

Detailed Symposium Programme
Monday 15th February 2016

09.30-12.30: Plenary Session, Green Room

Welcome Address, by **José Graziano da Silva**, Director-General, FAO, Rome, Italy

Keynote Address: *The state of knowledge in biotechnology*, by **Louise Fresco**, President, Executive Board of Wageningen UR, Wageningen, the Netherlands

Keynote Address: *Towards ending the misplaced global debate on biotechnology*, by **Gebisa Ejeta**, Distinguished Professor, Purdue University, West Lafayette, United States of America

Keynote Address by **Evelyn Nguleka**, President, World Farmers' Organisation, Rome, Italy

Moderated by **Ren Wang**, Assistant Director-General, Agriculture and Consumer Protection Department, FAO, Rome, Italy

14.00-17.00: Parallel Sessions (x' indicates no. of minutes)

Sheikh Zayed Centre	Red Room	Green Room
1.1 Facing the challenges of climate change: Adaptation in the crop and forestry sectors	2.1 Improving productivity through enhanced resource use efficiency	3.1 Social and economic impacts of agricultural biotechnologies for smallholders: Taking stock of the evidence and prioritizing future assessments
Chair: Chittaranjan Kole Jacob School of Biotechnology & Bioengineering, Allahabad, India	Chair: Sergio Feingold Instituto Nacional de Tecnologia Agropecuaria, Buenos Aires, Argentina	Chair: Sachin Chaturvedi Research and Information System for Developing Countries, New Delhi, India
<i>Introductory remarks (5')</i> Chittaranjan Kole	BioSciences Research Division, Melbourne, Australia	Co-chair: Eduardo Trigo Ministry of Science, Technology and Productive Innovation, Buenos Aires, Argentina
<i>Developing rice varieties with enhanced adaptation to lowland farming systems: Case studies from South Asia (20')</i> Abdelbagi Ismail International Rice Research Institute, Los Baños, the Philippines	<i>Introductory remarks (5')</i> Thuy Nguyen	<i>Introductory remarks (5')</i> Sachin Chaturvedi
<i>Harnessing agricultural biotechnology for resilience to climate change: A lesson from water efficient maize for Africa project (20')</i> Yoseph Beyene International Maize and Wheat Improvement Center (CIMMYT), Nairobi, Kenya	<i>Resource use efficiency in crops: "Green super rice" to increase water and nitrogen use efficiency of rice (25')</i> Sibin Yu Huazhong Agricultural University, Wuhan, China	<i>Introductory remarks (5')</i> Eduardo Trigo
<i>Molecular breeding in legumes for resource-poor farmers: Chickpea for Ethiopia and India (20')</i> Douglas Cook University of California Davis, Davis, United States	<i>Resource use efficiency in vegetables: Application of molecular breeding to bambara groundnut, an underutilised crop for low-input agriculture (25')</i> Sean Mayes Crops for the Future, Semenyih, Malaysia	<i>Evidence-based policy-making: The role of impact assessment studies and their implications for agricultural biotechnologies (25')</i> David Spielman International Food Policy Research Institute, Washington D.C., United States of America
<i>Genomic approaches for dissecting fitness traits in forest tree landscapes (20')</i> Ciro De Pace Università degli Studi della Tuscia, Viterbo, Italy	<i>Resource use efficiency in fish: Application of biotechnology in genetic improvement in tropical aquaculture (25')</i> David Penman University of Stirling, Stirling, United Kingdom	<i>Lessons learned from case studies of applying biotechnologies for smallholders (15')</i> Andrea Sonnino Italian National Agency for New Technologies, Energy and Sustainable Economic Development and FAO, Rome, Italy
<i>Use of genomics for understanding and improving adaptation to climate change in forest trees (20')</i> Sally Aitken University of British Columbia, Vancouver, Canada	<i>Resource use efficiency in livestock: Bridging the biotechnology-livestock productivity gap in East Africa (25')</i> Denis Mujibi Nelson Mandela African Institute for Science and Technology, Arusha, Tanzania	<i>Evidence at work: Country experience in the use of evidence in policy-making on agricultural biotechnologies (15')</i> Jikun Huang Chinese Academy of Sciences, Beijing, China
<i>Discussion (70')</i> moderated by Chittaranjan Kole	<i>Resource use efficiency in forestry: Utilisation of tree genetic resources (25')</i> Judy Loo Bioversity International, Rome, Italy	<i>Factors that determine whether biotechnologies can have positive impacts on the livelihoods of smallholders: Examples from India (15')</i> Narayan Hegde BAIF Development Research Foundation, Pune, India
<i>Closing remarks (5')</i> Chittaranjan Kole	<i>Discussion (45')</i> moderated by Dominic Glover Institute of Development Studies, Brighton, United Kingdom	<i>Discussion (95')</i> moderated by Eduardo Trigo
	<i>Closing remarks (5')</i> Sergio Feingold	<i>Closing remarks (5')</i> Sachin Chaturvedi

Tuesday 16th February 2016

09.00-10.00: Plenary Session, Green Room

Keynote Address: *Biotechnologies in action in Brazil*, by **Maurício Lopes**, President, Empresa Brasileira de Pesquisa Agropecuária, Brasília, Brazil

Keynote Address: *Breakthroughs in resource productivity*, by **Gunter Pauli**, Founder, Zero Emissions Research and Initiatives Network, Japan

Moderated by Clayton Campanhola, Strategic Programme Leader, Sustainable Agriculture, FAO, Rome, Italy

10.00- 13.00: Parallel Sessions

Sheikh Zayed Centre	Red Room	Green Room
<p>1.2 Facing the challenges of climate change: Adaptation in the livestock and fishery sectors</p> <p>Chair: Shadrack Moephuli Agricultural Research Council, Pretoria, South Africa</p> <p>Co-chair: Thuy Nguyen BioSciences Research Division, Melbourne, Australia</p> <p><i>Introductory remarks (5')</i> Thuy Nguyen</p> <p><i>Fish breeding for future environments under climate change (20')</i> Panya Sae-Lim Norwegian Institute of Food, Fishery and Aquaculture Research, Tromsø, Norway</p> <p><i>Development of diagnostic tools and vaccines for aquatic animals (20')</i> Sandra Adams University of Stirling, Stirling, United Kingdom</p> <p><i>Biotechnologies for animal breeding and coping with climate change (20')</i> Paul Boettcher FAO Animal Genetic Resources Branch, Rome, Italy</p> <p><i>Use of biotechnologies to improve feed quantity and quality: Adaptation to the changing climate from the animal nutrition perspective (20')</i> Ulrich Meyer Friedrich-Loeffler-Institut, Greifswald, Germany</p> <p><i>Development of livestock vaccines (20')</i> Jean de Foucauld Health for Animals, Brussels, Belgium</p> <p><i>A landscape genomics approach in unravelling adaptive genetic diversity in goats: A case study of South Africa (20')</i> Farai Muchadeyi Agricultural Research Council, Pretoria, South Africa</p> <p><i>Discussion (50') moderated by Shadrack Moephuli</i></p> <p><i>Closing remarks (5')</i> Shadrack Moephuli</p>	<p>2.2 Post production value addition and food safety (2 sub-sessions)</p> <p>Chair sub-session 1: Sergio Feingold Instituto Nacional de Tecnología Agropecuaria, Buenos Aires, Argentina</p> <p>Chair sub-session 2: Delia Grace International Livestock Research Institute, Nairobi, Kenya</p> <p><u>Sub-session 1: Enhancing value in the post-production phase</u> <i>Introductory remarks (5')</i> Sergio Feingold</p> <p><i>Use of feed additives generated through fermentation technologies for livestock feed (20')</i> Cavaba Srinivas Prasad National Institute of Animal Nutrition and Physiology, Bengaluru, India</p> <p><i>Use of biotechnologies to increase the storability and shelf life of fruit (20')</i> Eric van de Weg Wageningen University and Research Centre, Wageningen, the Netherlands</p> <p><i>Applying agricultural biotechnology tools and capabilities to enhance food security and nutrition from local food crops to stimulate sustainable income opportunities for small holder farmers to reduce poverty (20')</i> Howard-Yana Shapiro Mars Incorporated, Dranesville and University of California Davis, Davis, United States of America</p> <p><i>Discussion (20') and sub-session closing remarks (5') moderated by Sergio Feingold</i></p> <p><u>Sub-session 2: Using biotechnologies to ensure the safety of food</u> <i>Introductory remarks (5')</i> Delia Grace</p> <p><i>Traditional milk fermentation as a potential tool for sustainable improvement of food safety' (20')</i> Kohei Makita Rakuno Gakuen University, Ebetsu, Japan</p> <p><i>Aflasafe: A case study for aflatoxin reduction in crops (20')</i> Ranjit Bandyopadhyay International Institute of Tropical Agriculture, Ibadan, Nigeria</p> <p><i>Diagnostic tools to detect pathogens causing tuberculosis in cattle and prevent their transmission through dairy products to humans (20')</i> Flávio Ribeiro de Araújo Empresa Brasileira de Pesquisa Agropecuária, Brasília, Brazil</p> <p><i>Discussion (20') and sub-session closing remarks (5') moderated by Delia Grace</i></p>	<p>3.2 Public policies, strategies and regulations on agricultural biotechnologies</p> <p>Chair: TBC</p> <p><i>Introductory remarks (5')</i> TBC</p> <p><i>Supporting developing countries in the development and implementation of their national biosafety frameworks (15')</i> Charles Gbedemah Convention on Biological Diversity, Montreal, Canada</p> <p><i>The role of intellectual property rights in enabling or impeding the application of agricultural biotechnologies, with special reference to developing country agriculture (15')</i> Anatole Krattinger World Intellectual Property Organisation, Geneva, Switzerland</p> <p><i>Regulation and intellectual property of agricultural biotechnologies: Perspectives from the private sector (15')</i> Adrienne Massey Biotechnology Industry Organization, Washington D.C, United States of America</p> <p><i>Regulation and intellectual property of agricultural biotechnologies: Perspectives from the civil society (15')</i> Guy Kastler La Via Campesina, Narbonne, France</p> <p><i>The challenges of developing national policies and regulations for agricultural biotechnologies: Reflections from cumulative experience (15')</i> Eduardo Trigo Ministry of Science, Technology and Innovation, Buenos Aires, Argentina</p> <p><i>How to ensure that policies, strategies and regulations on agricultural biotechnologies act to benefit smallholders (15')</i> Dominic Glover Institute of Development Studies, Brighton, United Kingdom</p> <p><i>Discussion (80') moderated by TBC</i></p> <p><i>Closing remarks (5')</i> TBC</p>

Tuesday 16th February 2016

14.30-17.30: High Level Segment, Green Room

Opening and Closing Remarks by José Graziano da Silva, Director-General, FAO, Rome, Italy

High-level participants include:

- Argentina: Néstor Roulet, Secretario de Agregado de Valor, Ministerio de Agroindustria
- Bangladesh: Begum Matia Chowdhury, Minister for Agriculture (TBC)
- Cameroon: Henri Eyebe Ayissi, Minister of Agriculture and Rural Development (TBC)
- Canada: Lawrence MacAulay, Minister for Agriculture and Agri-Food (TBC)
- Nepal: Haribol Prasad Gajurel, Minister of Agricultural Development (TBC)
- Oman: Fuad bin Ja'afar bin Mohammed Al Sajwani, Minister for Agriculture and Fisheries (TBC)
- Senegal: Papa Seck, Minister of Agriculture and Rural Equipment
- The Netherlands: Hans Hoogeveen, Vice Minister for Agriculture, Ministry of Economic Affairs
- The United States of America: Michael Scuse, Under Secretary for Farm and Foreign Agricultural Services

Moderated by Marcela Villarreal, Director, Office for Partnerships, Advocacy and Capacity Development (OPC), FAO, Rome, Italy

17.30-19.00: Student Interactive Session, Sheikh Zayed Centre

Participating universities include:

- American University of Beirut, Lebanon
- Bogor Agriculture University, Indonesia
- Cornell University, the United States of America
- University of Ghana, Ghana
- Wageningen University, the Netherlands

Panellists include:

- **Gebisa Ejeta**, Purdue University, the United States of America
- **Louise Fresco**, Wageningen UR, the Netherlands
- **Evelyn Nguleka**, World Farmers' Organisation, Italy (TBC)
- **Gunter Pauli**, Zero Emissions Research and Initiatives Network, Japan
- **José Graziano da Silva**, FAO Director-General (TBC)

The session is organized with Young Professionals for Agricultural Development (YPARD) and will be facilitated by Kakoli Ghosh, Coordinator, Academia and Research Institutions, OPC, FAO, Rome, Italy

Wednesday 17th February 2016

09.00-12.00: Parallel Sessions

Sheikh Zayed Centre	Red Room	Green Room
1.3 How can biotechnologies contribute to adaptation with mitigation co-benefits?	2.3 Nutrition and food quality	3.3 Investing in biotechnology solutions through capacity development and partnerships
Chair: Olivier le Gall Institut National de la Recherche Agronomique, Paris, France	Chair: Maggie Gill CGIAR Independent Science and Partnership Council, Rome, Italy	Chair: Kongming Wu Chinese Academy of Agricultural Sciences, Beijing, China
<i>Introductory remarks (5')</i> Olivier le Gall		<i>Introductory remarks (5')</i> Kongming Wu
<i>Agricultural biotechnology and the economics of food security and climate change mitigation (25')</i> Daniel Sumner University of California Davis, Davis, United States of America	<i>Introductory remarks (5')</i> Maggie Gill <i>Our food, our diet, our health: Where do we go from here?</i> Anna Lartey	<i>Capacity development and partnerships in agricultural biotechnologies (25')</i> Sunkeswari Raghavendra Rao Department of Biotechnology, Government of India, New Delhi, India

<i>Biodiversity key to helping farmers adapt to climate change (15')</i> Ann Tutwiler Bioersity International, Rome, Italy	FAO Nutrition and Food Systems Division, Rome, Italy	<i>Biosciences capacity building in Africa: Lessons learned from Biosciences eastern and central Africa (BecA) (15')</i> Appolinaire Djikeng Biosciences eastern and central Africa, Nairobi, Kenya
<i>Biological nitrification inhibition (BNI) in plants: Implications for nitrogen-use efficiency and nitrous oxide emissions from agricultural systems (15')</i> Guntur Venkata Subbarao Japan International Research Center for Agricultural Sciences, Tsukuba, Japan	<i>Application of biotechnologies in improving the quality of rice and wheat. (20')</i> Melissa Fitzgerald University of Queensland, St Lucia, Australia	<i>Case studies of public-private partnerships in agricultural biotechnologies: Lessons learned (15')</i> Denis Murphy University of South Wales, Cardiff, United Kingdom
<i>Mitigation of enteric methane emissions from ruminant animals (15')</i> Henning Steinfeld FAO Livestock Information, Sector Analysis and Policy Branch, Rome, Italy	<i>Biofortification of staple food crops: Justification, progress, and future activities. (20')</i> Howarth Bouis International Food Policy Research Institute, Washington D.C., United States of America	<i>Building partnerships, empowering champions: The example of the Cornell Alliance for Science (15')</i> Sarah Evanega Cornell University, Ithaca, United States of America
<i>Use of biodiversity as a biotechnological tool for carbon sequestration in the tropics (15')</i> Paulo Kageyama Universidade de São Paulo, São Paulo, Brazil	<i>Fish for all: role of biotechnology in improving nutrition (20')</i> Albert Tacon Aquatic Farms Ltd., Honolulu, United States of America	<i>North-south/west-east cooperation in agricultural biotechnologies: Some lessons from Italy (15')</i> Riccardo Aleandri Council for Agricultural Research and Economical Analysis, Rome, Italy
<i>Carbon sequestration in agricultural soils: The "4 per mil" program (15')</i> Hervé Saint Macary Centre de coopération internationale en recherche agronomique pour le développement (CIRAD), Paris, France	<i>Discussion (80') moderated by</i> Maggie Gill	<i>Case studies of south-south collaboration in agricultural biotechnologies: Lessons learned (15')</i> Sachin Chaturvedi Research and Information System for Developing Countries, New Delhi, India
<i>Discussion (70') moderated by</i> Olivier le Gall	<i>Closing remarks (5')</i> Maggie Gill	<i>Discussion (70') moderated by</i> Courtney Paisley , Young Professionals for Agricultural Development (YPARD), Rome, Italy
<i>Closing remarks (5')</i> Olivier le Gall		<i>Closing remarks (5')</i> Kongming Wu

12.30- 14.00: Plenary Session, Green Room

Reporting of outcomes from the three parallel sessions dedicated to the 'Climate change' theme, by Olivier Le Gall, Institut National de la Recherche Agronomique (CIRAD), France (TBC)

Reporting of outcomes from the three parallel sessions dedicated to the 'Sustainable food systems and nutrition' theme, by Maggie Gill, CGIAR Independent Science and Partnership Council, Rome, Italy

Reporting of outcomes from the three parallel sessions dedicated to the 'People, policies, institutions and communities' theme, by Sachin Chaturvedi, Research and Information System for Developing Countries, India

Reporting of the outcomes from the Student Interactive Session, by Kakoli Ghosh, FAO Office for Partnerships, Advocacy and Capacity Development, Italy

Some highlights of the Symposium from a non-FAO perspective, by Louise Fresco, Wageningen UR, the Netherlands

Closing remarks, by José Graziano da Silva, FAO Director-General (TBC)

Moderated by Shadrack Moephuli, Agricultural Research Council, South Africa

Side Events

An international call for side events was opened by FAO in November 2015 with a deadline of 31 December 2015 (<http://www.fao.org/about/meetings/agribiotechs-symposium/side-events/en/>). All proposals were carefully considered and five side events were chosen based on the pre-defined selection criteria. Side events are arranged by external stakeholders and FAO is not responsible for organization of these side events.

Selected Proposals:

Date and Time: Monday 15th February 2016: 12.45-13.45
Venue: Iran Room
Title: ***African Biofortified Sorghum Project***
Organizer: Global Harvest Initiative
Co-organizer(s): Africa Harvest and DuPont Pioneer

Date and Time: Monday 15th February 2016: 12.45-13.45
Venue: Sheikh Zayed Centre
Title: ***Helping farmers grow: Climate change, food security and the technology nexus***
Organizer: CropLife
Co-organizer(s): Borlaug Institute for International Agriculture, Texas A&M University and International Food Policy Research Institute

Date and Time: Tuesday 16th February 2016: 13.15-14.15
Venue: Iran Room
Title: ***The voice of farmers: Biotechnology in the field***
Organizer: Canadian Canola Growers Association
Co-organizer: Asociación Argentina de Consorcios Regionales de Experimentación Agrícola (AACREA)

Date and Time: Tuesday 16th February 2016: 13.15-14.15
Venue: Sheikh Zayed Centre
Title: ***New breeding technologies for smallholders' challenges***
Organizer: Ministry of Economic Affairs of the Government of the Netherlands

Date and Time: Tuesday 16th February 2016: 17.45-18.45
Venue: Iran Room
Title: ***Practical approaches to regulation and oversight of agricultural biotechnology: Experiences from developed and developing countries***
Organizer: Government of Canada
Co-organizer(s): Government of the United States of America

Room Numbers

Green Room: (A122int) Building A, Floor 1, Room 22int
Red Room: (A121int) Building A, Floor 1, Room 21int
Iran Room: (B116) Building B, Floor 1, Room 16
Sheikh Zayed Centre: Found in the Atrium, Ground Floor, just inside the main entrance.



Agenda may be subject to change. Use this QR code to access the latest version of the agenda on the symposium website or visit: <http://www.fao.org/about/meetings/agribiotechs-symposium/en/>