

**2010 BGRI Technical Workshop Program
May 30 & 31, St. Petersburg, Russia**

Day 1. Sunday, May 30

Welcome and Opening Ceremony

Chair: Jeanie Borlaug Laube, Chair, Borlaug Global Rust Initiative

- 9:00-9:05 Jeanie Borlaug Laube, Chair, Borlaug Global Rust Initiative
9:05-9:10 Ronnie Coffman, Vice-Chair BGRI
- 9:10-9:30 **Keynote Address**
Inheriting Borlaug's Legacy: The Challenge Ahead
Presented by Dr. S. Ayyappan, Director General, Indian Council of Agricultural Research and Secretary, Department of Agriculture Research and Education, Government of India
- 9:30-9:50 **Genetic Protection of Wheat from Rusts and Development of Resistant Varieties in Russia and Ukraine.**
Presented by Alexey Morgounov, International Winter Wheat Improvement Program, CIMMYT-Turkey
- 9:50-10:10 **The Structure, Virulence and Molecular Characterization of *Puccinia triticina* and *Puccinia graminis* Populations in Various Regions of Russia in 2001-2008**
Presented by Ekaterina Skolotneva, All-Russian Research Institute of Phytopathology, Moscow, Russia
- 10:10-10:25 Tea break

Session 1. World of Rust: Global Perspectives

Chair: Mahmoud Solh, Director General, ICARDA

- 10:25-10:55 **Update on Rust Surveillance Efforts of the BGRI**
Presented by Robert F. Park, Plant Breeding Institute, University of Sydney, Australia
- 10:55-11:20 **Improving Wheat Stripe Rust Resistance in Central Asia and the Caucasus: Present Status and Future Outlook**
Presented by Zafar Ziyaev, Uzbek Research Institute of Plant Industry, Uzbekistan
- 11:20-11:45 **Global Status of Stripe Rust**
Presented by Colin Wellings, Plant Breeding Institute, University of Sydney, Australia

11:45-12:10 **Global Status of Leaf Rust of Wheat**
Presented by Julio Huerta-Espina, CIMMYT-Mexico

12:10-12:35 **Status of Rust Research in China**
Presented by ZS Kang, Northwest Agriculture and Forestry University,
China

12:35- 1:30 **Lunch Break** (Lunch Buffet at Holiday Inn Restaurant, included)

Session 2. Global Climate Change: Projected Impacts on Rust Epidemiology
Chair: Kay Simmons, USDA, Agricultural Research Service

1:30- 2:00 **Implications of Climate Change for Pests, Diseases, Crop Yield and Food Security.**
Presented by Adrian Newton, Scottish Crops Research Institute,
Scotland

2:00-2:30 **Rust-proofing Wheat for a Changing Climate**
Presented by Sukumar Chakraborty, CSIRO, University of Queensland,
Australia

2:30-3:00 **Shifting Boundaries: Challenges for Rust Monitoring**
Presented by David Hodson, UN-FAO

3:00-3:20 Tea break

Session 3: Management of Major Genes and Minor Genes

3:20-5:20 **The Way Forward**
Moderator: Katherine Kahn, Bill & Melinda Gates Foundation
With panel: Robert F. Park (PBI University of Sydney, Australia),
Richard Michelmore (The University of California at Davis, USA) and
Ravi Singh (CIMMYT-Mexico)

Audience members are invited to participate actively in this discussion. If there are questions you want to ensure are raised (via the facilitator or by asking them directly yourself), please send a short email to: katherine.kahn@gatesfoundation.org

5:20-5:30 **Logistics Update**

7:00-9:00 **Cocktail & Poster Session Mixer**
7:00-8:00 odd number posters
8:00-9:00 even numbered posters

Day 2: Monday May 31

8:50-9:00 **Welcome and Logistics Update**

Session 4. Molecular Studies of Rust Pathogens

Chair: Solomon Assefa, Ethiopian Institute for Agricultural Research

9:00- 9:30 **Exploiting Pathogen Effectors in Breeding and Deployment of Disease Resistance**
Presented by Sophien Kamoun, The Sainsbury Laboratory, John Innes Centre, UK

9:30- 10:00 **How Sweet is Parasitic Life? Nutrient Uptake in Rust Fungi**
Presented by Ralf Voegele, Universität Hohenheim, Germany

10:00-10:30 **Comparative Genomics of Rust Fungi**
Presented by Christina Cuomo, Broad Institute of MIT and Harvard, USA

10:30-10:40 Tea break

Session 5. Pathogen Evolution

Chair: M. Yaqub Mujahid, National Agricultural Research Center, Pakistan

10:40- 11:10 **Role of Berberis spp. As alternate hosts in generating new races of Puccinia graminis and P. striiformis**
Presented by Yue Jin, USDA Cereal Disease Laboratory, USA

11:10-11:40 **Characterization of Two New Wheat Stem Rust Races within the Ug99 Lineage in South Africa**
Presented by Zak Pretorius, University of Free State, South Africa

11:40-12:10 **Mitigating the vulnerability window: roles and challenges of chemical control of rusts in developing countries.**
Presented by Rick Ward, CIMMYT-Afghanistan

12:10-1:30 **Special Luncheon Presentation** (Lunch will be served in the Conference Hall)
Who feeds the world in 2010 and beyond?: Gender equity in agricultural research and extension
Presented by Eija Pehu, The World Bank

Session 6. Advancing Rust Resistance Breeding: Germplasm and Tools

Chair: Tom Lumpkin, Director General, CIMMYT

- 1:30- 1:55 **The Molecular Basis of Rice Non-host Immunity to Cereal Rusts**
Presented by Mick Ayliffe, CSIRO Plant Industry, Canberra, Australia
- 1:55-2:25 **Non-race Specific Resistance to Rusts in CIMMYT Spring Wheats: Breeding Advances**
Presented by Ravi Singh , CIMMYT-Mexico
- 2:25-2:55 **Non-race Specific Resistance: Molecular Genetics & Pre-breeding Issues**
Presented by Evans Lagudah, CSIRO Plant Industry, Canberra, Australia
- 2:55-3:25 **The Status of Genetic Resources and Introgressions for Race-Specific Stem Rust Resistance**
Presented by Matthew Rouse, University of Minnesota, USA
- 3:25-3:55 **Suppression and Expression of Rust Genes in Wheat Plants**
Presented by Scot Hulbert, Washington State University, USA
- 3:55-4:25 **Genomic Selection for Durable Rust Resistance in Wheat**
Presented by Mark Sorrells, Cornell University, USA
- 4:25-4:40 Tea break

Session 7. Delivering Rust Resistant Wheat to Farmers

- 4:40- 6:00 **Perspectives from National Programs.**
Moderated by Arun Joshi (CIMMYT-Nepal)
Panelists:
M. Osmanzi (CIMMYT-Afghanistan)
M. Azab (Agricultural Research Center-Egypt)
Bedada G. (Ethiopian Institute for Agricultural Research-Ethiopia)
P. Njau (Kenya Agricultural Research Institute- Kenya)

Audience members are invited to participate actively in this discussion

Session 8: Meeting Close

Chair: Ronnie Coffman, Vice-Chair Borlaug Global Rust Initiative

- 6:00-6:30 **Closing Presentation**
Presented by Robert A. McIntosh, Professor Emeritus, Plant Breeding Institute, University of Sydney, Australia