



Vaswantrao Naik Marathwada Krishi Vidyapeeth, Parbhani

12th National Seed Congress-2023

December 11-13, 2023

Innovations and Challenges in Quality Seed Availability under Changing Climate

TECHNICAL PROGRAMME



In association with
Indian Society of Seed Technology, New Delhi

In collaboration with
National Seed Research and Training Centre, Varanasi (UP)

Under the Aegis of
DA & FW, MoA, GoI, New Delhi

Venue : Taj Vivanta, Ch. Sambhajinagar (MS)

Media Partner



Daily Program Schedule

Day 1 : Monday, 11.12.2023	
08.00 - 09.00	Registration
09.00 - 11.15	Inaugural Session
11.15 - 11.30	High Tea
11.30 - 13.30	Technical Session - I
	Poster presentation (Theme-I) (Sr.No. 26-49)
13.30 - 14.30	Lunch
14.30 - 16.30	Technical Session - II
	Poster presentation (Theme-II) (Sr.No. 50-57)
16.30 - 16.45	Session Tea
16.45 - 18.45	Panel Discussion I
	Poster presentation (Theme Miscellaneous Sr.No. 172-225)
19.00 - 20.30	Cultural Program
20.30 onwards	Gala Dinner

Day 2 : Tuesday, 12.12.2023	
09.00 - 11.00	Technical Session III
	Poster presentation (Theme-III) (Sr.No. 58-67)
11.00 - 11.15	Session Tea
11.15 - 13.15	Technical Session IV
	Poster presentation (Theme-IV) (Sr.No.68-127)
13.15 - 14.30	Lunch
14.30 - 15.30	Ch. Amir Singh Memorial Lifetime achievement award of ISST
15.30 - 17.30	Panel Discussion II
	Poster presentation (Theme Miscellaneous Sr.No. 226-275)
17.30 - 17.45	Session Tea
18.30 - 20.00	General Body Meeting of ISST
	Poster presentation (Theme Miscellaneous Sr.No. 276 onwards)
20.00 onwards	Dinner

Day 3 : Wednesday, 13.12.2023	
09.00 - 10.30	Technical Session V
	Poster presentation (Theme-V) (Sr.No. 128-133)
10.30 - 12.30	Panel Discussion III
12.30 - 14.00	Technical Session VI
	Poster presentation (Theme-VI) (Sr.No. 134-171)
14.00 - 14.30	Lunch
14.30 - 16.30	Plenary-cum-Prize distribution session
16.30 - 17.00	High tea

Inaugural Function Programme

Chief Guest

Dr. Mangala Rai

Former Secretary - DARE & DG (ICAR), New Delhi

Guests of Honour

Dr. Himanshu Pathak

Secretary - DARE & DG (ICAR), New Delhi

Shri Rakesh Ranjan

Sp. Secretary, DA & FW, New Delhi

Padma Shri Smt. Rahibai S. Popere

Seed Conservationist Farmer, Ahmednagar

Padma Shri Shri Kanwal Singh Chauhan

Progressive Farmer, Sonipat, Haryana

Mr. Ajai Rana

Chairman, FSII, New Delhi

Shri Manoj Ahuja IAS

Secretary, DA & FW, Gol, New Delhi

Shri Pankaj Yadav IAS

Joint Secretary (Seeds) DA & FW

Dr. P. K. Singh

Agriculture Commissioner, Gol, New Delhi

Dr. C.D. Mayee

Ex. Chairman, ASRB, New Delhi

Dr. S.A. Patil

Former Director, IARI, New Delhi

Mr. Raju Barwale

Chairman, Mahyco Group, Mumbai

Co-Chairs

Dr. Indra Mani

Vice Chancellor, VNMKV, Parbhani

Dr. H.S. Gupta

Chairman, AAC & President, ISST

Conveners

Dr. D. P. Waskar

Director of Research, VNMKV, Parbhani

Mr. Manoj Kumar

Director, NSRTC, Varanasi

Co-conveners

Dr. D. K. Srivastava

Dy Commissioner (QC), Gol, New Delhi

Dr. M. P. Yadav

Seed Technologist, NSRTC, Varanasi

Organizing Secretaries

Dr. K.S. Baig

Cotton Specialist,
CRS, Nanded

Dr. Shiv K. Yadav

Head, ICAR-IARI (RS), Karnal &
Secretary (ISST), New Delhi

Inaugural Function Programme

Time	Activity	:	Dignitary
09.30 am	Arrival of the Chief Guest and Dignitaries		
09.31 am	Lightening of Lamp	:	Chief guest and other dignitaries
09.35 am	Saraswati Vandana	:	
09.45 am	Welcome Address	:	Dr. Indra Mani Hon. Vice Chancellor, VNMKV, Parbhani
09.50 am	About the Congress	:	Dr. H.S. Gupta Chairman, AAC, Former DG, BISA, Former Director, IARI, New Delhi & President, ISST
09.55 am	Release of Publication		Dignitaries on the dais
10.00 am	Address by the Guest of Honour	:	Mr. Raju Barwale Chairman, Mahyco Group, Mumbai Mr. Ajai Rana Chairman, FSII, New Delhi Padma Shri Shri Kanwal Singh Chauhan Progressive Farmer, Sonipat, Haryana Padma Shri Smt. Rahibai S. Popere Seed Conservationist Farmer, Ahmednagar Dr. S.A. Patil Former Director, IARI, New Delhi Dr. C.D. Mayee Ex. Chairman, ASRB, New Delhi Dr. P. K. Singh Agriculture Commissioner, GoI, New Delhi Shri Pankaj Yadav IAS Joint Secretary (Seeds) DA & FW Shri Rakesh Ranjan Sp. Secretary, DA & FW, New Delhi Shri Manoj Ahuja IAS Secretary, DA & FW, GoI, New Delhi Dr. Himanshu Pathak Secretary - DARE & DG (ICAR), New Delhi
10.45 am	Address by the Chief Guest		Dr. Mangala Rai Former Secretary - DARE & DG (ICAR), New Delhi
10.55 am	Vote of Thanks	:	Dr. D.P. Waskar Director of Research, VNMKV, Parbhani
11.10 am	Rapporteurs	:	Dr. Sudipta Basu , PS, DSST, IARI, New Delhi Dr. Syed Ismail , ADP, CoA, Parbhani

TECHNICAL SESSION I (Theme 1)

Innovations in Seed Research for Climate-Resilience

Session Coordinator : Dr. R.D. Ahire, ADP, CoA, Badnapur

Convener : Dr. Sanjay Kumar, Director, ICAR-IISS, Mau

Co-Chair 1
Dr. Himanshu Pathak
Secretary - DARE & DG (ICAR),
New Delhi

Co-Chair 2
Dr. Mangala Rai
Former Secretary
DARE & DG (ICAR), New Delhi

Rapporteurs

Dr. Sangita Yadav
Principal Scientist, DSST,
ICAR-IARI, New Delhi

Dr. S. P. Mehtre
Associate Director (Seeds),
VNMKV, Parbhani

Speaker	Topic	Duration
	Lead Presentation	
M. Dadlani, ISST, New Delhi	Emerging seed technologies for climate resilient agriculture	20 min.
R. Umarani, TNAU, Coimbatore	Novel seed based solutions to mitigate abiotic stress for enhanced crop productivity	20 min.
B. M. Khadi, UAS, Dharwad	Maintenance of genetic purity of varietal and hybrid seeds in often cross pollinated crops with special reference to cotton (<i>Gossypium</i> spp.)	20 min.
	Oral Presentations	
D. Vijay, ICAR-IARI, New Delhi	Identification of thermotolerance diversity and unravelling its physio-chemical basis in rice seedlings	8 min.
Pallavi, H.M, UHS, Bagalkot	Pre-sowing treatment to enhance seed germination under high temperature stress conditions in coriander (<i>Coriandrum sativum</i> L.)	8 min.
Swarnalata Das, OUAT, Bhubaneshwar	The influence of salicylic acid on yield and quality of tomato seeds under water deficit condition	8 min.
Poomani S., ICAR-IARI, New Delhi	Seed priming with humic acid to mitigate heat stress in lentil seedlings by boosting antioxidant activities	8 min.
	Discussion and Concluding Remarks	28 min.

TECHNICAL SESSION II (Theme 2)

Seed Quality Assurance : Challenges and Solutions

Session Coordinator : Dr. H. V. Kalpande, Head, Dept. of Agril. Botany, VNMKV, Parbhani

Convener : Dr. Vilas A. Tonapi, Former Director, IIMR, Hyderabad

Co-Chair 1
Dr. Sharad Gadakh
Vice Chancellor,
Dr. PDKV, Akola

Co-chair 2
Dr. M. Dadlani
Former President,
ISST, New Delhi

Dr. M. P. Yadav
Seed Technologist
NSRTC, Varanasi

Rapporteurs

Dr. D. K. Patil
Nodal Officer
Maize Research Station, Sillod

Speaker	Topic	Duration
	Lead Presentation	
Sanjay Kumar, IISS, Mau	Seed supply system in India : Challenges and opportunities	20 min.
M. Bhaskaran, Vistas, Chennai	Key challenges and future strategies for seed quality regime	20 min.
Ekkehard Schroeder, IGCSD, Germany	Presentation of the capacity building activities and achievements of the project Indo-German Cooperation on Seed Sector Development	20 min.
S. P. Mehtre, AD (Seed), Parbhani	Quality seed production technologies for soybean with reference to changing climatic conditions	20 min.
	Oral Presentations	
V. Santhy, ICAR-CICR, Nagpur	Seed technology challenges for effective refugia-in-bag implementation in cotton	8 min.
Sowmya K.S. UAS, GKV, Bangalore	Infrared thermography as a non-invasive method for estimating seed vigour in rice (<i>Oryza sativa</i> L.)	8 min.
Debashis Paul, ICAR-CICR-RS, Sirsa	Inplanta-field evaluation of commercially available BG -II hybrids for the State of Haryana with respect to proportion of non-Bt seeds as 'refugee' in commercial seed packets	8 min.
Neetu, CSAUA&T, Kanpur	Seed supply chain management for traceability using block chain technology : A Case Study of SATHI	8 min.
	Discussion and Concluding Remarks	8 min.

Panel Discussion I

Gene technologies : Potential and Challenges

Session Coordinator : Dr. H.W. Awari, VNMKV, Parbhani

Convener

Dr. D.P. Waskar
Director of Research, VNMKV, Parbhani

Co-Chair 1

Dr. P. G. Patil
Vice Chancellor
MPKV, Rahuri

Co-chair 2

Dr. Bijendra Singh
Vice Chancellor, NDUA&T,
Ayodhya

Co-chair 3

Dr. C.D. Mayee
Ex Chairman, ASRB,
New Delhi

Panellists

Dr. B.M. Khadi
Ex Director, ICAR-CICR, Nagpur

Dr. P.S. Lahane
GM, QC & R, MSSCL, Akola

Dr. Arvind Kapur
MD, ACSEN, HYVEG P Ltd., Gurugram

Dr. Gyan P. Mishra
Head, DSST, ICAR-IARI, New Delhi

Dr. Bharat Char
MAHYCO, Jalna

Dr. Vipin Dagaonkar
Crystal Crop Protection Ltd., Hyderabad

Rapporteurs

Dr. V. Santhy
Principal Scientist, ISAR - CICR, Nagpur

Dr. W. N. Narkhede
Head, Agronomy, VNMKV, Parbhani

Panellists' Opinion	Duration : 5 min. each
Discussion and concluding remarks	Duration : 85 min.

TECHNICAL SESSION III (Theme 3)

Advancements in Seed Biotechnology for Enhanced Adaptability and Yields

Session Coordinator : Dr. Syed Ismail, ADP, CoA, Parbhani

Convener : Ravi Hunje, Vice President, ISST, New Delhi

Co-Chair 1
Shri. Anoop Kumar ^{IAS}
Addl. Chief Sec., MoA, MS

Co-Chair 2
Dr. A.K.Singh
Director, IARI, New Delhi

Co-Chair 3
Dr. D. K. Yadava
ADG (Seed), ICAR, New Delhi

Special Invitee : Shri. Raosaheb Bagde, DG, MCAER, Pune

Dr. Nagamani Sandra
Scientist (SS), ICAR-IARI, New Delhi

Rapporteurs

Dr. M. S. Pendke
Research Editor, VNMKV, Parbhani

Speaker	Topic	Duration
	Lead Presentation	
C. D. Mayee, Ex-Chairperson, ASRB, New Delhi	GM-GE Seed : New normal, new paradigm for growth of farming and seed industry	20 min.
Shri. Anoop Kumar ^{IAS} Addl. Chief Sec., MoA, MS	Special Address	20 min.
Gopala Krishnan S., Head, GPB, ICAR-IARI, New Delhi	From genes to seeds: Genomics assisted enhancement and maintenance of seed quality	20 min.
Shri. Sashin Kalantri M.D., MSSCL, Akola	The present status of seed availability in Maharashtra	10 min.
	Oral Presentations	
Deepanshu Jayaswal, ICAR-IISS, Mau	Elucidation of plant immunity genes and memory inheritance through seeds	8 min.
Aflaq Hamid, SKUAS&T, Srinagar	Rapid detection of bean common mosaic virus in Mung beans (<i>Vigna Radiata</i>) using Reverse Transcription Loop Mediated Isothermal Amplification (RT -LAMP)	8 min.
Nagamani S., ICAR-IARI, New Delhi	Assessment of Mungbean yellow mosaic India virus seed transmission in mung bean (<i>Vigna radiata</i> L.)	8 min.
S. G. Shinde, VNMKV, Parbhani	Molecular profiling of rice for biotic and abiotic stresses	8 min.
	Discussion and Concluding Remarks	20 min.

TECHNICAL SESSION IV (Theme 4)

Emerging Trends in Processing and Storage Research

Session coordinator : Dr. Roaf Ahmad Parray, Scientist, ICAR-IARI, New Delhi

Convener
Prof. Rame Gowda
Vice -President., ISST, New Delhi

Co-Chair 1
Dr. S. N. Jha
DDG, ICAR, New Delhi

Co-Chair 2
Dr. Indra Mani
Vice Chancellor, VNMKV, Parbhani

Rapporteurs
Dr. Uday Bhaskar K. Sr. Scientist, ICAR-IISS RS, Bengaluru
Dr. S. B. Ghuge O/I, Seed Processing Plant, VNMKV, Parbhani

Speaker	Topic	Duration
Lead Presentation		
Steven Groot, WUR, Netherland	Emerging trends in seed quality, processing and storage	20 min.
Bharatkumar M. Devda, Tara Instruments, Vadodara	Automation in seed germination table and germination analyser	10 min.
Sweta Patel, Tara Instruments, Vadodara	Digitalization in seed assessment	10 min.
Bharat N Mehta ARL, Mumbai	ALIMFUS Technology : A novel approach for protection of storage seed from microbes, fungus and viruses through Airborne Low Intensity Multi Frequency Ultrasound	10 min.
P.G. Shinde, GM, Ajeet Seeds, Aurangabad.	Recent advances in Seed Mechanisations	10 min.
Vinod Kalbande, Former Chief Engineer, MAHABEEJ, Akola	Automization and Advances in Seed Processing	10 min.
Oral Presentations		
J. Aravind, ICAR-NBPGR, New Delhi	R packages 'germination metrics' and 'viability metrics': Software tools for modelling seed germination progress and seed viability loss	8 min.
Sampa Saha, ICAR-NBPGR, New Delhi	Exploring the Genetic Basis of Seed Longevity in Wheat (<i>Triticum aestivum</i> L.) - a Gene bank Perspective	8 min.
Ramanadane, T., PJNCoA & RI, Karaikal	Super grain bag: a hermetic storage structure for safe seed storage of Paddy (<i>Oryza sativa</i> L.), Soybean (<i>Glycine max</i> L.) and Groundnut (<i>Arachis hypogea</i> L.) under ambient condition	8 min.
Tanya Singh, ICAR-IARI, New Delhi	Hyper-spectral imaging can differentiate seed lots with varied seed germination and longevity in rice	8 min.
Sunil S. Mahajan, ICAR-CICR, Nagpur	Effect of modified atmospheric gases on seed storability of cotton	8 min.
Discussion and Concluding Remarks		10 min.

Ch. Amir Singh Memorial Lifetime achievement award of ISST

Session Coordinator

Dr. D. S. Perke, Head, Agri. Economics, VNMKV, Parbhani

Convener

Dr. Shiv K. Yadav

Head, ICAR-IARI (RS) Karnal & Sec., ISST, New Delhi

Co-chair 1

Dr. H.S. Gupta
President, ISST

Co-chair 2

Dr. Indra Mani
Vice Chancellor, VNMKV, Parbhani

Rapporteurs

Dr. Monika A. Joshi
Professor, DSST, ICAR-IARI, New Delhi

Dr. A. K. Gore
O/I, OFRC, VNMKV, Parbhani

Lecture by the awardee	Dr. S. Rajendra Prasad, Former Vice Chancellor, UAS, Bengaluru
Discussion and concluding remarks	

Panel Discussion II

Strengthening seed systems for distribution and access of millets for health, food security and farmers prosperity

Session coordinator : Dr. S. B. Pawar, ADR, NARP, Aurangabad

Convener

Shri. Swaminathan, RRA Network, Hyderabad

Co-chair 1

Dr. B. Venkateswarlu
Former Vice Chancellor,
VNMKV, Parbhani

Co-Chair 2

Dr. S. A. Patil
Former Director, ICAR-IARI,
New Delhi

Co-chair 3

Dr. Vilas A. Tonapi
Former Director,
IICAR-IMR, Hyderabad

Panellists

Dr. D. K. Yadava
ADG (Seed), ICAR, New Delhi

Dr. J. C. Rana
NPC, Biodiversity International, New Delhi

Dr. Roaf Ahmad Parray
Scientist, ICAR-IARI, New Delhi

Dr. M. Ramasami
Founder, Rasi Seeds (P) Ltd.

Dr. A. Kapur
AcSenHyVeg Seeds

Dr. Suresh Kumar
Bayer Crop Sciences

Dr. Sharmila Oswal
Pahle India Foundation

Rapporteurs

Dr. Shantharaja C.S.
Scientist, ICAR - IISS RS, Bengaluru

Dr. S. B. Pawar
ADR, NARP, Aurangabad

Setting the tone	Vilas A. Tonapi - Empowering Millets: A Path Towards Health, Food Security, and Prosperity Duration : 20 min. D.K. Agarwal -Intellectual Property Rights and Variety Protection: Implications for Seed Supply and Export Duration :20 min.
Panellists' Opinion	Duration : 5 min. each
Discussion and concluding remarks	Duration : 10 min.

General Body meeting of Indian Society of Seed Technology (18.00-20.00)

TECHNICAL SESSION V (Theme 5)

Protection of Varieties for Augmenting Seed Supplies and Export

Session coordinator :Dr. M. V. Dhuppe, O/I, AICRP on Oilseeds, Latur

Convener :Dr. S. K. Chakrabarty, Principal Scientist, DSST, ICAR-IARI, New Delhi

Co-chair 1
Dr. S. Rajendra Prasad
Former Vice Chancellor, UAS, Bengaluru

Co-chair 2
Dr. T.K. Behara
Director, ICAR, IIVR, Varanasi

Rapporteurs
Dr. Priya Ranjan Kumar
Principal Scientist, ICAR-IARI, Hazaribagh

Dr. V. N. Chinchane
Associate Breeder, CRS, Nanded

Speaker	Topic	Duration
	Lead Presentation	
Raoul Haegens DUST, Netherland	Trends and innovations in DUS-testing with focus on horticulture varieties	20 min.
	Oral Presentations	
A. K. Hembram, Univ. of Calcutta, Kolkata	Identification of some French bean genotypes based on morphological, biochemical and molecular parameters	8 min.
S. K. Chakrabarty, ICAR-IARI, New Delhi	Plant image analysis using Deep Learning methods for distinguishing basmati rice varieties	8 min.
S.B. Ghuge, VNMKV, Parbhani	Variability studies for seed characteristics in safflower (<i>Carthamus tinctorius</i> L.) genotypes	8 min.
Jadav Mamta J., AAU. Anand	DUS Characterization of Okra (<i>Abelmoschus esculentus</i> L. Moench) genotypes through qualitative characters	8 min.
	Discussion and Concluding Remarks	18 min.

Panel Discussion III

Seed Industry and Farmers' Organizations: Contributions, Constraints and Expectations

A) Seed Industry : Contributions, Constraints and Expectations

Session coordinator : **Dr. K. S. Baig**, Cotton Specialist, CRS, Nanded

Convener

Shri Sachin Kalantri, M.D., MSSCL, Akola

Chairperson

Padma Bhushan Dr. R. S. Paroda,
Former Secretary (DARE) & DG (ICAR), New Delhi

Co-Chair 1

Dr. Indra Mani,
Vice Chancellor
VNMKV, Parbhani

Co-Chair 2

Mr. Raghavan Sampathkumar
Executive Director, FSII,
New Delhi

Co-Chair 3

Dr. M. Ramasami
Founder, Rasi Seed (Pvt.) Ltd.,
Attur

Panellists

Dr. Sanjay Kumar
Director, ICAR-IISS Mau
Dr. Ashish K. Bhutani IAS,
Addl. Chief Secretary, Guwahati
Dr. T. K. Behara
Director, ICAR-IIVR, Varanasi
Dr. Baljinder Singh Nandra
Seed Works India Ltd.
Dr. Prabhakar Dubey
MAHYCO, Jalna

Dr. Prabhakar Rao
President, National Seed Association of India
Dr. Shaligram Wankhede
Executive Director, SIAM, Aurangabad
Dr. D. K. Patil
Nodal Officer., Maize Res. St., Sillod
Dr. Suresh Kumar
Bayer Crop Science
Dr. M. P. Yadav
Seed Technologist, NSRTC, Varanasi

Rapporteurs

Dr. J. B. Patel
Head, JAU, Junagadh

Dr. A. S. Jadhav
Dy. Director, VNMKV, Parbhani

Setting the tone	Arvind Kapur - Fostering Collaborations: Seed Industry and Farmers' Organizations in Pursuit of Sustainable Seed Development Duration : 20 min.
Panellists' Opinion	Duration : 5 min. each
Discussion and concluding remarks	Duration : 5 min.

Panel Discussion III

Seed Industry and Farmers' Organizations: Contributions, Constraints and Expectations

B) Farmers' Organizations: Contributions, Constraints and Expectations

Session coordinator :Dr. S. P. Mehtre, Associate Director (Seed), VNMKV, Parbhani

Convener

Shri. Sachin Kalantri, M.D., MSSCL, Akola

Chairperson

Padma Bhushan Dr. R. S. Paroda
Ex Secretary (DARE) & DG (ICAR), New Delhi

Co-Chairperson 1

Dr. D. K. Srivastava
Dy Commissioner (QC), Gol,
New Delhi

Co-Chairperson 2

Dr. D. B. Deosarkar
Director, Seed & Seedlings,
VNMKV, Parbhani

Panellists

Padamshri Shri. Kamal S. Chauhan

FPO/Crop Diversification

Dr. Arun Mane

Dy. Director (Seeds), Dr. BSKKV, Dapoli

Dr. Aamrpali A. Akhre

Nodal Officer, AICRP on Seeds, Dr. PDKV, Akola

Dr. Veerschetti Patil Biradar

CEO, SS Agri Foundation, Telangana

Dr. Tukaram Mote

JDA, Aurangabad

Shri. Amol Randive

ODSF Agro Producer Co. Ltd.

Dr. S. B. Ghuge

Incharge, Safflower Res. St., Parbhani

Dr. Anand Solunke

Chief Scientist (Seed), MPKV, Rahuri

Rapporteurs

Dr. P. Y. Shinde
Asstt. Prof., CoA, Pune

Dr. M. V. Dhuppe
Oilseed Specialist, ORS, Latur

Panellists' Opinion	Duration : 5 min. each
Discussion and concluding remarks	Duration : 35 min.

TECHNICAL SESSION VI (Theme 6)

Challenges and Opportunities in Quality Seedlings and Seed Availability of Spices, Horticultural and Plantation Crops

Session coordinator : Dr. G.M. Waghmare, O/I, FRS, Aurangabad

Convener
V. Sankaran
Retd. GM, NSC

Co-chair 1
Dr. Prabhat Kumar
Horticulture Commissioner,
Gol, New Delhi

Co-chair 2
Dr. Sanjay Kumar
Director
ICAR-IISS Mau

Co-chair 3
Dr Lakshmi Kant
Director,
ICAR-VPKAS, Almora

Rapporteurs
Dr. Satish K. Yadav
Nodal Officer, ICAR-NBPGR, New Delhi

Dr. G. R. Munde
O/I, CARS, Ambejogai

Speaker	Topic	Duration
	Lead Presentation	
T. K. Behara, IIVR, Varanasi	Challenges and opportunities in vegetable seed industry of India	20 min.
V Sankaran, Retd. GM, NSC	Scope and need for planned seed programme for medicinal and aromatic plants	15 min.
	Oral Presentations	
Sudipta Basu, ICAR-IARI, New Delhi	Quality seed production of Gynoecious Cucumber Hybrid under protected conditions	8 min.
P. K. Nagre, PDKV, Akola	Studies on organic seed production of Indian spinach	8 min.
Neha Kumari, R H & R S, Dhaulakuan, HP	Effect of altitudinal ranges on growth, flowering and seed production in different varieties of petunia (Petunia × hybrida Vilm.)	8 min.
Nethra N. UAS, GKVK, Bengaluru	The coexistence of competitive interspersed staminate flowers in pistillate line of castor: an obstacle in hybrid seed production	8 min.
	Discussion and Concluding Remarks	8 min.

PLENARY-CUM-PRIZE DISTRIBUTION SESSION

Session coordinator : **Dr. Rajesh Dhutmal**, Seed Research Officer, VNMKV, Parbhani

Chief Guest
Padma Bhushan Dr. R. S. Paroda,
Ex Secretary (DARE) & DG (ICAR), New Delhi

Chairman, LOC
Dr. Indra Mani
Vice Chancellor, VNMKV, Parbhani

President, ISST
Dr. H.S. Gupta
President, ISST

Convener
Dr. D. P. Waskar
Director of Research, VNMKV, Parbhani

Organizing secretaries

Dr. K. S. Baig
Cotton Specialist, VNMKV, Parbhani

Dr. Shiv K. Yadav
Head, ICAR-IARI RS-Karnal, New Delhi

Rapporteurs

Dr. D. Vijay
Principal Scientist, DSST,
ICAR-IARI, New Delhi

Dr. B. V. Bhede
Assistant Entomologist,
CRS, Nanded

14.30-14.35	Welcome of the dignitaries
14.35-14.40	Welcome Address
14.40-14.45	Summary of the Seminar
14.45-15.15	Presentation of Technical Recommendations by Rapporteurs (5 minutes for each session)
15.15-15.25	Discussions
15.25-15.50	Presentation of ISST awards by Chief Guest, Chairman and President, ISST
15.50-16.00	Concluding Remarks by the Chief Guest
16.00-16.10	ISST President Remarks
16.10-16.20	Chairman's Remarks
16.20-16.28	Vote of Thanks: Organizing Secretary, NSC 2023
16.28-16.30	National Anthem