Final Programme

& Exhibitor Information

Sorghum in the 21st Century

Cape Town, South Africa

9 – 12 April 2018


ABInBev

INDEX

WELCOME MESSAGES

Welcome to Cape Town and the 2018 Global Sorghum Conference!

On behalf of the local and international organising committees, we hope that this conference will energize producers, consumers and the research and development communities around the fascinating opportunities sorghum presents to address some of the world's greatest challenges. Well known for its tolerance to heat and drought, its nutritional appeal to a wide range of consumers and its nutritive value for feed, fodder and fuel, the potential for sorghum is still not yet fully developed. It is the purpose of this conference to move this dialogue further and establish what we know about the state of sorghum science and industry, identify what are the "known" unknowns, and seek opportunities for greater collaboration to break down geographical and scientific barriers to build momentum for success.

We will address this need through exciting keynote, plenary and contributed presentations, a wide range of posters and exhibits, topical symposia and student events like the "3-Minute Thesis" competition that will groom the future of our professions. Special events like the South African National Research Foundation's Science for Society lecture, conference tours and mixers will balance this experience. This event would not have been possible without the generous funding of a global consortium of organisation and agencies to support the conference and attendees plus the hard work of the local and international organising committee over the past 18 months.

I thank you for your attendance and participation and wish you a successful and fruitful experience at the first global sorghum conference of the 21st century!

Professor Timothy J. Dalton
Feed the Future Innovation Lab for
Collaborative Research on Sorghum and Millet

As Chair of the International Sorghum Conference's Local Organising Committee and representing the University of Pretoria, the conference co-host, it is my great pleasure to welcome you all to this sorghum conference, especially the participants from across Africa and around the world.

It is indeed appropriate that this first international conference on sorghum of the 21st century is being held in Africa and here in South Africa. Sorghum originated in Africa and is uniquely well-adapted to cultivation in our hot and harsh climate, where rainfall is unpredictable. Sorghum also has several important nutritional and health-promoting attributes, which have been understood in Africa for countless generations.

South Africa has a long and pride record of sorghum research at institutes like the CSIR, the ARC and at several universities, including mine. Furthermore, South Africa pioneered the commercialisation of traditional African sorghum beer and today produces numerous innovative sorghum food and beverage products steeped in Africa's rich heritage. Specifically concerning the conference, my heartfelt appreciation goes all the members of our local organising committee who have freely devoted their time and energy over 18 months to make this conference a success. The names and logos of their institutions are displayed in the programme.

Sadly, sub-Saharan Africa is today chronically food insecure. Climate Change which is bringing higher temperatures and more severe droughts, for example here in the Cape Town region, further threatens our food security.

It is my sincere hope that by participation in this conference, you, the world's experts on sorghum, this incredible cereal, will bring together your collective wisdom to help banish the scourges of malnutrition and poverty in Africa and elsewhere.

Professor John R.N. Taylor
University of Pretoria

ORGANISING COMMITTEES

INTERNATIONAL ORGANISING COMMITTEE (IOC)

Tim Dalton	*IOC Chair*	Feed the Future Innovation Lab for Collaborative Research on Sorghum and Millet (SMIL) – U.S.
John Taylor	*Sponsorship/Scholarship, LOC*	University of Pretoria – South Africa
Janet Taylor	*Events/Community Engagement, LOC*	University of Pretoria – South Africa
Nat Bascom	*Sponsorship/Scholarship (Chair)*	SMIL – U.S.
Medson Chisi	*Scientific Programme*	Zambia Seed Company – Zambia
Vilas Tonapi	*Publications*	Indian Institute of Millets Research (IIMR) – India
David Jordan	*Scientific Programme (Chair)*	University of Queensland – Australia
Justin Weinheimer	*Sponsorship/Scholarship*	United Sorghum Checkoff Program USCP – U.S.
Jean-Francois Rami	*Committee member*	Agropolis/Centre de Coopération International en Recherche Agronomique pour le Développement (CIRAD) – France
Robert Schaffert	*Scientific Programme*	Embrapa – Brazil
Taye Tadesse	*Scientific Programme*	Ethiopian Institute of Agricultural Research (EIAR) – Ethiopia
Ndiaga Cisse	*Committee member*	Centre d'Etude Régional pour l'Amélioration de l'Adaptation à la Sécheresse/Institut Sénégalais de Recherches Agricoles (CERAAS/ISRA) – Senegal
Kira Everhart-Valentin	*Coordination*	SMIL – U.S.
Gill Slaughter	*Event Planning*	Turners Conferences – South Africa
Kerry Firmani	*Event Planning*	Turners Conferences – South Africa

LOCAL ORGANISING COMMITTEE (LOC) – SOUTH AFRICA

John Taylor	*LOC Chair*	University of Pretoria
Janet Taylor	*LOC Secretary*	University of Pretoria
Lisa Coetzee	*Student Activities (Chair)*	University of the Free State
Derusha Crank	*Media relations*	Agricultural Research Council (ARC)
Riëtte de Kock	*Marketing, sponsorship and technical expo*	University of Pretoria
Mathoto Thaoge	*Marketing, sponsorship and technical expo*	Tshwane University of Technology
Leon du Plessis	*Marketing, sponsorship and technical expo*	Sorghum Forum
Gyebi Duodu	*Scientific Programme*	University of Pretoria
Sheryl Hendriks	*Communication*	University of Pretoria
Mary James	*Media relations*	Agricultural Research Council (ARC)
Afam I. O. Jideani	*Student Activities*	University of Venda
Victoria Jideani	*Social Programme/Community Outreach*	Cape Peninsula University of Technology
Maryke Labuschagne	*Scientific Programme*	University of the Free State
Mark Laing	*Scientific Programme*	University of KwaZulu-Natal
Wiana Louw	*Marketing, sponsorship and technical expo*	Southern African Grain Laboratory (SAGL)
Kingstone Mashingaidze	*Scientific Programme*	Agricultural Research Council (ARC)
Neal McLaren	*Scientific Programme*	University of the Free State
Bongani Ndimba	*Social Programme/Community Outreach*	Agricultural Research Council (ARC)
Anthony Obilana	*Technical tours*	Cape Peninsula University of Technology
Shonisani Ramashia	*Student Activities*	University of Venda
Nemera Shargie	*Scientific Programme*	Agricultural Research Council (ARC)
Hussein Shimelis	*Scientific Programme*	University of KwaZulu-Natal
Nomusa Dlamini	*Social Programme/Community Outreach*	Council for Scientific and Industrial Research (CSIR)
Abadi Mezgebe	*Student Activities*	Hawassa University, Ethiopia and University of Pretoria
Jannie van Aswegen	*Marketing, sponsorship and technical expo*	South African Association for Food Science and Technology (SAAFoST)
Naushad Emmambux	*Scientific Programme*	South African Association for Food Science and Technology (SAAFoST)

CONFERENCE INFORMATION

The Sorghum in the 21st Century will be held at the Century City Conference Centre (CCCC) 9 – 12 April 2018

ACCOMMODATION

If you have any queries with your accommodation (booked through Turners Conferences), kindly come to the registration desk in the registration area.

BADGES

Please note that delegates are required to wear their conference badges at all times in the CCCC. Access to all venues will be monitored.

CATERING

Complimentary tea / coffee and lunch for delegates and exhibitors will be served in the foyer at the times specified in the scientific programme.

EMERGENCY NUMBERS

Conference Organisers	083 269 0279
Netcare Medical Response	082 911
Ambulance	10177
EMRS Medical Response	10177
Police and Flying Squad	10111

FIRST AID

Trained paramedics are on duty for the duration of the Conference. If you require first aid treatment, kindly go to the first aid room behind reception or come to the registration desk.

INDEMNITY / INSURANCE

The Conference Organisers have taken reasonable care in making arrangements for the Conference, exhibition, and social programme. Neither the Organising Body, the Organising Committee, the Professional Conference Organiser, nor its sponsors or committee members assume any responsibility, contractual or delictual for any loss, injury or damage to persons or belongings, or additional expenses incurred as a result of delays or changes in air, rail, sea, road or other services, strikes, sicknesses, weather, or for any acts or omissions by any persons, or for any unforeseen changes to the programme including cancellation of the Conference due to force majeure or any related events or activities.

All participants are accordingly advised to make their own arrangements for adequate insurance cover including personal health and travel insurance.

LOST AND FOUND

For information about lost and found property, please visit the CCCC reception desk.

MOBILE PHONES

Delegates are requested to turn their mobile phones off when entering sessions.

PARKING

Complimentary parking tickets are available for the 9, 10, 11 and 12 April.

PRAYER ROOM

A prayer room for delegates of any faith can be located upstairs in meeting room 4.

PUBLIC NOTIFICATION ON PHOTOGRAPHY

A photographer has been commissioned by Sorghum to take photographs at this event.

These photographs may be included in promotional, corporate publications and on its website. They may also be circulated in the media and made available to interested parties.

REGISTRATION DESK TIMES

(sponsored by OZ Sorghum)

Sunday	8 April	16:00 – 18:00
Monday	9 April	07:00 – 18:00
Tuesday	10 April	07:30 – 18:00
Wednesday	11 April	07:30 – 17:30
Thursday	12 April	08:00 – 16:30

SMOKING POLICY

The CCCC is a non-smoking venue. There are designated smoking areas outside the building.

WELCOME RECEPTION

(sponsored by United Sorghum Checkoff Program)

Date: Monday 9 April
Venue: Century City Conference Centre
Time: 19:00 – 20:30
Dress: Smart Casual

CONFERENCE INFORMATION

CONFERENCE MIXER

Date: Wednesday 11 April
Venue: Tigers Milk - The Square, Century City
Time: 18:30 – 20:30

SPEAKER PREVIEW ROOM

The speaker preview room is located upstairs in Room 1.

Presenters are required to visit the room to upload their presentation to the technical team who will ensure that it is available in the meeting rooms as per the programme schedule. Please visit the speaker preparation centre at least 24 hours prior to your scheduled presentation.

Speaker preview desk operating times are:

Sunday	8 April	16:00 – 18:00
Monday	9 April	07:00 – 18:00
Tuesday	10 April	07:30 – 18:00
Wednesday	11 April	07:30 – 17:30
Thursday	12 April	08:00 – 16:30

Please note that all speaker venues are fitted only with computer projection facilities. Speakers should report to the venue of their presentation 15 min before the start of the session to meet the session chairpersons, and familiarise themselves with the audio-visual equipment and venue layout.

PLEASE NOTE: Session chairs will be instructed to stop your presentation when you exceed your allocated time.

SOCIAL MEDIA

Join the conversation and share your conference experience on Twitter **@SorghumConf**. Please use the hastag **#SorgConfSA18**

POSTERS

Posters will be displayed in the foyer and in Hall D.

AIRPORT TRANSFERS

A facility will be available at the registration desk for participants to book airport transfers. The cost of a one way transfer is ZAR450.00 per person.

TECHNICAL TOURS

Technical tour departures will be from the main entrance of the CCCC at 13:00. The scheduled return is around 16:30. This is for confirmed attendees only - pre-registration is required.

VAT / TAX REFUNDS ON DEPARTURE

VAT of 15% is levied on nearly all goods and services. Foreign tourists may claim back VAT paid on goods or products (not services) that will be taken out of the country. Original tax invoices, foreign passport, plus all the items on which a refund is claimed, must be presented at the VAT Refund Administration Office or an appointed RSA Customs and Excise Official on departure from the airport, and the total VAT on these items will be refunded.

WI-FI PASSWORD

The venue has Wi-Fi, the password is: **sorghum**

CONFERENCE INFORMATION

OPTIONAL EXCURSIONS

Nestled between mountains and oceans, there is only one way to describe Cape Town: it is a beautiful city! In addition to this, Cape Town offers a wide variety of things to do to suit every taste. Whether its adventure thrills, an enlightening visit to the township, a relaxing day tasting wine or visiting Cape Point; Cape Town can definitely tempt you to stay a while…

For detailed itineraries, log on to **https://21centurysorghum.com/half-day-full-day-tours/**

Visit the Registration Desk to make a booking. Tour bookings close at 15:00, the day before the tour departure.

Please ensure that you arrive at the tour departure point at least 15 minutes prior to the departure time stipulated on your voucher.

Tour Name	Highlights	Rate per Person
Cape Town City Tour (AM)	Photographic opportunities of Cape Town City in all her splendour.	R600.00
Township Tour (AM or PM)	Visit the Townships of Khayelitsha and Langa and get to interact with the locals.	R580.00
Cape Point Tour (AM or PM)	See the Cape in all its glory and includes visits to Cape Point & Penguins at Boulders.	R720.00
Winelands Tour (AM or PM)	Take a quick tour to Stellenbosch for Wine Tasting & a Cellar Tour.	R720.00
Helicopter Flip (AM or PM)	Awesome sights of the Cape from the skies. 15minute chopper flight.	R1085.00
Aquila Private Game Reserve	A rehabilitation centre coupled with some of the Big 5 in the park.	R2580.00
Cape Point	Cape of Good Hope nature reserve, Kirstenbosch botanical gardens and a day filled with exploring the beauty of the Cape.	R990.00
Cultural Tour & Robben Island	Extend the morning township visit to include Robben Island in the afternoon). Subject to weather, ferry schedule and seat availability.	R1010.00
Winelands	Visit Paarl, Franschhoek & Stellenbosch. Enjoy wine and cheese tastings.	R900.00
Cape Point & Winelands Combo	Stellenbosch (wine and cheese tasting), V&A Waterfront, Cape Point and scenic Chapman's Peak drive.	R1250.00
Shark Cage Diving	Opportunity to view the great white shark up close whilst in a secure steel cage 1m below the surface.	R2550.00

SYMPOSIA AND SPECIAL SESSIONS

SYMPOSIUM #1

Productivity and Food Security for the Smallholder Farmer

This symposium will begin with a presentation focusing on variety improvements, agronomy, post-harvest technologies and markets for sorghum, with particular reference to smallholder farmers. It will be followed by a panel discussion on the topic of 'Smallholder Sorghum Farmers: Constraints, challenges and opportunities'.

SYMPOSIUM #2

A Driver for Change: Sorghum's Role in Global Markets

The objective of this symposium is to highlight important global trends and opportunities to increase demand and reduce supply bottlenecks of sorghum. The symposium will include an overview plenary on global trends on the production, consumption and trade of sorghum and will highlight key issues affecting trade opportunities. Three sessions, focusing on important issues affecting sorghum supply and demand will follow. These sessions will be composed of oral presentations and moderated discussions with audience participation.

SYMPOSIUM #3

Bringing Ancient Grains to the World's Dinner Tables

This symposium is jointly organised by AACC International and the International Association for Cereal Science and Technology (ICC). It will focus on developments in Ancient grains particularly understanding their nutritional and health-promoting attributes. Experts will explore the science and technology of how to process Ancient grains into mainstream food and beverage products to bring the nutritional and health-promoting benefits of these climate-friendly grain staples to consumers worldwide.

SPECIAL SESSION #1

Regional Issues, Sorghum in Southern Africa

This session presents a platform for in-depth discussions and deliberations around sorghum issues specific to the Southern African region. The talks to be delivered by expert scientists, researchers and entrepreneurs on various aspects of the sorghum value chain in sub-Saharan Africa, followed by a moderated discussion featuring a panel of experts to identify and prioritise specific actions that need to be taken to boost the sorghum value chain in in sub-Saharan Africa and the responsibilities required of various role players, stakeholders and entities within the value chain.

SPECIAL SESSION #2

(sponsored by ACIAR and ICRISAT)

Improvement of Post-Rainy Sorghum

International Crops Research Institute for the Semi-Arid Tropics (ICRISAT)

During the past almost 10 years, the International Livestock Research Institute (ILRI), and the University of Queensland, have been working together on a project to improve fodder/grain quality/productivity of post-rainy sorghum in India, funded by the Australian Centre for International Agriculture Research (ACIAR). This project was a multi-disciplinary endeavour combining physiology, breeding, crop modelling, nutritional quality and socio-economics to develop genetic material targeted to end-user demand in the target region. This project has gathered an outstanding set of research outputs that will be showcased in a special session of the 2018 Global Sorghum Conference on the afternoon of Wednesday, April 11 (Hall B). This special session will also be an opportunity to share similar experiences from other projects.

ORAL PRESENTATION PROGRAMME - MONDAY 9 APRIL

07:00 – 18:00	**Registration** *Registration Foyer*			
09:00 – 10:00	**Welcoming Addresses and Opening Plenary** **Hall A & B**			
	Chairperson: Dr. Kingstone Mashingaidze			
09:00	Call to order and welcome **Dr Kingstone Mashingaidze** *ARC, South Africa*			
09:10	Welcome on behalf of the conference organising committees **Prof. Timothy J. Dalton and Prof. John R.N. Taylor**			
09:25	Conference opening addresses: USAID Representative – **Mr. John Groarke,** *USAID South Africa Mission Director* University of Pretoria – **Prof. Stephanie Burton,** *Vice Principal Research and Postgraduate Education* DAFF Representative – **Mr. R.M. Ramasodi,** *Acting Director General – South African Department of Agriculture, Forestry and Fisheries*			
10:00	Conference Keynote Presentation O563 Prediction agriculture and the global food gap in the 21st century **Prof. Mark Cooper** *ZenRun42, USA* *sponsored by OZ Sorghum*			
11:00 – 11:30	**Tea / Coffee Break** *Exhibition Area / Hall D*			
11:30	**Plenary Presentation** **Hall A & B**			
11:30	O548 Sorghum bioactives as functional and health promoting food ingredients **Prof. Joseph Awika** *Texas A&M University, USA*			
12:15	Session closing and pertinent conference details **Dr Kingstone Mashingaidze** *ARC, South Africa*			
12:30	Official conference photograph			
12:30 – 14:00	**Lunch Break & Poster Session** *Exhibition Area / Hall D*			
14:00 – 15:30	**Symposium 1** **Productivity and Food Security for the Smallholder Farmer**	**Applied Breeding 1**	**Food Uses 1**	**Biofuel 1**
	Hall A *sponsored by OZ Sorghum*	**Hall B** *sponsored by OZ Sorghum*	**Hall C** *sponsored by United Sorghum Checkoff Program*	**Meeting Room 11**
	Chairperson: Leon du Plessis	*Chairperson: Kingstone Mashingadze / Ramasamy Perumal*	*Chairperson: Agnes Mwangwela*	*Chairperson: Scott Sattler*
14:00	O554 Sorghum improvement among smallholder farmers in Africa **Medson Chisi** *Zambia Seed Company, Zambia*	O252 Integration of new technologies to increase the rate of genetic gain in sorghum **William Rooney** *Texas A&M University, USA*	O24 Nutritional and flavour properties of sweet sorghum syrups as compared to other commercial syrup sweeteners in the USA **Gillian Eggleston** *USDA-ARS-SRRC, USA*	O201 Advances in developing sorghum hybrids for use as a feedstock for bioenergy production in Brazil **Rafael Parrella, Robert Eugene Schaffert** *Embrapa Maize and Sorghum, Brazil*

ORAL PRESENTATION PROGRAMME - MONDAY 9 APRIL

14:30	**Panel Discussion** **Facilitator: Johan van Rooyen** **Representative from SA National Seed Organisation** New sorghum seed technology and systems **Representative from ICRISAT** Sorghum R&D in semi-arid tropics **Ashok Kumar Are** **Representative from Development Bank of Southern Africa** Financing of farmers; lack of collateral **Representative from Eastern Cape Department of Agriculture** Focus on improvement of sorghum production under smallholder farmers **Wiseman Goqwana** **Representative from Grain Farmer Development Association (GFADA)** Development of black commercial sorghum farmers **Ishmael Tshiame** **Representative from South African sorghum processors** Sorghum markets and marketing opportunities **Anton Nebe**	O36 Implementation of electronic data capture in EIAR sorghum breeding program **Amare Seyoume** *EIAR, Ethiopia*	O345 Innovative way of making millet or sorghum couscous using a single screw mini-extruder for the West African market **Moustapha Moussa, Bruce R Hamaker** *Purdue University, USA*	O44 Evaluation of advanced sorghum lines for bio-ethanol production related traits **Nemera Shargie** *Agricultural Research Council of South Africa, South Africa*
14:50		O433 New technology available for all sorghum farmers globally: Imidazolinone resistant sorghum hybrids **Vicente Trucillo** *Advanta Seeds, Argentina*	O322 Effect of malted sorghum based porridge supplementation on the anthropometric and biochemical changes of infants and younger children with moderate acute malnutrition **Richard Kajjura** University of KwaZulu-Natal and Makerere University, Uganda	O197 Analysing and modelling biomass accumulation in sorghum stem and its drought regulation at tissue and organ level – genotypic variability and implications for ideotype conception **Delphine Luquet** *CIRAD, France*
15:10		O333 Diversity breeding within the Texas A&M sorghum breeding program **David Horne** *Texas A&M University, USA*	O442 A nutrition-secure childhood for 6-24 months old infants and young children in South Africa: does the viscosity of sorghum and other complementary porridges limit nutrient intake? **James Makame** *University of Pretoria, South Africa*	O296 Establishing sorghum as a novel bioenergy crop in temperate Europe: Breeding for chilling tolerant hybrids with an enhanced energy density **Steffen Windpassinger** *IFZ Research Centre for Biosystems, Land Use and Nutrition, Justus Liebig University Giessen, Germany*
15:30 – 16:00	**Tea / Coffee Break** *Exhibition Area / Hall D*			
16:00 – 17:30	**Symposium 1 Productivity and Food Security for the Smallholder and Emerging Commercial Sorghum Farmer**	**Applied Breeding 2**	**Abiotic Stress 1**	**Biofuel 2**
	Hall A *sponsored by OZ Sorghum*	**Hall B** *sponsored by OZ Sorghum*	**Hall C** *sponsored by United Sorghum Checkoff Program*	**Meeting Room 11**
	Chairperson: Leon du Plessis	*Chairperson: Bettina Haussmann*	*Chairperson: Harvinder Talwar*	*Chairperson: Ashok Kumar Are*

ORAL PRESENTATION PROGRAMME - MONDAY 9 APRIL

16:00	**Panel Discussion** **Representative from SA National Seed Organisation** New sorghum seed technology and systems **Representative from ICRISAT** Sorghum R&D in semi-arid tropics **Representative from Development Bank of Southern Africa** Financing of farmers; lack of collateral **Representative from Eastern Cape Department of Agriculture** Focus on improvement of sorghum production under smallholder farmers **Representative from Grain Farmer Development Association (GFADA)** Development of black commercial sorghum farmers **Representative from South African sorghum processors** Sorghum markets and marketing opportunities **Representative from AGRA** Supporting smallholder sorghum farmers in Africa	O33 The use of integrated technologies to improve the rate of genetic gain in the national sorghum breeding program in Ethiopia **Taye Tadesse** *EIAR, Ethiopia*	O272 Translational genomics approaches to increase sorghum yield on acid soils **Jurandir Magalhaes** *Embrapa Maize and Sorghum, Brazil*	O70 Tailoring lignin biosynthesis for emerging bioenergy and bio product applications **Scott Sattler** *USDA-ARS, USA*
16:30		O330 Farmer-participatory improvement and selection of sorghum genetic resources to multiple-stresses in the arid and semi-arid regions of Uganda **Moses Biruma** *National Semi-Arid Resources Research Institute (NASARRI)-Serere, Uganda*	O109 Using nitrate accumulation and remobilisation in sorghum leaf sheaths to identify key genes as potential novel targets to improve nitrogen use efficiency **Belinda Worland** *The University of Queensland, Australia*	O211 Advances in developing sweet sorghum cytoplasmic male sterile a and b-lines **Nádia Nardely Lacerda Durães Parrella** *Embrapa Maize and Sorghum, Brazil*
16:50 17:00		O307 Improving sorghum productivity and grain quality using marker assisted recurrent selection (MARS) in Mali **Jean-Francois Rami** *CIRAD, France*	O155 Harnessing the power of next generation sequencing (NGS) for unravelling arbuscular mycorrhiza community structure in some Sudanese sorghum genotypes **Tilal Abdelhalim** *Agricultural Research Corporation, Sudan*	O384 Research and utilization of different cytoplasmic male sterility in sweet sorghum **Zhang Fei** *Liaoning Academy of Agricultural Sciences, China*
17:10		O79 Development of photoperiod sensitive sorghum to mitigate climate risk in West-Africa **Niaba Témé** *CIRAD, Mali*	O131 Introgression of shoot fly and post flowering drought tolerance QTLs into elite post-rainy season sorghum varieties through Marker assisted Backcross Breeding (MABB) **Vijaya Kumar KV** *ICRISAT, India*	O76 Advancing sorghum hybrid breeding for smallholder farmers in West Africa: examinations of fertility restoration and combining ability in guinea-race germplasm **Moctar Kante** *University of Hohenheim, Germany*
17:30 – 18:30	**Poster Session** *Exhibition Area / Hall D*			
18:00 – 19:00	**Three minute thesis competition (3MT) for graduate students** Hall A - *sponsored by OZ Sorghum*			
18:00 – 19:00	**Three minute thesis competition (3MT) for graduate students** Hall B - *sponsored by OZ Sorghum*			
19:00 – 20:30	**Welcome Reception** Exhibition Area / Hall D - *sponsored by United Sorghum Checkoff Programme*			

ORAL PRESENTATION PROGRAMME - TUESDAY 10 APRIL

07:30 – 18:00	**Registration** *Registration Foyer*			
08.30 – 10:00	**Plenary Presentations** **Hall A & B** *sponsored by OZ Sorghum*			
08:30 – 09:15	O357 Sorghum breeding in the 21st century **Prof. David Jordan** *University of Queensland, Australia*			
09:15 – 10:00	O568 Improving productivity and increasing profitability to expand opportunities across global markets **Prof. Timothy J. Dalton** *Kansas State University & SMIL, USA*			
10:00 – 10:30	**Tea / Coffee Break** *Exhibition Area / Hall D*			
10:30 – 12:30	**Symposium 2** **A Driver for Change: Sorghum's Role in Global Markets**	**Phenomics**	**Abiotic Stress 2**	**Genetic Modification, Editing and Mutants**
	Hall A *sponsored by OZ Sorghum*	**Hall B** *sponsored by OZ Sorghum*	**Hall C** *sponsored by United Sorghum Checkoff Programme*	**Meeting Room 11**
	Chairperson: Timothy J. Dalton	*Chairperson: Mitch Tuinstra*	*Chairperson: Graeme Hammer*	*Chairperson: Hai-Chun Jing*
10:30	O279 Current and future trends in human consumption uses of Australian sorghum **Chris Blanchard** *Charles Sturt University, Australia*	O34 Consortium for advanced sorghum phenomics (CASP) **Jeff Dahlberg** *UC-ANR-KARE, USA*	O64 Proteomics as a tool in sorghum and cereal quality and abiotic stress tolerance breeding **Maryke Labuschagne** *University of the Free State, South Africa*	O62 Genomics-informed GM and gene edited sorghum for improved grain quality and plant architecture **Ian Godwin** *The University of Queensland, Australia*
10:50	Use of sorghum in global food assistance and food security programmes **Sajid Alavi** *Kansas State University, USA*	O418 Phenomics at scale: driving advances in sorghum breeding with insights from diverse sensor platforms **Nadia Shakoor** *Purdue University, USA*	O251 Integrated strategies to enhance abiotic stress resilience in US sorghum **Krishna Jagadish** *Kansas State University, USA*	O297 High throughput genetic transformation of sorghum (*Sorghum bicolor* L.) **Srinivas Belide** *CSIRO, Australia*
11:10	Grain sorghum use in functional food and beverages **Earl Roemer** *Nu Life Market, USA*	O86 Field phenotyping of sorghum breeding trials through proximal sensing technologies **Andries B. Potgieter** *The University of Queensland, Australia*	O61 Underpinning the stay-green trait in sorghum: The role of PIN genes in drought adaptation **Andrew Borrell** *The University of Queensland, Australia*	O10 Utilization of mutants and diverse germplasm in an applied sorghum breeding program **Chad Hayes** *USDA-ARS, USA*
11:30	O130 Hub-and-spoke food innovation model empowers rural women to drive markets and improve nutrition in West Africa **Bruce Hamaker** *Purdue University, USA*	O166 Utilising crop simulation models to augment high-throughput phenotyping and selection in biomass sorghums **Scott Chapman** *The University of Queensland, Australia*	O294 Enhancing dryland rainy season sorghum climate resilience and abiotic stress tolerance under Indian semi-arid tropical conditions **Vara Prasad** *Kansas State University, USA*	O404 More than defence: identifying primary roles for dhurrin using EMS mutants **Ros Gleadow** *Monash University, Australia*

ORAL PRESENTATION PROGRAMME - TUESDAY 10 APRIL

11:50	Commercialising non-alcoholic sorghum beverages from age-old traditional recipes **Grahame Osler** *Denmar Estates, South Africa*	O315 Validation and implementation of unmanned aerial systems in a sorghum breeding program **Nicholas Pugh** *Texas A&M University, USA*	O212 Agronomic factors affecting dryland grain sorghum maturity and yield in the Western Great Plains, USA **Sally Jones** *Colorado State University, USA*	O318 Sequence-Indexed Mutants for Functional Genomics and Crop Improvement of Sorghum **Mitchell Tuinstra** *Purdue University, USA*
12:10	Panel Discussion	O4 Disruptive chemical fingerprinting methodologies for precision sorghum agriculture **Sophie Minori Uchimiya** *USDA-ARS-SRRC, USA*	O157 Shrub intercropping in the sahel: a novel resource for bioirrigation and beneficial microorganisms to resist drought and optimize yields **Richard Dick** *Ohio State University, USA*	O237 The alkali spreading phenotype in sorghum: genes, alleles, starch gelatinization temperature, and starch structure **Stefanie Griebel** *Purdue University, USA*
12:30 – 14:00	**Lunch Break & Poster Session** *Exhibition Area / Hall D*			
14:00 – 15:30	**Symposium 2** **A Driver for Change: Sorghum's Role in Global Markets**	**Genomics 1**	**Abiotic Stress 3**	**Food Uses 2**
	Hall A *sponsored by OZ Sorghum*	**Hall B** *sponsored by OZ Sorghum*	**Hall C** *sponsored by United Sorghum Checkoff Programme*	**Meeting Room 11**
	Chairperson: Timothy J. Dalton	*Chairperson: Ian Godwin*	*Chairperson: Vara Prasad*	*Chairperson: Lewis Ezeogu*
14:00	O304 Sorghum: A potential climate smart and resilient feed ingredient in broiler diets in Malawi **Andrew Safalaoh** *Lilongwe University of Agriculture and Natural Resources, Malawi*	O351 Exploring the sorghum pan genome **Todd Mockler** *Donald Danforth Institute, USA*	O74 Genome wide association study for photosynthesis and chlorophyll fluorescence traits in sorghum under cold and drought stress **Diego Ortiz** *INTA, Argentina*	O147 Functional properties and sensory acceptance of extruded sorghum genotypes drink powders **Davy William Hidalgo Chávez** *Embrapa Food Technology, Brazil*
14:30	O249 Are millet and sorghum good alternatives to maize in layer's feeds in Niger, West Africa **Salissou Issa** *INRAN, Niger*	O551 Sweet sorghum genomics and molecular breeding in China **Hai-Chun Jing** *Institute of Botany, Chinese Academy of Sciences, China*	O366 Cold stress resilience at early seedling in sorghum determined by integrating aerial imagery and destructive phenotyping **Anuj Chiluwal** *Kansas State University, USA*	O274 Sorghum as a pilot crop to rethink bioeconomy towards an inclusive multi-knowledge sustainable model **Sophia Alami** *CIRAD, France*
14:50	O382 Opportunities and challenges in using sorghum forage to improve ruminant livestock productivity **Adegbola Adesogan** *University of Florida, USA*	O343 Improving sorghum adaptation in West Africa with genomics-enabled breeding **Geoffrey Morris** *Kansas State University, USA*	O48 Early planting and cold resiliency in sorghum: From seed to seed **Yves Emendack** *USDA-ARS, USA*	O208 Comparative functional properties of kafirin and zein visco-elastic "doughs" formed by simple coacervation at different acetic acid and protein concentrations **Segun Oguntoyinbo** *University of Pretoria, South Africa*

ORAL PRESENTATION PROGRAMME - TUESDAY 10 APRIL

15:10	**Panel Discussion**	O437 Sorghum mini core collection: a source of multi-trait variation to meet challenge of climate change and for enhanced genetic gains **Hari Upadhyaya** *ICRISAT, India*	O423 Analysis of heterosis and combining ability over environments for cold tolerance in sorghum **Ramsamy Perumal** *Kansas State University, USA*	O288 An industrial perspective of breeding in sorghum- The need of the hour **Vilas Tonapi** *ICAR-Indian Institute of Millets Research, India*
15:30 – 16:00	**Tea / Coffee Break** *Exhibition Area / Hall D*			
16:00 – 17:00	**Three minute thesis competition (3MT) for graduate students** **Meeting Room 8 + 9** *sponsored by OZ Sorghum*			
16:00 – 17:30	**Symposium 2** **A Driver for Change: Sorghum's Role in Global Markets**	**Genomics 2**	**Agronomy and Systems**	**Food Uses 3**
	Hall A *sponsored by OZ Sorghum*	**Hall B** *sponsored by OZ Sorghum*	**Hall C** *sponsored by United Sorghum Checkoff Programme*	**Meeting Room 11**
	Chairperson: Timothy J. Dalton	*Chairperson: Jurandir Magalhaes*	*Chairperson: Daniel Rodriguez*	*Chairperson: Gyebi Duodu*
16:00	O255 Strengthening sorghum seed systems in Sub-Saharan Africa: Cases of Kenya and Mali **Fred Rattunde** *TWECA Consulting, Germany* **Eva Weltzein** *Seeds and Diversity, Germany*	O50 Mining the sorghum QTL landscape for complex trait dissection **Emma Mace** *University of Queensland, Australia*	O101 Use of agroecological techniques by smallholder farmers to improve sorghum productivity in Burkina Faso **Georges Zomboudre** *Institute of Environment and Agricultural Research, Burkina Faso*	O53 Comparison of bioactive phytochemical compositions, antioxidant capacity and glucose release inhibitory effects of white sorghums and several important grains **Glen Fox** *Queensland Alliance for Agriculture & Food Innovation, Australia*
16:30	Global common practices uniting the seed industry **Jim Gaffney** *Dow DuPont Pioneer, USA*	O126 Ethiopian sorghum (*Sorghum bicolor* (L.) Moench) genetic diversity and genome-wide association study (gwas) for agriculturally important traits **Habte Nida Chikssa** *Purdue University, Ethiopia*	O338 Genotype interaction with farmers' management practices contributes to the resilience of sorghum-based agrosystems in Lake Chad basin: experimental evidences from multilocal participatory trials in flooded recession sorghum crop from northern Cameroon **Abdoul-Aziz Saidou** *Université Dan Dicko Dankoulodo de Maradi, Niger*	O221 Doubling grain Fe and Zn concentration in sorghum to combat the micronutrient malnutrition in predominantly sorghum eating populations **Ashok Kumar Are** *ICRISAT, India*
16:50	Sorghum seed, cultivar development, supply and farmers awareness: Sudan Case **Zubeir Ibrahim** *Nile Sun Seeds, Sudan*	O57 The genetic architecture of seed size in *Sorghum bicolour* (L.) Moench **Yongfu Tao** *The University of Queensland, Australia*	O120 The advantage of fertilization strategies based on climate information to enhance sorghum production in Sahelian conditions **Myriam Adam / Komla Ganyo** *CIRAD, France*	O362 Tailored bioprocessing to enhance the quality of whole grain millet and sorghum products **Ndegwa Maina** *University of Helsinki, Finland*

ORAL PRESENTATION PROGRAMME - TUESDAY 10 APRIL

17:10	Perspectives from a farmers' cooperative in Niger **Ali Aminou** *Fuma Gaskiya, Niger*	O302 Recombination bin map(s) in *Sorghum bicolor* using multiple Recombinant Inbred Line populations **Santosh Deshpande** *ICRISAT, India*	O28 Farmers' perceptions of sorghum production constraints and Striga control practices in semi-arid areas of Tanzania **Emmanuel Justine Mrema** *Tumbi Agriculture Research Institute, Tanzania*	O580 From innovation to commercialisation – sorghum flaked breakfast cereal **Stuart Johnson** *Curtin University, Australia*
17:30	Sorghum European Perspectives: Building an efficient organisation: Innovation – collect – trading – processors – end users **Frederic Guedj** *Euralis Semences, France*			
17:40	Panel Discussion			
17:45 – 18:45	**Student Meet and Greet Meeting Room 8 + 9**			
18:45 – 19:00	**South African National Research Foundation – Science for Society Lecture and Panel Discussion - Hall B** *NB the audience must be seated by 18:50*			

ORAL PRESENTATION PROGRAMME - WEDNESDAY 11 APRIL

07:30 – 17:30	**Registration** *Registration Foyer*		
08.30 – 10:00	**Plenary Presentations** **Hall A & B** *sponsored by OZ Sorghum*		
08:30 – 09:15	O565 Can sorghum meet the bread needs of 21st century consumers? **Prof. John R.N. Taylor** *University of Pretoria, South Africa*		
09:15 – 10:00	O355 Tackling key issues for smallholder farmers: The farmer research network approach **Prof. Bettina Haussman** *University of Hohenheim, Germany*		
10:00 – 10:30	**Tea / Coffee Break** *Exhibition Area / Hall D*		
10:30 – 12:30	**Genomic Prediction and Statistics**	**Food Uses 4**	**Food Security 1**
	Hall A *sponsored by OZ Sorghum*	**Hall B** *sponsored by OZ Sorghum*	**Hall C** *sponsored by United Sorghum Checkoff Programme*
	Chairperson: Mark Cooper	*Chairperson: Mathoto Thaoge*	*Chairperson: Eva Weltzien*
10:30	O278 Increasing the rate of genetic gain through the use of genomic selection in a low resource breeding program **Gael Pressoir** *Chibas - Quisqueya University, Haiti*	O103 Bringing image analysis into the lab: imaging Ethiopian injera for quality **Glen Fox** *The University of Queensland, Australia*	O344 Improving productivity of sorghum using principles of agroecological intensification in West Africa **P.V. Vara Prasad** *Kansas State University, USA*
10:50	O73 Genomic prediction for grain yield in sorghum **Colleen Hunt** *The University of Queensland, Australia*	O47 Extrusion of sorghum – cowpea based high protein gluten free pasta: process and product characteristics **Kalep Filli** *Research Institutes of Sweden, Federal University of Technology Yola, Sweden*	O365 Participatory gender analysis of sorghum production in major sorghum growing areas of Ethiopia **Yeshi Chiche** *Kansas State University, USA*
11:10	O151 Use of kinship matrices blending pedigree and genomic-based relatedness for prediction of parental line breeding values in sorghum **Julio G. Velazco** *Wageningen University and Research, Netherlands*	O309 Comparison of waxy and non-waxy sorghum (*Sorghum bicolor*) with high protein digestibility traits and teff (*Eragrostis tef*) in Ethiopian injera making performance **Kebede Abegaz** *Hawassa University, Ethiopia*	O96 Securing food and nutrition security of households in western Kenya through agro-ecological intensification with suitable sorghum-legume production system **Beatrice Were** *Rongo University, Kenya*
11:30	O379 Building a genomic selection breeding system for salinity tolerant biomass sorghum **Hiroyoshi Iwata** *The University of Tokyo, Japan*	O123 Relationship between waxy (high amylopectin) and high protein digestibility (HD) traits in sorghum and dough-based (injera and biscuit) product quality **Abadi Gebre Mezgebe** *University of Pretoria; Hawassa University, Ethiopia*	O336 Integrated approach for enhancing productivity and nutrition for smallholder sorghum producers **Tesfaye Tesso** *Kansas State University, USA*
11:50	O189 Advanced methods of statistical analysis for multi-environment trial data enhanced genetic gain in the Ethiopian sorghum research breeding program **Yohannes Fekadu** *EIAR, Ethiopia*	O11 Grain and flour quality of Ethiopian sorghum in respect of their injera making potential **Senayit Yetneberk** *EIAR, Ethiopia*	O148 Bio fortified sorghum technical development and optimization **Ping Che, Jim Gaffney** *Dow DuPont Pioneer, USA*

ORAL PRESENTATION PROGRAMME - WEDNESDAY 11 APRIL

12:10	O132 Evaluation of grain yield stability and adaptation of sorghum hybrids in the semi-arid areas of Kenya based on AMMI and GGE models **Patrick Sheunda** *ICRISAT-Nairobi, Kenya*	O181 Effects of roasting time of sorghum grains on the phenolic concentration, antioxidant activity and browning index of their flours **Olalekan Adebowale** *University of Pretoria, South Africa*	O337 Constraints and opportunities for sorghum upscaling in Zimbabwe **Conrad Murendo and Kizito Mazvimavi** *ICRISAT, Zimbabwe*
12:30 – 14:00	**Lunch Break & Poster Session** *Exhibition Area / Hall D*		
13:00	**Technical Tour Departures** **Departure from Century City Conference City Main Entrance**		
14:00	**Special Regional Interest Session: Sorghum in sub-Saharan Africa**	**Special Session: International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), Special Session on Improvement of Post-Rainy Sorghum**	**Exhibitor Session**
	Hall A *sponsored by OZ Sorghum*	**Hall B** *sponsored by OZ Sorghum*	**Hall C**
	Chairperson: Gyebi Duodu	*Chairpersons: Vincent Vadez and Andy Borrell*	*Chairperson: Wiana Louw*
14:00	*O553* *Sorghum – Supply chain lessons learnt from field to sip* **Nikki Else** *ABInBev, South Africa*	Introduction and overview of the session and ACIAR project **Vincent Vadez** *IRD, France*	Opportunities for extrusion in feeding Africa **LJ Grobler** *CFAM Technologies, South Africa*
14:10		O573 An overview of the stay-green trait in sorghum: Physiological and molecular aspects **Andrew Borrell** *The University of Queensland, Australia*	World's fastest NIR analysis of sorghum and sorghum products **Malcolm Holman** *AE Solutions, South Africa*
14:20	O205 Supporting smallholder farmers to participate in commercial sorghum production and marketing through the "aggregator model" **Nehemiah Mugutha** *Africa Harvest Biotechnology Foundation International, Kenya*		
14:40	O550 Sorghum – on the road to super-graindom **Fru Nche** *Tiger Brands, South Africa*	O574 Outputs from the physiological studies on sorghum stress adaptation, specific to conditions in India **Vincent Vadez** *IRD, France*	Monitoring natural toxins and pesticide residue in the supply chain: Technologies and tools that assist in complying to current regulations **Willem Joubert** *Microsep, South Africa*
15:00	O516 Potential application of extrusion for the processing of sorghum foods in South Africa **LJ Grobler** *CFAM Technologies, South Africa*	O575 Modelling of the GxExM interactions to help maximize productivity and quality to inform breeding **Jana Kholova** *ICRISAT, India*	Benefits and importance of NIR technology in grain quality analysis **Michael Vinther Moller** *Foss Analytics, Denmark*
15:20 – 16:00	**Tea Break** *Exhibition Area / Hall D*		
16:00	O20 Healthy SMA2RT snacks from climate-smart sorghum **Riette de Kock** *University of Pretoria, South Africa*	O576 Quality aspects of the stay-green technology: QTL influence on quality traits **Michael Blummel**	
16:20	O291 Visualising big data: Sorghum in social media **Victoria Jideani** *Cape Peninsula University of Technology, South Africa*	O577 Ex-ante assessment and refinement of the ex-ante study showing the importance of clearly defining the breeding product **Jana Kholova** *ICRISAT, India*	

ORAL PRESENTATION PROGRAMME - WEDNESDAY 11 APRIL

16:40	Panel Discussion	O578 Progress with BCNAM population breeding **David Jordan** *The University of Queensland, Australia*	
17:00		Integrating markers into breeding pipelines **Jean-Francois Rami** *CIRAD, France*	
17:20		Introgression work/breeding, multi-environment testing /comparison, markers usage during introgression **Santosh Deshpande / R Madhusudhana** *ICRISAT, India*	
17:40		Multi-location evaluation of stay-green introgressions **Harvinder Singh Talwar** *ICAR-IIMR, India*	
18:00		The Malian experience using MARS/ BCNAM for breeding improved sorghum cultivars **Niaba Teme / Jean-Francois Rami** *CIRAD, France*	
18:20		Closing Remarks **Vincent Vadez** *IRD/ICRISAT, France* **Eric Hunter** *ACIAR,* **Vilas Tonapi,** *ICAR-IIMR, India*	
18:30 – 20:30	**Conference Mixer** **Tigers Milk – The Square, Century City**		

** Kindly note that this programme is subject to change*

ORAL PRESENTATION PROGRAMME - THURSDAY 12 APRIL

08:00 – 16:30	**Registration** *Registration Foyer*			
08:30 – 10:00	**Symposium 3 Bringing Ancient Grains to the World's Dinner Tables** *Hosted by AACC International and ICC*	**Physiology and Crop Modelling**	**Biotic Stress 1**	**Economics 1**
	Hall A *sponsored by OZ Sorghum*	**Hall B** *sponsored by OZ Sorghum*	**Hall C** *sponsored by United Sorghum Checkoff Programme*	**Meeting Room 11**
	Chairpersons: Robert Cracknell, AACCI and Michaela Pichler, ICC	*Chairperson: Delphine Luquet*	*Chairperson: Maryke Labuschagne*	*Chairperson: Kizito Mazvimavi*
08:30	Welcome and setting the scene **John Taylor** *University of Pretoria, South Africa*	O89 Designing sorghum crops for adaptation to the drought and heat risks anticipated in future climates **Graeme Hammer** *The University of Queensland, Australia*	O192 The need to go beyond the pathogen in development of effective disease control strategies for sorghum **Neal McLaren** *University of the Free State, South Africa*	O295 Sorghum current role in food security **Hester Vermeulen** *University of Pretoria, South Africa*
08:35	O464 AACC International – a professional society for grain scientists for over 100 years **Robert Cracknell** *AACC International, USA*			
08:45	O448 Slow digestion property of African traditional millet and sorghum foods **Bruce Hamaker** *Purdue University, USA*			
09:00		O179 Sorghum modelling in West Africa: data needs and recent applications to set priorities for guiding agronomic and genetic interventions **Myriam Adam, Madina Diancoumba** *CIRAD, Burkina Faso*	O328 Broad spectrum and complete fungal resistance in sorghum conferred by an intracellular immune receptor **Tesfaye Mengiste** *Purdue University, USA*	O339 Urban consumer's valuation of cereal food quality attributes? evidences from Niger **Tebila Nakelse** *Kansas State University, USA*
09:05	O240 Health-promoting attributes of African pulses **Gyebi Duodu** *University of Pretoria, South Africa*			
09:20		O107 Identifying sorghum plant types adapted to moisture stress areas of ethiopia- a systems modelling approach **Alemu Tirfessa** *The University of Queensland, Australia*	O95 Identification of sorghum grain mold resistance loci through genome wide association mapping **Habte Nida** *Purdue University, USA*	O323 Yield response function and profitability analysis of sorghum and maize in West Africa **Pacem Kotchofa** *Kansas State University, USA*
09:25	O137 Improving glycemic control with foxtail millet foods and how to get them in the marketplace **Qun Shen** *China Agricultural University, China*			
09:40		O226 Simulation of post rainy sorghum yield response to various levels of nitrogen application in India **Swarna Ronanki** *ICAR- Indian Institute of Millets Research, India*	O326 Identification and characterization of host-resistance genes and mechanisms to sorghum anthracnose disease **Demeke Bayable** *Purdue University, USA*	O341 Analysis of sorghum value chain in Kano State, Nigeria **Odunlade Adefemi** *University of Ilorin, Nigeria*
09:45	O450 The power of whole grains – new possibilities for ancient grains? **Kati Katina** *University of Helsinki, Finland*			
10:00 – 10:30	**Tea Break** *Exhibition Area / Hall D*			

ORAL PRESENTATION PROGRAMME - THURSDAY 12 APRIL

10:30 – 12:30	**Symposium 3 Bringing Ancient Grains to the World's Dinner Tables** *Hosted by AACC International and ICC*	**Breeding Methods and Agronomy**	**Biotic Stress 2**	**Economics 2**
	Hall A *sponsored by OZ Sorghum*	**Hall B** *sponsored by OZ Sorghum*	**Hall C** *sponsored by United Sorghum Checkoff Programme*	**Meeting Room 11**
	Chairpersons: Robert Cracknell, AACCI and Michaela Pichler, ICC	*Chairperson: William Rooney*	*Chairperson: Neal McLaren*	*Chairperson: Medson Chisi*
10.30	O552 Empowering smallholder farmers and rural communities by linking agriculture, nutrition and entrepreneurship around sorghum and millet value chains in the Semi-arid Tropics **Saikat Datta Mazumdar** *ICRISAT, India*	O175 What is more important: effect of climate change or effect of improved practices on sorghum yield under current climate in semi-arid regions of West Africa? **Myriam Adam** *CIRAD, France*	O348 Genetic studies of sugarcane aphid resistance in sorghum and significance of host plant resistance in aphid management **Yinghua Huang** *USDA-ARS, USA*	O91 Determinants of sorghum producing households' expenditure and implications for food security in Western Kenya and Uganda **Philip Nyangweso** *Rongo University, Kenya*
10:50	O549 Challenges in producing marketable products from lupin and how they were overcome **Stuart Johnson** *Curtin University, Australia*	O58 Predicting optimum crop designs (GxM) using seasonal climate forecasts **Daniel Rodriguez** *The University of Queensland, Australia*	O188 Genome wide association analysis of Striga hermonthica resistance in a sorghum MAGIC population **Megan Fenton** *Purdue University, USA*	O183 The adoption of improved and hybrid sorghum seed and farm family livelihoods in Mali **Amidou Assima** *Michigan State University, USA*
11:10	Overview of the situation in Southern Africa on ancient grains from a breeding perspective **Maryke Labuschagne** *University of the Free State, South Africa*	O347 Integrated translational genomics and molecular breeding: key to accelerating genetic gain in sorghum **Gloria Burow** *PSGD, CSRL, USDA-ARS, USA*	O199 Sorghum grain induced disruption of gut amylases in lesser grain weevil Sitophilus oryzae (L) **VA Tonapi** *ICAR - Indian Institute of Millets Research, India*	O238 Haiti - Challenges of sustainable sourcing **Luc Hilhorst, Richard Phillips** *Smallholder Alliance for Sorghum in Haiti, Haiti*
11.30	O234 Modern ready-to-eat products from pseudocereals **Regine Schoenlechner** *BOKU University, Austria*	O386 High resolution mass spectrometry based method (MALDI imaging) for in situ visualization of the dhurrin biosynthesis and turnover during sorghum germination process **Lucia Montini** *University of Copenhagen, Denmark*	O564 Enhancing resilience in the face of biotic and abiotic challenges **Gebisa Ejeta** *Purdue University, USA*	O232 Post-harvest loss analysis and recommended reduction solutions along the sorghum value chains in Burkina Faso and Community of Practice on food loss reduction for global knowledge sharing **Francesca Gianfelici, Mireille Totobesola-Barbier** *United Nations, Italy*
11:50	O461 A food industry perspective: Challenges and opportunities of using a new perennial grain **Laura Hansen** *AACC International and General Foods, USA*	O459 Sorghum Conversion and Introgression Programs: Two strategies for exploiting unadapted germplasm for crop improvement **William Rooney** *Texas A&M University, USA*	O38 Influence of cowpea and soybean intercropping pattern in sorghum on Striga (Striga hermonthica) infestation and system productivity at Mechara, Eastern Ethiopia **JJ Sharma, Taye Tessema** *Wollega University, Ethiopia*	O247 Increasing the productivity of sorghum farmers in Sudan Savannah of Nigerian: Effect of access to improved technology and market **Hakeem Ayinde Ajeigbe** *ICRISAT, Nigeria*

ORAL PRESENTATION PROGRAMME - THURSDAY 12 APRIL

12:10	O59 Sharpening sorghum's competitiveness as a high quality brewing grain **John Taylor** *University of Pretoria, South Africa*	O332 Genome-wide association study on resistance to multiple diseases in Sorghum **Damaris Achieng Odeny** *ICRISAT, Kenya*	O104 Sorghum performance under high-temperature stress and stalk rot disease pressure **Ramasamy Perumal** *Kansas State University, USA*	
12:30 – 13:30	**Lunch Break & Poster Session** *Exhibition Area / Hall D*			
13:30 – 15:30	**Symposium 3 Bringing Ancient Grains to the World's Dinner Tables** *Hosted by AACC International and ICC*	**Abiotic Stress 4**	**Bio-Products**	**Research Systems Extension**
	Hall A *sponsored by OZ Sorghum*	**Hall B** *sponsored by OZ Sorghum*	**Hall C** *sponsored by United Sorghum Checkoff Programme*	**Meeting Room 11**
	Chairpersons: Robert Cracknell, AACCI and Michaela Pichler, ICC	*Chairperson: Ros Gleadow*	*Chairperson: Stuart Johnson*	*Chairperson: Niaba Teme*
13:30	O370 The ancient wheats emmer and einkorn and their utilization in modern food products **Hamit Koksel** *ICC and Hacettepe University, Turkey*	O207 From genes to yield: A cross institution and discipline initiative to improve sorghum productivity and quality in current and future climates **Vincent Vadez** *IRD, France*	O68 Kafirin bioplastics – progress over the last 10 years **Janet Taylor** *University of Pretoria, South Africa*	O532 Enhancing sorghum research and development system in Africa through collaboration: The case of Ethiopia **Firew Mekbib** *Haramaya University, Ethiopia*
13:50	O468 Non-traditional grains in precooked pasta using extrusion-physico-chemical properties and resistant starch **Sajid Alavi** *Kansas State University, USA*	O256 Genetic variations for key adaptive physiological traits associated with drought tolerance in post-rainy sorghum **Harvinder Talwar** *Indian Institute of Millets Research, India*	O360 Plant growth-promoting potentials of sweet sorghum bagasse compost **Subramaniam Gopalakrishnan** *ICRISAT, India*	O84 Development and promotion of multiple stress tolerant sorghum varieties through farmers research networks in western Kenya **Samuel Gudu** *Rongo University, Kenya*
14:00				
14:10		O51 GWAS in a sorghum NAM population, a diversity panel and an elite breeding population identifies common genomic regions associated with nodal root angle **Emma Mace** *The University of Queensland, Australia*	O23 On the development road to a new large-scale sweet sorghum industry in the USA **Gillian Eggleston** *USDA-ARS-SRRC, USA*	O306 Participatory selection: sharing knowledge between scientists and farmers to develop novel sorghum varieties adapted to the diversity of growers' constraints, needs and to improve their dissemination in Burkina Faso **Clarisse Pulcherie Kondombo Barro** *INERA, Burkina Faso*
14:20	O349 ICC and the way how to increase whole grain and ancient grain intake **Michaela Pichler** *ICC, Austria*			
14:30		O193 Research for impact at ICRISAT; Deciphering the physiological processes influencing sorghum production quantity and quality and tech-advances enabling in-situ screening for crop nutritional qualities **Jana Kholova** *ICRISAT, India*	O305 Advanced imaging methods to optimize extraction of natural red colorant from dye sorghum **Sophia Alami** *CIRAD France*	O92 Participatory evaluation of sorghum/legume intercrop arrangements and spacing as influenced by socio-economic factors in the semi-arid region of Eastern, Kenya **Clement Kamau** *Rongo University, Kenya*
14:40	Panel Discussion Chairpersons: **John Taylor and Joseph Awika**			

ORAL PRESENTATION PROGRAMME - THURSDAY 12 APRIL

14:50	Summing up and conclusions **Joseph Awika** *Texas A&M University, USA*	O105 Genotypic variation in whole-plant transpiration efficiency in sorghum aligns with variation in stomatal conductance **Erik van Oosterom** *The University of Queendsland, Australia*	O100 Pre-isolation treatment of red sorghum grain using hydrogen peroxide and its influence on isolated sorghum starch colour and functionality **Nana Baah Pepra-Ameyaw** *Michigan State University, USA*	O335 Farmers contribution in improved sorghum development and diffusion in West Africa: Case of hybrids in Mali **Baloua Nebie** *ICRISAT, Mali*
15:10		O63 Combined linkage map analysis and GWAS on F2 recombinants reveals candidate genes involved in shoot fly resistance and stay-green mechanism in sorghum chromosome SBI-10L **KNS Usha Kiranmayee** *ICRISAT, India*	O572 Development of stable biopolymer blends of sorghum kafirin protein and pregelatinised starch and their functional properties and potential applications **Naushad Emmambux** *University of Pretoria, South Africa*	O334 Use of farm level demonstration plots and food test fairs to drive sorghum production and utilization in Zimbabwe **Kizito Mazvimavi** *ICRISAT, Zimbawe*
15:30 – 16:00	**Tea Break** *Exhibition Area / Hall D*			
16:00 – 17:00	**Closing Keynote, Awards and Conference Closing**			
16:00 – 16:45	O581 Advancing science, technology, and innovation in sorghum, millets, and other traditional crops through transdisciplinary research approaches to transform African Agriculture **Prof. Gebisa Ejeta** *Purdue University, USA*			
16:45 – 17:00	Closing address			

** Kindly note that this programme is subject to change*

POSTER PRESENTATION PROGRAMME

Poster Session: Monday 9 April 12:30 - 14:00 and 17:30 - 18:30, Tuesday 10 April 12:30 - 14:00

Posters will be displayed in the Foyer / Exhibition Area and in Hall D.
Poster presenters must put their posters up on the morning of their poster session and take them down at the end of the session. Kindly note that formal presentations are not required for poster presentations. Please be present at your poster during the poster sessions if possible.

Abstract Submission ID	Poster Board No.	Title	Authors
Agronomy			
P154	P1	Arbuscular mycorrhizal dependency and phosphorus responsiveness of released, landraces and wild Sudanese sorghum genotypes	Tilal Abdelhalim, Ramia Jannoura, Rainer Joergensen
P168	P2	Effects of silicification on the cell wall composition and digestibility by animals; a study in sorghum (*Sorghum bicolor*)	Betewulign Adem, Rivka Elbaum, Oshry Markovich, Sameer Mabjesh
P200	P3	Exploring niches of medium-season grain sorghums in dryland areas of Nigeria- Coping strategies with impacts of climate variability	Folorunso Akinseye, Hakeem Ajeigbe, Ignatius Angarawai, Ramadjita Tabo, Kunihya Ayuba, Abdulazeez Tukur
P474	P4	Use of sensor based measurements for optimizing nitrogen recommendation for dryland grain sorghum production in the central great plains, USA	Sally Jones, Wilma Trujillo, Jerry Johnson
P490	P5	Emergence rates are associated with elongation of mesocotyl and coleoptiles in sorghum	Bingxu Chen, Nai Wang, Ning Xu, Wenshu Yao, Miao Yu, Guishan Shi
P514	P6	Aphix™ sugarcane aphid tolerance in North America	Benjamin Beyer, Brad Holzworth, Zachary Eder, Andres Encinas, Ben Adams, Barry Lubbers, Raghu Sripathi
P518	P7	Severity of fumonisin contamination in sorghum, compared to maize and millet in West Africa	John Rheeder, Gordon Shephard, Liana Van der Westhuizen, Hester Vismer, Ranajit Bandyopadhyay
P522	P8	Yield response to fertilization and management technology in grain sorghum (*Sorghum bicolor* L. Moench)	Lisandro Guillaumet, Pedro Pardo, Vicente Trucillo
Biomass, Biofuel and Bioproducts			
P222	P9	Enhancing the biomass, sugar yields and harvest window for commercializing sorghum as a sustainable feedstock for sugar based and ligno-cellulosic biofuel production	Ashok Kumar Are, Umakanth Akula
P374	P10	The functional properties of kafirin and quality protein maize (QPM) zein gels and films.	Julia T Baloyi, Janet Taylor, John R.N Taylor
P392	P11	Identification of genomic regions associated with biofuel traits in sorghum minicore collection	Lavanya Rayaprolu, Sivasubramani S, Manohar Rao D, Santosh P Deshpande, Ashok Kumar Are
P396	P12	Development of brown midrib (bmr) 6 and 12 mutant hybrid parents through marker assisted backcrossing (MABC) in sorghum	Subhasini Reddy Vangala, Ashok Kumar Are, Santosh P Deshpande, Belum V S Reddy, Manohar Rao D
P398	P13	Commercialization of sweet sorghum as complimentary feedstock in different states of India	Anil Kunapareddy, Jaya Kumar Jaganathan, Sunita Gorthy, Umakanth Akula, Uma Rao A, J P Singh, Ashok Kumar Are
P410	P14	Forage sorghum: a good crop for forage and fuel production in the northern Great Plains in the USA	Marisol Berti, Swarup Podder, Dulan Samarappuli, Alan Peterson
P436	P15	Characterization of sweet stem sorghum genotypes for bio-ethanol production	Precious Mangena, Hussein Shimelis, Mark Laing
P494	P16	New sorghum germplasm for high stalk sugar content and biomass yield	Vetriventhan Mani, Hari D Upadhyaya

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Abstract Submission ID	Poster Board No.	Title	Authors
P546	P17	Grain sorghum for ethanol production in the state of Mato Grosso, Brazil	Sandro Sponchiado, Flavio Dessaune Tardin, Robert Eugene Schaffert, Aisy Botega Baldoni Tardin
P558	P18	Quality of high biomass sorghum pellet	Maria Lúcia Ferreira Simeon, Rafael Augusto da Costa Parrella, Robert Eugene Schaffert
Breeding			
P22	P19	Evaluation of selected ethiopian sorghum [*Sorghum bicolor* (L.) Moench] genotypes for resistance against anthracnose	Kebede Dessalegn, Firew Mekbib, Tesfaye Mengiste
P32	P20	Epigenetic control of drought response in sorghum (EPICON)	Jeff Dahlberg, Peggy Lemaux, Devin Coleman-Derr, Robert Hutmacher, Christer Jansson, Ronan O'Malley, Elizabeth Purdom, John Taylor, Axel Visel, John Vogel, Joy Hollingsworth, Julie Sievert
P42	P21	Assessment of farmers' perceptions of production constraints and trait preferences of sorghum in Western Ethiopia: Implications for anthracnose resistance breeding	Girma Mengistu, Shimelis Hussein, Mark Laing, Dagnachew Lule
P52	P22	Chemical and sensorial evaluation of sorghum cultivars for making good injera	Glen Fox, Yohannes Nugusu, Habte Nida, Taye Tedessa, Emma Mace, David Jordan
P66	P23	Genetic gain and variability in yield and yield associated traits in sorghum [*Sorghum bicolor* (L.) Moench] varieties released and advanced for dry lowlands of Ethiopia)	Taye Tadesse, Tsegaye Geberemariam, Hussien Mohamed, Amare Seyoum, Adane Gebreyohannes, Amare Nega
P72	P24	Field emission - scanning electron microscopy (FE-SEM) as a method of screening sorghum lines with highly digestible protein mutation	Tadesse Teferra, Joseph Awika, Bill Rooney
P78	P25	Phenotyping sorghum landraces under drought stress and tolerance related traits selection for optimizing grains yield in Sahelian zones	Hamidou Falalou, Mamadou Aissata, Bacharou Falke Achirou, Maina Assane Fanna, Weltzien Rattunde Eva, Morris Geoffrey
P82	P26	Evaluation of ethiopian sorghum [*Sorghum bicolor* (L.) Moench] land races and wild relatives for pre-attachment resistance mechanisms to striga [Striga hermonthica (DEL.)]	Tokuma Guta, Firew Mekbib, Rich Patrick, Gebisa Ejeta
P94	P27	The interplay of oxidative stress and redox buffering in sorghum after macrophomina phaseolina infection	Christopher Little, Ananda Bandara, Afsana Noor
P108	P28	Evaluation for fodder quality in sorghum RIL population and germplasm reference set in contrasting water regimes	Vinutha K S, Prasad KVSV, Ravi Devulapalli, Anilkumar Vemula, Abhishek Rathore, Michael Blümmel, Santosh P Deshpande
P114	P29	Genomic dissection of anthracnose resistant response in *Sorghum bicolor* (L.) Moench	Hugo Cuevas, Clara Cruet, Louis Prom, Joseph Knoll, Lauren Stutts, Wilfred Vermerris
P124	P30	Adaptation and stability of improved sorghum varieties in East Africa – a case for regional variety release	Eric Manyasa, Henry Ojulong, Mary Mgonja, Elias Letayo, Patrick Sheunda, Joseph Kibuka
P136	P31	Evaluation of effective gametocides for selective induction of male sterility in sorghum	Amelework Assefa, Mark Laing, Hussein Shimelis
P144	P32	Identification of SNPs and candidate genes for shoot fly, atherigona soccata resistance in sorghum (*Sorghum bicolor*) using genome-wide association studies (GWAS)	Satyanarayana Taddi, Sivasubramani S, Polavarapu B Kavi Kishor, Hari C Sharma, Santosh P Deshpande
P164	P33	Gene expression networks underlying internode development: How different genotypes build their biomass composition and respond to pre-flowering water deficit	Noemi Trabanco, Angélique Berger, Emeline Ricciuti, Lauriane Hennet, Lisa Perrier, Denis Bastianelli, Laurent Bonnal, Anne Clément-Vidal, Sylvie Jaffuel, Delphine Luquet, Nancy Terrier, Laura Rossini, David Pot, Denis Fabre

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Abstract Submission ID	Poster Board No.	Title	Authors
P172	P34	Caractéristique agro-morphologique de trois populations F4 de lignées recombinantes de sorgho pour la tolérance aux moisissures des grains au Sénégal	Gbedie Nadre Audrey, Diatta Cyril
P190	P35	Exploring hybrid performance and the pattern of response across environments in the Ethiopian sorghum breeding program	Subhasini Reddy Vangala, Ashok Kumar Are, Belum V S Reddy, Manohar Rao D
P194	P36	Integrated striga management in sorghum through resistance breeding and biocontrol in the semi-arid regions of Tanzania	Emmanuel Mrema, Hussein Shimelis, Mark Laing
P198	P37	Experimental analysis of phenotypic differentiation between dry season and rainy season sorghum varieties: basis for identification of traits associated to seasonal adaptation	Oberline Fokou Yemata, Abdoul-Aziz Saïdou, Bassirou Sine, Hélène I. Joly
P216	P38	Sorghum commercial research and seed production Nile Sun Seed co. (Venture)	Ibrahim N .ELzein, ELzbeir I. Mohamed
P220	P39	Introgression of shoot fly (Atherigona soccata L. Moench) resistance QTLs into elite post-rainy season sorghum varieties using marker assisted backcrossing (MABC)	Sunita Gorthy, Lakshmi Narasu, Santosh P Deshpande, Hari Chand Sharma, Anil Gaddameedi, Anuradha Kotla, Ashok Kumar Are
P224	P40	Phenotypic and molecular characterization of sweet sorghum accessions for bioenergy production	Michele Jorge da Silva, Maria Marta Pastina, Vander Fillipe de Souza, Robert Eugene Schaffert, Pedro Crescêncio Souza Carneiro, Roberto Willians Noda, José Eustáquio de Souza Carneiro, Cynthia Maria Borges Damasceno, Rafael Augusto da Costa Parrella
P242	P41	Deployment of unmanned aerial methods based on multi-spectral imaging for field phenotyping of sorghum growth and nutritional status in West-Africa	Alain Audebert, Vincent Vadez, Baboucar Gano, Joseph Dembele, Alexis Comar, Frederic Baret, Delphine Luquet
P244	P42	Evaluation of sorghum lines for resistance to diseases and insect pests in Senegal	Ibrahima Sarr, Gnilane Sene, Adama Sarr, Marietou Ly, Bonnie Pendleton, Gary Peterson, Mouhameth Camara, Saliou Bob
P254	P43	Evaluating local botanicals for control of red flour beetle, *Tribolium castaneum* Herbst (Coleoptera: Tenebrionidae) in sorghum grain in Niger	Hame Abdou Kadi Kadi, Bonnie B. Pendleton
P258	P44	Advancing sorghum hybrid breeding for smallholder farmers in West Africa: Examinations of fertility restoration and combining ability in Guinea-race germplasm	Moctar Kante, Fred Rattunde, Willmar Leiser, Baloua Nébié, Abdoulaye Diallo, Ibrahima Sissoko, Bocar Diallo, Abocar Touré, Ignatius Angarawai, Mary Yeye, Eva Weltzien, Bettina Haussmann
P260	P45	Breeding sorghum for shoot fly resistance	Madhusudhana R, Padmaja PG, Vilas A Tonapi
P262	P46	Genetic diversity and evaluation of stay-green introgression lines of Indian post-rainy sorghums	Madhusudhana R, Talwar HS, Jai Kishan, Siwesh Kumar, Vilas A Tonapi
P264	P47	Occurrence of the midge (Stenodiplosis sorghicola, Diptera: Cecidomyiidae), development cycle and resistance of different sorghum lines in Senegal	Adja Thiam, Ibrahima Sarr, Omar Kandji, Ndiaga Cissé, Bonnie Pendelton, Gary Peterson, Saliou Ndiaye
P266	P48	Resistance of sorghum lines to storage insects in Senegal	Fatou Welle, Ibrahima Sarr, Momar Talla Gueye, Karamoko Diarra, Bonnie Pendleton, Gary C Peterson
P270	P49	Participatory testing of high yielding, sorghum midge tolerant varieties in Burkina Faso	Malick Ba, Georges Zomboudre, Laouali Karimoune
P280	P50	Factors affecting accuracy for genomic prediction in sorghum	Jean Rigaud Charles, Gael Pressoir, Kebede Muleta, Geoffrey Morris

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Abstract Submission ID	Poster Board No.	Title	Authors
P300	P51	Analyzing the genetic diversity and architecture of sorghum pollen fertility under cold stress	Andre Schaffasz, Steffen Windpassinger, Rod Snowdon, Benjamin Wittkop
P314	P52	National released rainfed sorghum variety SPV 2307 with excellent grain, roti and stover quality parameters	Vikram Kalpande, Vilas Bhale, Rameshwar Ghorade, Vilas Tonapi, C Aruna, Kailash Pagire, Sunil Thawari
P324	P53	Population structure and selection signatures in the Senegalese sorghum landraces	Jacques Faye, Fanna Maina, Zhenbin Hu, Cyril Diatta, Daniel Fonceka, Ndiaga Cisse, Geoffrey Morris
P372	P54	Sorghum biotoolset a supervised image analysis tool for sorghum shoot anatomical parameters quantification	Sylvie Jaffuel, Marc Lartaud, Christelle Baptiste, Frederic Gatineau, Sandrine Roques, Delphine Luquet, David Pot, Jean Luc Verdeil
P380	P55	Genetic enhancement of sorghum productivity and utilization: A model breeding program for Uganda	Patrick Ongom, Paul Gibson, Richard Edema, Isaac Onziga, Bruno Awio, Boris Iladassi
P390	P56	Deciphering the genetic basis of hydroxyphenylpyruvate dioxygenase (HPPD)-inhibitor tolerance in grain sorghum	Balaji Aravindhan Pandian, Amarnatha Reddy Vennapusa, Prasad P.V.V., Curtis Thompson, Mithila Jugulam
P426	P57	Development of a low cost, high throughput root phenotyping platform for quantifying genetic control of nodal root angle in sorghum	Dinesh Joshi, Vijaya Singh, Colleen Hunt, Emma Mace, Erik van Oosterom, Richard Sulman, David Jordan, Graeme Hammer
P446	P58	Screening of policosanols in West-African sorghum cultivars	Jeremie Nana, Ibingou Dibala, Mamounata Diao, Mamoudou H. Dicko
P470	P59	An agronomically important dwarfing gene, Dw1, encodesa novel component of brassinosteroid signaling, and controls the cell proliferation in internodes	Takashi Sazuka, Ko Hirano, Satoko Araki-Nakamura, Kozue Ohmae-Shinohara, Mayuko Kawamura, Haruka Fujimoto, Miki Yamaguchi, Akihiro Fujii, Shigemitsu Kasuga
P472	P60	GGE biplot analysis of tannin-free photo-insensitive sorghum parental lines and their hybrid combinations for yield and resistance to grain mold in Senegal	Cyril Diatta, Ousmane Aidara, Pierre Alfred Ndione, Jacques Martin Faye, Geoffrey W. Morris, Daniel Fonseka, Eric Yirenkyi Danquah, Samuel Kwame Offei, Ndiaga Cisse
P478	P61	Using Phenoarch platform to dissect the genetic and physiological control of growth and water use response to drought of African sorghum	Florian Larue, Sandrine Roques, Grégory Beurier, Lauriane Rouan, Llorenç Cabrera-Bosquet, Nathalie Luchaire, Delphine Luquet
P482	P62	Developing epidemiologically-based intervention thresholds for sorghum leaf diseases in South Africa	Lisa Rothmann, Markye Craven, Neal Wynne McLaren
P486	P63	Wild relatives of sorghum: The forgotten Treasure-Trove in Sudan for Striga resistance	Tilal Abdelhalim, Mohammed Balla, Salma Mohamedkhair, Huda Elmansour, Tahani Elagib
P504	P64	Phenotyping sorghum lines for phosphorus efficiency	Lidianne Silva, Karine da Costa Bernadino, Jurandir Vieira de Magalhães, Robert Eugene Schaffert
P506	P65	Large scale analysis of elemental composition in sorghum	Kiyoshi Yamasaki, Masaru Fujimoto, Junichi Yoneda, Taichi Koshiba, Motoyuki Ishimori, Hideki Takanashi, Hiromi Kajiya-Kanegae, Hitoyoshi Iwata, Nobuhiro Tsutsumi, Tsuyoshi Tokunaga, Toru Fujiwara
P510	P66	Stability performance of post rainy sorghum hybrids	Jayakumar Jaganathan, Anil Kunapareddy, Sunita Gorthy, Ashok Kumar Are
P512	P67	Selection of sorghum hybrids aiming at earliness, smaller height and high grain yield	Larissa Pereira Ribeiro, Michele Jorge da Silva, Paulo Eduardo Teodoro, Aisy Botega Baldoni, Cícero Beserra de Menezes, Robert Eugene Schaffert, Flavio Dessaune Tardin
P520	P68	Sorghum Igrowth®, an innovative imidazolinone herbicides resistance technology for sorghum producers: grain and biomass YIELD DRAG study	Pedro Pardo, Vicente Trucillo, Santiago Renteria, Lisandro Guillaumet

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Abstract Submission ID	Poster Board No.	Title	Authors
P542	P69	Sorghum grain and panicle traits of importance for varietal adoption in West Africa: Farmers' preferences and effective methods for their selection	Chiaka Diallo, Willmar Leiser, Vernon Gracen, Jean François Rami, Henry Frederick Rattunde, Baloua Nébié, Eva Weltzien Rattunde, Krista Isaacs, Michel Vaksmann, Ibrahima Sissoko, Eric Y Danquah
Feed and Forage			
P320	P70	Replacing sorghum with maize: Effects on carcass characteristics and cost of rations in broiler diets	Christian Mphepo, Andrews Safalaoh
P250	P71	Abrupt change of corn, millet or sorghum based-diets in broilers in Niger, West Africa	Salissou Issa, Bachir Hamani, Riainatou Bada Alambedji
Food			
P142	P72	Characterisation of antifungal and probiotic properties of lactic acid bacteria isolated from household fermented sorghum slurries	Seth Rapoo, Richard Nyanzi, Mathoto Thaoge
P180	P73	Effect of malting period on physicochemical properties, minerals, phytate, and total phenolic content of finger millet (*Eleusine coracana*) varieties	Henry Udeh, Kwaku Duodu, Afam Jideani
P292	P74	Natural food fortification: A potential sustainable plant food-based strategy to improve essential mineral bioavailability in African cereal-based diets	Oluyimika Adetola, Johanita Kruger, Zelda White, John Taylor
P312	P75	Formulation and assessment of nutrient composition of malted sorghum based porridge for the treatment of moderate acute malnutrition	Richard Kajjura, Susanna Kassier, Frederick Veldman, John Muyonga, Christine Dranzoa, John Herlache
P346	P76	Isolation, identification and purification of lactic acid bacteria from African fermented non-alcoholic cereal beverage	Mmaphuti Ratau, Vincent Okudoh, Victoria Jideani
P388	P77	Protein content and bio accessibility of a non-traditionally heat treated sorghum and cowpea ready-to-eat meal formulated for 2-5 year old African children	N Vilakazi, Una MacIntyre, André Oelofse, John Taylor
P416	P78	Effect of malted sorghum-based porridge on nutritional status of moderately malnourished breastfed infants and young children aged 6 to 23 months in Uganda	Richard Kajjura, Veldman Frederick, Susanna Kassier
P424	P79	Use of external enzymes in improving quality of obushera made from sorghum	Yusuf Byaruhanga, Patrick Muganga, Ivan Mukisa, Noble Banadda
P432	P80	The production and characterization of lipid-modified, carbohydrate-based fat replacer and its application in low calorie mayonnaise-type emulsion	Humbulani Nekhudzhiga, Naushad Emmambux
P438	P81	Consumer preferred sensory attributes of sorghum stiff porridge as affected by variety and processing method	Stella Mlewa, Agnes Mwangwela, Moses Maliro
P452	P82	Enhancement of the ethanol- and butanol-durability of the yeast *Saccharomyces cerevisiae* by sorghum malt sprouts digests	Lewis Ezeogu
P454	P83	An electrophoretic study of the effect of some malting conditions on the time-course development of proteinases during malting of a major Botswana sorghum cultivar	Lewis Ezeogu, Gaone Mokhawa, Reginald Agu

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Abstract Submission ID	Poster Board No.	Title	Authors
P460	P84	Increasing the folate content of fermented cereals with lactic acid bacteria	Adriana du Plessis
P480	P85	Effect of simulated in vitro gastrointestinal digestion on phenolic content and antioxidant properties of sorghum porridges	Abigail Smith, Megan Bester, Gyebi Duodu
P484	P86	Process optimization and quality of injera from white, yellow or red sorghum (*Sorghum bicolor*) in comparison to Kuncho teff (*Eragrostis tef*) and its blend	Loza Mengistu, Kebede Abegaz, Beruk Berhanu
P492	P87	What is a better food acceptability prediction tool; emotion profiling or hedonic rating? A case study with sorghum biscuits	Khuthadzo Mukheli, Marianne Swaney Swaney-Stueve, Henrietta De Kock
P528	P88	Managing aflatoxin contents in cereals and their by-products in Senegal	Eliasse Dieme, Maty Diop, Abdourahmane Diop, Aminata Diouf, Djibril Traore
P540	P89	Effect of repeated exposure to sorghum-soy composite biscuits on consumer acceptance	Nomsa Chimuti, Henriette de Kock, John Taylor
P544	P90	Effect of high-digestibility high-lysine sorghum bran phenolic extracts on the viscoelasticity of a starch-protein model system	Pablo Torres Aguilar, Hawi Develo, Min Li, Mario Ferruzzi, Bruce Hamaker
Food Security and Economics			
P246	P91	Postharvest mechanization - Solutions for Sorghum that improve livelihoods for rural women and youth: Case study from CTI	Alexandra Spieldoch
P408	P92	Analysis of sorghum and millet value chains in Senegal to improve the nutrition status of the populations	Abdourahmane DIOP, Aminata DIOUF, Maty DIOP, Eliasse DIEME, Djibril TRAORE
P502	P93	Sorghum research in Sudan: past, current status and future	Tahani Elagib, Tilal Abdelhalim, Adil Abdelrahim
P508	P94	Developing and marketing sorghum baked products through the incubation centre: a diagnostic study on National University of Lesotho (NUL)	Pulane Nkhabutlane, Henriett L de Kock, Rosemary Kobue-Lekalake
Millet			
P174	P95	Impact of climate change on the cultural practices of millet HKP and adaptation strategies in West Africa	Ali Malam Labo Mohamed, Sarr Benoit, Salack Seyni, Alhassane Agali, Grema Moustapha
P206	P96	Optimisation of extrusion cooking conditions to produce an instant wholegrain pearl millet porridge product	Isiguzoro Onyeoziri, John Taylor, Henriëtte de Kock
P230	P97	Transferring the millet seedball technology to sorghum: Is it possible?	Charles Ikenna Nwankwo, Ludger Herrmann, Hannatou Moussa, Maman K Nouri, Maman A Ali
P422	P98	Effect of malting conditions on total polyphenol content and antioxidant activity of finger millet (Eleusine coracana) flour varieties	Livhuwani Justice
P440	P99	Malting quality of Zambian finger millet (Eleusine Coracana)	Luke Mugode, Mackson Kaputo
P466	P100	Effects of fermentation and lactic acid acidification on phenolic content, antioxidant properties and protein quality of finger millet gruel	John Lubaale, John R.N. Taylor, Gyebi Duodu
P496	P101	Nutritional composition, protein and starch digestibility of malted pearl millet flour/ Moringa composite meal	Anthony Obilana

POSTER PRESENTATION PROGRAMME

Poster Session: Wednesday 11 April 12:30 - 14:00, Thursday 12 April 12:30 - 13:30

Posters will be displayed in the Foyer / Exhibition Area and in Hall D.
Poster presenters must put their posters up on the morning of their poster session and take them down at the end of the session. Kindly note that formal presentations are not required for poster presentations. Please be present at your poster during the poster sessions if possible.

Abstract Submission ID	Poster Board No.	Title	Authors
Agronomy			
P27	P1	Characterization of HPPD-Inhibitor-Tolerant sorghum genotypes	Mithila Jugulam, Aruna Varanasi, Curtis Thompson, P.V.V. Prasad
P195	P2	Building on farmers' knowledge to improve sorghum-cowpea systems in North Central Burkina Faso	Myriam Adam, Yves Prin, Clarisse Barro Kondombo, Leandre Poda, Roger Kabore, Jean Marie Douzet, Louis Marie Raboin, Julie Dusserre, Serge Braconnier
P259	P3	Effect of fertilizers and productivity of genotypes on sweet sorghum production in the central rift valley of Ethiopia	Chalachew Endalamaw
P469	P4	Long-term nitrogen and phosphorus fertilization of irrigated continuous grain sorghum	Alan Schlegel, John Havlin
P477	P5	Effects of nitrogen on antioxidant enzyme activities and photosynthetic performance of sorghum under drought stress and re-watering during filling stage	Yufei Zhou, Qi Wu, Xueying Ai, Zichuan Zhao, Jiao Zhang, Ruidong Huang
P483	P6	Climate variability and risk analysis of dryland and irrigated grain sorghum in the Texas high plains	Lal Almas, Bonnie Pendleton, Bridget Guerrero
P497	P7	Compatible sorghum bean varieties for intercropping for sustainable production in drought-prone West Hararge, Eastern Ethiopia	Bedru B. Abdi, Fekede Gemmechu, Berhanu Amsalu, Taye Tadesse, Belete Tsegaw, Azmara Yilma
P521	P8	Identification of agronomic and genetic management effects on grain sorghum yield gap (*Sorghum bicolor* L. Moench)	Santiago Renteria, Lisandro Guillaumet, Pedro Pardo, Vicente Trucillo
P545	P9	The dynamics of tannin presence in Ethiopian landraces follows climatic cues	Yemane Girma Belaineh, Tesfaye Tesso
P555	P10	Intercropping: an approach to promote released sorghum varieties in eastern Ethiopia	Ketema Belete, Abduletif Ahemd, Agete Jerena, Zegeyesh Getachew
P557	P11	Identifying effective germination parameters to assess sorghum cold start potential	Solomon Fekybelu, Kevin Gorham, Wayne Chesher
Biomass, Biofuel and Bioproducts			
P287	P12	Sweet sorghum as a renewable feedstock for biofuel production-indian scenario	Umakanth Akula, Sai Krishna Nikhil B, Gadakh S R, Nandini Nimbkar, Ashok Kumar Are, Vilas Tonapi
P289	P13	Brown midrib sorghum as a novel feedstock for lignocellulosic biofuel production	Umakanth Akula, Ashok Kumar Are, Selvi B, Sai Krishna Nikhil B, Vilas Tonapi
P371	P14	Influence of sorghum stem anatomical traits on industrial biomass properties	Sylvie Jaffuel, Patrick Navard, Jordi Girones, Helene Carrere, Helene Thomas, Nicolas Lemoigne, Stephane Corn, Lata Soccalingame, Marc Lartaud, Christelle Baptiste, Sandrine Roques, Denis Bastianelli, Delphine Luquet, David Pot, Jean Luc Verdeil
P393	P15	Determining the transpiration efficiency of bmr sorghum genotypes for progressive drought tolerance	Sunita Gorthy, Anil Kunapareddy, Jayakumar Jaganathan, Ashok Kumar Are
P395	P16	Allelic relationship and inheritance of brown midrib trait of bmr mutants in *Sorghum bicolor* (L.) Moench	Subhasini Reddy Vangala, Ashok Kumar Are, Belum V S Reddy, Manohar Rao D

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Abstract Submission ID	Poster Board No.	Title	Authors
P515	P17	Genome-Wide association studies and genomic prediction with 3,000 biomass sorghum plants	Motoyuki Ishimori, Hideki Takanashi, Masaru Fujimoto, Hiromi Kajiya-Kanegae, Junichi Yoneda, Kentaro Yano, Tsuyoshi Tokunaga, Nobuhiro Tsutsumi, Hiroyoshi Iwata
P529	P18	Sorghum in Brazil: Market perspectives for uses in food, feed, and biomass for soil conditioning and bioenergy	Frederico Ozanan Machado Duraes, Cícero Beserra Menezes, José Avelino Santos Rodrigues, Rafael Parrella, Robert Eugene Schaffert, Flávio Dessaune Tardin, Valéria Aparecida Vieira Queiroz, Sara de Almeida Rios
Breeding			
P29	P19	Characterization of Ethiopian sorghum [*Sorghum bicolor* (L) Moench] germplasm collection for drought adaptation traits associated with roots	Temesgen Matiwes, Kassahun Bisetegn, David Jordan, Emma Mace, Colleen Hunt, Andrew Borrell
P35	P20	Implementing next generation marker sequencing technologies in Ethiopian sorghum breeding programs	Habte Nida, Taye Tadesse, Amare Seyoume, Emma Mace, David Jordan
P39	P21	Promising new accessions to improve drought adaptation in sorghum in West Africa	Eyanawa Akata Atchozou, Jacques Martin Faye, Bassirou Sine, Fanna Maina, Niaba Teme, Geoffrey P. Morris, Ndiaga Cisse
P43	P22	Genetic variability and characters association of hararghe sorghum [*Sorghum bicolor* (L.) Moench] genotypes for grain yield, yield components, grain and nutritional quality	Alemnesh Jebessa, Firew Mekbib, Tesfaye Tesso
P77	P23	Genetic variability and associated traits for grain mold resistance among sorghum (*Sorghum bicolor* (L.)) accessions in Ethiopia	Chemeda Birhanu, Sentayehu Alamerew, Dagnachew Lule, Tesfaye Tesso
P83	P24	Identification of quantitative trait loci (QTLs) underlying resistance to grain mold and other agronomic traits in sorghum [*Sorghum bicolor* (L) Moench]	Cyril Diatta, Daniel Fonceka, Geoffrey Morris, Samuel K. Offei, Eric Y. Danquah, Jean F. Rami, Ndiaga Cisse
P85	P25	Combining ability, heterosis and heritability analyses for yield and yield-related traits in medium-maturing sorghumgenotypes	Solomon Assefa Derese, Hussein Shimelis, Mark Laing, Fentahum Mengistu
P87	P26	Utilising genome editing to increase sorghum productivity for the 21st century	Basam Tabet, Yuri Trusov, Jimmy Botella, Ian Godwin
P121	P27	Weighted geometric mean index to identify drought tolerant post-rainy sorghum [*Sorghum bicolor* (L.) Moench] lines	Mohan Samdur, Kuldeep Kumar Sharma, Harvinder Singh Talwar, Vilas Tonapi, Parashuram Patroti, Maruchamuthu Elangovan, Yashawant Kshirsagar
P125	P28	Screening sorghum cultivars for tolerance/ resistance to midge (*Stenodiplosis sorghicola*) in East Africa	Eric Manyasa, Henry Ojulong, Mary Mgonja, Seperatus Kamuntu, Joseph Kibuka, Daniel Otwani, Patrick Sheunda
P129	P29	Natural and induced genetic variation for protein digestibility in Sorghum grain	Elisabeth Diatta, Eli Hugghis, Addie Thompson, Khalil Kane, Ndiaga Cisse, Mitchell Tuinstra, Clifford Weil
P143	P30	Physiological responses of sorghum genotypes under salinity stress	Sarita .Devi, Satpal ., H.S. Talwar, N Kumar, Pummy Kumari, S.K. Pahuja
P145	P31	Genetic enhancement of shoot-fly resistance and drought tolerance in *Sorghum bicolor*	Manasa KG, Vijay Kumar KV, Sivasubramani S, Enghwa NG, Santosh P Deshpande
P153	P32	Evaluation of CGMS based hybrids for pollen fertility in Sorghum [*Sorghum bicolor* (L.) Moench]	Gopal Narkhede, Shivaji Mehtre, Siva Subramani, Santosh Deshpande

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Abstract Submission ID	Poster Board No.	Title	Authors
P171	P33	Fitness of F1/F2 hybrids between cultivated and wild-weedy sorghum to establish crop genes persistence in the wild	Henry Ojulong, Mary Mgonja, Stephen Mwangi, Eric Manyasa, Hari Upadhyaya, Elijah Muange
P190	P34	Exploring hybrid performance and the pattern of response across environments in the Ethiopian sorghum breeding program	Yohannes Fekadu, Habte Nida, Taye Tadasse, Adane Gebreyohannes, Sewmehon Siraw, Colleen Hunt, David Jordan, Alison Kelly
P219	P35	Differential expression of genes associated with nitrogen use efficiency (NUE) under low N conditions in Sorghum (*Sorghum bicolor* (L.) Moench)	Srikanth B, Romana K, Das R, Rathore A, Chander G, Deshpande S, Gupta R
P223	P36	Exploring sorghum landraces resources for micronutrient (iron and zinc) genetic biofortification	Ignatius Angarawai, Nebie Baloua, Mary Yeye, Abubakar Lawali, Hakeem Ajeigbe
P227	P37	A major sorghum fertility restoration locus (Rf2) on A1 cytoplasm encodes a PPR gene	Madhusudhana R, Praveen M, Anurag M Uttam, Vilas A Tonapi
P231	P38	Traditional control of striga hermonthica in Niger	Ousseini Ardaly Abdou, Aissata Mamadou, Geoff Morris
P239	P39	Evaluation of diverse germplasm of sorghum [*Sorghum bicolor* (L.) Moench] for improved productivity and resource use efficiency	Kirandeep Romana, Srikanth Bollam, Roma Das, Abhishek Rathore, Girish Chander, Santosh Deshpande, Rajeev Gupta
P253	P40	Development of biotic stress-resistant sorghum cultivars for Niger and Senegal	Bonnie Pendleton, Gary Peterson, Hame Abdou Kadi Kadi, Ibrahima Sarr, Aissata Mamoudou Ibrahim, Soumana Souley
P281	P41	Newly developed melanaphis resistant sorghum lines in Haiti show a strong selective sweep at a locus on chromosome 6 collocated with the known RMSE1 gene	Jean Rigaud Charles, Gael Pressoir, Kebede Muleta, Geoffrey Morris
P285	P42	Population genomics of sorghum (*Sorghum bicolor*) across diverse agroclimatic zones of Niger	Fanna Maina, Sophie Bouchet, Sandeep Marla, Zhenbin Hu, Jianan Wang, Aissata Mamadou, Magagi Abdou, Abdoul-Aziz Saïdou, Geoffrey Morris
P311	P43	Developing sugarcane aphid resistant germplasm in the United States	Gary Peterson, Mark Stelter, Scott Armstrong, Bonnie Pendleton
P321	P44	On-Farm sorghum diversity and varietal erosion in Burkina Faso	Clarisse Pulchérie Kondombo, Jacques Chantereau, Albert Barro
P325	P45	Sorgit: a collaborative tool to improve the quality of the information on sorghum genetic resources	Léo Valette, Christian Leclerc, Monique Deu, David Pot, Armel Donkpegan, Concetta Burgarella, Jean-Francois Rami
P329	P46	Building resilient sorghum seed systems in semi-arid areas of Zimbabwe through partnerships	Martin Moyo, Thabani Dube, Conrand Murendo, Kizito Mazvimavi
P331	P47	Interaction between sorghum genotypes and common food processing methods, and its relationship with kafirin composition	Dilooshi Weerasooriya, Scott Bean, Yohannes Nigusu, Taye Tadesse, Getachew Ayana, Tesfaye Tesso
P365	P48	Participatory gender analysis of sorghum production in major sorghum growing areas of Ethiopia	Yeshi Chiche, Daniel Desta, Dessalegn Getu, Alemnesh Bekele, Bayisa Gedefa, Afework Hagos, Kira Everhart-Valentin, Selamawit Markos, Getachew Ayana
P389	P49	Genome-wide association study of temporal response to cold stress in *Sorghum bicolor*	Erica Agnew, Greg Ziegler, Scott Lee, Ivan Baxter, Nadia Shakoor, Todd Mockler
P391	P50	Parental evaluation of the sorghum test genotypes for expression of resistance against shoot fly based on morphological, biochemical and molecular studies	Naveen Arora, S P Mishra, Hari C Sharma, Rabinder Sohu, Santosh P Deshpande, Ashok Kumar Are

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Abstract Submission ID	Poster Board No.	Title	Authors
P395	P51	Allelic relationship and inheritance of brown midrib trait of bmr mutants in *Sorghum bicolor* (L.) Moench	Subhasini Reddy Vangala, Ashok Kumar Are, Belum V S Reddy, Manohar Rao D
P397	P52	Characterization of post rainy sorghum for cold tolerance in control environment using agronomical and pollen viability traits	Anil Gaddameedi, Rahul Phuke, Kavi Kishor P B, Anuradha Kotla, Sunita Gorthy, Ashok Kumar Are
P405	P53	Sorghum's wild relatives: Australia as a resource for novel germplasm	Ros Gleadow, Max Cowan, Cecilia Blomstedt, Sally Norton
P427	P54	Assessment of genetic variability for grain micronutrient contents in sorghum [*Sorghum bicolor* (L.) Moench] for Biofortification	Hariprasanna K., Venkateswarlu R., Niharika G., Manasa K., Suresh P., Dinesh A., Chetankumar B., Rajendrakumar P., Ratnavathi C.V., Vilas A. Tonapi
P435	P55	Linkage disequilibrium and population structure in grain sorghum inbred lines using SNP markers	Karla Silva, Cicero Menezes, Claudia Guimarães, Leonardo Pimentel, Maria Pastina, Robert Schaffert, Aluízio Oliveira, Jurandir Magalhães
P439	P56	Developing epidemiologically-based intervention thresholds for sorghum leaf diseases in South Africa	Lisa Ann Rothmann, Maryke Craven, Neal Wynne McLaren
P443	P57	Mapping of QTLs associated with awn length in sorghum	Hideki Takanashi, Kajiya-Kanegae Hiromi, Motoyuki Ishimori, Kentaro Yano, Norikazu Ohnishi, Toru Fujiwara, Hiroyoshi Iwata, Wataru Sakamoto, Nobuhiro Tsutsumi
P493	P58	From seed to selection: tools for quick and cost-effective genomic prediction in sorghum	Sarah Jensen, Punna Ramu, Xiaoyun Wang, Jing Wu, Jean Rigaud Charles, Kebede Muleta, Geoffrey Morris, Gael Pressior, Edward Buckler, Guillaume Ramstein
P503	P59	Exploiting the untapped genetic variability of Ethiopian sorghum genotypes for resistance breeding for anthracnose *Colletotrichum sublineolum*	Moges Yirsaw, Tesfaye Mengiste, Getachew Hordofa, Taye Mendaye
P507	P60	Genetic association of source and sink relationships in sorghum	Anuj Chiluwal, Ramasamy Perumal, Raju Bheemanahalli, David Sebela, Geoffrey Morris, Krishna Jagadish S.V.
P517	P61	Evaluating a principal component and multiple linear regression approach to explain the effect of South African sorghum cultivar physical and chemical properties on decortication efficiency for a dimo's labtronics 17810 laboratory barley pearler	Corinda Erasmus, Ben van der Linde, Hannalien Meyer, Wiana Louw
P527	P62	Evaluation of photoperiodic insensitive white-grained and tannin-free sorghum inbred lines for yield and resistance to grain mold in Senegal	Cyril Diatta, Kader Aidara, Khalil Kane, Aminata collé Diouf, Ousmane Aidara, Jacques Martin Faye, Elisabeth Diatta, Cliff Weil, Mitch Tuinstra, Ndiaga Cissé
P533	P63	Identification and mapping of anthracnose resistance genes in sorghum [*Sorghum bicolor* (L.) Moench].	Xiaochen Xu, Tesfaye Mengiste, Gebisa Ejeta
P543	P64	Selection strategies for improving grain yield and related traits under P-deficiency field conditions in Mali	Chiaka Diallo, Willmar Leiser, Vernon Gracen, Aboubacar Touré, Jean François Rami, Henry Frederick Rattunde, Eric Y Danquah, Baptiste Guitton, Baloua Nébié, Daniel K Dzidzienyo, Eva Weltzien Rattunde, Michel Vaksmann, Niaba Témé, Pangirayi B Tongoona

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P65	P65	Stover and grain potential of two Nigerien sorghum cultivars with bmr 12 and 6 genes	Ousmane Seyni Diakite, Teme Niaba, Tuinstra Mitchell
Food			
P25	P66	New methods to measure insoluble and soluble starch in sorghum products that will aid processing	Gillian Eggleston, Marsha Cole
P303	P67	High levels of aspergillus metabolites in Namibian open-market vended sorghum malt, pearl millet and the traditional fermented beverage, Oshikundu	Jane Misihairabgwi, Anthony Ishola, Isaac Quaye, Michael Sulyok, Rudolf Krska
P327	P68	Effect of nutrition education and malted sorghum based porridge supplementation on mothers' knowledge, feeding, sanitation, and hygiene practices of infants and young children with moderate acute malnutrition	Richard Kajjura, Susanna Kassier Kassier, Frederick Veldman, Hedwig Acham
P381	P69	Mothers' perception and experience in using malted sorghum based porridge versus fortified soy corn blend to treat infants and young children with moderate acute malnutrition in Uganda	Richard Kajjura, Susanna Kassier, Frederick Veldman, Stella Neema
P407	P70	Development of instant flours made from local Senegalese products by extrusion cooking	Maty Diop, Eliasse Diémé, Abdourahmane Diop, Aminata Diouf, Djibril Traoré
P409	P71	Pre-isolation treatment of red sorghum with hydrogen peroxide its influence on wet-milling characteristics and starch quality	Nana Baah Pepra-Ameyaw, Gale Strasburg, Perry K W Ng
P441	P72	Effect of stearic acid addition and extrusion cooking on the properties of maize starch	Emmanuel Panyoo Akdowa, Naushad Emmambux
P455	P73	Effect of maize starch modification with sorghum bran phenolic extract under alkaline conditions on pasting and thermal properties	Adekanmi Oladele, Naushad Emmambux, Gyebi Duodu
P457	P74	Increasing sorghum utilization and marketability through food product development	Samuel Mwangi Wambugu
P467	P74	Effect of extrusion cooking on phenolic content, antioxidant properties and Beta-Carotene Bio-accessibility of sorghum porridge fortified with orange flesh sweet potato flour	Rudo Maneya, Gyebi Duodu
P481	P76	Effect of decortication and cooking on phenolic content and antioxidant properties of non-tannin and tannin sorghum types	Goodman Andile Mdluli, Henriette De Kock, John Taylor, Gyebi Duodu
P489	P78	Effects of different souring methods on phytate reduction and in vitro iron and zinc bioaccessibility in non-alcoholic beverages from sorghum, amaranth and their composite flour	Adeyemi Adeyanju, John R.N. Taylor, Johanita Kruger, Gyebi Duodu
P495	P79	Development of a micro-scale screening method to evaluate mixing properties of sorghum-wheat composite dough	Koya Ange Pamela Dovi, Vicky Solah, John R.N. Taylor, Jennifer Dang, Stuart K. Johnson
P509	P80	Phytate reduction of sorghum to increase iron and zinc bioavailability – genetic modification vs fermentation	Johanita Kruger, Andre Oelofse, Bo Lönnderdal, John Taylor

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P541	P82	Managing aflatoxin contents in cereals and their byproducts in Senegal	Eliasse Dieme, Maty Diop, Abdourahmane Diop, Aminata Diouf, Djibril Traore
Food Security and Economics			
P411	P83	Development of agriculture grain hubs in Senegal	Megan Wall, Laurent Gomis
P419	P84	Effectiveness of sorghum open pollinated varieties (SOPVs) in promoting resilience to food security and climate change adaptation	Lloyd Mbulwe
P471	P85	Strengthening the seed delivery system for enhanced adoption of improved sorghum varieties among smallholder farmers in Zambia and Mozambique	Graybill Munkombwe, Dickson Nguni, Joaquim Mutaliano
P513	P86	The concept of 'Food Yield': Sorghum grain yield from a user's perspective	Eva Weltzien, Krista Ilsaacs, Mamourou Sidibe, Salimata Sidibe, Marjolein Smit-Mwanamwing, Vera Lugutuah, Bocar Diallo, Abdoulaye Diallo, Baloua Nebie, Chiaka Diallo, Aboubacar Toure, Fred Rattunde
Millets			
P213	P87	Food-to-food fortification of pearl millet porridge with local African plant foodstuffs can increase iron and zinc bioaccessibilities	Renee van der Merwe, Johanita Kruger, John R.N. Taylor
P217	P88	Preliminary evaluation of the agronomic potential of finger millet (*Eleusine coracana*) at semi-arid location in South Africa	Dorcus Maja, Eastone Gwata, Nemera Shargie
P277	P89	Native African plant materials modify bioavailability of provitamin A carotenoids from blended millet products as assessed by in-vitro digestion coupled with Caco-2 cell culture model	Hawi Debelo, Cheikh Ndiaye, Bruce Hamaker, Mario Ferruzzi
P377	P90	Physical and functional properties of some pearl millet cultivars	Helen Agu, Mamudu Badau, Victoria Jideani
P447	P91	Assessment of mineral contents in finger millet flours fortified with zinc oxide	Shonisani Eugenia Ramashia, Afam. I.O Jideani, Eastonce Tend Gwata, Stephen Meddows
P451	P92	Effects of cooking methods on volatile compounds of foxtail millet	Jihong Wu
P491	P93	Effect of malting on the phenolic compounds and antioxidant activity of finger millet (*Eleusine coracana* L. Gaertn) varieties	Henry Udeh, Kwaku Duodu, Afam Jideani
P505	P94	Feed moisture optimization of instant pearl millet flour quality using a single screw extruder	Emmanuel Ayua, Smith Nkhata, Osvaldo Campanella, Bruce Hamaker
P525	P95	A review on selected whole grain cereals: sorghum, millet and fonio	Aminata Diouf, Abdourahmane Diop, Maty Diop, Eliasse Dieme, Djibril Traore
P539	P96	Insights to the delayed gastric emptying rate and slow digestibility of pearl millet couscous	Anna Hayes, Mario Martinez, Clay Swackhamer, Yamile Mennah-Govela, Gail Bornhorst, Bruce Hamaker

EXHIBITION FLOORPLAN AND KEY

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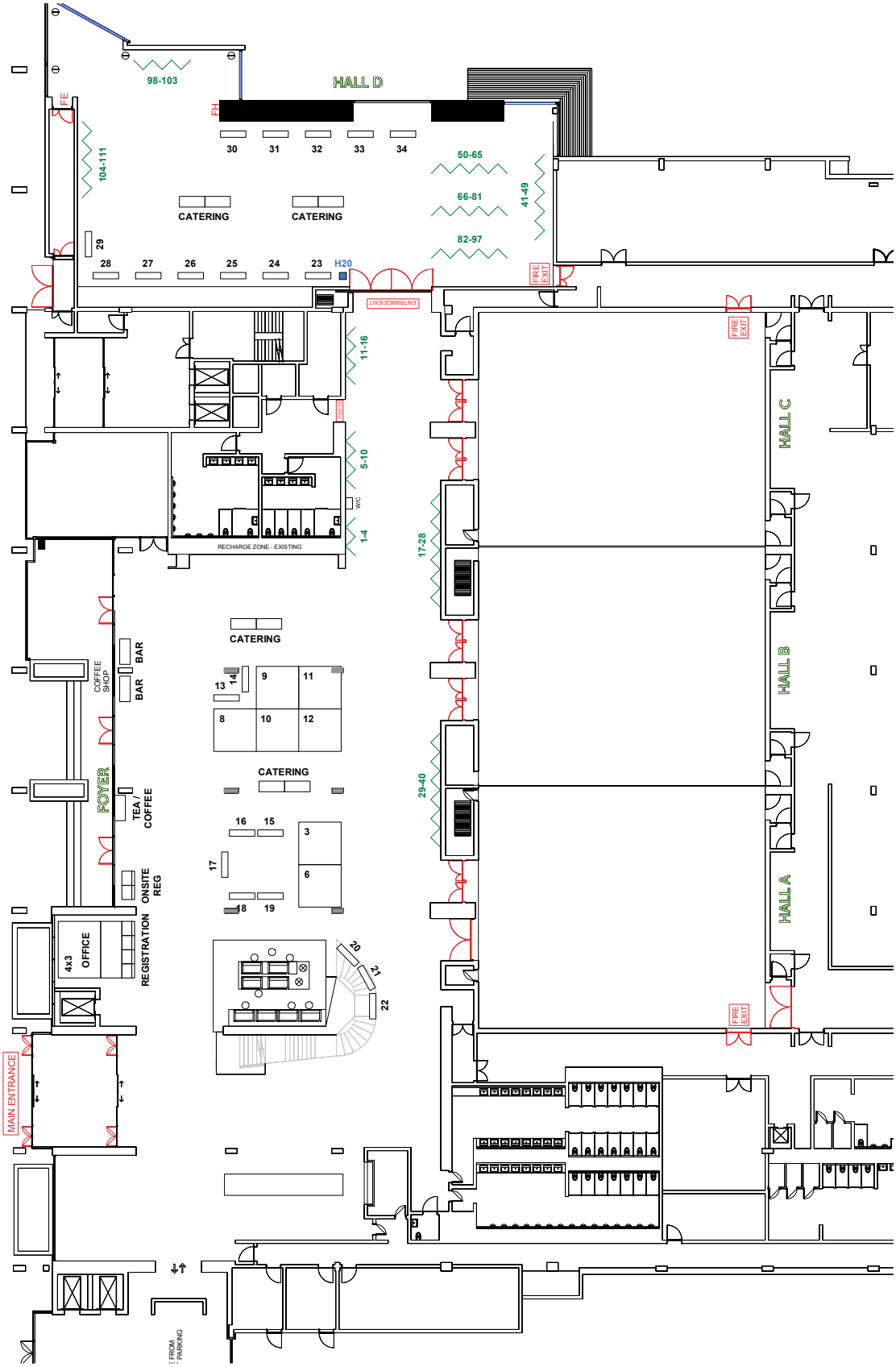

EXHIBITOR INFORMATION

Exhibitor	**AE SOLUTIONS (PTY) LTD**
Stand Number:	6
Website:	www.aelab.co.za
Information:	Agri Enviro Solutions is a leading supplier of laboratory and scientific analytical equipment throughout South Africa and the SADEC region. Our agencies have been specifically selected and most have been aligned with us for more than 20 years. All are world-renowned and are international leaders in their fields of expertise. We have and always will be able to offer our customers total solutions to their physical and analytical testing requirements. We offer instrumentation to the grains-, flour-, feed-, food-, environmental-, water-, mining- and industrial industries, full installation and training. This, coupled with comprehensive application support, after sales support and training, has ensured our success through the years.

Exhibitor	**CFAM TECHNOLOGIES (PTY) LTD**
Stand Number:	12
Website:	www.cfam.co.za
Information:	CFAM Technologies is a manufacturer of world-class food and feed extrusion plants and equipment. It is used to process ready-to-eat foods, snacks, pet foods, aquaculture feeds and animal feeds. The focus is on the development of affordable, nutritious products that can be produced from locally produced agricultural products.

Exhibitor	**MICROSEP**
Stand Number:	8
Website:	www.microsep.co.za
Information:	Microsep, a distributor of laboratory equipment, offers products for food safety, regulatory compliance and rapid detection of contamination. Waters food testing systems integrate chromatography (HPLC & UPLC), mass spectrometry, columns, chemistries, software. VICAM offers products for quantitative detection of mycotoxins.

Exhibitor	**OZ SORGHUM**
Stand Number:	9
Website:	www.aussorgm.org.au
Information:	OZ Sorghum is a world-leading alliance of Australian sorghum researchers, whose aim is to improve the profitability of the sorghum industry via strong collaborative partnerships and to promote science with impact.

Exhibitor	**RHINE RUHR (PTY) LTD**
Stand Number:	5
Website:	www.rhineruhr.net
Information:	Exclusive suppliers of world renowned FOSS analytical instruments and Charm Mycotoxin assays for determining food and water quality in Southern Africa. Rhine Ruhr's logistical footprint and factory trained technicians offer an accurate, repeatable solution and peace of mind for our customers.

EXHIBITOR INFORMATION

Exhibitor	THE MCKNIGHT FOUNDATION COLLABORATIVE CROP RESEARCH PROGRAM
Stand Number:	11
Website:	www.ccrp.org
Information:	CCRP funds collaborative agro-ecological systems research and knowledge-sharing that strengthen the capacities of smallholder farmers, research institutions and development organisations. Vision: to contribute to a world where all have access to nutritious food that is sustainably produced by local people.

Exhibitor	USAID BUREAU FOR FOOD SECURITY | SORGHUM AND MILLET INNOVATION LAB
Stand Number:	10
Website:	www.usaid.gov/who-we-are/organization/bureaus/bureau-food-security | www.k-state.edu/smil
Information:	Feed the Future is the U.S. Government's global hunger and food security initiative, led by the U.S. Agency for International Development (USAID). By investing in inclusive and sustainable agricultural-led economic growth, strengthened resilience among people and systems, and a well-nourished population, especially among women and children, Feed the Future is helping families, countries and communities reduce hunger, poverty and malnutrition. Agricultural research is central to meeting these goals. Feed the Future research investments ensure a pipeline of innovations, tools and approaches designed to improve agriculture, food security, resilience and nutrition priorities in the face of complex, dynamic challenges. Research outputs like improved sorghum varieties, tailored guidance for sustainable farming practices, and new tools for post-harvest management are key to addressing the root causes of poverty, malnutrition, and hunger. The Sorghum and Millet Innovation Lab is one of 24 Feed the Future Innovation Labs located at U.S. universities. Located at Kansas State University, it is a global hub of cutting-edge research focused on increasing the resiliency of small-scale sorghum and millet producers in the face of climate change and creating entrepreneurial opportunities to reduce poverty and hunger. Working in six countries across West Africa, East Africa and Haiti, the Lab links U.S. and international universities and research organisations in a collaborative effort to build human and institutional capacity to improve global food security and nutrition.

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AGRICULTURE AND THE BIO-ECONOMY STRATEGY

Agriculture is one of four key economic sectors identified as being most in need of - and likely to benefit from - the Bio-economy Strategy. Driven and guided by the Department of Science and Technology, the Bio-economy Strategy is a road map showing how the country's wealth of knowledge and natural biological resources can be harnessed to develop new, globally competitive products that are also responsive and relevant to the needs of South Africans. Spanning the entire value chain - from ideas, research and product development, to manufacturing and commercialisation - the Bio-economy has the potential to contribute significantly to South Africa's gross domestic product (GDP).

To achieve this, for agriculture, several short- to medium-term strategic interventions involving various projects are being implemented, including:

- Crop Improvement Programme: This Programme seeks to add new crops (particularly indigenous/underutilised species) to the global food basket while reducing malnourishment and increasing household food security locally. It also aims to find innovative ways of improving the traits of commercial crops so that South Africa can continue to compete in the global market.
- Biocontrol and Biofertiliser Development: Biocontrol products such as biopesticides, plant-growth regulators and biofertilisers, unlike traditional chemical pesticides and fertilisers, have virtually no adverse effects on environmental and human health. Plus, these products can enhance harvests and lessen the effects of climate change.
- Establishment of a Network of Agro-innovation Hubs: These hubs will assist in the transfer of skills and solutions that emerge from biotechnology research to farmers. Furthermore, they will aid farmers in communicating their research needs.
- Livestock Improvement Programme: Bio-innovations, like new vaccines and diagnostics, can help combat diseases that affect South Africa's livestock sector. Others, such as the use of genomics (the study of genes and their functions), can be used to develop breeds that are well-adapted to diverse climates and environmental conditions to ensure increased productivity.
- Natural Resource Management: As agricultural productivity is enhanced by the availability of water, good quality soils and sound agricultural practices, investment is needed to ensure that soil conservation and optimal irrigation and water recycling practices are researched and can be implemented by farmers.

The success of these interventions will be measured on the number of new technologies, plant varieties and products that are developed, as well as the improvement of access to technologies and the impact on communities and their livelihoods, amongst other criteria.

For more information on the agricultural sector and its role within the Bio-economy Strategy, visit ***http://www.dst.gov.za/BioeconomyStrategy.pdf***

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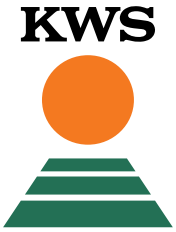

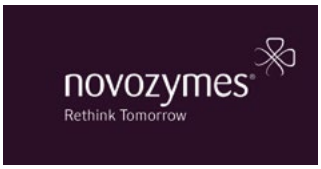

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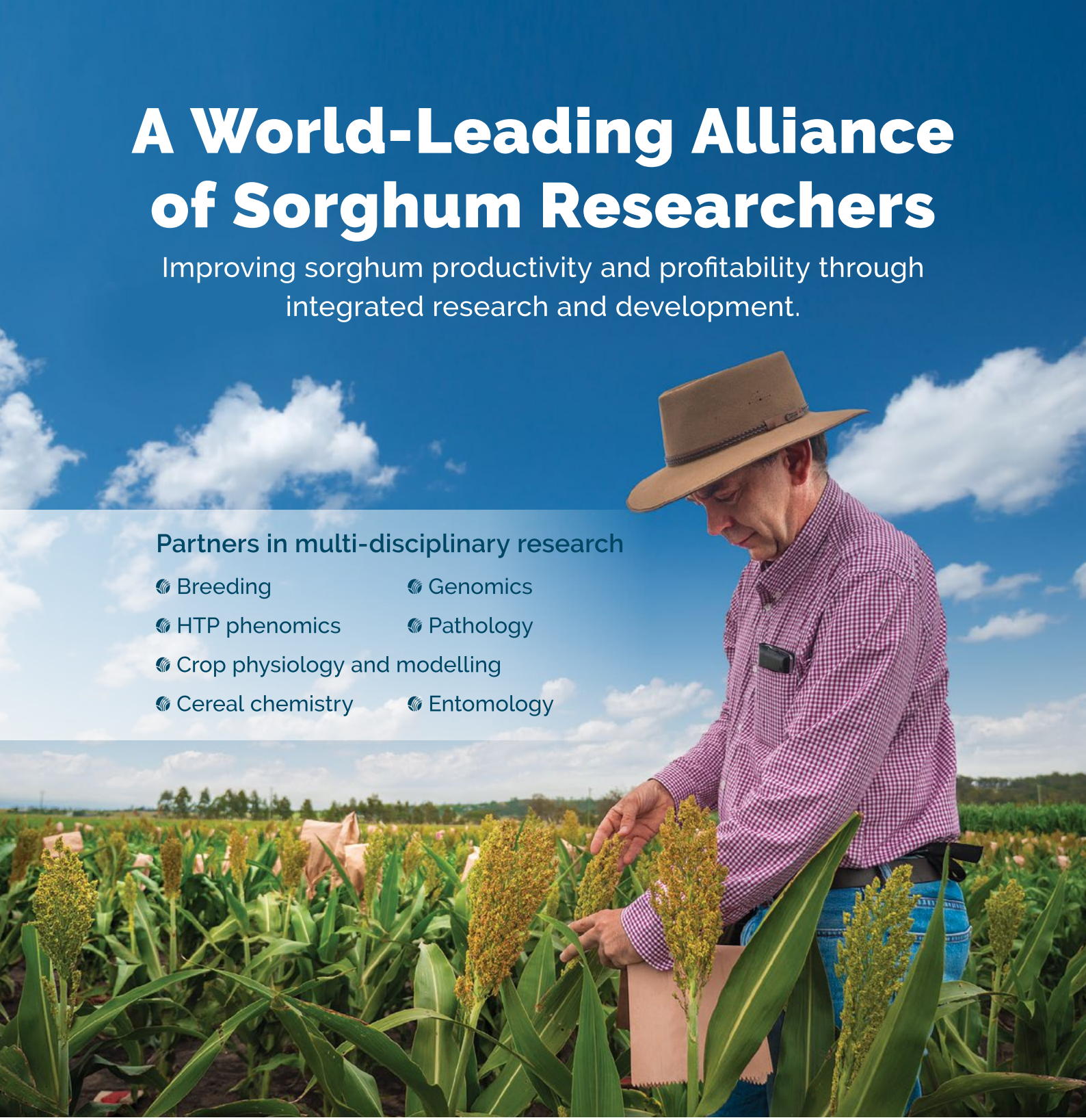

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- Crop physiology and modelling
- Cereal chemistry
- Entomology





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