

National Conference

ON

Food and nutritional security through vegetable crops in relation to climate change (NCVEG-17)

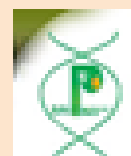
09-11th December, 2017

ICAR-Indian Institute of Vegetable Research, Varanasi, UP



Organized by
Indian Society of Vegetable Science

In collaboration with



National Conference on

Food and nutritional security through vegetable crops in relation to climate change (NCVEG-17)

09-11th December 2017, Varanasi, Uttar Pradesh



Organized by

Indian Society of Vegetable Science

In collaboration with

Indian Council of Agricultural Research, New Delhi

Indian Institute of Vegetable Research, Varanasi, UP

Association for Promotion of Innovation in Vegetable (APIV), Varanasi, UP

National Horticulture Board, Gurugram, Haryana

Dr. Prem Nath Agricultural Science Foundation, Bengaluru, Karnataka

Protection of Plant Varieties & Farmers' Rights Authority, New Delhi



Chief Patron

Dr T Mohapatra, Secretary (DARE) & DG (ICAR), New Delhi

Patron

Dr AK Singh, DDG (Horticultural Science), New Delhi

National Steering Committee

Chairman: Dr DP Ray, Ex-VC, OUAT, Bhubaneswar

Co-chairman:

Dr KV Peter, Director WNRF, Chennai

Dr Brahma Singh, Ex-Director, DRDO, New Delhi

Members:

Dr Visnu Swarup, IAHS Co., Singapore

Dr Kirti Singh, Founder, ISVS, Varanasi

Dr Prem Nath, PNASF, Bengaluru

Dr G Kalloo, Ex-VC, JNKV, Jabalpur

Dr AK Joshi, CIMMYT

Dr AK Singh, DDG (Agri. Ext.), Delhi

Dr Balraj Singh, VC, AU, Jodhpur

Dr DL Maheswar, VC, UHS, Bagalkot

Dr HC Sharma, VC, Dr YSPUHF, Solan

Dr KE Lawande, Ex-VC, DBSKKV, Parbhani

Dr KR Dhiman, Ex-VC, Dr YSPUHF, Solan

Dr Premjit Singh, VC, CAU, Manipur

Dr Matthew Prasad, VC, UUHF, PaudiGarhwal

Dr Nazeer Ahmad, VC, SKUAST, Srinagar

Dr NC Gautam, VC, MGCGV, Chitrakoot

Dr TA More, Ex-VC, MPKV, Rahuri

Dr RC Agrawal, PPV&FRA, N Delhi

Dr RC Srivastav, CAU, Pusa

Dr MR Dinesh, Director, IIHR, Bengaluru

Dr Mathura Rai, Ex-Director, IIVR, Varanasi

Dr PK Joshi, Director, Lucknow

Dr NK Singh, Director, NRCPB, N. Delhi

Dr NP Singh, Director, NIASM, Baramati

Dr PS Naik, Ex-Director, IIVR, Varanasi

Dr T Janakiram, ADG, ICAR, New Delhi

Dr BB Singh, IITA, Nigeria

Dr KV Raman, Cornell University, USA

Dr Karim Maredia, MSU, USA

Dr NK Krishna Kumar, Bioersivity Int., New Delhi

Dr SK Malhotra, Hort. Commissioner, Gol, New Delhi

Dr Warwick Easdown, WVC, India

Sh MP Rao, NSAI, Delhi

Sh Manmohan Attavar, IAHS Co, Bengaluru

Dr P Hazra, BCKV, Kalyani

Dr PS Sirohi, Ex-HOD, IARI, New Delhi

Dr Pitam Kalia, Ex-HOD, IARI, New Delhi

Dr SK Chakrabarti, Director, CPRI, Shimla

Dr SK Pandey, Ex-Director, CPRI, Shimla

Dr Ch Srinivasa Rao, Director, CRIDA

Dr Archana Mukherjee, Director, CTCRI, Trivandrum

Dr AK Pandey, CAU, Passighat

Dr OP Dutta, Ex-HOD, IIHR, Bangalore

Dr AT Sadashiva, IIHR, Bangalore

Dr Akali Sema, Nagaland

Sh Narayan Chawada, VNR Seeds

Sh Thakur Udai Singh, Namdhari Seed, Bengaluru

Dr BS Tomar, IARI, N Delhi

Dr K Srinivas, NAARM

Dr DP Waskar, Director Research, Parbhani

Dr SK Sharma, CAU, Jhansi

Sh N K Singh, Clause Seeds, Secunderabad

Sh Raju Barwale, MAHYCO, Jalna

Sh Suresh O. Agrawal, Beej Sheetal, Jalna

Dr ML. Chadha, WVC, India

Dr Bijendra Singh, DyMD, NHB, Gurgaon

Dr US Gautam, Director, ATARI, Kanpur

Dr AK Singh, VC, BAU, Sabour

Dr BC Deka, Director, ATARI, Barapani

Dr SK Singh, Director, ATARI, Jodhpur

Dr Anupam Mishra, Director, ATARI, Jabalpur

Dr SS Singh, Director, ATARI, Kolkata

Dr Usha Zehr, Mahyco

Core Organizing Committee

Chairman: Dr B Singh

Members:

Dr Major Singh, DOGR, Pune

Dr RB Ram, Lucknow

Dr BM Prasad, SHIATS, Allahabad

Dr AK Singh, Dean, NDUAT, Faizabad

Dr AB Rai, IIVR, Varanasi

Dr Jagdish Singh, IIVR, Varanasi

Dr PM Singh, IIVR, Varanasi

Dr RN Prasad, IIVR, Varanasi

Dr N Rai, IIVR, Varanasi

Dr SN Singh, Beej Sheetal, Varanasi

Shri Surya Kant Jalan, Varanasi

Dr AK Singh, Dy Dir Hort., Varanasi

Dr AN Maurya (Ex-Director, IAS-BHU)

Prof A Vaishampayan, Dean (IAS-BHU)

Dr BK Singh, Head-Horticulture (IAS-BHU)

Dr Sudhakar Pandey, IIVR, Varanasi

Dr GP Mishra, IARI, Delhi

Dr BK Singh, IIVR, Varanasi

Dr Jaydeep Halder, IIVR, Varanasi

Dr Pradip Karmakar, IIVR, Varanasi

Dr Nagendran Krishnan, IIVR, Varanasi

CONTEXT AND RATIONALE

The importance of vegetables in improving livelihood to farming community and achieving the nutritional security has been realized to the burgeoning human population. Consumer awareness about the role of vegetables as health-food and providing opportunities of higher farm-income coupled with improvement in the purchasing power has increased the demand of vegetables to many folds. Nevertheless, during last few decades, there has been a phenomenal increase in the vegetable production world-wide and the global trade in the vegetable now exceeds to that of cereals. However, still we need to produce more to meet the daily minimum requirement of 300g of vegetables/capita/day. Producing vegetables to fulfill the increasing demand in present climatic conditions is a big challenge for scientists, in terms of how vegetable system adopt to potential impact of climate change. The effect of climate on vegetable production is generally related to the variability in local climate rather than global climatic patterns. The Earth's average surface temperature has increased by 1.5 °F (0.83 °C) since 1880. Consequently, any assessment for the vegetable productivity has to be individually considered based on the local area where it is grown. Despite technological advances, such as improved varieties, genetically modified organisms, IPM, IPNM, IDM, irrigation systems etc.; weather is still a key factor in vegetable productivity, as-well-as soil properties and natural communities. The studies related to climate change and crop-physiology indicates that climate change represents a potential threat to sustaining global vegetable productivity growth rates necessary to keep up with the demand. Changing climate trends over the past few decades have been fairly rapid around the world, and increases in atmospheric carbon dioxide and ozone levels have also been quite visible. The certainty that, climatic rise in carbon dioxide will continue in the future too, raises many questions related to vegetable security, one of which is whether the aggregate global vegetable productivity will be affected. It is desired to find the mechanisms by which these changes are going to affect the vegetable yields. Further, it is predicted that, over the next few decades, therise in atmospheric CO₂ concentration will likely to increase the global yields roughly by 1.8% per decade. At the same time, warming trends are likely to reduce the global yields roughly by 1.5% per decade.

The global factors that will probably challenge vegetable yields, also include higher ozone concentration and greater rainfall intensity which generally go unnoticed. The factors which will shape the global vegetable-security in coming decades include human population growth, income growth and distribution, dietary preferences, disease incidence, increased demand for land and water resources for other uses like bio-energy production, carbon sequestration, and urban development; and rates of improvement in agricultural productivity. Growth rates in aggregate vegetable productivity in coming decades will continue to be mainly driven by cutting-edge technological and agronomic improvements. All the modem tools and techniques are definitely important in present era to develop vegetable crops which can sustain changing climatic conditions with enriched nutrients. In this context, there is a need for holistic/system approach involving global integration rather than individual institution working in isolation which will produce impact more quickly to address the consequences of climate change on the world's vegetable production. Finally, capacity-building and education are key components of sustainable adoption strategy to climate change.

Themes and Sub-themes

There will be following eight themes and associated sub-themes to deal with the potential impact of climate change in vegetable production:

Genetic diversity and crop improvement

- Genetic diversity, Plant ideotype, Breeding, Hybrid breeding, Multi-purpose vegetables, wide-hybridization, pre-breeding, root-stock breeding, Anticipatory trait breeding, Parthenocarpy, DH, MAS

Innovations in vegetable breeding

- Genomics, Proteomics, Phenomics, Metabolomics, Transcriptomics, Nanotechnology, Micropropagation, Gene editing, CRISPR/Cas, Genetically edited vegetables, Improved photosynthetic efficiency, Edible vaccine

Climate-resilient vegetables

- Climate impact and adaptation, Protected cultivation, Grafting, Biotic & abiotic stress tolerance, PGR

Integrated Crop Management & mechanization

- Precision farming, GIS & remote sensing, Input use efficiency, INM, Micro-irrigation, Fertigation, Soil health, Cropping system, C-sequestration, Residue management, Organic production, Crop growth models, Food safety standards, Micro-green, Vertical Farming, Mechanization

Plant health management

- Pest forecasting, Pest detection and diagnostics, Ecological engineering, Digital pest maps, Pesticide residue, Nanopesticides, Biological control, Semiochemicals, Biosafety & Biosecurity, Toxicology & IRM, IPM, IDM

Post harvest management, value chain and market

- Grading, Packaging, Storage, Cool-chain, Freeze-drying, Processing, e-choupal, e-market, Mobile Apps

Quality seed and planting materials

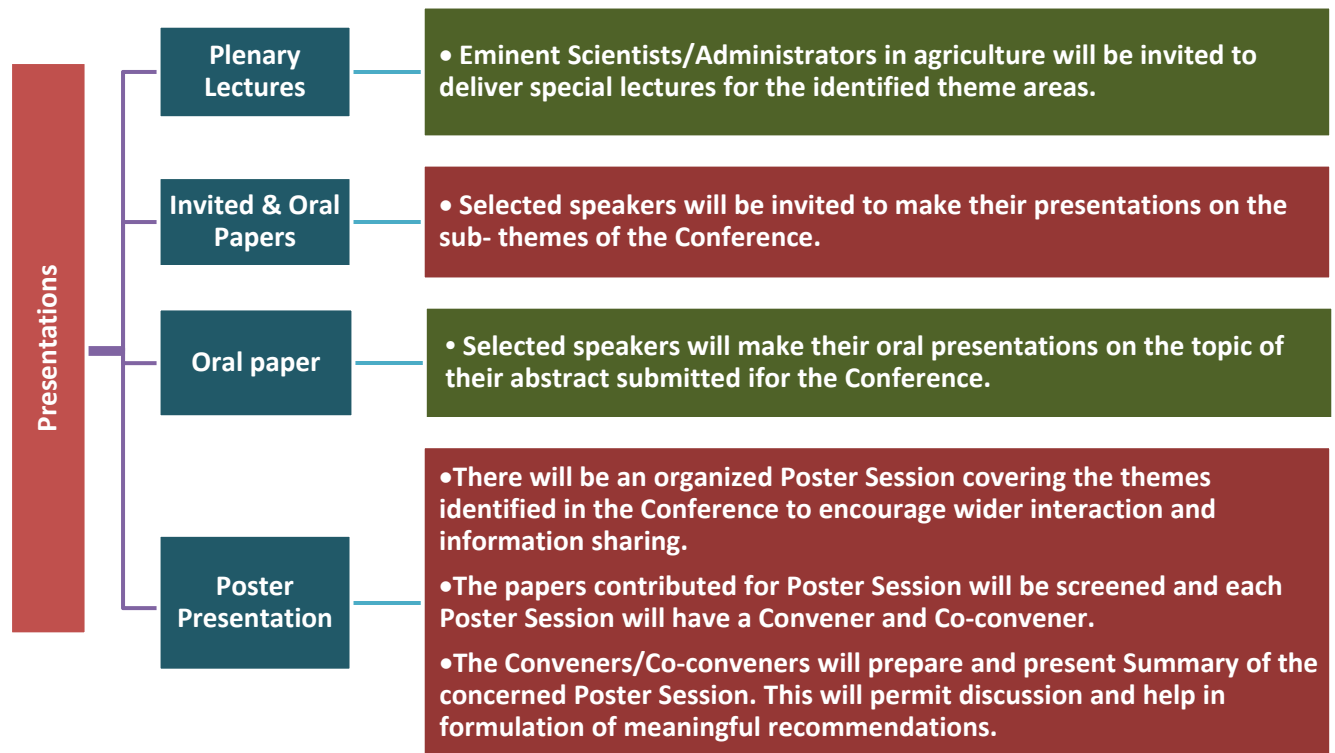
- Quality seed & seedling, Pollinator management, Seed testing, Hybrid purity testing, Seed dormancy, Genetic emasculation, Seed-priming, Pelleting and coating, Synthetic seed

Technology dissemination, Public private partnership and IPR issues

- Technology Park, smart-farming, Capacity building, Strengthening partnership and networking, National IPR policies, Impact of laws, Farmers' and breeders' laws, Access benefit sharing, Biopiracy

PRESENTATIONS

There will be three categories of presentations



EXHIBITION AND ADVERTISEMENT

- An exhibition will be organized at the conference venue, the details of the space available and charges etc. will be made available in the second circular. Advertisement can be included in the conference publications.

HOST ORGANIZATION/COLLABORATORS

- Indian Society of Vegetable Science (ISVS), Varanasi: <http://iivr.org.in/isvs.html>
- Indian Council of Agricultural Research (ICAR), New Delhi: <http://www.icar.org.in/>
- Indian Institute of Vegetable Research (IIVR), Varanasi: <http://iivr.org.in>
- Association for Promotion of Innovation in Vegetable (APIV), Varanasi
- National Horticulture Board (NHB), Gurugram, Haryana: <http://nhb.gov.in>
- Dr. Prem Nath Agricultural Science Foundation (PNASF), Bengaluru: <http://www.pnasf.org>
- Protection of Plant Varieties & Farmers' Rights Authority (PPV&FRA), New Delhi: <http://www.plantauthority.gov.in>

Co-organizers

- NHRDF, NABARD, FSSAI, APEDA

SPONSORSHIP

- Organizers need sponsorship from different organizations for achieving the objectives of the conference in wider perspectives.

Language: English will be the official language of the Conference.

Venue: Indian Institute of Vegetable Research, Varanasi

Conference duration: 09-11 December 2017

REGISTRATION FEE

Registration Category	Up to 20 th November 2017	After 20 th November 2017
Scientist/Teacher/Life member*	₹ 5,000/-	₹ 6,000/-
Industry and private organizations	₹ 8,000/-	₹ 10,000/-
Student/ResearchScholar	₹ 2,500/-	₹ 3,000/-
Accompanying member	₹ 3,000/-	₹ 4,000/-
Farmers	₹ 2,000/-	₹ 2,500/-

*Relaxation of Rs. 1000/- for Life Members of Indian Society of Vegetable Science (ISVS)

Registration fee should be sent on or before prescribed date through A/C payee Bank Draft drawn in favor of Secretary, ISVS payable at Varanasi. Outstation cheque will not be accepted. For online transfer of registration fee, following bank details may be used.

Account holder : Indian Society of Vegetable Science
Name of bank : State Bank of India, IIVR, Varanasi
Current A/C No. : 34585130510
IFSC : SBIN0014905

ACCOMMODATION

The registration fee does not include accommodation charges. Limited accommodation is available in the government guest houses. Most of the delegates will have to stay in hotels. A wide range of accommodation varying from 5-Star hotels to guest houses is available. The likely tariffs are as follows: 5-StarHotels: ₹7000–10000 per day/night; and Medium range Hotels: ₹4000–6500 per day/night.

IMPORTANT DATES



ABOUT THE CITY

Varanasi, also known as Kashi and Benaras, is the cultural capital of India. Varanasi is a melting pot, where both death and life comes together. Being the oldest city and an important Hindu pilgrimage centre, Varanasi attracts a large number of tourists from all over the world. Varanasi is famous for spiritualism, mysticism and Indian philosophy Hinduism. All these are reflected in numerous sects, temples, Ashrams and Ghats. Varanasi is also a mirror of the age-old Indian civilization. The archaeological museum at Sarnath houses numerous remains of the past, including the National emblem of India and the Ashoka pillar. The Ganga Ghats (river fronts) are the main centre of religious activities and rituals and also form one of the main attractions of Varanasi. The Alamgir Mosque, blend of the Hindu and Mughal styles of the architecture, is another important attraction of Varanasi. Some of

the most important temples of Varanasi are Vishwanath temple, Durga temple, SankatMochan temple, TulsiManas temple and the Bharat Mata temple. The Bharat Mata Temple houses a huge relief map of the whole of Indian subcontinent and Tibetan plateau. Other attractions of Varanasi are the Banaras Hindu University (BHU), the Archaeological Museum, Bharat Kala Bhavan and the Buddhist Stupas and temples at Sarnath.

WEATHER IN VARANASI

Varanasi in Uttar Pradesh is situated at 25.28 °N and 82.96 °E. Weather in Varanasi during the month of December is generally pleasant with cool nights. Maximum temperature in Varanasi during December, 2017 is forecasted to be around 20-22 °C (maximum) and 10-12 °C (minimum).

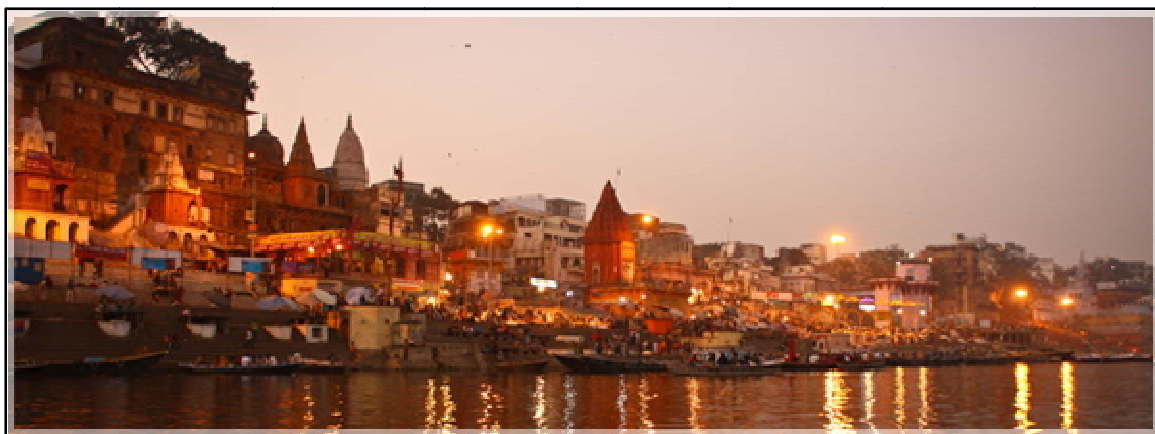
HOW TO REACH VARANASI

Varanasi is well connected with air and trains both. There are five flights daily from Delhi to Varanasi. Transport from airport and railway station to guest houses and hotels will be provided by the organizers.

Correspondence

Dr. Bijendra Singh
Chairman, Core Organizing Committee & Secretary, ISVS

ICAR- Indian Institute of Vegetable Research, Varanasi - 221 305, Uttar Pradesh, India
Phone No. 91-542-2635247; 2635236; Fax No. 91-5443-229007
Email: ncveg17@gmail.com



PARTICIPATION FORM

National Conference on “Food and nutritional security through vegetable crops in relation to climate change”

09-11th December 2017, Varanasi, UP

(Please mail or fax this form so as to reach the Organizing Secretary latest by 04th November 2017)

Name: Prof./Dr./Mr./Mrs./Ms. _____
(Please underline your last name)

Male/Female: _____

Country: _____

Address: _____

Tel. No.: _____

Fax.: _____

Email: _____

Sub-theme of interest: _____

I am interested in [Tick your option(s)]

Attending the Conference []

Presenting an Invited paper []

Presenting a Poster []

Signature

Mailing Address

Dr. Bijendra Singh

Organizing Secretary

National Conference on “Food and nutritional security through vegetable crops in relation to climate
change”,

ICAR- Indian Institute of Vegetable Research

Post Bag No. 01; P.O. Jakhani (Shahanshahpur) Varanasi - 221 305, Uttar Pradesh, India

Phone No. 91-542-2635247; 2635236; Fax No. 91-5443-229007

Email: ncveg17@gmail.com

Web: ncveg17.iivr.org.in

For submission of abstract and registration please visit to our website

<http://ncveg17.iivr.org.in> or www.iivr.org.in

Please send abstract(s) and participation form through email (ncveg17@gmail.com), if any problem in website.