

**National Symposium on**

**Hybrid Technology for Enhancing Crop Productivity**

**Date: 8-10 January 2025**

**Venue: AP Shinde Symposium Hall, NASC, Pusa Campus, New Delhi**

**Tentative Program**

**Day 1: 08 January 2025 (Wednesday)**

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| 08.30-09.30 | **Registration** | |
| 09.30-12:00 | **Inaugural Session** | |
| 09:30-09:40 | **Arrival of Dignitaries and Lighting of Lamp** | |
| 09:40-09:50 | **Welcome and Introduction about the Symposium** | Dr Bhag Mal, Secretary, TAAS, New Delhi |
| 09:50-10:00 | **Remarks by Co-organizers** | Dr Ajai Rana, Chairman, FSII, New Delhi |
| 10:00-10:10 | Dr Stanford Blade, Director General – Interim, ICRISAT, Hyderabad |
| 10:10-10:20 | Dr Yvonne Pinto, Director General, IRRI, Philippines |
| 10:20-10:30 | Dr Bram Govaerts,Director General, CIMMYT, Mexico |
| 10:30-10:40 | **Remarks by Guest of Honour** | Dr Himanshu Pathak, Secretary, DARE and Director General, ICAR, New Delhi |
| 10:40-10:55 | **Address by Chairperson** | Padma Bhushan Awardee Dr RS Paroda, Chairman, TAAS, New Delhi |
| 10:55-11:05 | **Honouring Eminent Hybrid Crop Breeders** | Chief Guest |
| 11:05-11:25 | **Address by Chief Guest** | TBC |
| 11:25-11:35 | **Vote of Thanks** | Dr RK Tyagi, Organizing Secretary, NSHT, TAAS, New Delhi |
| ***11:35-12:00*** | ***Group Photo and Tea/Coffee*** | |
| 12:00-13:20 | **Technical Session I**  **Hybrid Crops Research and Development – An overview**  **Co-Chairs**: **RB Singh**, Former President, NAAS, New Delhi  **Renu Swarup,** Former Secretary, DBT, New Delhi  Convener: OP Yadav, Director, ICAR-CAZRI, Jodhpur  Rapporteurs: Shailendra K Jha, Senior Scientist, ICAR-IARI, New Delhi  Chandan Kapoor, Senior Scientist, ICAR-IARI, New Delhi | |
| 12:00-12:10 | **Welcome and Introduction** | OP Yadav, Director, ICAR-CAZRI, Jodhpur |
|  | **Keynote Lecture** | |
| 12:10-12:30 | Accelerating Hybrid Crop Breeding: CIMMYT’s Experience and General Perspective | BM Prasanna, CIMMYT, Kenya |
|  | **Invited Lectures** |  |
| 12:30-12:45 | Hybrid Crops Research by Private Sector: Recent Advances | Venkat Ram Vasantwada, Seed Works International, Hyderabad |
| 12:45-13:00 | Hybrid Research in Dryland Crops: Progress and Future Prospects | Sean Mayes, ICRISAT, Hyderabad |
| 13:00-13:20 | **General Discussion and Co-Chairs’ Remarks** | |
| 13:20-14:20 | ***Lunch Break*** |  |
| 14.20-16.35 | **Technical Session II**  **Germplasm Management for Hybrid Crop Breeding**  **Co-Chairs: SK Vasal**, Former Distinguished Scientist, CIMMYT, Mexico  **PL Gautam**, Former Chairperson, PPV&FRA, New Delhi  Convener: Kuldeep Singh, Head, Genebank, ICRISAT, Hyderabad  Rapporteurs: TBD by Convener | |
| 14:20-14-30 | **Welcome and Introduction** | Kuldeep Singh, ICRISAT, Hyderabad |
|  | **Keynote Lecture** | |
| 14:30-14:50 | Genetic resources for hybrid development | HD Upadhayay, Former Director, Rajendra S Paroda Genebank, ICRISAT, Hyderabad |
|  | **Invited Lectures** | |
| 14:50-15:05 | Hybrid-oriented source germplasm for improvement of hybrids | S Gopala Krishnan, ICAR-IARI, New Delhi |
| 15:05-15:20 | Consortia approach for germplasm improvement and hybrid development | Kuldeep Singh, ICRISAT, Hyderabad |
| 15:20-15:45 | ***Tea/Coffee Break*** | |
| 15:45-16:15 | 2 or 3 Rapid Presentations (5-7 min each) |  |
| 16:15-16:35 | **General Discussion and Co-Chairs’ Remarks** | |
| 16.35-18.30 | **Technical Session III**  **Biotechnology for Accelerating Hybrid Crop Breeding**  **Co-Chairs**: **Dr Deepak Pental,** Former VC University of Delhi, Delhi  **Dr RC Bhattacharya,** Director, ICAR-NIPB, New Delhi  Convener: BM Prasanna, CIMMYT, Kenya  Rapporteurs: Firoz Hossain, Principal Scientist, ICAR-IARI, New Delhi  BS Vivek, Maize Breeder, CIMMYT, Hyderabad | |
| 16:35-16:45 | **Welcome and Introduction** | BM Prasanna, CIMMYT, Kenya |
|  | **Invited Lecture** | |
| 16:45-17:00 | Disruptive Innovations in Hybrid Breeding | Ravi Maruthachalam, IISER, Trivandrum |
| 17:00-17:15 | Data-driven Predictive Breeding in Crop Plants: Progress and Prospects | Raman Babu, Corteva Agriscience, Hyderabad |
| 17:15-17:40 | 2 or 3 Rapid Presentations (5-7 min each) |  |
|  | **Keynote Lecture** | |
| 17:40-18:00 | Reproductive Strategies for Hybrid Crops | Venkatesan Sundaresan, UC-Davis, USA |
| 18:00-18:20 | **General Discussion and Co-Chairs’ Remarks** |  |
| 18:20-18:25 | **Comfort Break** |  |
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| 18.30-19.30 | **Evening Lecture I**  **Chair**: **T Mohapatra,** Chairperson, PPV&FRA, New Delhi  Convener: **S Gopala Krishnan**, Head, Division of Genetics, ICAR-IARI, New Delhi  Rapporteur: H Prashant Babu, Senior Scientist, ICAR-IARI, New Delhi | |
| 18:30-18:40 | **Welcome and Introduction of Speaker** | S Gopala Krishnan, ICAR-IARI, New Delhi |
| 18:40-19:20 | Hybrid Breeding for Unstoppable Genetic Gains | SK Vasal, World Food Laureate and Distinguished Scientist, CIMMYT, Mexico |
| 19:20-19:25 | **Chair’s Remarks** | |
| 19:25-19:30 | **Vote of Thanks** | |
| 19:30-21:00 | **Welcome Dinner** | |

**Day 2: 09 January 2025 (Thursday)**

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| 09:30-13:00 | **Technical Session IV**  **Current Status and Future Prospects in Hybrid Crop Breeding I (Food and Fiber Crops)**  **Co-Chairs: BS Dhillon**, Former VC, PAU, Ludhiana  **T Ramasami**, Chairman, Rasi Seeds (P) Ltd., Coimbatore  Convener: C Tara Sathyavathi, Director, ICAR-IIMR, Hyderabad  Rapporteurs: SP Singh, Principal Scientist, Division of Genetics, ICAR-IARI, New Delhi  Rajkumar Zunjare, Scientist, Division of Genetics, ICAR-IARI, New Delhi | |
| 09:30-09-40 | **Welcome and Introduction** | C Tara Sathyavathi, Director, ICAR-IIMR, Hyderabad |
|  | **Invited Lectures** | |
| 09:40-09:55 | Hybrid Rice Breeding at IRRI | Jauhar Ali, IRRI, Philippines |
| 09:55-10:10 | Development and Scaling of Hybrid Rice by Private Sector | Venkatesh Hubli, Savannah Seeds(P) Ltd, Hyderabad |
| 10:10-10:25 | Hybrid Maize Breeding | Firoz Hossain, ICAR-IARI, New Delhi |
| 10:25-10:40 | Hybrid Wheat Breeding | Nimesh Lad, Mahyco (P) Ltd., Jalna |
| 10:40-10:55 | Hybrid Millets and Sorghum Breeding | C Tara Sathyavathi, ICAR-IIMR, Hyderabad |
| 10:55-11:10 | Hybrid Pigeon Pea Breeding | GP Dixit, ICAR-IIPR, Kanpur |
| 11:10-11:45 | **Tea/Coffee Break** | |
| 11:45-12:00 | Hybrid Mustard Breeding | KV Subbarao, Corteva Agriscience, Hyderabad |
| 12:00-12:15 | Hybrid Oilseed Crops (Sunflower, Castor, Safflower) Breeding | RK Mathur, ICAR-IIOR, Hyderabad |
| 12:15-12:30 | GM Cotton Hybrid Breeding | N Kannan, Rasi Seeds (P) Ltd, Salem |
| 12:30-12:45 | Improving Genetic Gains for Climatic Resilience and Nutrition in Pearl Millet Hybrid Breeding at ICRISAT | SK Gupta, ICRISAT, Hyderabad |
| 12:45-13:00 | Hybrid Rice Breeding by Public Sector | P Senguttuvel, ICAR-IIRR, Hyderabad |
| 13:00-13:15 | Hybrid Breeding for Quality Protein Maize (QPM) | Lakshmi Kant, ICAR-VPKAS, Almora |
| 13:15-14:00 | ***Lunch Break*** |  |
| 14:00-14:20 | 2 or 3 Rapid Presentations (5-7 min each) |  |
| 14:20-14:35 | **General Discussion and Co-Chairs’ Remarks** | |
| 14.30-17:30 | **Technical Session V**  **Current Status and Future Prospects in Hybrid Crop Breeding II (Horticultural Crops)**  **Co-Chairs**: **SK Singh**, DDG (Hort.), ICAR, New Delhi  **Bijendra** **Singh**, VC, NDUAT, Ayodhya, UP  Convener: TK Behera, Director, ICAR-IIHR, Bengaluru  Rapporteurs: P Naveen Kumar, Head, Division of Flower & Medicinal Crops, ICAR-IIHR,  Bengaluru  SS Dey, Principal Scientist, Division of Vegetable Crops, ICAR-IARI,  New Delhi | |
| 14:35-14:45 | **Welcome and Introduction** | TK Behera, ICAR-IIHR, Bengaluru |
|  | **Keynote Lecture** | |
| 14:45-15:05 | Status of Hybrid Research in Horticulture | SK Singh, ICAR, New Delhi |
|  | **Invited Lectures** | |
| 15:05-15:20 | Hybrid Breeding in Fruits Crops | Prakash Patil, ICAR-IIHR, Bengaluru |
| 15:20-15:35 | Hybrid Breeding in Vegetable Crops | Girish Patil, ACSEN Agriscience Pvt. Ltd., Bengaluru |
| 15:35-15:50 | Hybrid Breeding in Flower Crops | KV Prasad, ICAR-DFR, Pune |
| 15:50-16:05 | Breeding for Baby and Sweet Corn Hybrid | R Surya Rao, Syngenta India Pvt. Ltd., Pune |
| 16:05-16:30 | ***Tea/Coffee Break*** |  |
| 16:30-17:00 | 2-3 Rapid Presentations (5-7min each) |  |
| 17:00-17:20 | **General Discussion & Co-Chairs’ Remarks** | |
| 17:20-17:25 | **Comfort Break** | |
| 17:25-18:50 | **Evening Lecture II**  **Chair**: **TBD**  Convener: **Anuradha Agrawal**, Project Director, DKMA, ICAR, New Delhi  Rapporteur: Vartika Srivastav, Senior Scientist, ICAR-NBPGR, New Delhi | |
| 17:25-17:35 | **Welcome and Introduction of Speaker** | Anuradha Agrawal, ICAR-DKMA, New Delhi |
| 17:35-18:15 | Technological Advances for Hybrid Crop Breeding to Ensure Food and Nutrition Security | Deepak Pental, Former Vice Chancellor, University of Delhi, Delhi |
| 18:15-18:25 | **Co-Chairs’ Remarks** | |
| 18:25-18:30 | **Vote of Thanks** | |
| 18:30-21:00 | **Cultural Program and Dinner** | |

**Day 3: 10 January 2025 (Friday)**

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| 09:30-12:45 | **Technical Session VI**  **Strategies for Hybrid Seed Production and Management**  **Co-Chairs**: **HS Gupta**, Chairman Agriculture Commission, Assam  **Raju Barwale**, Chairman, MAHYCO, Mumbai  Convener: DK Yadav, ADG (Seed), ICAR, New Delhi  Rapporteurs: Vignesh M, Senior Scientist, Division of Genetics, ICAR-IARI, New Delhi  Prolay K Bhowmick, Senior Scientist, Division of Genetics, ICAR-IARI,  New Delhi | |
| 09:30-09:40 | **Welcome and Introduction** | DK Yadav, ICAR, New Delhi |
|  | **Keynote Lecture** | |
| 09:40-10:00 | **National Policies and Strengthening Public-Private Partnership for Hybrid Crop Development** | DK Yadava, ICAR, New Delhi |
|  | **Invited Lectures** | |
| 10:00-10:15 | **National Initiatives in Hybrid Seed Production** | Sanjay Kumar, IISS, Mau, UP |
| 10:15-10:30 | **Development and Management of Male Sterile Lines and Maintainers** | Shyamal K Chakravarty, IARI, New Delhi |
| 10:30-10:45 | **Start-up Ecosystem and its Role in Hybrid Improvement and Seed Production** | AR Sadananda, Agreeva Genetics Pvt. Ltd., Bengaluru |
| 10:45-11:15 | ***Tea/Coffee Break*** |  |
| 11:15-11:30 | **Regulating Seed Pricing and its Implications** | Paresh Verma, Bioseed Genetics India Ltd., Hyderabad |
| 11:30-12:15 | 2 or 3 Rapid Presentations (7-10 min each) |  |
| 12:15-12:45 | **General Discussion & Co-Chairs’ Remarks** |  |
| 12:45-13:45 | **Lunch** |  |

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| 13:45-16:30 | **Panel Discussion on Way Forward and Concluding Session**  **Co-Chairs**: **RS Paroda**, Chairman, TAAS, New Delhi  **Himanshu Pathak**, Secretary, DARE and Director General, ICAR, New Delhi  Convener: RK Tyagi, Senior Consultant, TAAS, New Delhi  Rapporteurs: Akshay K Talukdar, Principal Scientist, ICAR-IARI, New Delhi  KK Vinod, Principal Scientist, ICAR-IARI, New Delhi | |
| 13:45-13:55 | **Welcome and Introduction** | RK Tyagi, TAAS, New Delhi |
| 13:55-16:00 | Panel Discussion (6-8 Panellists) | AK Singh, Former Director, ICAR-IARI, New Delhi;  Raju Barwale, Chairman, MAHYCO, Mumbai  Sain Dass, Former Director, ICAR-DMR, New Delhi;  Ram Kaundinya, Senior Advisor, FSII, New Delhi;  OP Yadav, Director, ICAR-CAZRI, Jodhpur |
| 16:00-16:30 | ***Tea/Coffee Break*** | |
| 16:30-16:45 | Summary of Major Recommendations | RK Tyagi, TAAS, New Delhi |
| 16:45-17:00 | Open Discussion | |
| 17:00-17:20 | Co-Chairs’ Remarks | Himanshu Pathak, Secretary, DARE and Director General, ICAR, New Delhi  RS Paroda, Chairman, TAAS, New Delhi |
| 17:20-17:30 | **Vote of Thanks** | JL Karihaloo, TAAS, New Delhi |