



GLOBAL CONFERENCE ON TECHNOLOGICAL CHALLENGES & HUMAN RESOURCES FOR CLIMATE SMART HORTICULTURE ISSUES AND STRATEGIES

May 28-31, 2014, NAU, Navsari, Gujarat



Organized by



ASM FOUNDATION
New Delhi, India



NAU, NAVSARI,
Gujarat

In collaboration with



Confederation of Horticulture
Associations of India (CHAI), New Delhi



Jain Irrigation Systems Ltd,
Jalgaon, Maharashtra



Horticulture Society of
Gujarat, Navsari, Gujarat

With support of



SFAC
लघु कृषक
कृषि व्यापार संघ



NONI BioTech
PRIVATE LIMITED



GLOBAL CONFERENCE ON TECHNOLOGICAL CHALLENGES AND HUMAN RESOURCES FOR CLIMATE SMART HORTICULTURE - ISSUES AND STRATEGIES

There is an ever increasing global concern for the food and nutritional security of growing population, which is likely to be 10.5 billion by 2050. Needs of food, nutrition and health care have to be met from declining land and water resources, besides, the threat of climate change? How this challenge could be addressed is a question before all of us. Will the technology-led horticulture succeed in producing more from the less land with limited water, sustaining the effect of climate change? Past experience of producing more through Golden Revolution is a testimony to the capability to take up the challenges. But the emerging scenario is more challenging than before. However, revolution in science and emergence of new technologies like biotechnology, information technology, nanotechnology and bioinformatics provide hope. But how these technologies in congruence have been utilized in horticulture and how it can address the emerging challenges is a matter of discussion.

Integrated efforts of science and technology in consonance with socio economics could be an approach to address the issues related to food and nutrition complimented with information technology that will be a smart horticulture. Thus, it is a challenge of technology coupled with human resource, necessitating a global dialogue. This is essential to understand the current status of knowledge on technological challenges and commensuration with human resources, to service the climate smart horticulture. Accordingly, **ASM Foundation**, New Delhi and **Navsari Agriculture University**, Navsari, Gujarat are organizing a **Global Conference on Technological Challenges and Human**

Resources for Climate Smart Horticulture - Issues and strategies, from May 28-31, 2014, to address food and nutritional security and environmental services. The conference has collaboration of Confederation of Horticulture Associations of India (CHAI), New Delhi; Jain Irrigation Systems Ltd. (JISL) Jalgaon, and Horticultural Society of Gujarat (SHG), Navsari. The Conference will also have many other important activities namely, Horti Expo-2014, Horticulture Show, National Level Essay Competition, Farmers' Quiz and Distribution of Quality Seeds & Planting Material to the farming community and Conferment of Awards and Post Conference Tours. The Shodh Chintan will be published and there is opportunity, for sponsorship as well as showcasing activities through advertisements and participation in Exhibition.

We have immense pleasure in inviting you to this conference being organised during "6th Swadesh Prem Jagriti Sangosthi-2014 to provide your valuable inputs for developing strategic recommendations. Your active participation, in the conference and activities to be organised during the Sangosthi, will be highly appreciable. Once again we solicit your kind cooperation in addressing vital issue of food and nutritional security through climate smart horticulture.

A line of confirmation will be highly appreciated.

Dr. A.R. Pathak
Vice chancellor NAU, Navsari
Chairman, Organizing Committee

Mrs. Bimala Singh
Managing Trustee, ASM Foundation
Organizing Secretary

Themes of the Conference

- Current status of food and nutritional challenges,
- Current status of water availability for agriculture and future challenges,
- Innovative technology to address the challenges,
- Challenges of climate change to horticulture,
- Adaptation strategies to climate change,
- Enhancing productivity of inputs through new technologies,
- Potential and constraints of technological application,
- Biotechnological approaches and challenges,
- Developing farming practices and technologies to produce more with less,
- Developing cultivars which can be grown with less water and inputs,

- Water and nutrient management for enhancing the productivity,
- Technology to produce more with less land,
- Production of residue free food,
- Converting waste to wealth, and
- Human resource development to take challenges.

Expected Outcome

- Enhanced understanding on needs of food and nutrition, and challenges to produce more with less land and water,
- Understanding of approaches and new technological challenges,
- Inputs for policy formulation on futuristic resource management,
- Improved farm practices and technologies for enhancing farm output for climate smart horticulture, and
- Analyzing the needs for human resource development.

The Organizers shall also facilitate field visits and post-conference tours to the sites of interest.

CONFERENCE SHALL ALSO DELIBERATE ON THE ISSUES IN THE THEMATIC AREAS ACROSS 15 TECHNICAL SESSIONS.

Technical sessions

- Session-I National and international scenario of horticulture research and development** (Covers National and International Scenario of research and development, initiatives and innovations)
- Session-II Current technology for designer crops for climate smart horticulture** (Genetic resource, improvement including biotechnological tools)
- Session-III Dynamics of nutrients management and microbe** (Nutrition including microbial management of soil)
- Session-IV Adoption and mitigation strategies to climate change** (All the technologies which address mitigation studies and adoption, which may include reduction on emission)

- Session-V Nanotechnology for enhancing efficiency of inputs** (Current status and future needs)
- Session-VI Bio- informatics as a tool to meet challenges** (Bio-informatics)
- Session-VII Water needs for crop production and tools for enhancing the efficiency** (All aspects on water quality and management)
- Session-VIII Challenges in production technology including protected cultivation** (Canopy management, mat management, plant architectural engineering, management and protected cultivation.)
- Session-IX Technology of biotic stress management and challenges** (Management of insects, pests and diseases)
- Session-X Technology for abiotic stress management and challenges**

(All abiotic factors in production management- salinity level and high temperature)

Session-XI Innovation in shelf life enhancement and value additions
(Post harvest management, processing, storage, marketing, products and export)

Session-XII Urban and Peri-urban horticulture as an option for mitigation and adoption to climate change
(Environmental horticulture, waste management and

greening of cities and towns)

Session-XIII Technology transfer and innovations in adoption (New approaches including ICT)

Session XIV Open session (Input of farmers and farmer participatory approaches)

Session-XV Human resource development for climate smart horticulture (Higher education and skill management)

DATES TO REMEMBER

Receipt of Abstract March 31, 2014	Receipt of Registration Form March 31, 2014	Receipt of Full Paper April 30, 2014	Receipt of Requisition for Agri-Horti Expo April 30, 2014	Conference May 28-30, 2014	Post Conference Tour May 31, 2014
--	---	--	---	--------------------------------------	---

Call for Papers/Keynote Lecture

The organizing Committee of the Global Conference cordially invites papers on the above topics of the thematic areas for consideration in oral/ Poster Presentations under respective technical sessions during the conference. Authors may indicate their preference for technical session for presentation.

Lead Papers/Keynote Lecture

Eminent researchers of international repute will be invited to deliver keynote lecture, on topics related to different technical sessions of the conference and the same will be published.

Oral Papers

Among the abstracts accepted, 5-6 selected papers will be considered for oral presentations under each of the technical sessions. Each oral presentation would be allotted 10 minutes. Power Point Presentation of the same are required to be handed over to the conveners of the respective sessions at least a day in advance.

Poster Papers

The other contributed papers will be selected for poster sessions, organised concurrent to the concerned sessions at specified time. The authors of the posters are required to be present at the venue near their posters during the respective poster sessions for presentation to the participating delegates.

Submission of Abstract

Abstracts are to be submitted to asmglobal14@gmail.com as Microsoft Word file. Authors should specify the session in which they would like to present the papers. The abstract(s) of the contributed papers should not exceed 300 words. The full length papers should not exceed 10 pages in 12 font size in Times New Roman in single spacing as Microsoft Word file. Abstracts will be published in the book of abstracts and lead papers upon registration only by the due date.

Best Paper/Poster Award

The best three oral/poster presentations will be selected by the jury of eminent scientists and will be awarded with plaque and certificate from the organizers.

REGISTRATION

Type of delegates	Early bird registration (up to 31 st March 2014)	Registration fee
International delegates	\$ 400	\$ 500
Delegates	Rs. 6000/-	Rs. 7000/-
Corporate / Company	Rs. 6000/-	Rs. 7000/-
Farmers / Students	Rs. 4000/-	Rs. 4500/-
CHAI Members	Rs. 5500/-	Rs.6000/-

ACCOMMODATION

Accommodation shall be reserved on the first-come-first-serve basis after receiving the requests. Delegates may write for hotel bookings or guesthouse bookings at an early date. Please confirm your participation and itinerary by sending e-mail to asmglobal14@gmail.com. The tariff in hotels in Navsari and Surat ranges from Rs. 1000 to Rs. 7500. The organizers will facilitate the reservation of the accommodation as desired by delegates by booking in advance. Limited Guest house facilities are available which will be reserved on request, depending upon availability

OTHER IMPORTANT ACTIVITIES

On the site of the Global conference, the organizers shall facilitate the following events harmonizing the conference motto:

Horticulture Expo 2014

National level exhibition, Horti Expo-2014 will be organised at the venue, which will provide an opportunity for learning by seeing. The exhibition is expected to have large number of exhibits from across the country comprising of producers, traders, processors, technology developers and progressive farmers to showcase the strength in technology and inputs. The exhibition will provide interactive platform for learning by seeing, buyer and seller interface and promote business in horticulture including, inputs, ICT, marketing skills and human resources. For booking of stalls, please contact the organizers at asmglobal14@gmail.com and also visit at www.itamitsingh.com for further details.

Talent Search

In order to inculcate competitiveness, leadership, communication skill and patriotism among the youth a National Essay Competition will be organized at the national level. The topic of essay for the high school students is Gandhian thoughts in Modern Education. The jury will select the ten best essays and the selected candidates will be given the opportunities for elocution and the group discussions on May 28, 2014. The participants will be evaluated by a jury comprising of educationists and eminent personalities for first, second and third positions in the order of merit. Successful students will be given the cash prizes of Rs.15000, Rs.7500 and Rs. 5000 for 1st, 2nd and 3rd positions, with a certificate of merit. Other participants will be given certificate of participation. Three best Essays will be published in Shodh Chintan.

Empowering The Farmers With Knowledge and Skills

Horticulture comprising of fruits, vegetable, tuber crops, plantation crops, floriculture, medicinal and aromatic plants, is a means of livelihood for millions of farmers. Therefore, programmes of the conference have been designed keeping in view the requirements of farmers for new skills and knowledge on technology led development.

Farmers' Quiz

Infusion of knowledge on technology-led development necessitates

competition among the farmers that enables them to acquire knowledge. Accordingly, to encourage the farmers' participation the foundation has instituted the programme "Farmers QUIZ". In which any farmer can participate by registration. The programme will be organised on May 30, 2013 and winners will be awarded in cash or kind with plaque of honour and certificate.

Distribution of Quality Seeds and Planting Material

Fruit plants and seeds of vegetable crops and other economically important crops will be distributed to the farmers for facilitating the dissemination of improved technologies.

Horticulture Show

An exclusive programme of Horticulture show will be organized exhibiting diversity of horticultural crops grown in the country.

Programme on Ethics and Values

The youth needs to be motivated and provided skills for effective management of knowledge. In this pursuit, discourses will be organized which will be addressed by experts in human resource development. The discourses will have focus on ethics, values, motivation, and intellectual property issues in the knowledge driven society and devotion to duties to achieve optimum results. A crash course/programme on personality development shall also be part of the event.

CULTURAL PROGRAMME

A cultural programme with the theme of National integration and values shall be organised for the leisure and entertainment of the delegates in the evening of May 28, 2012.

AWARD CEREMONY

The Foundation has instituted different awards for outstanding contribution by farmers/scientists/industry who have made the difference, through their contributions in horticulture. Selected awardees will be honoured with "Plaque of honour", "Citation" and certificate. **Amit Krishi Rishi Award** is instituted for recognizing the outstanding contributions in the field of agriculture/horticulture, which have shaped the Indian agriculture/horticulture through their lifetime contribution. The award will be given to the outstanding scientists and technology managers based on the recommendations of the search committee. **Amit Padam Jagriti Award** is instituted to recognise the outstanding contribution of farmers/industry, which has created impact through technological innovations and its adoption by farmers. **Amit Prabudh Manishi Award** is instituted to recognise exceptional contributions of the leader in the field of education particularly agriculture and horticulture. It is conferred to a person who has set an example by making revolutionary changes in the field of human resource development impacting the national agricultural scenario. **Amit Swah Award** is instituted to recognise outstanding contribution of individual /institution for wellness of people. All the above awards shall be conferred on May 28, 2014 to the selected awardees.

Udyan Ratna Award - Technology adoption is the key to success. Awarding the people who have succeeded or helped other farmers to succeed, become a catalyst for movement and revolution. The Foundation will honour 25 such farmers from across the country for their achievements in enhancing productivity and profitability of farm through the innovations besides their contribution in linking farmers to market and there by improving their economic status. They will be conferred "Udyan Ratna" award and a citation. The farmers nominated by Head of any agriculture/horticulture institute/university/research Organization/ state government, department of agriculture/

horticulture or President/Vice Presidents' of societies like Agriculture/Horticulture/related fields or Awardees of Udyan Ratna, Padma Bhushan or other reputed awards of the country will be considered for nomination. The award will be conferred during the valedictory function on May 30, 2014, based on recommendation of high-level committee.

VALEDICTORY FUNCTION

Valedictory function shall be organized on May 30, 2014 to confer Udyan Ratna Award to farmers and prizes for best papers, posters and stalls of the conference and also to develop an action plan on the recommendations of different technical sessions.

HORTI EXPO - 2014

An exhibition shall be organized to showcase the technologies and input. Any interested organization corporate sector may take required space. The space charge in exhibition will be Rs. 15,000/Sq.m. The allotment of space will be on first come basis.

PUBLICATION OF SHODH CHINTAN

A book, **Shodh Chintan**, will be brought out on the occasion which will have space for advertisement. Organizer may be approached for booking the space for advertisement by interested organization.

SPONSORSHIP

The **Swadesh Prem Jagriti, 2014** and the Conference provide opportunities for sponsorship, which are in different categories. The benefits to sponsors in different categories are:

Category	Amount (in lakh)	Benefits			Advertisement
		Free registration	Logo in Banner	Exhibition Stall	
Platinum	10	10		5	Full Column
Diamond	05	05		4	Full Column
Gold	03	03		3	Y4
Silver	02	02		2	Y2
Bronze	01	01	—	1	—

The name of sponsors will be depicted prominently in backdrop and publication, besides, giving free registration and exhibition space and advertisement in souvenir (Shodh Chintan)

ABOUT THE PLACE

Navsari, (20°55'38"N 72°53'54"E) a district headquarter is about 250 Km north of Mumbai connected by road, rail and air through Surat and Baroda (Vadodara). The place is known for trading of agricultural commodity especially banana, mango and sapota. The district is surrounded by historical place like, Dandi known for Salt Satyagraha of Gandhi and many more. Summer (March to May) is hot with temperature ranging from 35°C 41°C. The nearest airport to the Navsari is Surat/ Baroda. The place is well connected by the train from all the capital cities and it is also called twin city of Surat.

POST CONFERENCE TOUR

Post conference tour will be organized on 31st May 2014 to visit "Farmers Field and Cooperatives" and also tourist spots in South Gujrat. Since Gujarat has many tourist attraction post conference tour will be facilitated by organizer, if delegates desire. Package tour to Somnath, Dwarka and others will need 3-4 days.

ABOUT THE ORGANIZERS



Mrs. Bimla Singh
Managing Trustee

ASM Foundation, an ISO 9001:2008 certified organisations is committed to economic development and knowledge empowerment of people through various activities. It has headquarter at New Delhi, India. The ASM Foundation has successfully organised Global and National Conference in the past, and is known nationally and internationally. The Foundation, besides organizing the conference, exhibitions, and farmer's friendly activities, is committed to education health care and economic development. The Foundation also confers awards in various categories to recognise the contribution of individuals/ organisation.



Dr. A.R. Pathak
Vice Chancellor

Navsari Agricultural University establish under integrated system of research, education and extension education caters to the needs for agricultural, horticultural and forestry, veterinary and agri-business management of south Gujarat with a intake capacity of 300 student annually and is in the forefront of technology development in India, particularly, in Gujarat. The students trained in NAU are catering to needs of technological upgradation and developments.

ABOUT THE COLLABORATORS



Dr. H.P. Singh
Chairman

Confederation of Horticulture Association of INDIA (CHAI) an ISO 9001:2008 certified, non-profiting organisation is a forum of stakeholders in horticulture/ agriculture to work together in mission mode with set goals and objectives having commitment for addressing global concern and

providing innovative solutions. The aims of CHAI is the furtherance of horticulture/ agriculture research and development, through; Conduct and support in organizing of National/International conference, workshops, Publication of journal- International Journal of Innovative Horticulture, newsletter and books. To bring the competitiveness, CHAI has instituted various awards to motivate the innovators for the excellence in research, education, extension, teaching and farming.



Dr. B.H. Jain
Chairman

Jain Irrigation Systems Ltd. known as JISL, India, is a multinational organization with global presence in 120 countries, provides solution for efficient management of water, protected cultivation, quality planting material, farmers access to market & processing, solar energy, waste utilization,

and education. The company is one of the largest agro based company in the world and have many innovations to its credit. The company in its recognition has been conferred with highest national awards and many International recognitions.



Dr. N.L. Patel
Dean

Horticultural Society of Gujarat (HSG), founded in April 1994, with the objective to advance the art and science of Horticulture in Gujarat as well as the country, is involved in organizing seminars, exhibitions, horticulture shows, farmers meets and publications for communicat-

ions in science. The HSG caters to needs of the horticulture community including research scientist, farmers and students.

ORGANIZING COMMITTEE

1. International Organizing Committee

Chairman : Dr. R. S. Paroda, Chairman Haryana Kisan Ayog, Former Secretary, DARE and DG, ICAR and Chairman, TAAS, New Delhi

Members : Dr. R. B. Singh, President NAAS, New Delhi, Former Chairman ASRB and ADG, FAO Regional Office, Bangkok, Thailand

Dr. Prem Nath, PNASF, Bengaluru, Karnataka, Formerly ADG, FAO Regional Office, Bangkok, Thailand

Dr. M. Mahadevappa, Director (Rural Development), Ex-chairman ASRB, Ex-VC UAS Bengaluru, Karnataka

Dr. A. R. Pathak, Vice Chancellor, NAU, Navsari, Gujarat

Dr. Prabhat Kumar, Asian Institute of Technology, Thailand

Mr. Anil B. Jain, Managing Director, JISL, Jalgaon, Maharashtra

Dr. P. I. Peter, Chairman, Noni Foundation, Chennai, Tamil Nadu

Dr. Prem Mathur, National Coordinator, Bioversity International

Org. Secretary : Dr. Dilip Kumar, Vice Chairman CHAI, Delhi unit and FAO Consultant, Former Director, CIFE, Mumbai

Convenor : Dr. P. Rethinam, Former Executive Director, APCC, Jakarta

2. National Organizing Committee

Chairman : Dr. G. Trivedi, Chairman, ASM Foundation (Former Vice-Chancellor RAU, Pusa)

Members : Dr. H. S. Gupta, Director, IARI, New Delhi

Dr. Devi Prasad Ray, Former VC, OUAT, Bhubneswar, Odisha

Dr. S. B. Dandin, Vice Chancellor, UHS, Bagalkot, Karnataka

Dr. N. K. Krishnakumar, DDG (Hort.) ICAR, New Delhi

Mr. Sanjeev Chopra, IAS, Joint Secretary and Director, NHM, Gol, New Delhi

Dr. Gorakh Singh, Horticulture Commissioner, Gol, MoA, New Delhi

Mr. Ajit B. Jain, Joint Managing Director, JISL, Jalgaon, Maharashtra
Dr. N. C. Patel, Vice Chancellor, JAU, Junagadh, Gujarat
Dr. A. M. Sheikh, Vice Chancellor, AAU, Anand, Gujarat
Dr. Sreedharan, Vice Chancellor, SDAU, S.K. Nagar, Gujarat
Shri Sudhir Kumar Bhargava, Director, Agroman Systems, Mumbai, Maharashtra
Dr. Satish Chander, DG, FAI, New Delhi
Dr. S. S. Mehta, Secretary, CIH, Salem, Tamil Nadu
Dr. B. Sivaramakrishnan, Chairman, SSGI, Trichy and member, RFD, Govt. of India New Delhi

Org. Secretary : Mrs. Bimala Singh, Managing Trustee, ASM Foundation, New Delhi
Joint Organizing Secretary : Dr. S. K. Malhotra, ADG (Horti), ICAR, New Delhi
Secretary : Dr. Babita Singh, Professor of Horticulture, Amity University, NOIDA, UP
Dr. T. Janakiram, Head Division of Floriculture and Landscaping, IARI, New Delhi
Convener : Dr. R. C. Srivastava, Principal Scientist, Bhubaneswar and Former Director CARI, Odisha

3. Local Organizing Committee

Chairman : Dr. A. R. Pathak, Vice Chancellor, NAU, Navsari, Gujarat
Co-Chairman : Dr. A. N. Sabalpara, Director of Research, NAU, Navsari, Gujarat
Members : Shri Sharadbhai L. Patel, M.D., ASPEE Group of Companies, Mumbai
Dr. K. B. Patil, JISL, Jalgaon, Maharashtra, Managing Director, GNFC, Narmada, Bharuch
Managing Director, GSFC, Vadodara
Dr. K. B. Kathiria, Director of Research, AAU, Anand
Dr. C. J. Dangaria, Director of Research, JAU, Junagadh
Dr. R. M. Chauhan, Director of Research, SDAU, S. K. Nagar
Dr. B. S. Patel, Director, Dept. of Horticulture, Gandhinagar, Gujarat
Dr. Sanjay Singh, Head, CHES, Godhra, Gujarat
Dr. M. K. Arvadia, Dean, N. M. College of Agriculture, NAU, Navsari
Dr. A. M. Bafna, Dean, ASPEE IABM, NAU, Navsari
Dr. N. H. Kelawala, Dean, Vanbandhu Veterinary College, NAU
Dr. A. V. Barad, Dean, College of Agriculture, JAU, Junagadh
Dr. K. P. Patel, Dean, B. A. College of Agriculture, AAU, Anand
Dr. B. N. Patel, Associate Director of Research, NAU, Navsari
Dr. D. B. Jadeja, Principal, College of Forestry, NAU, Navsari
Dr. B. V. Padhiar, Head, Dept. of Fruit Science, ACHF, NAU, Navsari
Dr. B. R. Parmar, Head, Dept. of Horticulture, NMCA, NAU, Navsari
Dr. B. N. Kolambe, Head, Dept. of Agril. Chem. & Soil Sci., ACHF
Dr. R. M. Patel, Professor, Dept. of Biotechnology, ACHF, NAU
Dr. N. I. Shah, Research Scientist, AES, NAU, Paria
Dr. L. R. Verma, Dean, Faculty of Horticulture, S. D.A.U., S. K. Nagar
Chairman, Co-operative Society, Amalsad

Organizing Secretary

Dr. N. L. Patel
Dean, ASPEE College of Horticulture and Forestry
Navsari Agricultural University, Navsari-396 450
Mob: 09825539385, E-Mail: deanachf@gmail.com

Joint Organizing Secretary

Dr. N. B. Patel, Mob:09998002505, E-Mail: nitin_nau@yahoo.co.in
Dr. T. R. Ahlawat, Mob: 09879124272; E-Mail: tahlawat4@gmail.com
Dr. Alka Singh, Mob: 09998757299 E-Mail: dralkasinghdhaka@gmail.com

ADDRESS FOR CORRESPONDENCE

Mrs. Bimala Singh
National Organizing Secretary, ASM Foundation
249, Sector 18A, Dwarka, New Delhi-110078 India
Mob: +91-9810013664, +9810445937, 09582898983
E-mail:asmglobal14@gmail.com
Website: www.itamitsingh.com

OR

Local Organizing Secretary

Dr. N. L. Patel
Dean
ASPEE College of Horticulture and Forestry
Navsari Agricultural University, Navsari-396 450
Mob: 09825539385
E-Mail: deanachf@gmail.com