



Program

SUNDAY, 18th September 2016 (CSIRO Discovery Centre)	
17:00 – 20:00	Registration/Welcome/Mixer
MONDAY, 19th September 2016 (CSIRO Discovery Centre)	
09:00 – 09:15	Open and Welcome: Dr John Manners (Director CSIRO Agriculture and Food, Australia)
09:15 – 10:00	Keynote speaker: Ivan Baxter (USDA-ARS/Danforth Centre, USA)
10:00 – 10:30	Theme Talk 1: Xavier Sirault (Director, HRPPC, Australia)
10:30 – 11:00	Morning tea
Session 1: Intersection between controlled environments and phenomics	
11:00 – 11:30	Dr Trevor Garnett (The Plant Accelerator, Australia) <i>Assessing nitrogen use efficiency and water stress interactions in wheat</i>
11:30 – 12:00	Dr Erik Van Oosterom (QAAFI- University of Queensland, Australia) <i>Phenotyping transpiration efficiency: linking trait dissection to genetics</i>
12:00 – 12:30	Henry Imberti (Percival Scientific, USA) <i>ENVIRATRON—a plant research facility for a changing climate</i>
12:30 – 13:30	Lunch
13:30 – 14:00	Theme Talk 2: Llorenç Cabrera-Bosquet (INRA, France)
Session 2: Phenomics Facilities and Technologies	
14:00 – 14:30	Dr Jose Jimenez-Berni (HRPPC, Australia) <i>Title-TBA</i>
14:30 – 15:00	Nick Hanson (University of Adelaide, Australia) <i>Title-TBA</i>
15:00 – 15:30	Dr Peter Kuffner (HRPPC, Australia) <i>Title-TBA</i>
15:30 – 16:00	Afternoon tea
Session 3: Sensing systems and image-analysis	
16:00 – 16:30	Dr Sruti Das Choudhury (University of Nebraska-Lincoln, USA) <i>Holistic and Component-based Automated Plant Phenotyping Analysis using Visible-Light Images or Image-based Automated Vegetative-Stage Dynamic Phenotyping Analysis of Maize Plants</i>
16:30 – 17:00	Keach Murakami (The University of Tokyo, Japan) <i>Non-destructive estimation of light energy distribution between photosystems</i>
17:00 – 17:30	Sarah Nemin (Australian National University, Australia) <i>Title-TBA</i>
18:30	BBQ Dinner (University House, Australian National University)

TUESDAY, 20th September 2016 (CSIRO Discovery Centre)	
09:00 – 09:10	Housekeeping
09:10 – 10:00	Keynote speaker: TBA
10:00 – 10:30	Theme Talk 3 : Michael Chelle (INRA, France) <i>Title TBA</i>
10:30 – 11:00	Morning tea
Session 4: Current Research in Controlled Environments and Phenomics	
11:00 – 11:30	Theme Talk 4: Iain Young (University of New England, Australia) <i>Title TBA</i>
11:30 – 12:00	Dr Bettina Berger (Australian Plant Phenomics Facility- The Plant Accelerator, Australia) <i>Zegami - a new tool for visualizing phenotypic data sets</i>
12:00 – 12:30	Dr Stefan Gerth (Fraunhofer Development, Center For X-ray Technology, Germany) <i>Root growth analysis using X-ray Computed Tomography in controlled environments</i>
12:30 – 13:15	Lunch
Session 5: Current Research in Controlled Environments and Phenomics (continued)	
13:15 – 13:45	Dr Surya Kant (Agriculture Victoria, Australia) <i>Automated phenotyping for improved nitrogen use efficiency in wheat</i>
13:45 – 14:15	Dr Vijaya Singh (The University Of Queensland, Australia) <i>High-throughput phenotyping platform for nodal root angle in sorghum</i>
14:15 – 14:45	Dr Toshio Shibuya (Osaka Prefecture University, Japan) <i>Light competition within dense plant stands under different light qualities</i>
14:45 – 15:00	Afternoon tea
Session 6: Field Phenotyping	
15:00 – 15:30	Theme Talk 5: Scott Chapman (CSIRO, Australia) <i>Title TBA</i>
15:30 – 16:00	Dr Robert Coe (International Rice Research Institute, Philippines) <i>High resolution field phenotyping: exploiting rice genetic diversity</i>
16:00 – 16:30	Dr. Pieter Badenhorst (Department Of Economic Development, Jobs, Transport And Resources, Australia) <i>The development of a field-based forage phenomics platform or Yield assessment of perennial ryegrass using aerial NDVI measurements</i>
16:30 – 17:00	Andries Potgieter (University of Queensland, Australia) <i>Field phenotyping of sorghum breeding plots through proximal sensing</i>
17:00 – 17:30	Hendrick Poorter (Plant Sciences Research Centre, Germany) <i>Pampered inside, pestered outside? Difference and similarities between plants growing in controlled conditions and the field</i>
17:30 – 18:30	UKCEUG/NCERA-101 business meetings
19:30	Conference Dinner (University House, Australian National University)

WEDNESDAY, 21st September 2016

09:00 – 09:10	Housekeeping
09:10 – 10:00	Keynote Speaker: Prof Bruce Bugbee (Utah State University, USA) <i>Vertical and Large Scale Automated Farming Systems</i>
10:00 – 10:30	Theme Talk 6: Mark Lefsrud (McGill University, Canada)
10:30 – 11:00	Morning tea
Session 7: CE's and Phenomics: new horizons	
11:00 – 11:30	Dr Tim Brown (Australian National University, Australia) <i>Title-TBA</i>
11:30 – 12:00	Dr. Klara Panzarova (Photon Systems Instrument, Czech Republic) <i>Identification of traits contributing to salinity tolerance in Arabidopsis thaliana</i>
12:00 – 12:30	Prof. Kamal Alameh (Edith Cowen University, Australia) <i>Semi-transparent photovoltaic glass (STPVG) greenhouses for protected cropping</i>
12:30 – 13:30	Lunch
Session 8: Advances in LED Lighting : Technologies and Applications	
13:30 – 14:00	Theme Talk 7: Erik Runkle (Michigan State University, USA) <i>Adding far-red radiation to sole-source lighting for specialty crops</i>
14:00 – 14:30	Dr Jie He (Nanyang Technological University, Singapore) <i>Growth and photosynthesis of brassica vegetables under LED lightings</i>
14:30 – 15:00	Dr Matthew Mickens (NASA Kennedy Space Center, USA) <i>Supplemental LED effects on growth and phytonutrients of 'Outredgeous' lettuce</i>
15:00 – 15:30	Jason Lanoue (University Of Guelph, Canada) <i>Optimizing LED spectra for photosynthesis, C-partitioning and export in greenhouses</i>
15:30 – 16:00	Afternoon tea
Session 9: Controlled Environments: temperature, CO₂, humidity, air circulation and plant responses	
16:00 – 16:30	Sarah Mills (West Virginia University, USA) <i>Effect of CO₂, temperature, and water deficit on Petunia flowering</i>
16:30 – 17:00	Dr A.J Both (Rutgers University, USA) <i>Comparing key light ratios for plant growth and development</i>
17:00 – 17:30	Dr Stuart Larson (Lincoln University, New Zealand) <i>Impact of climate change on plant-soil interactions</i>
18:30	Public Seminar – Shine Dome. Sponsored by the Australian Academy of Science Gioia Masa (NASA), Ray Wheeler (NASA), Cary Mitchell (Purdue University) <i>Growing Plants on the International Space Station</i>

THURSDAY, 22nd September 2016 (CSIRO Discovery Centre)

09:00 – 09:10	Housekeeping
09:10 – 10:00	Keynote Speaker: Prof Jennifer M^cElwain (University College Dublin, Ireland)
10:00 – 10:30	Theme Talk 8: Justin Borevitz (Australian National University, Australia)
10:30 – 11:00	Morning tea
Session 10: Controlled Environments: novel applications	
11:00 – 11:30	David Bubenheim (NASA, USA) <i>CE enables adaptive management in aquatic ecosystems under altered environments</i>
11:30 – 12:00	Dr Suzie Rogiers (Charles Sturt University, Australia) <i>Low CO₂ in controlled environment</i>
12:00 – 12:30	Dr. Gary Stutte (Kennedy Space Center, USA) <i>Maintaining relationships in closed environments: plant/microbe mutualisms</i>
12:30 – 13:15	Lunch
Session 11: Controlled Environments: (talks continued)	
13:15 – 13:45	Reg Quiring (Convicon, Canada) <i>Considerations for plant growth cabinets with special atmospheres, lighting and extreme ranges of operation</i>
13:45 – 14:15	Kale Harbick (Cornell University, USA) <i>Energy consumption in controlled environments: supplemental lighting and CO₂ systems</i>
14:15 – 14:45	Ms Joan Leonard (Ohio State University, USA) <i>Integration of Management Tools for Controlled Environment Research Facilities</i>
14:45 – 15:15	Dr.Roberto Lopez (Michigan State University, USA) <i>Comparing supplemental and sole-source lighting for bedding plant seedling production</i>
15:15 – 15:30	Conference Summing up & Close Bob Furbank (Australian National University, Australia)
15:30 – 16:00	Afternoon tea
14:00	Depart for Kiola, NSW South Coast
19:30	BBQ Dinner (Kioloa Field Campus)
FRIDAY, 23rd to SATURDAY, 24th September 2016 (ANU, Kioloa Field Campus)	
Lectures, Workshops / Tours –Archaeology, landforms, botany, zoology of Kioloa <i>(Program and details to follow)</i>	

