

APBAConf2025 Programme

Theme: Winning the Race against Food Insecurity, Malnutrition, and Climate Change
Date: October 6 – 8, 2025 | **Venue:** Elephant Hills Resort, Victoria Falls, Zimbabwe
Pre-conference Workshop October 5, 2025 | Venue: Cresta Sprayview Hotel, Victoria Falls, Zimbabwe
Post-conference Workshop October 9-10, | Venue: Cresta Sprayview Hotel, Victoria Falls, Zimbabwe

Pre-conference Workshop (Participation by invitation only) Sunday, October 5, 2025

08:00 am - 04:00 pm	Breeding Opportunity Crops for Cropping Systems – Knowledge, Collaboration & Co-creation Facilitator: Julia Sibiya, APBA President, and Vision for Adapted Crops and Soils (VACS) Capacity Development Lead, CIMMYT Moderator: Jonathan Odhong, Science for Impact Specialist, CIMMYT Speakers: • Sieg Snapp, Program Director, Sustainable Agrifood Systems Program (SAS), CIMMYT • Eva Weltzien – Rattunde, CIMMYT Consultant/Honorary Associate, University of Wisconsin-Madison, WI, USA • Kevin Pixley, Dryland Crops Program Director (DCP), CIMMYT • Kevin Murphy, Professor, International Seed and Cropping Systems, Washington State University • Nyaradzai Chisango, The Community Technology Development Trust (CTDT), Zimbabwe
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Note: Conference Registration (kindly come along with your passport or picture ID for identification)

Main Conference DAY 1, Monday, October 6, 2025

08:00 am	Conference Registration
08:30 am	Zimbabwe National Anthem (<i>in English, Shona & Ndebele</i>) Mosi Oa Tunya High School
08:40 am	Recognitions and Announcements Xavier Mhike, Master of Ceremony (MC)
08:45 am	Welcome Remarks Hon. Richard Moyo, Minister of State for Devolution, Matebeleland North Province
08:55 am	Welcome Address Casper N. Kamutando, Co-Host, Chair-Local Organising Committee & ZPBA President
09:05 am	Welcoming the Guest of Honor: Prof. Dr. Obert Jiri - Permanent Secretary, Minister of Lands, Agriculture, Fisheries, Water and Rural Development, Zimbabwe
09:10 am	Official Opening Remarks Hon. Dr. Anxious J. Masuka – Guest of Honor, Minister of Lands, Agriculture, Fisheries, Water and Rural Development, Zimbabwe
09:30 am	African Plant Breeders Association (APBA) - The APBA Story / Journey Julia Sibiya, APBA President, and Vision for Adapted Crops and Soils (VACS) Capacity Development Lead, CIMMYT
09:50 am	Goodwill Message Donn Cummings, National Association of Plant Breeders, USA
09:55 am	Goodwill Message Phani Chavali, VP, Engineering & Data Science, Global Plant Breeding, Bayer, USA
10:00 am	Goodwill Message John Makoni, Chairman, Zimbabwe Seed Traders Association

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10:05 am	Zimbabwe as a Safe Tourism Destination (Promoting the Zim-Bhoo National Mantra) Walter Chakuzira, <i>Zimbabwe Tourism Authority (ZTA)</i>
10:15 am	APBAConf2025 Conference Ribbon Cutting Hon. Dr. Anxious J. Masuka — <i>Guest of Honor, Minister of Lands, Agriculture, Fisheries, Water and Rural Development, Zimbabwe</i> Julia Sibiya, <i>APBA President, and VACS Capacity Development Lead, CIMMYT</i>
10:20 am	Cultural Dances & Poetry - Celebrating the Launch of the Conference opening and Photo Session <i>Mosi Oa Tunya High School</i>
10:30 am	Tea/Coffee Break
11:00 am	Keynote Address 1 Facilitator: Xavier Mhike, <i>MC</i> Winning the race against food insecurity, malnutrition and climate change – “Breeding and Deploying Transformative Mindsets” Abdou Tenkouano, <i>Director General and CEO, The International Centre for Insect Physiology and Ecology (ICIPE), Nairobi, Kenya</i>
11:30 am	High-Level Panel Discussion: Winning the Race against Food Insecurity, Malnutrition, and Climate Change Moderator: Xavier Mhike, <i>MC</i> Panellists: - Abdou Tenkouano, <i>The International Centre for Insect Physiology and Ecology (ICIPE)</i> - Stanford Blade, <i>DDG-R, ICRISAT</i> - Chiedozi Egesi, <i>Executive Director, National Root Crops Research Institute, Nigeria</i> - Nadine Dushimiyimana, <i>Bayer, Head of Regulatory Science – East Africa</i> - Claud Mujaju, <i>Director of the Seed Services Division in the Ministry of Lands, Agriculture, Fisheries, Water and Rural Development, Ministry of Agriculture Zimbabwe</i> - SeedCo
12.30 pm	Launch of the African Journal of Crop Improvement (AJCI) Moderator: Damaris A. Odeny, <i>Principal Scientist - ICRISAT and Chair, Scientific Committee, APBA</i> Brief overview on the rationale for the AJCI Julia Sibiya, <i>APBA President, and VACS Capacity Development Lead, CIMMYT</i> Play Pre recorded Video - on the landing page and design of the AJCI to unveil the Logo, Advisory, Associate Editors and Editorial team. Call to Action Damaris A. Odeny, <i>Principal Scientist - ICRISAT and Chair, Science and Publications Committee, APBA</i>
01:00 pm	Lunch Break
02.00 pm	Keynote Address 1I Facilitator: Pangirayi B. Tongoona, <i>Plant Breeding Consultant</i> Plant breeding programs in the genomic selection era John Hickey, <i>Head of Corn Product Design, Bayer, USA</i>
Parallel Sessions 1	



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02.30 pm Session 1 Auditorium (Kalala)	Advances in Genetic Innovation and Technology Chair: Dorcus Gemenet, <i>Breeding Simulation Specialist, CIMMYT</i> Pangenome development in yam: unveiling genetic variation for breeding innovation Paterne A. Agre, <i>International Institute of Tropical Agriculture, IITA, Ibadan, Oyo Nigeria</i> Identification of genomic regions and candidate genes for resistance to anthracnose in the Andean diversity panel Mwiinga Mulube, <i>University of Zambia</i> Genome wide association studies reveal novel loci for resistance to groundnut rosette disease in the Groundnut Improvement Network for Africa (GINA) core collection Esther Achola, <i>Department of Agricultural Production, Makerere University, Uganda</i> Leveraging historical data for estimating genetic gain and implementing genomic selection in a student-led barley breeding program Réka Howard, <i>University of Nebraska - Lincoln, USA</i> From genome to field: unraveling virulence and drug-resistance mechanisms in <i>Xanthomonas oryzae</i> to enhance management practices Henry Njoku - <i>University of Ibadan, Nigeria</i> Exploiting Genetic Background in Cassava Nested Association Mapping Population Omotola Dorcas Olaoye, <i>West Africa Centre for Crop Improvement, University of Ghana, Ghana</i>
Session 2 Kalundu Room	Breeding For Enhanced Climate Resilience Chair: Dean Muungani, <i>Product Manager for Grain Crops at IITA</i> Marker-Assisted Breeding for Multiple Disease Resistance in Snap Beans in Kenya: Achievements, Challenges and Opportunities Edith Esther Arunga, <i>Department of Water and Agricultural Resource Management, University of Embu, Kenya</i> Genome-Wide Association Study of Plant Architectural Traits in a Mini-core Collection of Cowpea Under Terminal Drought Stress Kuwabo Kuwabo, <i>Department of Plant Science, University of Zambia, Zambia</i> Deployment of Striga resistant testers to study the combining ability of maize inbred lines containing temperate germplasm Wende Mengesha, <i>IITA, Nigeria</i> Comprehensive Trait Profiling of Cassava Germplasm in the DR Congo: Integrating Agronomic and SNP Marker Analysis Mouritala Sikirou, <i>IITA, Kinshasa, Congo</i> Enhancing genetic gain for climate resilience and nutritional traits in pearl millet Shashi Kumar Gupta, <i>ICRISAT, India</i> Assessment of climate change impact and potential adaptation measures on barley growth and yield using the DSSAT model in Limpopo and Northern Cape Provinces



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	Koketso S. Madimabe, <i>Agricultural Research Council-Vegetables, Industrial and Medicinal Plant, South Africa</i>
VACS Event Gwayi Room	Opportunity and underutilized crops research Moderator: <i>Javier Betran, VACS Breeding</i> Introduction to the session Javier Betran, <i>VACS Breeding</i> Breeding: From Vision to Variety: Breeding Crops for Tomorrow's Soils and Markets Mark Nas, <i>Dryland Crops Program (DCP), CIMMYT</i> Market intelligence Agnes Mbugua, <i>Sustainable Agrifood Systems (SAS), CIMMYT</i> Seed Systems: Beyond Staples: Seeds of Opportunity for Agrifood Diversification Chris Ojiewo, <i>Inclusive Delivery lead of CGIAR, Breeding for Tomorrow</i> Panel Discussion, Q&A and conclusion Panelist: • Kevin Pixley, <i>Dryland Crops Program Director (DCP), CIMMYT</i> • Carlos Astride Houdegbe, <i>African Vegetable Program Lead, University of Abomey-Calavi, Benin</i> • Hapson Mushoriwa, <i>Head of Breeding, IITA</i> • Esnart Yohane, <i>Legume breeder, Chitedze Agricultural Research Station</i> • Dorcas Ibitoye, <i>Director of Research, National Horticultural Research Institute, Ibadan, Nigeria</i> Flashpoints of Impact Moderator: <i>Happy Daudi, VACS Breeding</i> Introduction to the session Happy Daudi, <i>VACS Breeding</i> Lightning round: crop success stories • Dorcas Ibitoye - <i>Okra</i> • Dennis Tippe - <i>Finger millet</i> • Mareme Niang - <i>Sesame</i> • Prakash Gangashetty - <i>Pigeonpea</i> • Alfred Ozimati - <i>Amaranth</i> • Vish Banda/Thiago Mendes - <i>Taro</i> • Dean Muungani - <i>Bambara groundnut</i> • Nalule Habibah - <i>Amaranth</i> • Micheale Yifter Weldemicheal - <i>Sesame</i> Q&A and conclusion Facilitator: <i>Happy Daudi, VACS Breeding</i>
Session 3 Matetsi Room	Seed systems, germplasm conservation and enhancement Chair: <i>Chiamaka Obasi, WACCI, Ghana</i> African Vegetable Biodiversity Rescue Plan 2025-2035: Collecting, conserving and using vegetable genetic resources for improved health, income and climate resilience Sognigbe N'Danikou, <i>Plant genetic Resources Management Working Group (PGRM-WG), African Seed and Biotechnology Platform, African Union Commission</i>



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	 Harnessing the Genetic Potential of Tropically Adapted Early-Maturing Maize Inbred Lines for Hybrid Breeding <i>Adejumobi Idris, IITA, Nigeria</i> Building cowpea genetic resources to improve food security and climate resilience in post-civil war Somalia <i>Ahmed O. Warsame, University of Cambridge, Cambridge, UK</i> Development of Pigeonpea (Cajanus cajan) Guidelines for DUS evaluation in Zimbabwe through morphological characterization <i>Semantha Nyagura, Ministry of Lands, Agriculture, Fisheries, Water and Rural Development, Zimbabwe</i> Integrating Genetic Diversity into Potato Breeding Pipelines for Climate Change Resilience of Farming Communities <i>Thiago Mendes, CIP, Peru</i> Is hybrid wheat a game changer for Africa? <i>Richard Trethowan, The Plant Breeding Institute, University of Sydney, Australia</i>
Session 4 Kazuma Room	Breeding for nutrition quality in agrifood systems <i>Chair: Mawulawoe Awity, WACCI, Ghana</i> Determining the Linkage between Eba's Instrumental and Sensory descriptive profiles and their correlation with Consumer Preferences: Implications for Varietal Adoption in Cassava Breeding <i>Michael. Adesokan, IITA, Nigeria</i> Seed coat thickness determines cooking time and physicochemical properties in Bambara groundnut (Vigna subterranea): Evidence from recombinant inbred lines <i>Takudzwa Mandizvo, Centre for Transformative Agricultural and Food Systems, School of Agricultural, Earth and Environmental Sciences, University of KwaZulu-Natal, South Africa</i> Genomic prediction of grain yield and agronomic traits in maize under optimal and stress conditions <i>Zelege Keimeso, Ethiopian Institute of Agricultural Research (EIAR), Ambo Agricultural Research Center, Ethiopia</i> Leveraging on the use of NIRS in the selection efficiency of high forage quality in Brachiaria species in Uganda <i>Allen Molly, National Livestock Resources Research Institute, Uganda</i> Accelerating Genetic Gain in Groundnut Breeding Program at ICRISAT by Harnessing Novel Phenotyping Tools <i>Tullu Tadessa Asefa, ICRISAT, India</i> Confirming bioavailability of iron in biofortified and non-biofortified East African common bean germplasm and assessing the association of this trait with key nutritional and post-harvest traits <i>Amongi Winnnyfred, Department of Crop Science and Horticulture, Makerere University, Uganda</i>
04.00 pm	Tea/Coffee Break
Parallel Session II	
04:30 pm	Advances in Genetic Innovation and Technology



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Session 5 Auditorium (Kalala)	Chair: Claire Mukankusi, Alliance of Bioversity and CIAT, Uganda Decision-driven approach to Genotype x Environment analysis Paul Gibson, MARCCI, Uganda Genetic Mapping and Identification of Quantitative Trait Loci (QTLs) for Aphid Resistance in Cowpea (Vigna unguiculata L. Walp) Aliyu Aminu, Department of Botany, Faculty of Life Sciences, Ahmadu Bello University, Zaria, Nigeria Spatial Distribution and Characterization of Alternaria solani Causing Tomato Early Blight Disease in Uganda Catherine Kaku, College of Agriculture and Environmental Sciences, Makerere University, Uganda Accelerated development and deployment of heat tolerant wheat varieties to enhance food security in Africa Degu, Wuletaw Tadesse, International Center for Agricultural Research in the Dry Areas (ICARDA), Rabat, Morocco Current Advances in yam breeding Asrat Asfaw, IITA, Nigeria Adapting to Climate Change through Innovation: Genetic Diversity Study on Elite Interspecific Cotton Hybrids in Zimbabwe Marco Mare, Cotton Research Institute, Kadoma, Zimbabwe
NAPB Event Kalundu Room	NAPB-APBA International Borlaug Scholars Networking Event (Closed Meeting) Moderator: Donn Cummings, NAPB, USA Opening Remarks - Julia Sibiya, APBA President Remarks from LOC Chair, - Casper Kamutando, ZPBA President NAPB Origin & Update - Don Jones, NAPB Treasurer NAPB Borlaug Scholars in America - Allen Van Deynze, NAPB Past President NAPB-APBA International Borlaug Scholars - Donn Cummings, Co-Lead Certificate Presentations - Julia Sibiya, APBA President & Klaus Koehler, Co-Lead NAPB Conference, Texas A&M, June 2025 - Klaus Koehler, Co-Lead Mentee Expense reporting expectations 2025 – Lucia Akumpule, APBA Secretariat Manager Mentee-Mentor Networking Time



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	Closing Remarks - Julia Sibiya, APBA President
VACS Event Gwayi Room	Opportunity and underutilized crops research Moderator: Dennis Tippe Introduction to the session Dennis Tippe Fireside Chat: Funders and VACS scholars • VACS Fellows ○ Tinashe Chatara - PhD Scholar (Crop - Bambara groundnut) ○ Mary Omoboluwa Adesina - PhD Scholar (crop - Taro) • Funders ○ Claudia Canales Holzeis, Chief Executive, Kirkhouse Trust ○ Rufaro Madakadze, Lead, Capacity Building and technical Support, Alliance for a Green Revolution in Africa (AGRA) Q&A and conclusion Facilitator: Dennis Tippe
MaRCCI Event Matetsi room	Integrating Data Science And AI-Driven Image Analysis For Genetic Innovation In African Plant Breeding Facilitators: Richard Edema, Stephen O. Opiyo, and Rogério M. Chiulele
Session 6 Kazuma Room	Artificial intelligence and precision phenotyping Chair: Enoch Maereka, ACCI, South Africa From Manual to Digital: Artemis as a Low-Cost AI Tool for Field Phenotyping and Breeding Decisions Woltering, Lennart., Alliance of Bioversity International and CIAT, Arusha, Tanzania Thermal Imaging-Based Assessment of Waterlogging Stress in Cowpea (<i>Vigna unguiculata</i>) Accessions Akintunde Adewole, Institute of Agricultural Research and Training, Nigeria A Flow Cytometer-Based Assessment of the Ploidy Levels of Okra (<i>Abelmoschus esculentus</i> L. Moench) Jacinta A. Opoku, Council for Scientific and Industrial Research – Crops Research Institute (CSIR-CRI), Kumasi, Ghana Drone methods and educational resources for plant science and agriculture Travis Parker, University of California, Davis, USA AI for Scaling Rural Data Collection: an Application in Participatory Plant Breeding Violet Lasdun, The London School of Economics and Alliance of Bioversity and CIAT Phenomic selection of okra under drought stress using unmanned aerial vehicle N. J. Quenum Zountounnou, Department of Horticulture, University of Eswatini, Eswatini
05.30 pm	Poster Session/Side meetings/Networking
06.30 pm	Buses leaves to the dinner venue
07.00 pm	Conference Dinner & Awards Ceremony at the BOMA

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	 Welcome and Introduction of the President for Opening remarks MC: Dean Muungani, <i>General Secretary, APBA</i> Opening Remarks by President Julia Sibiya, <i>APBA President</i> Awards Presentation Julia Sibiya, <i>APBA President</i> Closing Remarks by the Co-host Casper N. Kamutando, <i>Local Organising Committee, Co-Host & ZPBA President</i>
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DAY 2

Tuesday , October 7, 2025

08:30 am	Keynote Address III Facilitator: Ranjana Bhattacharjee, <i>IITA, Nigeria</i> Talk Title: Progress in Developing an Integrated and Sustainable Pathway for Breeding and Seed System Operations in Africa Mercy Diebiru-Ojo, <i>IITA, Nigeria</i>
09:00 am	Panel Discussion: Making Agrifood Systems Sustainable in Africa Moderator: Ranjana Bhattacharjee, <i>IITA, Nigeria</i> Panellists: • Mercy Diebiru-Ojo, <i>IITA, Nigeria</i> • Sieg Snapp, <i>Program Director, Sustainable Agrifood Systems Program (SAS), CIMMYT</i> • Mercy Lungaho, <i>Lead - Food Security, Nutrition, & Health Program · International Institute of Tropical Agriculture (IITA)</i> • Jean Claude Rubyogo, <i>Director of the Pan-Africa Bean Research Alliance (PABRA) and the Global Bean Program Leader at the Alliance of Bioversity International and CIAT</i> • Donn Cummings, <i>Founding member of the NAPBlau</i>
10:00 am	Tea/Coffee break
10.30 am	Keynote Address IV: What Will Climate-Resilient Agriculture Look Like, and How Will You Breed for It? Facilitator: Casper Kamutando, <i>ZPBA, Zimbabwe</i> Kevin Pixley, <i>Dryland Crops Program Director (DCP), CIMMYT</i>
Parallel Sessions III	
11.00 am Session 7 Auditorium (Kalala)	Opportunity and underutilized crops research Chair: Erica Prince, <i>Bayer, South Africa</i> Understanding the genetic and physiological traits that make Bambara groundnut resilient to the root-parasitic-plants, Alectra and Striga Presidor Kendabie, <i>Department of Biology, University of Virginia, USA</i> Grain Protein and Mineral Content of Selected Cowpea Genotypes grown in rainfed dryland farming system in South Africa

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	Abe Sheguro Gerrano, <i>Agricultural Research Council-Vegetable, Industrial and Medicinal Plants, Pretoria, South Africa</i> Hidden Treasures of Indian Agriculture: Opportunity in underutilized crop research Satish Kumar Yadav, <i>ICAR-National Bureau of Plant Genetic Resources, New Delhi, India</i> Analysis of genetic diversity in cowpea [vigna unguiculata (L.) walp] genotypes using Single Nucleotide Polymorphism markers Mbali Thembi Gumede, <i>School of Agricultural, Earth and Environmental Sciences, College of Agriculture, Engineering and Sciences, University of KwaZulu-Natal, South Africa</i> Evaluation of advanced grain sorghum lines for yield, food and related traits Nemera Shargie, <i>ARC - South Africa</i> Genetics of flower bud thrips (Megalurothrips sjostedti Trybom, Thysanoptera: Thripidae) resistance in cowpea Isaac Onziga Dramadri, <i>Department of Crop Science and Horticulture, College of Agricultural and Environmental Sciences (CAES), Makerere University, Uganda</i>
AGRA Event Kalundu Room	Fast tracking the release and commercialization of climate smart and nutrient dense crop varieties in Africa Moderator: <i>Tamnai Naibei-Kembe, AGRA</i> Opening session and lessons from the OneCG Chair: <i>Chris Ojiewo, Inclusive Delivery lead of CGIAR, Breeding for Tomorrow</i> Welcome Remarks and Session Objectives Rufaro Madakadze, <i>Lead, Capacity Building and technical Support, Alliance for a Green Revolution in Africa (AGRA)</i> Setting the scene Evelyn Lusenaka - <i>Director CESSA</i> Bold, smart, and even crazy ideas: reimagining CG-NARES collaboration to tackle system-level challenges Kevin Pixley - <i>CIMMYT</i> Setting up breeding programs for success - knowing where to go and how to get there. Biswanath DAS, <i>CIMMYT</i> Breeding innovation redefined, smarter tools, strategies, and approaches to deliver genetic gains faster and cost-effectively Dorcas Gemenet, <i>OneCG</i>
ICRISAT Event Gwayi Room	Moderator: <i>Damaris A. Odeny, ICRISAT, Nairobi, Kenya</i> Opening Remarks Stanford Blade, <i>Deputy Director General, ICRISAT</i> Optimising breeding pipelines for yield, better nutrition and climate resilience in Dry beans Clare Mukankusi, <i>Alliance Bioversity & CIAT, Uganda</i> Enhancing prediction accuracy of groundnut yields in Eastern and Southern Africa James Mwololo, <i>ICRISAT, Malawi</i> Stay-Green Allele Introgression Enhances Drought Resilience in Elite West African Sorghum Lines Targeted for Dryland Adaptation Cyrill Diatta, <i>ISRA, Senegal</i> Understanding G x E x M for better yields in the drylands Sieg Snapp, <i>Program Director, Sustainable Agrifood Systems Program (SAS), CIMMYT</i>



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	Improving productivity of pearl millet and sorghum through hybrids MacDonald Jumbo Bright & Henry Ojulong, <i>ICRISAT, Africa</i>
African Bioinformatics Institute Event Kazuma Room	Genomics and Bioinformatics session Facilitator: Sumir Panji, <i>Program Manager, Computational Biology Division, University of Cape Town</i> Welcome and introductions African Bioinformatics Institute Sumir Panji Genomic Prediction Christine Diepenbrock Using genomics to detect genes for local adaption: Exploiting Africa's massive landrace diversity Bruce Walsh Integrating Predictive Breeding Technologies to Accelerate Genetic Gain in Plant Breeding Programs Nelson Lubanga Yam Genomics and Bioinformatics: From Classical Breeding to Genomic Innovation Paterne Agre TBA - Vamsi Manthena Audience and panel discussion
Artemis Event Gwayi Room	AI-Enabled Digital Phenotyping for Breeding Teams in the Global South: An interactive session and live exhibition powered by the Artemis Project - on-station phenotyping Facilitator: Stephen Opiyo Keynote Address: The Role of AI in Food Security – Google Research Tackling the Phenotyping Bottleneck: Exploring challenges and innovations in high-throughput phenotyping Introduction to Artemis: Overview of the platform and its applications in crop research. Live Demonstration: Bruno and Artemis in Action – Collecting and analysing field data using smartphones and the pushcart “Bruno”. Panel Discussion: Perspectives on Innovation in Breeding Hands-On Demonstration: Opportunity for participants to try out the Bruno pushcart and Ona app. Speakers and Moderators • Tavonga Siyavora- <i>GoogleResearch</i> • David Guerenna- <i>Alliance of Bioversity International and CIAT</i> • Roy Odama- <i>Alliance of Bioversity International and CIAT</i> • Mina Mjema- <i>Alliance of Bioversity International and CIAT</i> • Hana Gadjasova- <i>Alliance of Bioversity International and CIAT</i> • Lennart Woltering- <i>Alliance of Bioversity International and CIAT</i> • Violet Lasdun - <i>London School of Economics</i>
12.30 pm	Lunch Break
01.30 pm	Keynote Address V Facilitator: Ronica Mukaro, <i>Crop Breeding Institute, Zimbabwe</i> Talk Title: Reimagining Field Testing using Precision Phenotyping and Artificial Intelligence Phani Chavali, <i>Bayer, USA</i>



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Parallel Session III	
02.00 pm	Opportunity and underutilized crops research Chair: Williams Esuma, NARO, Uganda
Session 8 Auditorium	The China-Africa Agricultural Science and Technology Innovation Alliance (CAASTIA): Its rationale and background to implementation strategy for food and nutritional security in Africa Felix Dapare Dakora, Consultant, China-Africa Agricultural Science and Technology Innovation Alliance Breeding and Capacity Strengthening for Opportunity Crops Ranjana Bhattacharjee, IITA, Nigeria, Assessment of Bambara Groundnut (Vigna subterranea (L.) Verdc.) Germplasm in India under the Stress-Tolerant Orphan Legumes (STOL) Initiative Kuldeep Tripathi, ICAR – National Bureau of Plant Genetic Resources, New Delhi Genomic Insights for Climate-Resilient Breeding through Landscape Genomics: A Case Study of Eggplant Wild Relatives Emmanuel Omondi, Genetic Resources and Seed Unit, World Vegetable Center, Tainan, Taiwan Capacity building in mechanization for improved data quality - a case study in Modern Breeding Project with IITA Jamlick Mwathi, Bayer, East Africa Connecting the Dots: An Integrated Path to More Efficient Banana Breeding Brigitte Uwimana, IITA – Uganda, Uganda
AGRA Event Kalundu Room	Fast tracking the release and commercialization of climate smart and nutrient dense crop varieties in Africa Facilitator: Bruce Mutari, AGRA Accelerating the release, EGS production and commercialization of nutrient dense, climate-resilient and market-demanded sorghum, cowpea and rice varieties in Burkina Faso (NutriCropFaso) Nofou Ouedraogo -Sorghum Breeder, INERA, Burkina Faso Rapid Release and Commercialization of Climate-smart Sorghum varieties in Kenya Rachael Kisilu, Sorghum Breeder, KALRO Multi-environment evaluation and release of resilient and climate smart maize hybrids for farmers in Burundi Ir NDIKUMANA Jonas, Maize Breeder, ISABU, Burundi Advancing Climate-Resilient Cowpea: Evaluation, Release, Early Generation Seed Production, and Commercialization of New Varieties in Zambia Lutangu Makweti, Cowpea Breeder, ZARI, Zambia Evaluation, Release, and Commercialization of improved climate-resilient varieties of irrigated lowland and rainfed upland rice in Côte d'Ivoire NOUMOUHA Ghislain, Rice Breeder, CNRA, Côte d'Ivoire Seed Company choices of varieties to commercialize Gordon Mabuyaye, SeedCo Creating Farmer Awareness and Demand for climate smart and nutrient dense crop varieties Rufaro Madakadze - AGRA National Regulatory Authority on requirements for commercialization and quality control Claud Mujaju- Director Research and Specialist Services, Zimbabwe Concluding Remarks Peter Mbogo – AGRA Regional Seed Officer East Na Southern Africa
ICRISAT Event	Moderator: Shashi Kumar Gupta, ICRISAT, India

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Gwayi Room	Harnessing atmospheric nitrogen to improve yields of finger millet and sorghum Emily Gichuhi, KALRO, Kenya Standardizing nutrition analysis for dryland crops for impactful breeding decisions Sunita Choudhary, ICRISAT, India Exploiting phenotypic variation for better yields in pigeonpea Esnart Nyirenda, DARS, Malawi Strengthening Seed Certification Using Molecular Markers: Insights from Groundnut (<i>Arachis hypogaea</i> L.) Manzoor H Dar, ICRISAT, India The Kirkhouse Trust and dryland legumes funding opportunities Claudia Canales, Kirkhouse Trust, UK General Discussion and closing
MaRCCI Event Matetsi room	Integrating Data Science And Ai-Driven Image Analysis For Genetic Innovation In African Plant Breeding Facilitators: - Richard Edema - Stephen O. Opiyo - Rogério M. Chiulele
Artemis Event Kazuma Room	AI-Enabled Digital Phenotyping for Breeding Teams in the Global South: <i>An interactive session and live exhibition powered by the Artemis Project On-Farm Phenotyping</i> Facilitator: Stephen Opiyo Engaging farmers through the Tricot approach Experiences of on-farm phenotyping with Artemis Introduction of Ndizi: a language model for documentation and interpretation tasks Panel Discussion: <i>Future Directions for Farmer-Centred AI in Breeding</i> Speakers and Moderators - Tavonga Siyavora- GoogleResearch - David Guerenna- Alliance of Bioversity International and CIAT - Roy Odama- Alliance of Bioversity International and CIAT - Mina Mjema- Alliance of Bioversity International and CIAT - Hana Gadjasova- Alliance of Bioversity International and CIAT - Lennart Woltering- Alliance of Bioversity International and CIAT - Violet Lasdun - London School of Economics
03.30 pm	Tea Break
04.00 pm	Keynote Speaker V: Reimagining Capacity Building and Education in Crop Improvement in Africa Facilitator: Julia Sibiya, President, APBA Eric Y. Danquah, WACCI, University of Ghana Accra
04.30 pm	Panel Discussion: Capacity Building and education in crop improvement Moderator: Julia Sibiya, APBA President and Vision for Adapted Crops and Soils (VACS) Capacity Development Lead, CIMMYT Panellists: - Klaus Koehler, Advancing Professional Growth and Industry Excellence, Corteva Agriscience & NAPB - Rufaro Madakadze, Lead, Capacity Building and technical Support, Alliance for a Green Revolution in Africa (AGRA) - Mawulawoe Awity, Senior Plant Breeding Researcher, WACCI

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	• Allen Van Deynze, <i>Director of the Seed Biotechnology Center and Associate Director of the Plant Breeding Center at University of California</i> • Eric Danquah, <i>Founding Director of the West Africa Centre for Crop Improvement (WACCI) at the University of Ghana.</i> • John Derera, <i>Senior Director, Plant breeding & Pre-breeding Collaborative Breeding Leadership Program (CBLP), IITA.</i>
05.30 pm-06:00 pm	Awards Ceremony
06.30 pm-08:00 pm	CBLP graduation ceremony

DAY 3

Wednesday, October 8, 2025

08:30 am	Keynote Address VI: An introduction to the Novo Nordisk Foundation – a new actor in sub-Saharan Africa Facilitator: Damaris A. Odeny, Erik Alexandersson, Novo Nordisk Foundation, Denmark
09:00 am	Panel Discussion: Innovative fundraising for crop improvement Moderator: Damaris A. Odeny, Principal Scientist - ICRISAT and Chair, Scientific Committee, APBA Panelists: • Erik Alexandersson, <i>The Novo Nordisk Foundation, Denmark</i> • Evelyn Lusenaka, <i>Centre of Excellence for Seed Systems in Africa (CESSA), Alliance for a Green Revolution in Africa (AGRA)</i> • Young Wha Lee, <i>Gates Foundation, USA</i> • Yacouba Diallo, <i>AFSTA, Kenya</i> • Tom Pircher, <i>GLZ, Germany</i> • Obert Jiri, <i>Permanent Secretary, Minister of Lands, Agriculture, Fisheries, Water and Rural Development, Zimbabwe</i>
10:00 am	Tea/Coffee break/poster Session
10.30 am	Keynote Address VII: Developing and Delivering Impactful Crop Varieties to Address the Challenges of Food Insecurity, Malnutrition, and Poverty Facilitator: Mr Edmore Mtetwa, Head, Seed Services, Zimbabwe Chris Ojiewo, Inclusive Delivery lead of CGIAR, Breeding for Tomorrow
11.00 am	Breeding for enhanced climate resilience Chair: Cosmos Magorokosho, CEO, Agricultural Research Council, Zimbabwe Session 9 Auditorium (Kalala) Screening drought tolerant maize hybrids under heat and combined drought and heat stress for climate adaptation in Sub-Saharan Africa Silvestro Meseka, IITA, Nigeria Assessment of Waterlogging Tolerance in Diverse Cowpea Genotypes Under Simulated Flood Conditions Dada Adenike O, Institute of Agricultural Research and Training, OAU, Ibadan, Nigeria Optimizing chili pepper breeding for climate change: Integrated genomic approaches for heat-tolerant, high-quality breeding lines D.W. Barchenger, World Vegetable Center, Tainan, Taiwan Yield evaluation of Tongil Rice lines in Ghana Kirpal Agyemang Ofosu, Council for Scientific and Industrial Research-Crops Research Institute of Ghana

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	Evaluation of Common bean (<i>Phaseolus vulgaris</i> L.) genotypes in multi-environment trial using linear mixed model-based approaches using spatial model Firew Abel Moges, Melkassa Agricultural Research Center, EIAR, Adama, Ethiopia Accelerating the Development of Climate-Resilient, Low-Chalkiness Rice through Genomic-Assisted Selection and Phenotypic Modeling in African Agroecosystems Adjibogoun O.A. Rodrigue, West African Centre for Crop Improvement, College of College of Basic and Applied Sciences, University of Ghana, Ghana. Characterization of sweetpotato genotypes using agronomic and nutritional traits Nomusa Chizhande, School of Agricultural, Earth and Environmental Sciences, University of KwaZulu-Natal, South Africa Genomics-assisted breeding for improved grain yield and mold resistance in sorghum (<i>Sorghum bicolor</i>) Djidjoho A.T., Centre d'Étude Régional pour l'Amélioration de l'Adaptation à la Sécheresse, Institut
VACS Event Kalundu Room	Choosing the right tool in the toolbox: applications of genomic breeding methods in variety development Facilitator: Greg Vogel, Cornell University Exploration of genomic applications Facilitator: Jack Fabrizio, Cornell University Advances in plant germplasm management Facilitator: Steve Kresovich, Cornell University
Kirkhouse Trust Event Gwayi Room	Strengthening Partnerships for Resilient Legumes: Advancing Science, Sharing Tools, and Building Communities for Climate-Smart Agriculture Facilitator: Claudia Canales Speakers: • Kelwin Kamfwa, University of Zambia, Zambia • Yayis Rezene, Southern Agricultural Research Institute (SARI), Ethiopia • Celestina Jochua, Instituto de Investigação Agrária de Moçambique, Mozambique • Travis Parker, University of California, Davis, USA • Juan Osorno, North Dakota State University, USA • Swiwiwa Hamabwe, University of Zambia, Zambia • Maria Muñoz-Amatriain, University of León, Spain • Sobda Gonné, Institut de Recherche Agricole pour le Développement (IRAD), Maroua, Cameroon • Michael Timko, University of Virginia, USA • Sean Mayes, University of Nottingham, UK • Florence Ifeoma Akaneme, University of Nigeria, Nigeria
IITA Event Matetsi Room	Breeding for Tomorrow (B4T) and Better Diets for Nutrition (BDN) Linkage Facilitator: Mercy Lung'aho (IITA) Opening remarks - Mercy Lung'aho (IITA) Finger Millet for Hidden Hunger Henry Ojulong, (ICRISAT) Eric Manyasa, (formerly ICRISAT) Patrick Sheunda, (Kenya Seed Company Ltd) Daniel Ajaku, (University of Queensland) Zinc-Rich Rice: Unlocking Natural Genetic Variation Talent Mabambe, Alex Douglas, Gareth Norton (University of Aberdeen) Sorghum Biofortification with Iron and Zinc Rae McDowell, (Colorado State University) Davina Rhodes, (Colorado State University) Geoffrey Morris, (Colorado State University) Provitamin A Sorghum: From Genes to Traits Linly Banda, (Colorado State University)

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	Clara Cruet-Burgos, (<i>Colorado State University</i>) Rae McDowell, (<i>Colorado State University</i>) Yazachew Genet, (<i>Colorado State University</i>) David Zapata, (<i>Colorado State University</i>) Baloua Nebie, (<i>CIMMYT, Kenya</i>), Jacques M. Faye, (<i>Institut Sénégalais de Recherches Agricoles</i>) Cyril Diatta, (<i>Institut Sénégalais de Recherches Agricoles</i>) Geoffrey P. Morris, (<i>Colorado State University</i>) Davina H. Rhodes, (<i>Colorado State University</i>) Keynote address: Working at the Interface of Agriculture and Nutrition: Opportunities and Strategies to Alleviate Iron Deficiency Raymond Glahn, <i>Cornell University, USDA-ARS</i> Interactive session with audience on advancing biofortification efforts in African breeding programs Closing remarks Hapson Mushoriwa, <i>IITA</i>
1000 Farms Event Matetsi Room	On-farm Validation Testing in CGIAR-NARES breeding networks Facilitator: Jacob van Etten & Kauê de Sousa Keynote: Overview of on-farm testing and tricot Jacob van Etten & Kauê de Sousa (<i>Alliance Bioversity & CIAT</i>) Multi-trial analysis of on-farm variety ranking data Joost van Heerwaarden, <i>WUR</i> Breeding for social impact: mapping cassava trait preferences through citizen science and socioeconomic analysis Béla Teeken, <i>IITA</i> Building horizontal networks of trust: research into the motivations of crop users to join tricot as on-farm researchers Anna Muller, <i>Alliance Bioversity & CIAT</i> General Discussion
01:00 pm	Lunch Break/Poster Session
02:00 pm	Business Meeting Opening and Welcome Julia Sibiya, <i>Outgoing President, APBA</i> APBA Biannual Report: A Two-Year Review Dean Muungani, <i>General Secretary, APBA</i> Financial Report Agyemang Danquah, <i>Treasurer, APBA</i> Open Discussion on the reports Dean Muungani, <i>General Secretary, APBA</i> Poster Session Awards Damaris A. Odeny, <i>Chair, Scientific Committee</i> Election of APBA Executive Committee Members Rufaro Madakadze, <i>Returning Officer, APBA</i> Showcase New Electives Rufaro Madakadze, <i>Returning Officer, APBA</i>



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	Statement from the President Elect <i>President Elect, APBA</i> Closing Remarks <i>Julia Sibiya, Outgoing President, APBA</i> Announcement of Venue for APBAConf2027 <i>Julia Sibiya, Outgoing President, APBA</i>
04:00 pm	Closing Session Pangirayi B. Tongoona, Honorary Member, ZPBA & Member, LOC
04.30 pm	Tea/Coffee break

Post-conference Workshop (Participation by invitation only) October 9-10, 2025 at the Shrub Lodge, Victoria Falls, Zimbabwe

Day 1, Oct 9, 2025

08:30 am - 09:00 am	Welcome & Introductions: Overview of objectives, participant introductions.
09:00 am-09:30 am	Lecture 1: <i>Experimental design, remedies for faulty trials.</i>
09:30 am-10:40 am	Group Work: <i>Defining objectives; dataset setup, QC</i>
10:40 am -11:00 am	Coffee Break
11:00 am -12:30 pm	Group Work: <i>Initial analyses (e.g GWAS setup, diversity, GS model prep).</i>
12:30 pm-01:30 pm	Lunch
01:30 am -02:00 pm	Lecture 2 : <i>Genomic selection & prediction basics (GBLUP, Bayesian, CV)</i>
02:00 pm-04:00 pm	Group Work: <i>Core analyses (GWAS/QTL, diversity, GS runs).</i>
16:00 pm-04:30 pm	Plenary Discovery Session: <i>Tool/resource discovery for genomic analyses (databases, software, HPC/cloud).</i>
16:30 pm-05:00 pm	Open Office Hours: <i>Participants share resource challenges; support staff provide advice.</i>

Day 2, Oct 10, 2025

08:30 am-09:00 am	Recap & Progress Check : <i>Review progress and challenges in groups.</i>
09:00 am-09:30 am	Lecture 3: <i>Comparative genomics & transcriptomics basics.</i>
09:30 am-11:00 am	Group Work : <i>Running deeper analyses (association tests, GS CV, pop structure).</i>
11:00 am-11:20 am	Coffee Break
11:20 am-12:30 pm	Focused Training : <i>Candidate gene discovery & functional annotation (esp. for high-gap crops).</i>
12:30 pm-01:30 pm	Lunch

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01:30pm-02:00 pm	Lecture 4 : <i>Data structures & reproducible integration (geno, pheno, env).</i>
02:10 pm-04:00 pm	Group Work : <i>Finalize outputs, interpret results, prepare summaries, address challenges</i>
04:00 pm-05:00 pm	Plenary Presentations: <i>5-minute presentations per researcher/group + whole group feedback.</i>
05:00pm-05:30 pm	Closing: <i>Final remarks, evaluation, and next steps.</i>

