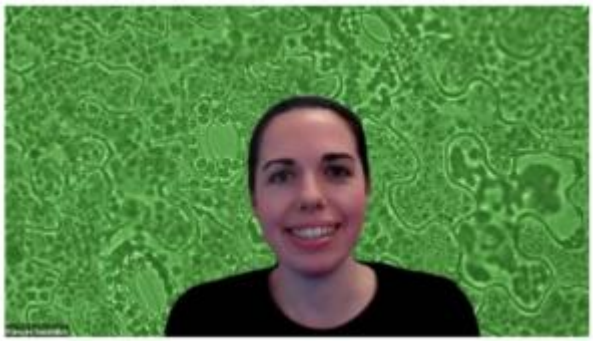
Phytogen August 2021

August 2021 Phytogen – National Science Week – That's a Wrap.

29 August 2021

Welcome to Phytogen for August 2021. Here is an article summarising many National Science Week events throughout August. **Thank you all for your contributions and hard work.**

National Science Week has officially wrapped up for 2021. This year, the theme for ASPS events was "Plant Science Safeguarding Our Future Food Security". ASPS kicked off with a "Meet a Plant Scientist" video series, with ASPS members at diverse career stages and representing a wide array of fields of plant science submitting 30s videos introducing themselves and their research – you can still see them all here: https://www.youtube.com/playlist?list=PLCjVjret6uSjalUbDCO8a8jjuJesKZ8y3.







Dr. Frances Sussmilch UTAS, Prof. Uli Mathesius ANU, and Sabrina Davies UWA, among many in the "Meet a Plant Scientist" video series.

In South Australia, Dr Megan Shelden, Dr Beth Loveys and Dr Georgia Koerber organised a very successful face-to-face event on 22nd August at the Waite Campus, University of Adelaide, with a series of engaging talks and tours explaining the pivotal role plant scientists and agriculturalists play in feeding and clothing us all. This included talks by Megan, Prof. Martin Cole, Prof. Rachel Burton, and PhD candidate Ali Gill, with Sciren running sessions for people to extract DNA from strawberries and make terrariums, and tours of the Waite Arboretum, Plant Accelerator, and TERN Plant and Soil Library.





Prof. Martin Cole talking about Food Security and Dr. Megan Shelden explaining why cereal crops are important.





Prof. Rachel Burton and Dr. Beth Loveys showing people in Adelaide how long their digestive systems are and Ali Gill explaining why hemp is special.





Stalls for University of Adelaide's School of Agriculture, Food and Wine and TERN, Terrestrial Ecosystem Research Network, University of Adelaide's Postgraduates Association at the Waite, the Australian Plant Phenomics Facility and the STEM academy.

In Victoria, Dr. Kim Johnson and Dr. Janet Wheeler shifted events online. They ran an interactive session called "Project Feed 10 billion" with 80 Virtual Schools Victoria, year 8-9 students and 10 teachers on 19th August. The session covered the challenges of feeding the future population with sustainable nutritious foods. Kim and Janet also ran a demonstration to 45 students and 5 teachers from Reservoir Views Primary School where they showed a healthy and less healthy meal going through the digestive system.







Dr. Kim Johnson with “Project Feed 10 billion” from La Trobe University and survey results from interactive session with 80 Virtual Schools Victoria, year 8-9 students.

In Sydney, Dr. Claudia Keitel, in collaboration with the University of Sydney’s Plant Science and Agriculture academics, staff from the Sydney Institute of Agriculture (SIA) and the University’s Outreach Team, organised a series of talks and interactive activities online on the 20th August, with around 200 participants from 22 schools joining on the day. Talks from Prof. Brent Kaiser, Prof. Daniel Tan, Assoc. Prof. Brian Jones, Prof. Robert Park and Dr. Floris van Ogtrop focused on topics such as future opportunities for products and businesses based on plant protein, the future of cotton production, CRISPR as a 21st century breeding tool, genetic approaches to control plant diseases, and urban agriculture. The activities gave attendees the opportunity to learn how plants grow to produce vegetables we eat, how genetics and environmental conditions influence plant traits, how to fingerprint wheat chromosomes and identify chromosomal fragments introduced from wild relatives with Assoc. Prof. Mary Byrne, Assoc. Prof. Marcus Heisler, Dr. Claudia Keitel, Assoc. Prof. Rosanne Quinnell and Dr. Peng Zhang. You can find more information about this event here: https://www.sydney.edu.au/science/news-and-events/events/future-plants-for-food-security.html.





Dr. Claudia Keitel, addressing 206 participants from 22 schools, in Sydney and Prof. Daniel Tan giving a talk about the future of cotton production.



Prof. Brent Kaiser talking about the power of plant protein.

Queensland University of Technology (QUT) offered a virtual tour of the biology labs – you can check them out here: https://cdn.qut.edu.au/media/qut-science-experience-anz/ and https://my.matterport.com/show/?m=cEBNvWzjjw7.

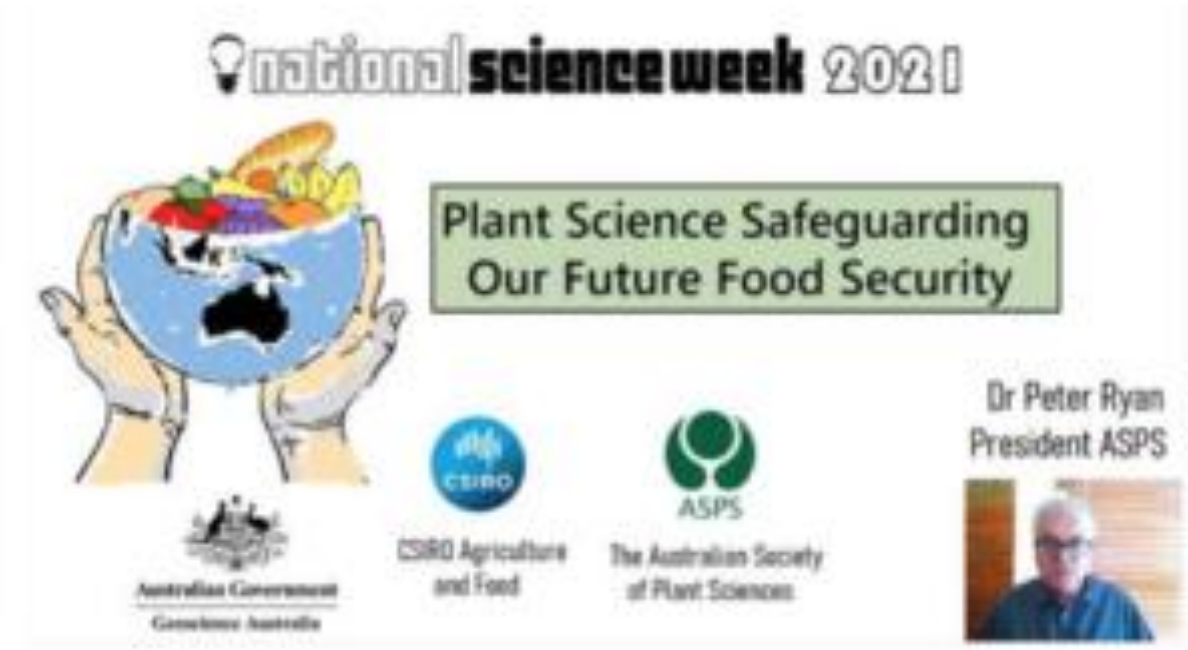
Researchers from other universities and states recorded videos of talks and lab tours for our YouTube channel (https://www.youtube.com/channel/UC4-hDpe7OR3kwpMxy4ES6ng). The ACT was represented with fantastic talks from CSIRO and ANU researchers including our President Dr. Peter Ryan, Jess Hyles, Dr. TJ Higgins AO, Dr. Di He, Prof. Uli Mathesius and Dr. Ricky Milne, and Ryan Ruddick from Geoscience Australia (https://www.youtube.com/playlist?list=PLCjVjret6uSh67u7d2U2B1mGRFARal9mt).

The Byrt Lab at ANU walked us through Agrobacterium-mediated transformation using the floral dip method

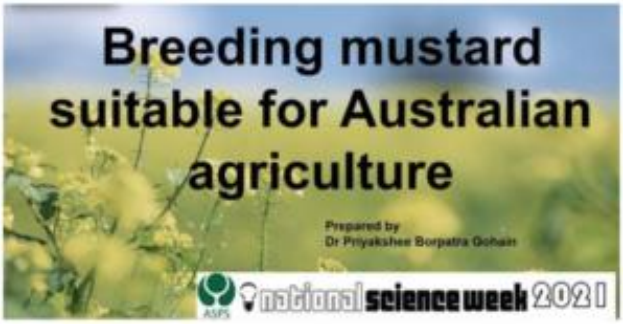
(https://www.youtube.com/watch?v=Hj0iM3zi6_E&list=PLCjVjret6uSg1pLNehyuIm01NTuIQH7PM). Early career researchers at Southern Cross University, including Dr. Jay Anderson, Master of Science candidate Janelle Schafer, and Dr Priyakshee Borpatra Gohain, each gave great talks about their research (https://www.youtube.com/playlist?list=PLCjVjret6uSjLV-oQh-iMEwaixzbn1zLm).

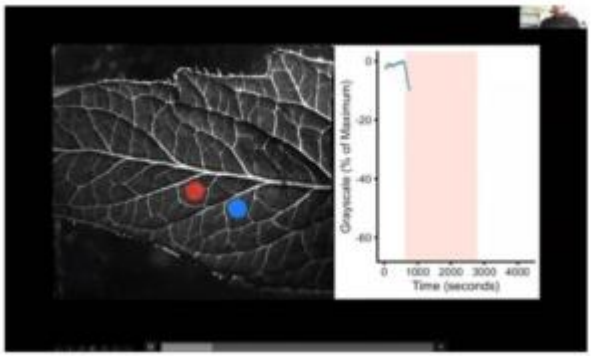
Prof. Ros Gleadow from Monash University talked about her research on how plants including sorghum and cassava make cyanide (https://www.youtube.com/watch?v=6egOt1qNo58&list=PLCjVjret6uSgZYVZ_DhQ8KZq8Vh5NIC9e).

Prof. Tim Brodribb from University of Tasmania showed us why leaves die during drought stress with a video depicting what happens during this process (https://www.youtube.com/watch?v=0M-sZETVoQ8&list=PLCjVjret6uShxXJbRyx1HIJZbEtyS8tK-).

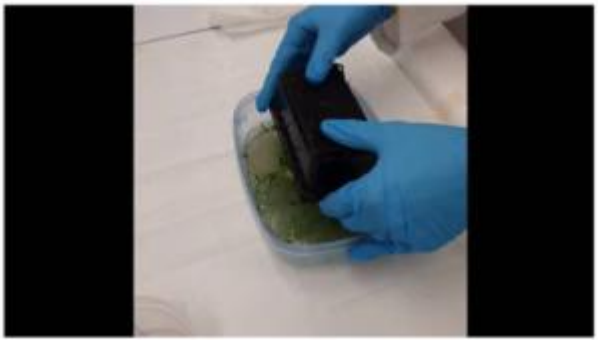


ASPS President Dr. Peter Ryan in the introduction for the ASPS Science Week 2021 YouTube channel.





Dr. Priyakshee Borpatra Gohain's talk, within a series from ECRs at Southern Cross University and Prof. Tim Brodribb from UTAS explaining why leaves die during drought.



Members of the Byrt Lab at ANU demonstrating floral dipping for Agrobacterium-mediated transformation.

We will keep the ASPS Science Week 2021 YouTube channel up, so you still have the opportunity to check out any videos you missed.

Registration is now **open** for our 2021 ASPS hybrid conference on the 25th of November.



An open letter from the Australian Society of Plant Scientists to the ARC

26 August 2021

Dear ASPS members,

Please consider adding your name to this letter from the ASPS executive to the ARC asking for reconsideration of reference to pre-prints within grant applications.

You can add you name to the form at then end of the letter at this link https://forms.gle/oxqhWLiKZaKiPSBE9

The text of the letter is also included below.

Thank you for your consideration, ASPS executive team.

Dear Professor Thomas

We are writing to you to register our very grave concern regarding the ARC's implementation of an apparently new policy within the current Discovery Scheme round on the reference to pre-prints within grant applications. We are concerned that this will have serious negative consequences on the funding of high quality research within Australia. We understand this has impacted the recently announced DECRA and Future Fellowships, and hope prompt action can be taken ahead of finalising Discovery Projects for funding in 2022.

The pre-print policy is ambiguous

A very subtle change was made in the Instructions to Applicants in ROPE – Research Outputs which changed the sentence 'Do not include pre-prints in your research output listing' to 'Do not include or refer to pre-prints in your application'. By contrast, the Instructions state that research outputs that are accessible to the research community can be referenced in the Project Description. Given that there was no mention of the change either in the Discovery Scheme Grant Guideline Changes or FAQ documents, it is reasonable for applicants to interpret that pre-prints only need to be excluded from the Research Outputs listing, and that they can be referred to elsewhere. Our understanding is that highly-ranked fellowship applications were ruled ineligible because they referenced a pre-print, but did not list it as an output.

The timing of the eligibility check is inefficient and distressing

The eligibility check with respect to this policy is apparently being conducted specifically for the highly ranked applications after assessments have been completed. This is an unnecessary and avoidable waste of the research community's efforts invested in the process of assessments and rejoinders. Furthermore, it has undoubtably caused extreme distress to unsuccessful applicants who will have had good reason to feel optimistic about their chances. This is particularly concerning for fellowship applicants, many of whom are already in precarious career situations.

The pre-print policy is inconsistent with international standards

Major funding agencies around the world permit and encourage the reference to pre-prints within grant applications. These include the NIH, UKRI, ERC, Wellcome Trust, HFSP, EMBO and others. The ARC currently accepts various non-peer reviewed research outputs , such as Book Chapters or Editorials, to be listed in grant applications. So we would support inclusion of a pre-print section within the Research Outputs. We are confident the ARC's assessors are capable of assigning appropriate weight to pre-prints when considering applicants' track records.

We ask the ARC to immediately reconsider the implementation of this policy to ensure it does not negatively influence the outcomes of the current Discovery Project round for funding commencing in 2022 and prevent the ARC from funding the most promising Australian research. We also encourage the ARC to revisit the current pre-print policy for inclusion as research outputs for funding commencing in 2023 and beyond, so that it is in line with international research funders.

Kind regards,
The ASPS executive

Link – https://forms.gle/oxqhWLiKZaKiPSBE9

ASPS 2021 conference and August GPC E-bulletin

23 August 2021

Dear members,

In 2021, the ASPS will run a hybrid conference held concurrently across Australia on the 25th of November. This will involve face-2-face local meetings in most states and include a joint virtual session to celebrate our ASPS award winners. See details in the flyer attached.

In sending this email, we are fully aware that with many states and territories in Australia under lockdown, uncertainty remains. While we are pushing ahead with an optimistic outlook, in the event that F2F meetings cannot be held, online options will be explored. Refunds/registration fee reductions would be available.

Kind regards,

Simon

ASPS Honorary Secretary

The Global Plant Council August E-bulletin can be accessed HERE.