



PROGRAMME

UPDATED 1 NOVEMBER 2021

Thursday, 4 November 2021

09.30-10.00

PLENARY SESSION 1: OPENING

Moderator: *Beth Bechdol, Deputy Director-General, FAO*

Opening remarks

QU Dongyu, Director-General, FAO

10.00-12.30

PLENARY SESSION 2: KEYNOTE ADDRESSES

Moderator: *Ismahane Elouafi, Chief Scientist, FAO*

Section A: Developing solutions for farmers

- *Solutions for small-scale farmers (15 minutes)*
Fatma Ben Rejeb, Chief Executive Officer, Pan-African Farmers' Organization (PAFO)
- *Advanced technologies (15 minutes)*
Mauricio Lopes, Research Scientist, Embrapa Agroenergy, Brazilian Agricultural Research Corporation (Embrapa), Brazil
- *Crop improvement – from conservation of crop biodiversity to impactful use (15 minutes)*
Marco Ferroni, Chair, CGIAR System Board
- Discussion (30 minutes)

Section B: Delivering solutions to farmers

- *Seed systems as enablers to seed choice (15 minutes)*
Michael Keller, Secretary General, International Seed Federation (ISF)
- *Showcase of green development of seed industries (15 minutes)*
Hanzhong Wang, Vice President, Chinese Academy of Agricultural Sciences (CAAS), China
- *Policies and governance (15 minutes)*
Rachel Chikwamba, Group Executive for Chemicals, Agriculture, Food and Health, Council for Scientific and Industrial Research, South Africa
- Discussion (30 minutes)

12.30-13.30

Break



Thursday, 4 November 2021

PARALLEL SESSIONS: THEME 1 AND 2

Theme 1: ADVANCED TECHNOLOGIES

13.30-15.30

Session 1.1 Modern plant breeding technologies

Co-Chairs:

- **Rajeev K Varshney**, Research Program Director, Accelerated Crop Improvement, International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) and Professor, Murdoch University, Australia
- **Catherine Ziyimo**, Senior Scientist, BECA-ILRI Hub, International Livestock Research Institute (ILRI)

Rapporteurs:

- **Ndjidjo Kane**, Director, Centre d'Étude Régional pour l'Amélioration de l'Adaptation à la Sécheresse (CERAAS), Institut Sénégalais de Recherches Agricoles (ISRA), Senegal
- **Rhodora Romero-Aldemita**, Director, International Service for the Acquisition of Agri-biotech Applications Southeast Asia Center (ISAAA SEAsia Center), Philippines (the)

- Introduction (5 minutes)
- *Next generation genomics and genomics assisted breeding for international agriculture* (15 minutes)
Rajeev Varshney, Research Program Director, Accelerated Crop Improvement, International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) and Professor, Murdoch University, Australia
- *Genome design of hybrid potato* (15 minutes)
Sanwen Huang, Director General, Agricultural Genomics Institute, Chinese Academy of Agricultural Sciences (CAAS), China
- *Genome editing: Opportunities & challenges* (15 minutes)
Dave Bubeck, Research Director, Seed Product Development, Corteva Agriscience
- *Policy and regulatory issues of new breeding technologies in the European Union* (15 minutes)
Irene Sacristán Sánchez, Head of Unit E3, Biotechnology, Directorate-General for Health and Food Safety, European Commission
- Brief interventions:
 - *Gene-editing of banana for disease resistance* (5 minutes)
Leena Tripathi, Director Eastern Africa Hub, International Institute of Tropical Agriculture (IITA)
 - *GM pulses* (5 minutes)
TJ Higgins, Honorary Fellow, Commonwealth Scientific and Industrial Research Organisation (CSIRO), Australia
 - *Genome editing for cassava (*Manihot Esculenta Crantz*) improvement* (5 minutes)
Ihuoma Okwuonu, Plant Biotechnologist, National Root Crops Research Institute, Nigeria
 - *Policy and governance of new breeding technologies* (5 minutes)
John McMurdy, Vice-President, Innovation and Development, CropLife International
 - *Principles for the governance of gene editing* (5 minutes)
Gregory Jaffe, Biotechnology Project Director, Center for Science in the Public Interest, United States of America (the)
- Q&A session and discussion based on all presentations (25 minutes)
- Summary (5 minutes)



Thursday, 4 November 2021

16.00-18.00

Session 1.2 Emerging biotechnologies and informatics technologies

Co-Chairs:

- **Vittorio Venturi**, Scientific Coordinator and Group Leader, Bacteriology and Strains4Plants, International Centre for Genetic Engineering and Biotechnology (ICGEB)
- **Sobhana Sivasankar**, Section Head, Plant Breeding and Genetics, Joint FAO-IAEA Centre for Nuclear Techniques in Food and Agriculture

Rapporteurs:

- **Anandita Singh**, Professor, Department of Biotechnology, The Energy and Resources Institute (TERI) School of Advanced Studies, India
- **Kassahun Tesfaye**, Director General, Ethiopian Biotechnology Institute, Addis Ababa University, Ethiopia

- Introduction (5 minutes)
- **Plant microbiomes (15 minutes)**
Vittorio Venturi, Scientific Coordinator and Group Leader, Bacteriology and Strains4Plants, International Centre for Genetic Engineering and Biotechnology (ICGEB)
- **AI and big data – Advancements, opportunities and threats (15 minutes)**
Dionysis Bochtis, Director, Centre of Research and Technology Hellas (CERTH), Institute for Bio-economy and Agri-technology (iBO), Greece
- **A scale-based framework for governance and risk of emerging biotechnologies (15 minutes)**
Jack Heinemann, Professor, School of Biological Sciences, University of Canterbury, New Zealand
- **Policy and governance issues in synthetic biology (15 minutes)**
Marianela Araya, Environmental Affairs Officer, Secretariat of the Convention on Biological Diversity
- Brief interventions:
 - **Germplasm meets systems biology – understanding and exploiting intraspecific crop plant adaptation to the climate crisis (5 minutes)**
Wolfram Weckwerth, Chair, Vienna Metabolomics Center, University of Vienna, Austria
 - **ABS/Nagoya/DSI (5 minutes)**
Emily Marden, Research Associate, Department of Botany and Biodiversity Research Centre, University of British Columbia, Canada
 - **Emerging technologies from the farmer's perspective (5 minutes)**
Mark Watne, President of North Dakota Farmers Union, United States of America, and Representative of the World Farmers' Organisation
- Q&A session and discussion based on all presentations (35 minutes)
- Summary (5 minutes)



Thursday, 4 November 2021

PARALLEL SESSIONS: THEME 1 AND 2

Theme 2: CONSERVATION OF PLANT GENETIC RESOURCES FOR FOOD AND AGRICULTURE

13.30-15.30

Session 2.1 The global conservation system

Co-Chairs:

- **Charlotte Lusty**, Head of Programs and Genebank Platform Coordinator, Global Crop Diversity Trust
- **Lamis Chalak**, Professor, Head of Plant Production Department, Faculty of Agronomy, The Lebanese University, Lebanon

Rapporteurs:

- **Tilabilenji Phiri**, Senior Programmes Officer: In-situ Conservation, Southern African Development Community (SADC) Plant Genetic Resources Centre (SPGRC)
- **Thomas Payne**, Former Wheat Germplasm Bank Curator, International Maize and Wheat Improvement Center (CIMMYT)

- Introduction (1 minute)
- The Global Conservation System – how it works:
 - *Plant genetic resources for food and agriculture (PGRFA) conservation – global overview of diversity in situ, ex situ and on farm, how it is conserved and used* (14 minutes)
Nigel Maxted, Professor of Plant Genetic Conservation, School of Biosciences, University of Birmingham, United Kingdom of Great Britain and Northern Ireland (the)
 - *Facilitating conservation of and access to PGRFA diversity through new technologies, approaches and data* (10 minutes)
Fiona Hay, Senior Researcher, Department of Agroecology, Aarhus University, Denmark
 - *Analysing data for finding adaptive traits in crop diversity* (10 minutes)
Ahmed Amri, Former Head, Genetic Resources, International Center for Agricultural Research in the Dry Areas (ICARDA)
 - *Cherokee Heirloom Genetics: A 20-year search for calories and culture* (10 minutes)
Chuck Hoskin, Principal Chief and **Pat Gwin**, Cherokee Ethnobotanist, Cherokee Nation, United States of America
- Q&A session and discussion (15 minutes)
- The Global Conservation System – what impact has it had?
 - *From PGRFA conservation to quality seed delivery and use in different regions* (13 minutes)
Bram de Jonge, Seed Policy Advisor, Oxfam Novib and Researcher, Law & Governance Group, Wageningen University (WUR), Netherlands (the)
 - *Farming systems based on PGRFA diversity – impact on livelihoods and resilience in the Pacific* (13 minutes)
Karen Mapusua, Director, Land Resources Division, Pacific Community (SPC)
 - *Economic impacts of using PGRFA diversity in crop improvement* (13 minutes)
Nelissa Jamora, Agricultural Economist, Global Crop Diversity Trust
- Q&A session and discussion (15 minutes)
- Summary (5 minutes)



Thursday, 4 November 2021

16.00-18.00

Session 2.2 Access and benefit-sharing

Co-Chairs:

- **Lamis Chalak**, Professor, Head of Plant Production Department, Faculty of Agronomy, The Lebanese University, Lebanon.
- **Charlotte Lusty**, Head of Programs and Genebank Platform Coordinator, Global Crop Diversity Trust

Rapporteurs:

- **Isabel Lopez Noriega**, Scientist, Policy Specialist, Alliance of Bioversity International and the International Center for Tropical Agriculture (CIAT)
- **Mariana Yazbek**, Scientist, International Center for Agricultural Research in the Dry Areas (ICARDA)

- Introduction (3 minutes)
- *Twenty years of the International Treaty on Plant Genetic Resources for Food and Agriculture: where are we now?* (20 minutes)
Kent Nnadozie, Secretary, International Treaty on Plant Genetic Resources for Food and Agriculture
- *Successful case studies for implementing ABS measures in South America - What can we learn?* (10 minutes)
Simone Ferreira, Lawyer, Nogueira Ferreira Advogados Associados, Brazil
- *Evolving ABS systems in China for sustainable development and food security* (10 minutes)
Qingwen Yang, Professor and Group Leader, Institute of Crop Sciences, Chinese Academy of Agricultural Sciences (CAAS), China
- *Exchanges between public and private sectors* (10 minutes)
Marisé Borja, Biosolutions Director, Syntech Research Group
- *ABS in an increasingly digitized future* (10 minutes)
David Ellis, Scientist Emeritus, International Potato Center
- Q&A session and discussion (10 minutes)
- Panel discussion (35 minutes)

Moderator:

- **Michael Halewood**, Head, Policy Unit, Alliance of Bioversity International and the International Center for Tropical Agriculture (CIAT)

Panelists:

- **Szonja Csörgő**, Intellectual Property and Legal Affairs Director, Euroseeds
- **Yasmine Lara Beau**, IPM and Seed Collection Manager, Buzuruna Juzuruna Network, Lebanon
- **Tilabilenji Phiri**, Senior Programmes Officer: In-situ Conservation, Southern African Development Community (SADC) Plant Genetic Resources Centre (SPGRC)
- **Ehsan Dulloo**, Scientist, Alliance of Bioversity International and the International Center for Tropical Agriculture
- **Elzbieta Martyniuk**, Professor, Institute of Animal Sciences, Department of Animal Genetics and Conservation, Warsaw University of Life Sciences, Poland
- *Optimizing access and benefit-sharing* (10 minutes)
Amber Scholz, Deputy to the Director, Leibniz Institute DSMZ–German Collection of Microorganisms and Cell Cultures, Germany
- Summary (2 minutes)



Friday, 5 November 2021

PARALLEL SESSIONS: THEME 3 AND 4

Theme 3: CROP VARIETAL DEVELOPMENT AND ADOPTION

9.00-11.00

Session 3.1 Accelerating genetic gains in crops

Co-Chairs:

- **Emmanuel Okogbenin**, Director, Programme Development and Commercialization, African Agricultural Technology Foundation (AATF)
- **Idah Sithole Niang**, Professor, Department of Biotechnology and Biochemistry, University of Zimbabwe, Zimbabwe

Rapporteurs:

- **Ikhide Imumorin**, Executive Director, California State University Program for Education and Research in Biotechnology (CSUPERB), United States of America (the)
- **Oluwole Fatunbi**, Senior Technical Cluster Leader/Innovation Systems Specialist, Forum for Agricultural Research in Africa (FARA)

- Introduction (5 minutes)
- **Keynote: Accelerating genetic gain for sustainable development (20 minutes)**
Barbara Wells, Global Director, Genetic Innovations, CGIAR
- **Case study 1: Climate-smart maize (15 minutes)**
Sylvester Oikeh, TELA Maize Project Manager/Maize Scientist, African Agricultural Technology Foundation (AATF)
- **Case study 2: Bean improvement at Embrapa (15 minutes)**
Elcio Perpetuo Guimaraes, Director General, Embrapa Rice and Beans Research Center, Brazil
- **Case study 3: Harvest Plus orange sweet potato (15 minutes)**
Maria Andrade, Sweet Potato Breeder, International Potato Centre
- **Case study 4: Wheat quality improvement in China (15 minutes)**
Zhonghu He, Head, Research Group, Wheat Quality Breeding, Center for Crop Genetics and Breeding, Chinese Academy of Agricultural Sciences (CAAS), China and International Maize and Wheat Improvement Center (CIMMYT)
- **Panel discussion: Capacity development in developing countries and need-based breeding (30 minutes)**

Moderator:

- **Humberto Gómez Paniagua**, Independent Professional, Costa Rica

Panelists:

- **Seungho Cho**, Director General, Central Area Crop Science, National Institute of Crop Science, Rural Development Administration, Republic of Korea
- **Vivienne Anthony**, Senior Scientific Advisor, Syngenta Foundation for Sustainable Agriculture
- **Mark Laing**, Director, African Centre for Crop Improvement, South Africa
- **Lorena Basso**, President, Basso Semillas, Argentina and President, Seed Association of the Americas (SAA)
- **Gigi Manicad**, Independent Consultant on biodiversity for climate resilience
- Summary (5 minutes)



Friday, 5 November 2021

11.30-13.30

Session 3.2 Facilitated adoption of improved varieties by small-scale farmers

Co-Chairs:

- **Maryke Labuschagne**, Professor in Plant Breeding, University of the Free State, South Africa
- **Maria Andrade**, Sweet Potato Breeder, International Potato Centre (CIP)

Rapporteurs:

- **Daniel Kyalo Willy**, Programme Officer, TAAT Policy, African Agricultural Technology Foundation (AATF)
- **Julius Pyton Sserumaga**, Senior Research Scientist, National Agricultural Research Organization, National Livestock Resources Research Institute, Uganda

- Introduction (5 minutes)
- **Keynote: Improving the low level and rates of adoption of improved varieties in the developing world (20 minutes)**
Ian Barker, Global Potato Agri-Food Systems Program Director, International Potato Center (CIP)
- **Development of nutrient efficient rice varieties on small-scale farms in Madagascar (15 minutes)**
Matthias Wissuwa, Senior Scientist, Japan International Research Center for Agricultural Sciences (JIRCAS), Japan
- **Policy reforms to incentivize adoption (15 minutes)**
Peter Okoth Mbogo, Senior Maize Breeder, Seed Co
- **Role of cooperatives in adoption of new crop varieties (15 minutes)**
Rinaldo Gosparini, General Manager, Santa Rosa Semillas Cooperative, Rosario, Argentina
- **Role of quality seed in improving rice yields: A case study (15 minutes)**
Rakesh K. Singh, Program Leader and Principal Scientist (Plant Breeding), Crop Diversification and Genetics, International Center for Biosaline Agriculture (ICBA)
- Panel discussion: Enabling farmers to accept, adopt and grow improved crop varieties (30 minutes)

Moderator:

- **Martin Ekvad**, Former President, Community Plant Variety Office (CPVO)

Panelists:

- **Tania López Lee**, Executive Director, National Seed Office, Ministry of Agriculture, Costa Rica
- **Peter Button**, Vice Secretary-General, International Union for the Protection of New Varieties of Plants (UPOV)
- **Rasheed Sulaiman V**, Member, Board of the Global Forum for Rural Advisory Services (GFRAS) and Focal Point, Agricultural Extension in South Asia (AESAs)
- **Dominic Glover**, Research Scientist, Institute of Development Studies, United Kingdom of Great Britain and Northern Ireland (the)
- **Ousmane Ndiaye**, Director, Senegalese Association for the Promotion of Small Development Projects (ASPRODEB), Senegal
- **Stella Salvo**, Head of Breeding Partnerships for Smallholder Farming, Bayer Crop Science
- Summary (5 minutes)



Friday, 5 November 2021

PARALLEL SESSIONS: THEME 3 AND 4

Theme 4: SEED SYSTEMS

9.00-11.00

Session 4.1 System innovations in the seed value chain

Co-Chairs:

- *Martin Ekvad, Former President, Community Plant Variety Office (CPVO)*
- *Alison Powell, Chair, International Seed Testing Association (ISTA) Seed Science Advisory Group to the ISTA Executive Committee and Chair, ISTA Vigour Technical Committee*

Rapporteurs:

- *Csaba Gaspar, Programme Manager, OECD Seed Schemes, Organisation for Economic Co-operation and Development (OECD)*
- *Andreas Wais, Secretary General, International Seed Testing Association (ISTA)*

- Introduction (5 minutes)
- *Keynote: Seed systems: their importance and policy challenges (20 minutes)*
Niels Louwaars, Managing Director, Plantum, Netherlands (the)
- *Quality seed production systems: A success story of India: Telangana State as global seed hub (13 minutes)*
Keshavulu Kunusoth, Director, Telangana State Seed & Organic Certification Authority (TSSOCA), India and Vice President, International Seed Testing Association (ISTA)
- *Seed testing for sustainability in Latin America (13 minutes)*
Enriqueta Molina, Associate, Santamarina and Steta Law Firm, Mexico
- *Quality seed production systems: Different quality control systems in one regulatory frame (13 minutes)*
Bellah Mpofo, Policy Development Specialist, Feed the Future Southern Africa Seed Trade Project, Zambia
- *Quality seed production systems (13 minutes)*
Ali Üstün, Secretary General, Economic Cooperation Organization Seed Association (ECOSA)
- *Seed authenticity: Consequences of counterfeit seed in the market and innovative remedies (13 minutes)*
Duncan Ochieng' Onduu, Executive Officer, Seed Trade Association of Kenya, Kenya
- *Seed treatments: How seed treatment contributes to green innovation of plant production (13 minutes)*
Tim Loeffler, Business Owner, Seed Vigor Consulting LLC, United States of America (the)
- Joint Q&A based on the chat – towards lessons learnt across countries (10 minutes)
- Summary (5 minutes)



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11.30-13.30

Session 4.2: Seed enterprise development and international trade

Co-Chairs:

- *Keshavulu Kunusoth, Director, Telangana State Seed & Organic Certification Authority, India and Vice President, International Seed Testing Association (ISTA)*
- *Shaun Ferris, Senior Technical Advisor, Agriculture/Livelihoods and Markets, Catholic Relief Services*

Rapporteurs:

- *Catherine Langat, Technical Manager, Plant Breeding and Variety Registration, Euroseeds*
- *Hélène Khan Niazi, International Agricultural Manager, International Seed Federation*

- Introduction (5 minutes)
- *Government incentives for seed business development – Nigeria (13 minutes)*
Okelola Folarin, Senior Technical Adviser to Director General, National Agricultural Seeds Council (NASC), Nigeria
- *Government incentives for seed business development – Viet Nam (13 minutes)*
Nguyen Thanh Minh, Director, Viet Nam Seed Service Support Centre, Viet Nam
- *Government incentives for seed business development in China (13 minutes)*
Jikun Huang, Professor and Director, New Rural Development Research Institute, Peking University, China
- *Seed sector development for resilience - Uganda (13 minutes)*
Shaun Ferris, Senior Technical Advisor, Agriculture/Livelihoods and Markets, Catholic Relief Services
- *Embracing market-based approaches to development: The East-West Seed Story (13 minutes)*
Lysette Lacambra, KT Technical Specialist, East-West Seed Knowledge Transfer
- *Phyto-sanitary: new approaches on phytosanitary controls to support cross border seed trade (13 minutes)*
Rose Souza Richards, Seed Health Manager, International Seed Federation
- *Seed policy and regional harmonization (13 minutes)*
Justin Rakotoarisaona, Secretary General, African Seed Trade Association (AFSTA)
- Closing panel based on chat questions (20 minutes):

Moderator:

- *Niels Louwaars, Managing Director, Plantum, Netherlands (the)*

Panelists:

- **Kristiina Digryte**, Councillor for Agriculture and Fisheries, Permanent Representation of Estonia to the European Union
- **Francois Burgaud**, Senior Advisor to the Presidency, French Interprofessional Organisation for Seeds and Plants (SEMAE), France
- **Kanokwan (May) Chodchoey**, Executive Director, Asia and Pacific Seed Association
- **Tsungai Bwerazuva**, Seed Expert, Champion Farmer Seeds Cooperative Company, Zimbabwe
- Summary (5 minutes)



Friday, 5 November 2021

14.30-16.00

PLENARY SESSION 3: REPORTS ON CONFERENCE THEMES AND RECOMMENDATIONS

Moderator: *Jingyuan Xia, Director, FAO Plant Production and Protection Division*

Reports on conference themes

- Theme 1: Advanced technologies (10 minutes)
Rajeev K Varshney, Research Program Director, Accelerated Crop Improvement, International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) and Professor, Murdoch University, Australia
- Theme 2: Conservation of plant genetic resources for food and agriculture (10 minutes)
Charlotte Lusty, Head of Programs and Genebank Platform Coordinator, Global Crop Diversity Trust
Lamis Chalak, Professor, Head of Plant Production Department, Faculty of Agronomy, The Lebanese University, Lebanon
- Theme 3: Crop varietal development and adoption (10 minutes)
Emmanuel Okogbenin, Director, Programme Development and Commercialization, African Agricultural Technology Foundation (AATF)
- Theme 4: Seed systems (10 minutes)
Keshavulu Kunusoth, Director, Telangana State Seed & Organic Certification Authority (TSSOCA), India and Vice President, International Seed Testing Association (ISTA)
- Discussion (20 minutes)

Report on conference recommendations

- Recommendations (10 minutes)
Long Mao, Head, Research Group of Wheat Complex Traits Dissection, Institute of Crop Sciences, Chinese Academy of Agricultural Sciences (CAAS), China
- Discussion (20 minutes)

16.00-17.30

PLENARY SESSION 4: HIGH-LEVEL MINISTERIAL SEGMENT AND CLOSING

Moderator: *Beth Bechdol, Deputy Director-General, FAO*

High-level ministerial segment

- **Africa:** South Africa (10 minutes)
- **Asia and the Pacific:** People's Republic of China (the) (10 minutes)
- **Europe:** Netherlands (the) (10 minutes)
- **Latin America and the Caribbean:** Argentina (10 minutes)
- **Near East and North Africa:** Egypt (10 minutes)
- **North America:** United States of America (the) (10 minutes)

Concluding remarks

QU Dongyu, Director-General, FAO

