



**UNIVERSITY OF AGRICULTURAL SCIENCES, DHARWAD, KARNATAKA**

*in collaboration with*



**INDIAN SOCIETY FOR PROTECTED CULTIVATION, IARI, NEW DELHI**

***National Consultative Workshop***

on

## **Protected Cultivation to Meet Future Challenges**

**with special reference to Soilless Cultivation, Hydroponics and Aeroponics**

**17-18 February 2017**

***Organizer***

**Hi Tech Horticulture Unit, UAS, Dharwad, Karnataka**

**[www.uasd.edu](http://www.uasd.edu)**

### **Background**

In India Horticulture is progressing and its total production has surpassed the total food grain production, which indicates that the country is moving towards horticultural revolution, providing nutritional security too. Protected cultivation of horticulture crops is a technology which is less environment dependent and enhance crop and land productivity with quality produce. Area under protected cultivation is increasing due to change in the perception of growers and support from both central and state governments through various schemes to encourage protected cultivation. The popularity of soilless cultivation under protected environment has increased drastically in a short period of time especially in corporate farming besides, there is a shift in traditional method of cultivation to modern method, leading to an increase in experimentation and research in the area of indoor and outdoor soilless farming. Keeping this in view two days National Consultative Workshop on Protected Cultivation to Meet Future Challenges (with special Reference to Soilless Cultivation, Hydroponics and Aeroponics) is organized at **Hi-Tech Horticulture Unit, University of Agricultural Sciences, Dharwad on 17-18 February 2017.**

### **About the University**



With its dedicated services in the field of agriculture and allied areas, the University has been adjudged as the Best Agricultural University in the country twice and conferred with the Sardar Patel Outstanding ICAR Institution Award for the year 2000 and 2016 by the Indian Council of Agricultural Research (ICAR), New Delhi. Further, the University has also been conferred with Mahindra Samridhi Krishi Shiksha Samman National Award in 2013.

The University of Agricultural Sciences, Dharwad was established on October 1, 1986. In last three decades considerable progress has been registered in the field of education, research and extension. It is promoting partnership and linkages with national and international educational, industrial, research and other institutions.

### **About the Hi-Tech Horticulture Unit**



The centre was established during 2006 with the facilities for protected cultivation having different greenhouse/polyhouse, shadehouse, nethouse, misthouse, micro-irrigation and fertigation systems. Recently soilless cultivation and hydroponics systems have been added. There are 30 different protected structures covering an area of 3.0 ha, beside 15 acre outdoor cultivation at UAS, Dharwad. The primary objectives are; to teach, conduct research and dissemination of technology to the farmers in the field of protected cultivation, soilless cultivation, hydroponic and aeroponics of high value horticulture crops. In the last ten years, varieties of rose, gerbera, carnation, orchid, anthurium, lilliums, heliconia, colour capsicum, tomatoes and cherry tomatoes were evaluated for their performance under protected conditions and recommended for adoption and also developed production technologies for all these crops for protected cultivation. Producing nearly one lakh genuine planting material of horticulture crops ever year to distribute to farmers. In this unit, 22 Post Graduate students carried out their research work in different flower and vegetable crops. Three times organized 21 days Winter School (National level training) on 'Protected Cultivation' sponsored by ICAR, New Delhi for the scientists of National Agricultural Research Systems, during the year 2009, 2012 and 2014.

## About the Society

The Indian Society for Protected Cultivation has been established with a vision to create an interactive platform of stakeholders including researchers, students, academicians, policy planners, farmers, industry partners and retailers for wholesome effort for creating knowledge bank and value chain of concepts and interests ([www.ispc.co.in](http://www.ispc.co.in)).

## About Dharwad & Venue

The seminar will be held at University of Agricultural Sciences, Dharwad. The twin cities Dharwad & Hubballi are well connected to other parts of the country by air, rail and bus. The University campus is 8 km from Dharwad and 25 km from Hubballi railway station on National Highway (NH-4). Nearest airports are Hubballi (25 km), Belagavi (75 km) and Goa (150 km). Dharwad is located near Western Ghats at 678 m above MSL. The weather during February will be pleasant with a maximum temperature of 28<sup>o</sup>-30<sup>o</sup> C and a minimum of 12<sup>o</sup>-15<sup>o</sup> C.

## About the Seminar

National Consultative Workshop on Protected Cultivation to Meet Future Challenges (with special Reference to Soilless Cultivation, Hydroponics and Aeroponics) is scheduled on 17-18 February 2017 at University of Agricultural Sciences, Dharwad. It is our pleasure to host this conference and we would like to invite you to join. This event is a great opportunity to bring together researchers, technicians, academics and other professionals and students in the field of protected cultivation of horticultural crops to share knowledge and ideas, as well as discuss the state of the art and future challenges and perspectives for the protected cultivation with special emphasis on soilless cultivation, hydroponics and aeroponics.

## Topics / Thematic areas

- Greenhouse systems, design, climate control and management
- Development of varieties suitable for protected cultivation
- Crop production and management
- Soilless production systems and management
- Use of sensors and automation for Soilless production systems



**Participants:** Researchers, technicians, academics, other professionals and students working in the field of protected cultivation and also interested growers.

## Eminent Speakers

- Dr. Balraj Singh, Vice-Chancellor, Agricultural University, Jodhpur, Rajasthan
- Lt. Cdr. C. V. Prakash, CEO, Pet Bharo Project, Dharwad
- Dr. M. Hasan, Principal Scientist, Centre for Protected Cultivation and Technology, IARI, New Delhi
- Dr. Naved Sabir, Principal Scientist, Centre for Protected Cultivation and Technology, IARI, New Delhi
- Dr. S. S. Sindhu, Head, Division of Floriculture & Landscaping, IARI, New Delhi
- Dr. D. J. Patel, Professor of Entomology (Retd), Anand, Gujarat
- Dr. G. L. Bansal, Formerly Professor & Dean, CSKHP Agricultural University, Palampur, HP
- Dr. D. K. Singh, Professor, G.B. Pant University of Agriculture & Technology, Pantnagar
- Dr. C. Ashwath, Principal Scientist & Head, Division of Floriculture, IIHR, Bengaluru
- Dr. S. S. Hebbar, Principal Scientist, Division of Vegetable Crops, IIHR, Bengaluru
- Mr. Jaspal Singh, Centre for Development of Advanced Computing, Ministry of Electronics, GoI, Mohali
- Er. Sukhwinder Singh, Scientist, Central Potato Research Station, Jalandar, Punjab

## Patron

- Dr. D. P. Biradar, Vice-Chancellor, University of Agricultural Sciences, Dharwad

## National Advisory Committee

- Dr. Brahma Singh, Padma Sri Awardee, Former Director, Life Sciences, DRDO and Founder President, Indian Society of Protected Cultivation, IARI, New Delhi
- Dr. R. R. Hanchinal, Chairperson, PPV&FR Authority, New Delhi
- Dr. Ashok Dalwai, IAS, Additional Secretary, Department of Agriculture, Cooperation and Farmers Welfare, Government of India, New Delhi
- Dr. Balraj Singh, Vice-Chancellor, Agricultural University, Jodhpur, Rajasthan
- Dr. D. L. Maheshwar, Vice-Chancellor, University of Horticultural Sciences, Bagalkot, Karnataka
- Dr. C. Vasudevappa, Vice-Chancellor, University of Agricultural and Horticultural Sciences, Shimoga, Karnataka

- Dr. K. P. Viswanatha, Mahatma Phule Krishi Vidyapeeth, Rahuri, Maharashtra
- Dr. Ashok Sarial, Vice-Chancellor, CSKHP Agricultural University, Palampur, HP
- Mr. P. C. Ray, Commissioner of Horticulture, GoK, Bengaluru
- Mr. M. I. Ganagi, Chief General Manager, NABARD, Bengaluru
- Dr. K. V. Peter, Director, World Noni Research Foundation, Chennai
- Dr. Shrinath Dixit, Director, ICAR-ATARI (Zone VIII), Bengaluru
- Dr. M. Hasan, Principal Scientist, Centre for Protected Cultivation and Technology, IARI, New Delhi
- Dr. Naved Sabir, Principal Scientist, Centre for Protected Cultivation and Technology, IARI, New Delhi
- Mr. Mohan Bajikar, Chairman, Vertical Farming Association of India
- Dr. S. M. Mantur, Professor & Head, Hi Tech Horticulture Unit, UAS, Dharwad & **Organizing Secretary**

### Local Organizing Committee

- Dr. D. P. Biradar, Vice-Chancellor, UAS, Dharwad
- Dr. B. S. Janagoudar, Director of Education, UAS, Dharwad
- Mr. Umesh H. Kusagal, IAS, Registrar, UAS, Dharwad
- Dr. S. L. Madiwalar, Director of Research, UAS, Dharwad
- Dr. V. I. Benagi, Director of Extension, UAS, Dharwad
- Dr. S. T. Naik, Dean(PGS), UAS, Dharwad
- Dr. R. S. Giraddi, Dean(Agri), College of Agriculture, Dharwad
- Dr. N. K. Biradarpatil, Dean(Agri), College of Agriculture, Vijayapur
- Dr. R. A. Balikai, Dean(Agri), College of Agriculture, Hanamanamatti
- Dr. H. Basappa, Dean(Forestry), College of Forestry, Sirsi
- Dr. (Mrs.) Chaya A. Badiger, Dean(HSc), College of Rural Home Science, Dharwad
- Dr. M.N. Motebennur, University Librarian, UAS, Dharwad
- Dr. S. K. Gali, Dean(Students Welfare), UAS, Dharwad
- Dr. H. Basavaraja, Comptroller, UAS, Dharwad
- Shri S. C. Mirajkar, Estate Officer, UAS, Dharwad
- Mr. S. M. Honnalli, Administrative Officer, UAS, Dharwad
- Dr. P.R. Dharmatti, Professor & University Head, Dept. of Horticulture, UAS, Dharwad
- Dr. Satish S. Patil, Professor & Head, Dept. of Horticulture, AC, Dharwad



Co-Organizing Secretary	Organizing Secretary
<b>Dr. M. S. Biradar</b> Asst. Professor, Hi Tech Horticulture Unit UAS, Dharwad, Karnataka Email: msbiru@rediffmail.com Cell No. 9449771370	<b>Dr. S. M. Mantur</b> Professor & Head, Hi Tech Horticulture Unit, UAS, Dharwad, Karnataka, Email: mantur-sm@gmail.com, smmantur@gmail.com, Cell No. 9448902525, 9448495342, 0836-2444272(Off)
<b>web: www.uasd.edu</b>	
<b>Registration Fees: Rs. 1000.00 and for students Rs. 500.00</b> (Mode of payment: DD drawn in favour of Comptroller, UAS, Dharwad payable at Dharwad)	
<b>Last date for registration: 10-02-2017</b>	
<b>Accommodation:</b> In the UAS, Dharwad Guest Houses on twin share basis. <b>For Hotels please see the following webs</b> Denissons Hotel, Hubballi - www.denissonshotel.com, Mayur Resorts, Dharwad - www.mayur-resort.com	

### Registration Form

1. Name \_\_\_\_\_
2. Designation \_\_\_\_\_
3. Address \_\_\_\_\_
4. E-mail \_\_\_\_\_
5. Cell No. \_\_\_\_\_
6. Payment details : Registration fees of Rs. 1,000 / 500 by Demand Draft No. \_\_\_\_\_  
dated \_\_\_\_\_ in favour of Comptroller, UAS, Dharwad payable at Dharwad.

*Signature*