



Program - Monday 25 September

07:30

Registration

08:30

Welcome to Country

All morning sessions held in Ballroom I
Chaired by: Nick Goddard, CEO, AOF

08:45

Opening Remarks by Rob Wilson, President, GCIRC

09:00

Opening Addresses

09:15

Presentation by Scott Hansen, Director General, NSW Department of Primary Industries

09:30

Bestowal of the GCIRC Eminent Scientist Awards

10:00

#001 PLENARY 1: The Australian canola industry Nigel Hart, GRDC
Launch of the Australian Canola Vision Rosemary Richards, President, AOF

10:30

MORNING TEA *Sponsored by: GRDC*

11:00

#002 PLENARY 2: Envisioning a brighter, more golden horizon – looking back to look forward: examining the state of the global rapeseed industry Stewart Brandt, BASF

11:30

#003 PLENARY 3: The Innovative Oilseed: sustainably feeding and fuelling a growing world
Maurice Moloney, AgritecKnowledge

12:00

LUNCH *Sponsored by: BASF*

Ballroom I - Genetic gain

Chaired by: Rod Snowdon & Katarzyna Mikolajczyk

Ballroom II - Stand establishment

Chaired by: Sally Vail & Mathew Dunn

13:00

KEYNOTE TALK

#010 Genetic gain in Brassica breeding in India
Surinder Banga

#015 Increasing the certainty of canola establishment by identifying critical temperature and moisture limits
Jackie Bucat

13:15

#016 Improving canola productivity by ameliorating alkaline dispersive subsoils under dryland conditions in southern New South Wales
Shihab Uddin, Ehsan Tavakkoli

13:30

KEYNOTE TALK

#011 Genetic gain in winter oilseed rape in Europe during last three decades.
Martin Frauen, Yves Devisme

#017 Dissecting water and temperature conditions influencing canola establishment in the seedbed
Kenton Parker, Andrew Fletcher, Therese McBeath, John Kirkegaard, Andrew Ware

13:45

#018 The long and the short of it: Genetic strategies to improve canola establishment
Matthew Nelson, Jose Barrero, Mark Cmiel, Andrew Fletcher, Ian Greaves, Trijntje Hughes, Andrew Toovey, Karen Treble, Alec Zwart, John Kirkegaard, Greg Rebetzke

14:00

#012 Optimising genetic gain in canola breeding – the model comes to life in a global canola breeding program
Wallace Cowling

#019 Development of a novel high-throughput assay for root phenotypic traits of canola varieties
Clare Fisher, Anton Wasson, Matt Nelson, Gregory Rebetzke, Shannon Dillon

14:15

#013 AI-based models and environmental data improves genomic selection in canola
Iulian Gabur, Lennard Ehrig, Rod Snowdon

#020 Genetic control of germination-related traits in rapeseed and the potential of genomic and phenomic selection to predict fast germinating ability
Marianne Laurençon, Julie Legrix, Marie-Hélène Wagner, Didier Demilly, Sophie Rolland, Cécile Baron, Sylvie Ducournau, Anne Laperche, Nathalie Nesi

14:30

#014 Leveraging machine learning and environmental data to enhance genomic prediction in canola
Sakaria Liban, Lennard Ehrig, Iulian Gabur, Stephen Fox, Evan Gillis, Lon Rach, Janice Duguid, Jesse Mutcherson, Mike Domaratzki, Rod Snowdon, Rob Duncan

#021 Stable genetic and phenotypic correlations among early-vigour traits in field and glasshouse reveal opportunities for indirect selection in canola breeding
Kianoush Nikoumanesh, Harsh Raman, Wallace Cowling, Li Li

14:45

AFTERNOON TEA *Sponsored by: GRDC*

DAY SPONSOR



We create chemistry

LUNCH *Sponsored by: BASF*

Times on the Park - Sclerotinia

Chaired by: Susan Sprague & Mark Derbyshire

#101 Effect of exogenous application of alkali compounds on the aggressiveness of *Sclerotinia sclerotiorum*
Prabhjodh Singh Sandhu, V.N. Chetan, Pankaj Sharma, Sanjula Sharma, Surinder Singh Banga

#102 LESION MIMIC MUTANT 1 confers basal resistance to *Sclerotinia sclerotiorum* in rapeseed via a salicylic acid-dependent pathway
Kun Lu, Mengna Yu, Yonghai Fan, Jiana Li

#103 Figuring out the future of foliar fungicide decisions: developing the Sclerotinia stem rot risk assessment tool
Chris Manchur, Clint Jurke, Lone Buchwaldt, Erl Svendsen, Taryn Dickson, Lindsay Hoffman, Ruskin Johnson

#104 Dissecting loci and genes controlling Sclerotinia disease resistance and their genetic and evolutionary relationship with flowering time in *Brassica napus*
Shengyi Liu, Xiaohui Cheng, Junyan Huang, Yueying Liu, Lijiang Liu, Zetao Bai, Yuanyuan Zhang, Rong Zuo, Yizhou He, Chuanji Zhao, Jie Liu, Meili Xie, Chaobo Tong, Feng Gao, Yi Zhang, Yupo Wu, Lingyi Zeng

#105 Genetic and molecular analysis of stem rot (*Sclerotinia sclerotiorum*) resistance in *Brassica napus* (canola type)
Jacqueline Batley, Muhammad Azam Khan, Wallace A. Cowling, Surinder Singh Banga, Martin J Barbetti, Aldrin Y Cantila, Junrey C Amas, William J W Thomas, Ming Pei You, Vikrant Tyagi, Bauch Bharti, David Edwards

#106 Super pan-genome and RNA-Seq SNPs - GWAS to genetically characterise resistance to sclerotinia stem rot in *B. juncea* introgression lines
Chhaya Atri, Javed Akhtar, Kusum Rana, P. S. Sandhu, Martin J Barbetti, Surinder Banga

#107 Epidemiology and management of Sclerotinia stem rot in Indian mustard (*Brassica juncea*)
Pankaj Sharma, P D Meena, H K Sharma, N C Gupta, V V Singh, P K Rai

AFTERNOON TEA *Sponsored by: GRDC*

12:00

Phillip Room - Evolving end use markets

Chaired by: Benjamin Tiller & Nick Goddard

KEYNOTE TALK

#134 Global canola opportunities in the sustainable-fuel future
Dennis Voznesenski

13:00

13:15

KEYNOTE TALK

#135 The impact of the U.S. transitioning toward electric vehicles on the corn and soybean complexes
Nicholas Piggott

13:30

13:45

KEYNOTE TALK

#136 Markets and sustainability reporting – what gets measured gets bought
Maartje Sevenster

14:00

14:15

SPEAKER Q&A PANEL
Evolving market directions for Brassica oilseed products
Chaired by Benjamin Tiller, CBH Group

14:30

MONDAY PROGRAM CONTINUED ON NEXT PAGE

14:45

PARALLEL SESSIONS

PARALLEL SESSIONS



Program - Monday 25 September cont

Ballroom I - Seed quality genetics Chaired by: Janetta Niemann & Liang Guo

Ballroom II - Nitrogen management Chaired by: Andrew Fletcher & Deborah Rondanini

Times on the Park - Blackleg Chaired by: Yong-Ju Huang & Gary Peng

Phillip Room - Economy & markets Chaired by: Terence Farrell & Rosemary Richards

15:15

KEYNOTE TALK

#022 Increasing the value of canola (*Brassica napus* L.) meal through breeding for higher protein and decreased fibre contents

Steven King, Dave Charne, Chad Koscielny, Jean-Claude Pruvot, Ray Cowley, Igor Falak, Raju Jetty, Xiuqiang Huang, Ushan Alahakoon

KEYNOTE TALK

#077 Nitrogen use efficiency of oilseed rape cultivars evaluated using experimental data and simulation modelling

Henning Kage, Till Rose

KEYNOTE TALK

#108 From destruction to 7 million tonnes: how blackleg management enabled the Australian canola industry

Angela Van de Wouw, Jack Scanlan, Steve Marcroft, Alec McCallum, Sean Roberts, Leanne Forsyth, Alex Idnum

#137 Rapeseed in the global vegetable oil system: situation, specificities and perspectives

Etienne Pilorgé

15:15

15:30

#023 The effect of copy number variation of fatty acid synthesis genes on Brassica oil profiles

Shima Mahmoudi, Annaliese S. Mason, Peter Dörmann

#078 Modeling as a tool for identifying root architecture traits defining root systems adapted to a nitrogen-limited environment

Céline Richard-Molard, Christophe Lecarpentier, Loïc Pagès

#109 How changed farming practices changed blackleg disease expression causing additional yield losses

Steve Marcroft, Angela Van de Wouw, Susie Sprague, Andrew Ware, Kurt Lindbeck, Andrew Wherret, Andrea Hills, Nick Perndt, Alec McCallum

#138 Development of multiple functional utilization for promoting the rapeseed industry in China

Peiwu Li, Jin Mao, Ling Cheng, Xianglong Yang, Xiaoqian Tang, Liangxiao Zhang, Qi Zhang

15:30

15:45

#024 Long-read sequencing uncovers genome structural variations associated with protein content in *Brassica napus*

Harmeet Singh Chawla, Mohamed S Youssef, Sean Walkowiak, Robert W Duncan

#079 Improved ammonium utilization and greater root area growth are favoured in hybrid canola under intensive mono-cropping

Raju Soolanayakanahally, Yi Hu, Shankar Pahari, Robert Guy

#110 From genes to field: advances in breeding and management of blackleg disease in Poland

Justyna Szwarz, Ewa Starosta, Janetta Niemann

#139 Forecasting the future of oilseed rape co-products: Traditional breeding and modified genetics trade-offs

Zdenek Linhart

15:45

16:00

#025 Seed oil content QTL mapping and gene cloning in rapeseed

Liang Guo

#080 Intercropping winter oilseed rape with frost-sensitive faba bean have the potential to reduce fertilisation rate and weed pressure

Iman Raj Chongtham, Georg Carlsson

#111 Factors affecting expression of crown canker (*Leptosphaeria maculans*) in canola: implications for breeding and management

Susan Sprague, Angela Van de Wouw, Steve Marcroft, Luke Barrett

#140 Unlocking the biophysical properties of rapeseed storage proteins: Tailoring innovative strategies for sustainable protein production

Marcos Hamborg-Vinde, Kasper Engholm-Keller, Lars Boyens-Thiele, Alexander Kai Buell, Marianne Nissen Lund, Poul Erik Jensen

16:00

16:15

#026 Uncovering novel genetic diversity in canola seed traits through haploid mutagenesis and proteogenomic sequencing

Sateesh Kagale, Morgan W. Kirzinger, Andrea T. Todd, Sarika Saini, Magda Konopka, Victor Liaca, Kevin Fengler, Kevin Koh, Venkat Bandi, Sampath Perumal, HaiYing Yuan, Tancey Melchikart, Tryston Orr, Yasmina Bekkaoui, Christine Sidebottom, David Konkin, Chad Matsalla, Isobel Parkin, Andrew Sharpe, Carl Gutwin, Dave Charne, Ushan Alahakoon, Daoquan Xiang, Alison M. R. Ferrie, Raju Jetty

#081 Increased N availability in winter oilseed rape by intercropping annual frost sensitive legume crops

Ann-Charlotte Wallenhammar, Kerstin Andersson, Per Modig, Per Ståhl, Henrik Edin, Eva Edin, Ola Lundin, Lena Engström

#112 *Leptosphaeria biglobosa* inhibits the production of sirodesmin PL by *L. maculans*

James Fortune, Evren Bingol, Aiming Qi, Daniel Baker, Faye Ritchie, Chinthani Karandeni Dewage, Bruce Fitt, Yong-Ju Huang

#141 Present status and future prospects of rapeseed-mustard in India

Dhiraj Singh

16:15

16:30

#027 Export of defensive glucosinolates is key for their accumulation in seeds

Niels Christian Sanden, Deyang Xu, Line Lykke Hansen, Zeinu Mussa Belew, Svend Roesen Madsen, Lasse Meyer, Morten Egevang Jørgensen, Pascal Hunziker, Dorottya Veres, Christoph Crocoll, Alexander Schulz, Hussam Hassan Nour-Eldin, Barbara Ann Halkier

#082 Camelina (*Camelina sativa* (L.) Crantz.) as a sustainable feedstock crop for advanced biofuel production on a global scale

Fernando Guillen-Portal, Javier Prieto, Laura Maher, Dario Girotti, Tavin Schneider, Barney Bernstein, Yuri Herreras, Kevin Monk, Michael Karst

#113 Utilisation of host resistance to manage blackleg of canola in South Africa

Huibrecht Schreuder, Gert Van Coller, Diane Mostert

#142 Russian rapeseed evolution and economic perspectives

Sergey Tuchin

16:30

16:45

POSTER VIEWING (Odd numbers) Hyde Park Room

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16:45

17:00

At the same time as the poster viewing: GCIRC General Assembly (For members only) Phillip Room

At the same time as the poster viewing: GCIRC General Assembly (For members only) Phillip Room

17:00

17:30

CLOSE OF DAY

CLOSE OF DAY

17:30

18:00

18:00

P A R A L L E L S E S S I O N S

P A R A L L E L S E S S I O N S



Program - Tuesday 26 September

DAY SPONSORS



Department of
Primary Industries



MORNING TEA *Sponsored by: Syngenta*

10:00

Times on the Park - Insect pests
Chaired by: Michael Nash & Jacqui Batley

Phillip Room - Hybrids & heterosis
Chaired by: Ray Cowley & Chhaya Atri

KEYNOTE TALK

KEYNOTE TALK

#114 Challenges facing canola growers – stand establishment and Plinazolin as a new solution
Shad Milligan

#034 Omics-based optimisation of hybrid performance and heterosis in winter oilseed rape
Rod Snowdon, Sven Weber, HueyTyng Lee, Agnieszka Golicz, José Montero, Mauricio Orantes-Bonilla, Lennard Ehrig, Julian Gabur, Eva Herzog, Amine Abbadi, Matthias Frisch

#115 R2D2: a territorial project to prevent pests damages on winter oilseed rape combining agronomy and conservation biological control
Nicolas Cerrutti, Noémie Cadeddu, Sylvie Clerget, Michael Geloan, Antoine Lauvernay, Céline Robert, Stéphane Cadoux

#035 Implementation of heterotic pools and genomic selection in a commercial winter oilseed rape program
Christian Flachenecker, Tobias Kox, Gunhild Leckband, Rod Snowdon, Matthias Frisch, Amine Abbadi

#116 Understanding the genetic mechanism of *Brassica napus* resistance to Cabbage Stem Flea Beetle
Emmanuel Solomon, Ryan Brock, Steve Penfield, Rachel Wells

#036 Mining the strong pod shattering resistance gene in Ogu restorer lines
Jia Liu, Qiong Hu, Yuting Yang, Wen Chu, Hongtao Cheng, Hui Wang, Chao Li

#117 Presentation of the ADAPTACOL2 project: Adaptation of WOSR to Coleopteran pests in a context of climate change and Phosmet withdrawal
Celine Robert, Laurine Brillault

#037 The development of Zhongyouza501, a hybrid variety with super-high yield under dense planting, will lead a Green Revolution in rapeseed
Jiaqin Shi, Xinfu Wang, Guihua Liu, Xiaoling Dun, Qing Yang, Sheng Liu, Li Jin, Hanzhong Wang

#118 Effect of host plant diversity on abundance of turnip aphid, cabbage aphid and cabbage caterpillar infesting Indian mustard
Sarwan Kumar, Lukesh Bansal, Surinder Singh Banga

#038 A systematic dissection in oilseed rape provides insights into the genetic architecture and molecular mechanism of yield heterosis
Jiaqin Shi, Jiang Ye, Huabing Liang, Xinfu Wang, Guihua Liu, Hanzhong Wang

#119 Integrating sustainability criteria into performance testing new criteria under study for the assessment of pest tolerance in rapeseed
Eve-Anne Laurent, Laurie Magnin, Vincent Nussbaum, Romane Thaize, Katrin Carrel-Spielmann, Mathias Christen, Diane François, Briec Lachat, Marina Wendling, Stève Breitenmoser, Ivan Hiltbold, Alice Baux

#039 Natural variation and genetic bases of pod shatter resistance in Brassica species
Harsh Raman, Rosy Raman, Jia Liu, Brett Mcvittie, Qiong Hu, Simon Duffey, Jun Zou, Xiaobo Cui, Niharika Sharma, Surinder Banga, Shengyi Liu, Nelson Gororo

LUNCH *Sponsored by: NSW Department of Primary Industries*

TUESDAY PROGRAM CONTINUED ON NEXT PAGE

12:15

08:30

#005 PLENARY 4: Canola protein innovation in Canada
Lisa Campbell, Protein Innovation Canada

All morning sessions held in Ballroom I
Chaired by: Maurice Moloney

09:00

#006 PLENARY 5: Transformation in the bioeconomy – the changes we'll see, the opportunities we'll create
Jim Lane, The Daily Digest

09:30

PANEL Q&A DISCUSSION - PRODUCT INNOVATION OPPORTUNITIES

10:00

MORNING TEA *Sponsored by: Syngenta*

Ballroom I - Gene editing
Chaired by: Qiong Hu & Chunyu Zhang

Ballroom II - Stress
Chaired by: Julianne Lilley & Jeremy Whish

10:30

KEYNOTE TALK

KEYNOTE TALK

#028 Applying genome editing technology for molecular breeding of rapeseed
Qiong Hu

#083 Timing of variation in chilling intensity and its effects on winter rapeseed crops
Steven Penfield, Carmel O'Neill, Xiang Lu, Samuel Warner, Becca Doherty

10:45

#029 Establishment of base editing with high efficiency in allotetraploid oilseed rape by A3A-PBE system
Hongtao Cheng, Qiong Hu

#084 Assessing genotypic variation in heat tolerance using portable heat chambers in canola
Rajneet Uppal, Shen Chen, John Bromfield, Suman Rakhsit

11:00

#030 Enhancing low seed glucosinolate breeding by editing a transporter gene lacking natural variation in *Brassica napus*
Yuanyuan Zhang, Yizhou He, Zhiquan Yang, Minqiang Tang, Qing-Yong Yang, Shengyi Liu

#085 Probabilistic patterns of drought, heat and frost stress for canola in Australia
Zhigan Zhao, Victor Sadras, John Kirkegaard, Julianne Lilley

11:15

#031 BnaA07.BBX22 enhances the salt tolerance of rapeseed by regulating ROS homeostasis
Keqi Li, Yan Zhang, Xiang Liu, Yiji Shi, Lina Lang, Shunxian Tao, Aixia Xu Zhen Huang

#086 Seed priming with brassinolides enhances growth and strengthens antioxidative defenses under normal and heat stress conditions in *Brassica juncea*
Neha, Geetika Sirhindi, Vivek Dogra

11:30

#032 Functional verification of key genes BnLAZY1.A03 for rapeseed branch angle
Jia Liu, Yin Hai Xu, Rijin Zhou, Wenkai Yu, Qiong Hu

#087 Comprehensive analyses reveal the regulatory network of carbon and nitrogen metabolism in rapeseed under waterlogging stress
Ni Ma, Xiaohua Bian, Ximin Zhi

11:45

#033 Developing canola restorer lines without negative agronomic traits associated with the Rfo introgression from radish (*Raphanus sativus* L.)
Mohamed Samir Youssef, Claudio Stasolla, Harmeet Chawla, Robert Duncan

#088 Microbes for mitigating drought and temperature stress and enhancing yield in rapeseed mustard
Pushp Sharma, Virender Sardana, Parmod Kumar Rai

12:15

LUNCH *Sponsored by: NSW Department of Primary Industries*

PARALLEL SESSIONS

PARALLEL SESSIONS



Program - Tuesday 26 September cont

Ballroom I - Genomes (1)

Chaired by: Habibur Rahman & Isobel Parkin

Ballroom II - Digital technologies

Chaired by: Jackie Bucat & Kenton Porker

Times on the Park - Stress tolerance

Chaired by: Sheng Chen & Jens Berger

Phillip Room - Oil & protein

Chaired by: Rodney Mailer & Peiwu Li

13:15

KEYNOTE TALK

#040 Exploring the potential of Brassica crop wild relatives: Insights for sustainable agriculture and biodiversity conservation
Makenzie Mabry

KEYNOTE TALK

#089 Advances in satellite technology and AI for crop monitoring: from data to action in agriculture
Roger Lawes

#051 Canola pre-breeding for heat stress tolerance in Australia

Sheng Chen, Rajneet Uppal, Suman Rakshit, Aldrin Cantila, John Quealy, John Bromfield, Kadambot Siddique, Wallace Cowling

#144 Development of plant-based long-chain omega-3 oils

Xue-Rong Zhou, Surinder Singh

13:30

#041 Detecting the genes controlling homologous recombination in *Brassica napus*

Isobel Parkin, Edis Dzananovic, Peng Gao, Erin Higgins, Kevin Koh, Andrew Sharpe

#090 Development of robust UAV-based phenotyping solutions for field-growing rapeseed plants to accelerate the yield improvement in rapeseed breeding

Jiangwei Qiao, Jie Li, Yi Li, Li Li, Xinfu Wang

#052 Proxy traits for drought avoidance and high yield under water-limited conditions in canola

Harsh Raman, Rosy Raman, Brett McVittie, Ramethaa Pirathiban, Simon Diffey, Brian Cullis

#145 Effect of free fatty acid on the shelf-life of overwintered canola seeds

Véronique Barthelet

13:45

#042 Genomic insights into the origin, domestication and diversification of *Brassica juncea*

Lei Kang, Lunwen Qian, Hao Chen, Liu Yang, Zhongsong Liu

#091 Identification of shoot architectural traits to promote winter oilseed rape vigour during the vegetative growth: a simulation approach

Laurène Perthame, Christophe Pradal, Alexandra Jullien, Frédéric Rees, Céline Richard-Molard, Arman Grumel

#054 Defining the molecular pathways that result in phi thickening formation and mechanical strengthening of the Brassica root

David Collings, Maketalena Aleamotu'a, David McCurdy, Rosy Raman, Harsh Raman

#146 The role of volatile sulfur compounds in the flavor profile of rapeseed oil and application in variety selecting and processing

Qi Zhou

14:00

#043 An advanced *Brassica carinata* genomics platform for Brassica crop improvement

Yan Niu, Qingqing Liu, Zhesi He, Rosy Raman, Hao Wang, Xinxin Long, Han Qin, Harsh Raman, Isobel Parkin, Ian Bancroft, Jun Zou

#092 UAV imaging and deep learning for automatic canola phenology detection

Alexandre Boyer, Jing Wang, Geoff Bull, Jamie Scarrow, Julianne Lilley, Jeremy Whish, Alexander Zwart, Shannon Dillon, Chris Helliwell

#055 Combining physio-biochemical characterization and transcriptome analysis reveal the responses to varying degrees of drought stress in *Brassica napus*

Shuai Fang, Liang Guo

#147 INTRINSIC - protein from rapeseed

Peter Geerdink, Wim Mulder, Aard de Jong

14:15

#044 Understanding the impact of structural variations on gene expression using pangenome graphs

Gözde Yildiz, Silvia F. Zanini, Matthias Frisch, Amine Abbadi, Rod Snowdon, Agnieszka Golicz

#093 Connecting rapeseed plant architecture to yield via 3D-imaging

Sven Weber, Andreas Eckert, Lennard Ehrig, Rod Snowdon, Andreas Stahl

#056 Physiological and biochemical characterisation of *Brassica juncea* (Czern and Coss) inbred lines for drought tolerance

Pushp Sharma, Saleem Jahangir Dar, Surinder Singh Banga

#148 RaPEQ: Rapeseed as a domestic protein source of excellent quality for human consumption

Frank Peter Wolter, Bernd Weisshaar, Benjamin Wittkop, Christian Möllers, Corinna Dawid, Sarah Bothe, Katrin Heinzlmann, Christian Schein, Sören Rossmann, Jakob Ley

14:30

#045 The construction of tetraploid *B. napus* pangenome based on genetic variations of 2,882 germplasm accessions

Chaobo Tong, Ming Hu, Xiaobo Cui, Yuanyuan Zhang, Lijiang Liu, Shengyi Liu

#094 Uncertainty in phenology parameterisation and model structure affect canola yield simulation in the APSIM Next Generation

Di He, Julianne Lilley, John Kirkegaard

#057 Screening of salt-alkali resistant varieties and dissection of genetic basis of salt-alkali tolerance in *Brassica napus*

Xuan Yao

#149 Sustaining poultry production with alternative protein sources

Sonia Liu, Mehdi Toghyani, Peter Chrystal, Shemil Macelline, Peter Selle

14:45

15:00

AFTERNOON TEA *Sponsored by: Syngenta*

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15:00

PARALLEL SESSIONS

PARALLEL SESSIONS



Program - Tuesday 26 September cont

Ballroom I - Genomes (2)

Chaired by: Jun Zou & Agnieszka Golicz

Ballroom II - Climate adaptation

Chaired by: Henning Kage & Rajneet Uppal

Times on the Park - Clubroot

Chaired by: Steven Strelkov & Chunyu Zhang

Phillip Room - Yield genetics

Chaired by: Kate Light & Nathalie Nesi

15:30

KEYNOTE TALK

#046 Accelerating the development and utilization of new-type *Brassica napus* gene pool by genomics-based approaches

Jun Zou, Zunxu Zhang, Zhongyi Zhang, Han Qin, Hao Wang, Yan Niu, Gang Xu, Shuilan Hu, Xinxin Long

#095 Impact of changing climate on canola yield and quality in the brown soil zone of Western Canada
Curtis Rempel, Taryn Dickson, Paul Bullock, Manasah Mkhabela, Veronique Barthelet, Jon Belanger, Soumik Basu, David Sauchyn

#120 Effect of certain cover crops, and flowering plant strips on pathogenicity and inoculum production of *Plasmodiophora brassicae* and *Sclerotinia sclerotiorum*
Nazanin Zamani-Noor, Sinja Brand, Hans-Peter Söchtling

KEYNOTE TALK
#058 Novel statistical design and analysis that enables valid comparisons of canola varieties across herbicide technology types
Alison Smith, Justin Kudnig, Willow Liddle, David Tabah, Brian Cullis

15:45

#096 Exploring the introduction and adaptability of winter rapeseed (*Brassica napus* L) in northern China
Wancang Sun, Junyan Wu, Gang Yang, Yan Zhang, Aiguo Li, Yali Fu, Jiming Li, Yahong Zhang, Li Ma, Lili Li, Qixian Chen, Jianming Lei, Lijun Liu, Yuanyuan Pu, Lei Zhen, Juanjuan Shi, Xuecai Li

#121 Effect of gene stacking and soil inoculum level on the resilience of resistant canola against *Plasmodiophora brassicae* (clubroot) pathotype 3H
Gary Peng, Rui Wen, Tao Song, Coreen Franke

#059 Envirotyping within a Multi-Environment Trial allowed identifying genetic determinants of winter oilseed rape yield plasticity
Anne Laperche, Erwan Corlouer, Magalie Leveugle, Christopher Sauvage, Nathalie Nesi

16:00

#047 Allele-specific expression in resynthesized *Brassica napus* lines
Fei He, Annaliese Mason

#097 Early sowing systems improve profitability and reduce risk for canola production in south-eastern Australia
Julianne Lilley, Laura Goward, John Kirkegaard, Jeremy Whish, Rohan Brill, Andrew Ware

#122 Survival of *Plasmodiophora brassicae* over time in trials on the Canadian Prairies
Mary Ruth McDonald, Bruce D. Gossen, Dane Froese, Merek Wigness

#060 Suppression of bna-miR168a improving multiple yield-related traits greatly by targeting BnaAGO1s in allotetraploid rapeseed
Liyuan Zhang, Bo Yang, Si Chen, Jinxiong Xu, Xianyu Kuang, Chao Zhang, Cunmin Qu, Kun Lu, Jiana Li

16:15

#048 Investigating genome dominance in *Brassica napus*
Hugh Woolfenden, Rachel Wells, Richard J Morris

#098 Influence of photothermal quotient in the critical period on yield potential of canola
Kenton Porker, Nick Poole, Rohan Brill, John Kirkegaard, Julianne Lilley

#123 Screening and evaluation of Brassica accessions for developing clubroot-resistant commercial canola varieties
Rudolph Fredua-Agyeman, Sheau-Fang Hwang, Stephen Strelkov

#061 BnaC01.BIN2 and BnaC03.BIN2 modulate plant height and yield potential in *Brassica napus*
Yiming Guo, Bao Li, Xinhong Liu, Lichao Deng, Liang Qu, Mingli Yan, Tonghua Wang, Mei Li

16:30

#049 HaploMAGIC: phasing and accurately detecting recombination in multi-parental populations with genotyping errors
Jose Antonio Montero-Tena, Nayyer Abdollahi-Sisi, Amine Abbadi, Matthias Frisch, Rod J. Snowdon, Agnieszka Golicz

#099 Next generation Crop-Pest Model: A case study on Blackleg disease (*Leptosphaeria maculans*) and canola (*Brassica napus*)
Jamina Gabrielle Bondad, Matthew Harrison, Jeremy Whish, Susan Sprague, Kara Barry

#124 A new clubroot resistance for a broadened race-specific resistance in rapeseed
Steffen Rietz, Amine Abbadi, Alexander Riedel, Gunhild Leckband

#062 Functional divergence of SnRK1.1 family members in regulating the growth and yield formation in *Brassica napus*
Kun Lu, Shengting Li, Cunmin Qu, Jiana Li

16:45

#050 Specific whole-chromosome discrimination through oligonucleotide-based chromosome painting in Brassica species
Mariana Baez, Ludwig Mann, Tony Heitkam, Annaliese Mason

#100 Carinata and Camelina, two minor Brassicaceae with great potential for the European bioeconomy
Ana Marjanovic Jeromela, Andrea Monti, Federica Zanetti, Barbara Alberghini, Andrea Parenti, Erika Facciolla, Dragana Rajkovic

#125 Integrated management of Clubroot in winter oilseed rape based on soil DNA-analyses
Ann-Charlotte Wallenhammar, Zahra Omer, Eva Edin, Anders Jonsson

17:00

POSTER VIEWING (Even numbers) Hyde Park Room

POSTER VIEWING (Even numbers) Hyde Park Room

18:00

CLOSE OF DAY

CLOSE OF DAY

19:00

Nuseed IRC 2023 GALA DINNER

Luna Park Sydney, 1 Olympic Drive, Milsons Point
Dress code: Cocktail

Free shuttles to Luna Park will run from the Congress venue between 18:00 and 18:30 hrs.

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Photo credit: Mathew Dunn, NSW DPI

PARALLEL SESSIONS

PARALLEL SESSIONS

15:30

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16:00

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17:00

18:00



Program - Wednesday

27 September



Ballroom I - Phenology & flowering

Chaired by: Rachel Wells & Harsh Raman

Ballroom II - Omics technology

Chaired by: David Edwards & Thomas Altmann

Times on the Park - General diseases

Chaired by: Ben Congdon & Alex Idnurm

Phillip Room - Processing & quality

Chaired by: Veronique Barthelet & Xue-Rong Zhou

08:30	KEYNOTE TALK #063 Genomic strategies for optimisation of flowering time in canola <i>Shannon Dillon, Alexandre Boyer, Alec Zwart, Andrew Gock, Jeremy Whis, Bangyou Zheng, Jing Wang, Matt Nelson, Julianne Lilley, Chris Helliwell</i>	KEYNOTE TALK #070 AVATARS - Advanced virtuality and augmented reality approaches in seeds to seeds <i>Thomas Altmann, Amine Abbadi, Matthias Enders, Marius Kloft, Andrea Bräutigam, Olaf Sacher, Ljudmilla Borisjuk, Hardy Rolletschek, Jozephus Schippers, Hans-Peter Braun, Evgeny Gladilin, Mary-Ann Blätke, Matthias Lange</i>	#126 Investigating <i>Pyrenopeziza brassicae</i> pathogen races to combat light leaf spot in winter oilseed rape <i>Laura Sapelli, Chinthani Karandeni Dewage, Faye Ritchie, Bruce Fitt, Yongju Huang</i>	#151 Modelling of the resistance to compression of dehulled rapeseed under unidirectional pressure <i>Sylvie Dauguet, Florian Rousseau, Patrick Carré, Raphaëlle Savoire</i>	08:30
08:45			#127 Impact of TuYV isolate diversity and abiotic factors for the assessment of existing R54-based TuYV resistance <i>Torsten Will, Maria Kern, Heiko Ziebell, Thomas Thieme, Andreas Stahl</i>	#152 Development of an efficient approach to dehull canola seeds on industrial scale <i>Runrong Yin</i>	08:45
09:00	#064 Prediction of canola phenology through integration of genomic prediction and crop growth model <i>Bangyou Zheng, Jeremy Whis, Julianne Lilley, Alexandre Boyer, Alec Zwart, Chris Helliwell, Shannon Dillon</i>	#071 Accelerating breeding efficiency by applying high-throughput phenotyping and genomic prediction methods in Canola <i>Mukhlesur Rahman, Paulo Flores, Shakil Hosain, Mohammad Jony, Fahad Hasan</i>	#128 Using RNA interference to protect <i>Brassica napus</i> (canola) against fungal pathogens <i>Mark Belmonte</i>	#153 A rapid low-cost and easy method based on time resolved fluorescence lateral flow immunoassay for BaP in rapeseed oil <i>Xiaoqian Tang, Qi Zhang, Peiwu Li</i>	09:00
09:15	#065 When crops grow up: determining regulatory control of floral transitions within <i>Brassica napus</i> <i>Gurpinder Singh Sidhu, Rachel Wells, Richard Morris</i>	#072 Exploiting omics of <i>Brassica napus</i> core diversity populations to address trait genetics and polyploid genome evolution associated with breeding method <i>Shengyi Liu, Y. Zhang, Q. Yang, Z. Yang, C. Liang, C. Tong, M. Xie, X. Cheng, J. Huang, Y. Liu, L. Liu, Z. Bai, Y. He, F. Gao, C. Zhao, R. Zuo, Y. Zhang</i>	#129 Using pangenomics and machine learning for disease resistance <i>David Edwards</i>	#154 A novel comprehensive analysis approaches based on liquid chromatography-mass spectrometry for lipid oxidation of rapeseed oil <i>Hong Chen</i>	09:15
09:30	#066 The role of FLC and PHP in warm winter bud dormancy activation in <i>Brassica napus</i> <i>Samuel Warner, Carmel O'Neill, Xiang Lu, Richard Morris, Rachel Wells, Steve Penfield</i>	#073 Phenomic selection: predicting quantitative traits in canola with NIRS-profiles <i>Lennard Ehrig, Sven Weber, Stefan Abel, Reinhard Hemker, Dirk Stulgies, Milka Malenica, Amine Abbadi, Benjamin Wittkop, Rod Snowdon, Andreas Stahl</i>	#130 Cellular and molecular pathways involved in the bacterial endophyte-mediated biocontrol of <i>Sclerotinia sclerotiorum</i> in <i>Brassica juncea</i> <i>Sanjula Sharma, Reetranjan Kaur, Prabhjodh Singh Sandhu, Meenakshi Mittal, Pratibha Vyas, Archana Suman</i>	#155 Genome-wide association analysis of seed color-related metabolites (mGWAS) in <i>Brassica napus</i> L <i>Cunmin Qu, Yunshan Tang, Shulin Shen, Ran Hu, Yuhang Tang, Liezhao Liu, Kun Lu, Jiana Li</i>	09:30
09:45	#067 Development of a non-vernalization-grafting floral induction method and suitable rootstocks for rapid breeding of Brassica crops <i>Ko Motoki, Yu Kinoshita, Ryohei Nakano, Munetaka Hosokawa, Tetsuya Nakazaki</i>	#074 Unravelling the <i>Brassica napus</i> epigenetic network with an integrated multi-omics approach <i>Silvia Zanini, Rod Snowdon, Agnieszka Golicz</i>	#131 Oilseed rape ringspot disease in France - an overview <i>Gwénola Riquet, Franck Duroueix, Blandine Bammé</i>	#156 Unravelling the biosynthetic pathway of bitter-tasting kaempferol derivatives in rapeseed <i>Hanna Marie Schilbert, Maximilian Schöne, Johanna Pries, Prisca Viehöver, Frank Wolter, Amine Abbadi, Beverley Glover, Daniela Holtgräwe, Bernd Weisshaar</i>	09:45
10:00	#068 Changes in the spatiotemporal expression patterns of the tandem duplicated FLC homologs associated with the non-flowering trait in <i>Brassica oleracea</i> <i>Yu Kinoshita, Ko Motoki, Munetaka Hosokawa</i>	#075 Transferring knowledge of the floral transition from Arabidopsis to <i>B. oleracea</i> using gene expression dynamics <i>Ruth Kristianingsih, Alexander Calderwood, Gurpinder Singh Sidhu, Shannon Woodhouse, Hugh Woolfenden, Rachel Wells, Richard J. Morris</i>	#132 Molecular profiling of the <i>Sclerotinia sclerotiorum</i> - Brassica pathosystem for controlling stem rot disease in mustard <i>Navin C Gupta, Shaweta Arora, Sunita Yadav, Mahesh Rao, Pankaj Sharma, Dwijesh Chandra Mishra</i>	#157 QTL-mapping of kaempferols and sinapic acid esters and correlations with other seed quality traits in oilseed rape <i>Jasmin Vettel, Christoph Walsler, Hanna Schilbert, Bernd Weisshaar, Corinna Dawid, Christian Möllers</i>	10:00
10:15	#069 Comprehensive speed breeding: a high-throughput and rapid generation system for long-day crops <i>Yixian Song, Xingyu Duan, Pengfei Wang, Xiang Li, Zhaoyang Wang, Lili Wan, Guangsheng Yang, Dengfeng Hong</i>	#076 High coverage profiling of phenolic compounds in rapeseed based on metabolomics and its application <i>Fang Wei, Yao Zhang, Xin Lv, Qi Zhou, Hong Chen</i>	#133 Quantitative Trait Locus (QTL) analysis and fine-mapping for <i>Fusarium oxysporum</i> disease resistance in <i>Raphanus sativus</i> using GRAS-Di technology <i>Keiichi Okazaki, Chukwunonso Sylvanus Austin Ezeah, Juichi Shimazu, Shinichi Kawashima, Makoto Kaji, Takahiro Kawanabe, Eigo Fukai</i>	#158 Canola fibre: How to upcycle it into bioactive and beneficial prebiotic components? <i>Bogdan Slominski, Yanxing Niu, Rob Patterson, Martin Nyachoti, Anna Rogiewicz</i>	10:15
10:30	MORNING TEA <i>Sponsored by: Bayer</i>		MORNING TEA <i>Sponsored by: Bayer</i>		10:30

PARALLEL SESSIONS

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Morning/Afternoon Sessions

Chaired by: Fernanda Dreccer

11:00	#007 PLENARY 6: Brassica oilseeds – underpinning diversity and productivity in global cropping systems <i>John Kirkegaard, CSIRO</i>
11:30	#008 PLENARY 7: Climate change challenges and adaptations for rapeseed <i>Deborah Rondanini, University of Buenos Aires</i>
12:00	LUNCH <i>Sponsored by: CSIRO</i>
13:00	#009 PLENARY 8: Prospects and progress for gene-edited Brassicas <i>Barry Pogson, Australian National University</i>
13:30	PANEL Q&A DISCUSSION - CROP PRODUCTION CHALLENGES

Afternoon Sessions Continued

13:45	CHALLENGES & OPPORTUNITIES - THEME LEADER SUMMATIONS <i>Chaired by: Rod Mailer</i>
14:30	POSTER AWARDS
14:45	INVITATION TO IRC-2027 (Paris)
15:00	CLOSING REMARKS <i>Nick Goddard, CEO, AOF</i>
15:15	AFTERNOON TEA <i>Sponsored by: CSIRO</i>
15:45	CLOSE OF DAY