# 13<sup>th</sup> Asian Maize Conference and Expert Consultation on "Maize for Food, Feed, Nutrition and Environmental Security"

# Radisson Blu Hotel, Ludhiana, India October 8–10, 2018

# **PROGRAM**

# Day 1: October 8, 2018

08:30 - 10:30 Inaugural Session

**Venue: Amber Hall-B** 

- 08:30 08:35 Welcome N.S. Bains (Director Research, Punjab Agricultural University)
- 08:35 08:50 13th Asian Maize Conference Scope and Expectations B.M. Prasanna (Director, Global Maize Program, CIMMYT & CGIAR Research Program MAIZE)
- 08:50 09:00 Remarks B.S. Dhllon (Vice-Chancellor, Punjab Agricultural University)
- 09:00 09:10 Remarks A.K. Singh (DDG-Crop Science, ICAR)
- 09:10 09:30 Remarks by Co-chair Martin Kropff (DG, CIMMYT)
- 09:30 09:50 Remarks by Chair Trilochan Mohapatra (DG, ICAR & Secretary, DARE, Government of India)
- 09:50 10:15 Inaugural Address by Chief Guest Shri Gajendra Singh Shekhawat, Hon'ble State Minister, Ministry of Agriculture and Farmers' Welfare, Government of India
- 10:15 10:25 Vote of thanks Sujay Rakshit (Director, ICAR-Indian Institute of Maize Research)
- 10:25 10:30 National Anthem

# 10:30 - 11:00 Coffee/Tea (Paisley Hall)

# 11:00 – 12:00 Plenary Technical Session 1

Venue: Amber Hall-B

Co-Chairs: Trilochan Mohapatra (ICAR, India)

Rita Mumm (University of Illinois, USA)

- 11:00 11:25 Maize in Asia Status, challenges and opportunities B.M. Prasanna (CIMMYT)
- 11:25 11:50 Accelerating maize improvement using modern technologies Neal Gutterson (Corteva) through WebEx (Online)
- 11:50 12:00 Q&A; Remarks by Co-Chairs

# 12:00 – 13:00 Plenary Technical Session 2

Venue: Amber Hall-B

Panel Discussion: "Doubling Asia's maize production in the next decade"

Moderator: Martin Kropff (CIMMYT, Mexico)

#### Panellists:

- 1. Xinhai Li (CAAS, China)
- 2. Dang Ngoc Ha (NMRI, Vietnam)
- 3. Anand Pandravada (Corteva)
- 4. Herve Thieblemont (SFSA, Thailand)
- 5. B.M. Prasanna (CIMMYT)

13:00 – 14:00 Lunch (Paisley Hall)

14:00 – 16:00 Parallel Technical Sessions

# Technical Session 3: Novel Tools/Strategies for Increasing Genetic Gains

Venue: Amber Hall-B

Co-Chairs: Xinhai Li (CAAS, China)

Navtej Singh Bains (PAU, India)

#### **Keynote Lecture:**

14:00 – 14:25 Seeds of Discovery (SeeD) in maize – Kevin Pixley (CIMMYT, Mexico)

14:25 - 14:30 Q&A

#### **Lead Talks:**

- 14:30 14:50 Tropical maize genome: what do we know so far, and how to use that information? Yunbi Xu (CIMMYT, China)
- 14:50 15:10 Genomic and enabling technologies for enhancing genetic gains in tropical maize Sudha Nair (CIMMYT, India)
- 15:10 15:30 High-throughput field-based phenotyping in maize Mainassara Zaman-Allah (CIMMYT, Zimbabwe)

15:30 - 15:35 Q&A

#### **Rapid Fire Presentations:**

- 15:35 15:45 Genome-wide selection to introgress exotic maize germplasm into China Hongjun Yong (CAAS, China)
- 15:45 15:55 Herbicides-induced chromosome doubling of maize haploids in tropical environments Yufeng Jiang (GAAS, China)
- 15:55 16:00 Remarks by Co-Chairs

# Technical Session 4: Sustainable intensification of maize-based cropping systems in Asia

Venue: Amber Hall-A

Co-Chairs: A.K. Singh (ICAR, India)

Sain Dass (Ex-ICAR-IIMR, India)

#### **Keynote Lecture:**

14:00 – 14:25 Precision agriculture in maize-based cropping systems – Bruno Gerard (CIMMYT, Mexico)

14:25 - 14:30 Q&A

#### **Lead Talks:**

- 14:25 14:45 New horizons of sustainable intensification in maize systems in South Asia M.L. Jat (CIMMYT, India)
- 14:45 15:05 Maize intensification in major production regions of the world: Evidence from a global multi-location study T. Satyanarayana (IPNI, India)
- 15:05 15:20 Does conservation agriculture yield benefits in coastal Bangladesh? Evidence from three years of farmer managed rice-maize rotational trials Timothy Krupnik (CIMMYT, Bangladesh)

15:25 - 15:30 Q&A

#### **Rapid Fire Presentations:**

- 15:30 15:40 Efficiency of slow/controlled-release fertilizers or nano-endophyte on agronomy and yield of maize hybrids in the Mekong delta of Vietnam Le Quy Kha (IAS, Vietnam)
- 15:40 15:50 Ecological intensification for climate resilient maize-based cropping systems in India Aditya Singh (ICAR-IIMR, India)
- 15:50 16:00 Q&A; Remarks by Co-Chairs
- 16:00 16:30 Coffee/Tea (Paisley Hall)
- 16:30 18:00 Poster Session-I
- 18:30 Depart for Punjab Agricultural University (PAU) campus
- **19:00 20:00 Cultural Program**
- 20:00 21:30 Dinner hosted by PAU
- 21:30 Depart back to the Hotels

# Day 2: October 9, 2018

# 08:20 – 09:30 Plenary Technical Session 5

**Venue: Amber Hall-B** 

Co-Chairs: B.S. Dhillon (PAU, India)

Ram Kaundinya (FSII, India)

08:20 – 08:50 Institutional and policy innovations for food and nutritional Security in Asia – Ramesh Chand (Niti Aayog, India)

08:50 – 09:15 Maize improvement in India – Status and prospects – Sujay Rakshit (ICAR-IIMR, India)

09:15 - 09:30 Q&A; Remarks by Co-Chairs

09:30 - 10:00 Coffee/Tea (Paisley Hall)

#### 10:00 – 12:00 Parallel Technical Sessions

# Technical Session 6: Maize Breeding and Stress Resilience in Asia

**Venue: Amber Hall-B** 

Co-Chairs: Mike Robinson (SFSA, Switzerland)

P.K. Chakraborty (ICAR, India)

#### **Keynote Lecture:**

10:00 – 10:25 Maize for changing climate: chasing the moving target – P.H. Zaidi (CIMMYT, India)

10:25 - 10:30 Q&A

#### **Lead Talks:**

- 10:30 10:45 Next generation phenotyping technologies in Breeding for Abiotic Stress Tolerance in Maize Mitch Tuinstra (Purdue University, USA)
- 10:45 11:00 Identification and promotion of heat stress resilient maize hybrids for Terai region of Nepal K.B. Koirala (NMRP, Nepal)

11:00 - 11:05 Q&A

## **Rapid Fire Presentations:**

- 11:05 11:15 Genomic regions associated with heat stress tolerance in tropical maize Seetharam K. (CIMMYT, India)
- 11:15 11:25 Outbreaks of Fusarium ear rot on maize In Thailand Warapon Bukoed (Kasetsart University, Thailand)
- 11:25 11:35 Defense response boost through Cu-chitosan Nanoparticles and Plant Growth enhanced coupled with Multiple Disease Control Shyam Sundar Sharma (MPUAT, India)

- 11:35 11:45 Comparative analysis of biochemical and physiological responses of maize genotypes under waterlogging stress Tahmina Akter (Khulna Univ., Bangladesh)
- 11:45 11:55 Identification of Quantitative Trait Loci for Resistance to Shoot Fly in Maize Yogesh Vikal (PAU, India)
- 11:55 12:00 Remarks by Co-Chairs

# Technical Session 7: Socioeconomics and innovative policies for enhanced maize production and impacts

Venue: Amber Hall-A

Co-Chairs: R.K. Singh (ICAR-CIPHET, India)
Ravi Khetarpal (APAARI, Thailand)

#### **Keynote Lecture:**

10:00 – 10:25 Maize market development in Nepal – Challenges and Prospects – Dyutiman Choudhary (CIMMYT, Nepal)

10:25 - 10:30 Q&A

#### Lead Talk:

10:30 – 10:50 Gender and social inclusion in maize value chains – Md. Siddiqur Rahman (Jahangirnagar University, Bangladesh)

10:50 - 11:00 Q&A

#### **Rapid Fire Presentations:**

- 11:00 11:10 Pre-harvest forecasting of maize yield using climate variables Rajesh Khavse (JNKVV, India)
- 11:10 11:20 Technical efficiency of small holder maize growers in Nepal and its implications on value chain promotion and extension Shriniwas Gautam (CIMMYT, Nepal)
- 11:20 11:30 Livelihood of the maize street vendors in Pakistan Akhter Ali (CIMMYT, Pakistan)
- 11:30 11:40 Dynamics of maize utilization and its implication in maize technology demand in Nepal Yuga Nath Ghimire (NARC, Nepal)
- 11:40 12:00 Q&A; Remarks by Co-Chairs

#### 12:00 - 13:00 Plenary Technical Session 8

Venue: Amber Hall-B

Panel Discussion: "Ensuring a vibrant maize seed sector in Asia through public-private partnerships"

Moderator: B.M. Prasanna (CIMMYT)

#### Panellists:

- 1. Mike Robinson (SFSA)
- 2. Hailu Wordofa (USAID)

- 3. Ram Kaundinya (FSII, India)
- 4. Bijendra Pal (Bioseed)
- 5. B.S. Vivek (CIMMYT, India)
- 6. Suriphat Thaitad (NSFCRC, Thailand)

#### 13:00 – 14:00 Lunch (Paisley Hall)

#### 14:00 – 16:00 Parallel Technical and Poster Sessions

# Technical Session 9: Specialty Maize, Processing and Value Addition

Venue: Amber Hall-B

Co-Chairs: Suresh Malhotra (Agriculture Commissioner, DAC, India)

K.B. Koirala (NMRP, Nepal)

# **Keynote Lecture:**

14:00 – 14:25 Specialty maize in Thailand – Chokechai Aekatasanawan (Kasetsart University, Thailand)

14:25 - 14:30 Q&A

#### **Lead Talks:**

- 14:30 14:45 Specialty maize cultivation, processing and marketing in India: A farmer's experience Kanwal Singh Chauhan (Progressive Farmers, Haryana, India)
- 14:45 15:00 Popcorn market in India: An Agri-industrialist experience Yugandhar Y. (Gourmet Popcornica Ltd., India)

15:00 - 15:05 Q&A

#### **Rapid Fire Presentations:**

- 15:05 15:15 Marker-assisted introgression of *waxy1* gene into elite inbreds for enhancement of amylopectin in maize hybrids M.Z.A. Talukder (BARI, Bangladesh/ICAR-IARI, India)
- 15:15 15:25 Development of two sweet corn populations resistance to northern corn leaf blight disease Wassamon Mongkol (Kasetstart University, Thaiand)
- 15:25 15:35 Development of synthetic maize source material according to silage quality values Rahime Cengiz (MRI, Turkey)
- 15:35 15:45 On-farm and on-Station assessment of popcorn genotypes targeting mid-hill farmers of Nepal Ramesh Acharya (NARC, Nepal)
- 15:45 16:00 Remarks by Co-Chairs

#### 14:00 - 16:00 Parallel Poster Session-2

16:00 – 16:30 Coffee/Tea (Paisley Hall)

16:30 – 18:30 Parallel Technical and Poster Sessions

# Technical Session 10: Nutritionally enriched maize for Asia

#### Venue: Amber Hall-B

Co-Chairs: S.K. Vasal (Ex-CIMMYT)

Rajbir Singh (ICAR-ATARI, India)

#### **Keynote Lecture:**

16:30 – 16:50 Impact of biofortified maize in southern China – Fan XingMing (YAAS, China)

16:50 - 16:55 Q&A

#### **Lead Talks:**

16:55 – 17:10 Molecular breeding for development of biofortified maize hybrids in India – Firoz Hossain (ICAR-IARI, India)

17:10 – 17:25 Adoption of biofortified maize varieties in Nepal – AbduRehman Issa (CIMMYT, Nepal)

17:25 - 17:30 Q&A

## **Rapid Fire Presentations:**

- 17:30 17:40 Genetic mapping of kernel-zinc and iron in maize Hindu Vemuri (CIMMYT, India)
- 17:40 17:50 Marker-assisted introgression of opaque2 and crtRB1 for enhancement of amino-acids and provitamin-A in sweet corn Brijesh Mehta (ICAR-IARI, India)
- 17:50 18:00 Diallel analysis of temperate maize germplasm for lysine and methionine amino acid content and studies for developing quality doubled haploid lines Sekip Erdal (ARI, Turkey)
- 18:00 18:10 Effects of QPM and provitamin-A rich maize on growth and slaughter variables in Vanaraja chicken Prakash B. (ICAR-DPR, India)
- 18:10 18:30 Remarks by Co-Chairs

# 16:30 - 18:30 Parallel Poster Session-3

19:30 – 21:00 Conference Dinner (Amber Hall A&B)

# Day 3: October 10, 2018

#### 07:15 Depart from Hotels to BISA Farm in Ladowal, Ludhiana

# 08:00 - 11:00 13th AMC Field Demonstrations

- Asia-adapted Improved maize varieties from public and private sectors
- Scale-appropriate mechanization in maize systems
- G×E×M in maize
- Precision nutrient and water management in maize-based systems
- Decision tools, sensors and automation-based management systems

#### 11:30 Depart to Conference Venue (Radisson Blu Hotel)

# 13:00 – 14:00 Lunch (Paisley Hall)

14:00 – 15:00 Plenary Technical Session 10

Venue: Amber Hall-B

Panel Discussion: "Maize in Asia: Strategic Priorities"

Moderator: Kevin Pixley (CIMMYT)

#### Panellists:

- 1. B.S. Dhillon (PAU, India)
- 2. K.B. Koirala (NMRP, Nepal)
- 3. Le Quy Kha (IAS, Vietnam)
- 4. Salahuddin Ahmed (BARI, Bangladesh)
- 5. M.L. Jat (CIMMYT, India)

# 15:00 – 15:30 Tea/Coffee (Paisley Hall)

15:30 – 16:30 Final Plenary Session

**Venue: Amber Hall-B** 

Co-Chairs: Martin Kropff (CIMMYT, Mexico)

Mike Robinson (SFSA, Switzerland & MAIZE-ISC)

Facilitators: B.M. Prasanna (CIMMYT/MAIZE)

Victor Kommerell (CIMMYT/MAIZE)

- MAIZE-Asia Youth Innovator Awards (with brief presentation by each Awardee)
- Best Poster Awards
- Concluding Remarks

# 16:30 Conference closes