



UNE Armidale
28-30 October 2019

*"Taking cotton research
to new heights"*

Draft Speakers Program

For Social Media, please use: #AACCS2019

Conference Day 1 – Sunday 27th October

5.30 pm to 9.00 pm	Barefoot Bowls and BBQ, reception desk open (Armidale Bowling Club)
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Conference Day 2 – Monday 28th October

8.00 am	Registration and Speakers' desks open (Belshaw Corridor), welcome cuppa, etc.		
9.15 am	Move to Plenary Hall (Belshaw Lecture Theatre)		
Session Chair	Oliver Knox		
9.30 am	Welcome to Country by UNE Elder in Residence, Colin Ahoy Welcome to UNE by Vice Chancellor and CEO, Brigid Heywood Conference Opening by AACS President, Paul Grundy and Chair of Local Organising Committee, Oliver Knox		
10.30 am	Plenary: Ian Taylor A Researcher's Odyssey		
11.00 am	Morning Tea (Dillon Corridor)		
	Lecture Theatre 3	Dillon Lecture Theatre	Belshaw Lecture Theatre
Symposium Title	Weeds	Soils	Entomology
Session Chair	Ian Taylor	Katherine Polain	Mary Whitehouse
11.30 am	Rick Horbury Using innovation to manage difficult to control weeds in the Australian cotton system	Gupta Vadakattu Harnessing beneficial microbiomes in cotton systems	Hazel Parry Computer simulation models as tools for informing insect management
12.00 pm	Nadeem Iqbal Biology and management of <i>Sesbania cannabina</i> under changing climate	Wendy Quayle Poultry litter fertiliser effects on cotton yield and lint quality in south eastern Australia	Ryan Kurtz Overview of Cotton Incorporated's entomology research and insect management in US cotton
12.15 pm	Md Asaduzzaman Fate of glyphosate resistant <i>Echinochloa colona</i> in the presence and absence of glyphosate: toward more understanding of herbicide resistance	Yui Osanai Compacted and suppressed: physical constraints of soil microbial response to carbon supply in the subsoil	Dominic Reisig The interwoven impacts of Bt maize, Bt cotton and soybean on <i>Helicoverpa zea</i> in the United States
12.30 pm	Graham Charles A weed "what, where, how and why" the new noogoora burr story for cotton	James Latimer Nitrogen uptake preferences and capabilities of cotton (<i>Gossypium hirsutum</i> L.)	Ethan Towns The importance of flowering to <i>Helicoverpa</i> survival on pigeon pea
12.45 pm	Karen Kirkby Noogoora burr and its role in the dispersal of verticillium wilt	Clarence Mercer What is driving the sporadic cotton lint response to phosphorus fertiliser?	Lisa Bird Fitness, stability and diversity of indoxacarb resistance in Australian <i>Helicoverpa armigera</i>
	Eric Koetz Herbicide resistant weeds, are they winning the battle? What are the surveys telling us?		
1.00 pm	Lunch (Dillon Corridor) and 'Cotton Industry 101 for new students and researchers' (Red Lab)		
Symposium Title	Water Management	Soils (cont.)	Entomology (cont.)
Session Chair	Janelle Montgomery	Yui Osanai	Kristen Knight
1.45 pm	Alison McCarthy In-season yield prediction using VARlwise	Graeme Schwenke N and P runoff from furrow-irrigated cotton fields	Amanda Padovan Molecular resistance monitoring of <i>Helicoverpa armigera</i> in Australian Bt cotton fields
2.00 pm		Emma Longworth A commercial arbuscular mycorrhizae inoculant drives mycorrhizal root colonisation but decreases growth responses in summer crops	Gail Spargo Recruitment of <i>Helicoverpa</i> pupae in the Central Highlands: where are they coming from?

2.15 pm	Jasim Uddin Are ETc and crop coefficients similar in solid and skip-row cotton planting configurations?	Jon Baird Physiological response of cotton to nitrogen and irrigation management strategies	Tom Walsh CRISPR/Cas9 modification of Lepidoptera for basic research, understanding resistance and future genetic control
		Jonathon Moore Assessing physical conditions of irrigated soil in the NSW Riverina	
		John Triantafilis I had an electromagnetic dream and it is slowly coming true	
2.30 pm	Iain Hume A new way to measure cotton's water productivity using data envelope analysis and survey data	Xueyu Zhao DSM of clay in 3-dimensions using EM38 and EM34 data and inversion modelling in the cotton growing area	Elizabeth Shakeshaft Evaluating the use of pheromone traps to monitor mirid populations
2.45 pm	Hizbullah Jamali Can canopy temperature sensors help inform irrigation scheduling decisions with limited water?	Dongxue Zhao Establishing a spectral library to predict soil physical and chemical properties in cotton growing soils	Mary Whitehouse Does cloudiness affect damage by mirids in different parts of Australia
3.00 pm	Ben Crawley Benchmarking water productivity in the cotton industry - The process and 2017/2018 results	Pat Hulme Mapping the spatial extent of soil constraints at the farm-scale	Peter Gregg Honey bees and cotton
3.15 pm	David Perovic Long-term trends in water productivity in the Australian cotton industry	Brendan Griffiths Spatial and temporal visualisation of constraints of cotton root development in irrigated cotton in eastern Australia	Alice Del Socorro Magnet® and related formulations as repellents for honey bees
3.30 pm	Si Yang Han A novel approach to monitor soil moisture in an irrigated cotton system	Patrick Filippi Mapping the depth to a soil constraint, a useful tool for understanding cotton yield variability	Jamie Hopkinson Insecticide resistance status of <i>Bemisia tabaci</i> MEAM1 (Hemiptera: Aleyrodidae) in Australian cotton production valleys
	Ralf Bo Poludnikiewicz Petersen Artificial river systems: challenges and opportunities for cheap desalination and pipeline methods to increase supply of agricultural water		
	James Brinkhoff Soil water potential forecasting for cotton irrigation decision support		
3.45 pm	Afternoon Tea (Dillon Corridor) and Blue Tree Painting		
Workshop Title	Health and Wellbeing (Belshaw Lecture Theatre)		
Session Chair	Katherine Polain		
4.15 pm	Mary O'Brien Are you bogged mate?		
4.45 pm	Annette Stevenson and Gwen Shumack How to 'cotton on' to what wellbeing is in 30 minutes!		
5.15 pm	Day 2 closes		
5.30 pm	Devil's Advocate Session (Ooralta Centre)		

Conference Day 3 – Tuesday 29th October

8.00 am	Registration and Speakers' desks open (Belshaw Corridor)		
8.45 am	Move to Plenary Hall (Belshaw Lecture Theatre)		
Session Chair	Warren Conaty		
9.00 am	House-keeping, announcements and introduction of speakers		
9.30 am	Plenary: Paxton Payton Challenges in genetic improvement of abiotic stress tolerance: the ups and downs (mostly downs) of a candidate gene and pathway approach		
10.00 am	Plenary: Guna Nachimuthu, AACS Young Cotton Scientist Award Recipient On-farm and off-farm sustainability: everything you don't want to hear from a fibre refugee		
10.30 am	Morning Tea (Dillon Corridor)		
	Lecture Theatre 3	Dillon Lecture Theatre	Belshaw Lecture Theatre
Symposium Title	Fibre Quality and Processing	Breeding/Genetics	Ag Tech
Session Chair	Sharon Downes	Paxton Payton	Brendan Griffiths
11.00 am	Stuart Gordon and Rose Broderick A comparative analysis of cotton and hemp production in Australia	Warwick Stiller Breeding, traits and future: perspectives from an optimistic pessimist	Andrew Young A BLOB-based approach to UAS collected crop data in cotton
11.15 am			Tracey May Climbing the digital literacy mountain made easy. It only takes more rope and a bigger ladder
11.30 am	Daniel Szymanski Building a knowledge framework to engineer cotton fibre morphology	Carlos Trapero Cotton that is unpalatable to spider mites: from dream to reality	Yunfeng Lin Optimal investment decision for cotton farm micro-grid designs
11.45 am	René Van der Sluijs The effect of harvesting on fibre and seed quality	Warren Conaty World leading yield progress: how the breeders did it	Will Dodge Photogrammetric yield estimation in cotton with UAS
12.00 pm	Greg Holt Plastic contamination detection and removal in seed cotton: lab and field results	Philippe Moncuquet Genomic selection – a new breeding tool, an integrative approach	Robert Long Measuring the maturity of unopened cotton bolls with near infrared spectroscopy
12.15 pm	Rechana Remadevi Glycine as a bio-friendly mercerizing agent for cotton?	Zitong Li Genomic selection – prediction of fibre quality traits using genome-wide data	Patrick Filippi Using multilayered, multi-farm datasets to forecast yield, identify yield gaps, and understand causes of variability in cotton
12.30 pm	Olga Gavrilenko Exploring nanofibrous coating on cotton fabric for versatile protection and dynamic comfort	Shiming Liu The next breakthrough in cotton productivity: seed yield components	Jeremy Prananto Real-time nutrient management using near infrared spectroscopy (NIRS) in cotton
12.45 pm	Robert Long Cotton fibre moisture measurements	Qian-Hao Zhu New strategies to generate cotton germplasm resistant to Verticillium wilt	Stephen Leo Can Sentinel-2 accurately estimate in-season cotton nitrogen status and lint yield?
1.00 pm	Simone Heimoana The relationships between cotton colour grade, yarn quality and fabric dyability	Tim Weaver How can we exploit the GxExM interaction to improve cotton productivity?	Derek Long Machine vision app for automated cotton insect counting: initial development and first results
1.15 pm	Lunch (Dillon Corridor)		

	The Future of Agriculture (Belshaw Lecture Theatre)
Session Chair	Rhiannon Smith
2.00 pm	Plenary: Mike Logan How to have science lead practice and behaviour change in rural industry
2.30 pm	Plenary: Allan Williams The footprint of fashion: can cotton tread lightly in a circular economy?
3.00 pm	Aaron Simmons Environmental footprints of cotton production; not a case for change
3.15 pm	Jenifer Ticehurst Can managed aquifer recharge (MAR) increase water security for cotton production
3.30 pm	Jana-Axinja Paschen (via weblink) Supporting community resilience in the regions
3.45 pm	Stephen Yeates Cotton is moving north: success is more than overcoming biophysical, supply chain and license to operate challenges
4.00 pm	Afternoon Tea (Dillon Corridor)
4.30 pm	Panel Discussion: 'Our Future' (Belshaw Lecture Theatre)
5.00 pm	Day 3 closes
6.30 pm	Conference Dinner and Quiz (Armidale Bowling Club)

Conference Day 4 – Wednesday 30th October

8.00 am	Registration and Speakers' desks open (Belshaw corridor)		
8.00 am	AACs AGM (Belshaw Lecture Theatre)		
8.45 am	Move to Plenary Hall (Belshaw Lecture Theatre)		
Session Chair	Gupta Vadakattu		
9.00 am	House-keeping, announcements and introduction of speakers		
9.30 am	Plenary: Rhiannon Smith Cotton doesn't grow on trees, but ecosystem services do!		
10.00 am	Morning Tea (Dillon corridor)		
	Dillon Lecture Theatre	Belshaw Lecture Theatre	Lecture Theatre 3
Session Title	Disease	Physiology	Natural Resource Management
Session Chair	Tim Green	Michael Bange	Stacey Vogel
10.30 am	Duy Le Alternaria leaf spot of cotton: a re-emerging disease associated with a new pathogen	Katie Broughton Climate change, climate variability and extreme weather events! How might these impact Australian cotton systems	Michael Rose Quantifying the potential environmental risk of pesticides used on cotton farms
11.00 am	Linda Smith Prevalence and distribution of cotton diseases in 2018/19	Demi Gamble Future-proofing cotton production by building resilient photosynthetic pathways	Tony Vancov Production of fermentable sugars and bioethanol from cotton gin trash
11.15 pm	Murray Sharman Surveillance for endemic and exotic virus diseases in northern Australia and Timor-Leste	Robert Sharwood New synthetic biology opportunities to build climate adapted germplasm	Tony Lockrey The impact of feral pigs (<i>Sus scrofa</i>) on cotton and their effective control
11.30 pm	Peng Chee Addressing cotton blue disease in the US	Paul Grundy Quantifying radiation constraints for high yielding cotton production in tropical environments	Karrar Al-Hajiya Effect of nearby woody vegetation and habitats and contrasting insecticide regimes on invertebrates in irrigated cotton crops
11.45 pm	Dinesh Kafle Understanding the ecology of reinform nematodes in Australian cotton	Christopher Nunn New generalised probabilistic forecasting model for estimating canopy temperature applied to cotton crops	Daowei Sun Improving water productivity in the Australian cotton industry, mapping the challenges for systemic interventions
12.00 pm	Zhiguang Qiu Bacterial consortia reduce severity of Fusarium wilt in cotton	James Mahan Canopy temperature monitoring in cotton, Now that I have all these numbers, what can they tell me?	Julian Wall Natural capital assets of the cotton landscape of eastern Australia and management strategies to enhance them
12.15 pm	Lunch (Dillon corridor)		
Symposium Title	Disease (cont.)	Physiology	Extension, Engagement and Capacity
Session Chair	Tim Green	Katie Broughton	Oliver Knox
1.00 pm	Aphrika Gregson <i>Colletotrichum truncatum</i> , a new causal agent associated with cotton boll rot in Australia	Christopher Nunn A study on the effect of cold plasma treatment on cotton seed germination under water stress	Nicole McDonald Evergreen skills for an uncertain future in the cotton industry

1.15 pm	Linda Scheikowski Host or non-host: study on <i>Verticillium dahliae</i>	Simranjit Kaur The PGPR consortia can promote seed germination and plant growth of cotton (<i>Gossypium hirsutum</i>)	Lynette McLeod Behaviour change interventions for improved spray application on farms
1.30 pm	Bob Ford and Elsie Hudson Tackling verticillium wilt from a management perspective	Michael Bange Predicting micronaire accounting for integrated effects of environment and crop growth	Trudy Staines Developing diverse capability
1.45 pm	Karen Kirkby Determining inoculum thresholds for Verticillium wilt in Australian cotton	Sandra Williams Improving cotton defoliation: is 'time of the day' a factor for improved efficacy?	Jamie Iker Maximising opportunities to share research
	Shelby Young Fulbright: Verticillium wilt in cotton		
2.00 pm	Afternoon Tea (Dillon corridor)		
	Belshaw Lecture Theatre		
Workshop Title	Science Communication and Extension		
Session Chair	Oliver Knox		
2.30 pm	Mary McMillan Science-ing in public: tips on the what, where and how's of science communication		
2.45 pm	Ruth Redfern Soiling your undies and other lessons in impactful extension from the first seven years of CottonInfo		
3.00 pm	Michael Mills/Professor Flint It's the story, stupid: Rising to the challenge of science communication in an age of fake news		
4.00 pm	Panel Discussion: Science Communication and Industry Advocacy		
4.30 pm	Conference Awards, Reflections and Final Thoughts		
5.00 pm	Conference close		

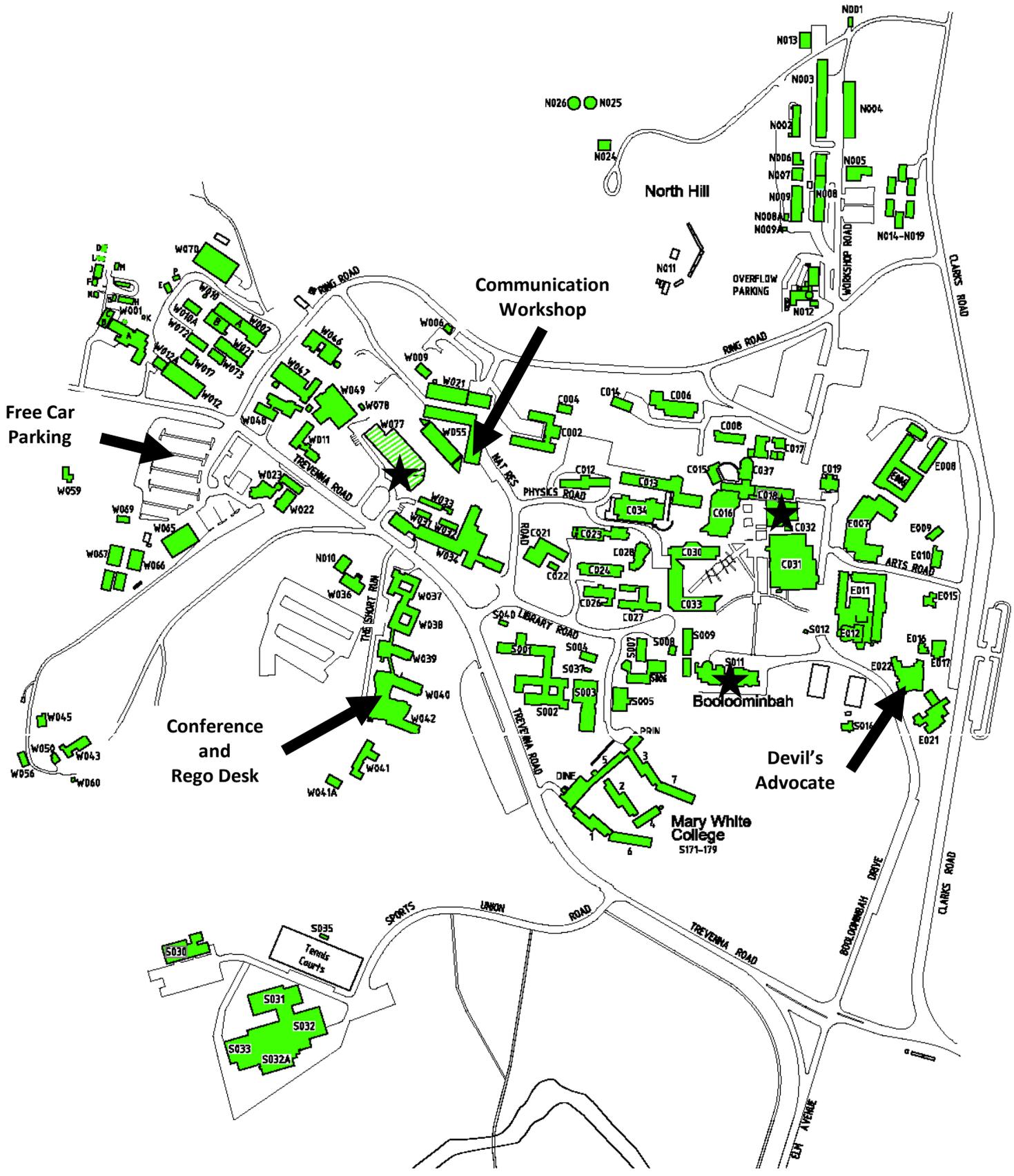
Conference Day 4 – Thursday 31st October

FREE Science Communication workshop

Presented by Michael Mills aka Professor Flint (Australia's singing palaeontologist and science communicator)

9.00 am to 12.30 pm (EM1, Natural Resources Building (W055))

UNE Campus Map



Note, there are cafés at W077, Booloominbah and C018 (see star symbols)