

ICAR Sponsored Short Course

On

Enhancing Water and Nutrient Use Efficiency in Indian Farming through Precision Agriculture

From

26th July to 4th August, 2017

Sponsored by



Indian Council of Agricultural Research
New Delhi- 110 012

Course Director

Dr. Mudalagiriappa

Organized by



University of Agricultural Sciences
GKVK, Bangalore- 560 065

Background

The large and ever increasing population in India continues to put pressure on its limited agricultural land resource. This problem will become increasingly serious in the 21st century. The population of India will increase further and the projected food demand will also increase. The solution for this problem will depend on the application of advanced scientific technology to realize the rational allocation and effective use of water and nutrients. Substantial progress has been made in soil testing and improvement of fertilizer application and water, but a uniform rate of application of inputs (nutrient and water) is usually recommended for large area regardless of soil nutrient and water variability within the field. Some pockets of the fields receive too much fertilizer or water, but others too little. As a result land and nutrient resources are wasted with loss of opportunities and benefits. The information on the spatial variability of soil water and nutrients is scanty under Indian conditions. The precision agriculture approach has been successfully applied in some developed countries with advanced mechanization and large scale operation. The basic principle of Variable Rate Technology (VRT) and Site Specific Nutrient Management (SSNM) or Soil Test Crop Response (STCR) equations which adjust each agricultural input precisely on the basis of specific condition of each operation unit of the field should be adoptable to any crop production system with necessary adjustment of the specific techniques. In this context the development of modern technology, precision agriculture can exercise a great influence on the technological evolution of agriculture in India.

In view of this, it is most essential to update the knowledge and skills of the researchers who are working towards developing precision agricultural

practices are important to enhance the resource use efficiency .

Keeping all these in view, ICAR sponsored short course on Enhancing water and nutrient use efficiency in Indian farming through precision agriculture is being organized from 26-07-2017 to 04-08-2017 for 10 days at the Department of Agronomy, College of Agriculture, UAS, GKVK, Bengaluru- 560 065, Karnataka, India.

Objectives

1. To disseminate the information on the precision agriculture and strategies for developing sustainable production practices
2. To introduce the concepts of participatory precision agricultural practices and traditional practices
3. To provide exposure to the participants on recent techniques in precision agriculture practices with respect to water and nutrients
4. To promote possible synergetic effects through combination of different components of precision agriculture.

Course contents

- Need for precision agriculture under Indian conditions
- Enhancing input use efficiency in precision agriculture
- Precision farming techniques in field crops
- Crop breeding approaches for higher water productivity
- Sensor based precision nitrogen management strategies
- Enhancing nutrient use efficiency and crop productivity through STCR approach
- Spatial and temporal variability of physiological parameters in precision farming

- Assessing heterogeneity of diseases through GIS mapping and its impact on crops
- Recent advances in irrigation, fertigation and drainage management
- Watershed management strategies to improve water productivity under climate change
- Weed management strategies to improve water and nutrient use efficiency
- Application of remote sensing and GIS in water resource management
- Mechanization for precision nutrient management in field crops
- e-SAP: A real time extension tool for pest management.

About the host Institute

University of Agricultural Sciences, GKVK, Bangalore was established in 1964 and is one of the premier Agriculture institutes in the country which is one of the earliest Agricultural Universities established in the country and celebrated its Golden Jubilee in 2013-14. The University is well known for its high academic standards, research achievements and transfer of technologies. The University has sub campuses at Mandya, Hassan and Chintamani and has 13 research stations, 33 All India Co-ordinated Research Projects, 2 Extension units, 7 KVK's and an ATIC centre. In 2001, the University was recognized as the best Agricultural University in India by the Indian Council of Agricultural Research. In 2008, it was ranked third among the best State Agricultural Universities. It was conferred with Sardar Patel Outstanding ICAR Institutional Award for excellence in teaching, research and extension in 2001 and 2012 and has received highest number of Junior Research Fellowships (2015 & 2016). There are several ICAR, DBT, DST and other state funded projects with

International level laboratories and field facilities with excellent infrastructure amenities.

Duration

26th July to 4th August, 2017.

Eligibility

The short course is designed for the scientists working in Teaching, Research and Extension under SAUs/ ICAR institution, Deemed Universities, Central Universities and other ICAR/ SAU organization related to Agricultural Sciences for those working in Assistant Professors or above cadre.

Application procedure

The interested teachers/scientists should apply through CBP vortal <http://www.iasri.in/cbp> or click on capacity building programme under www.icar.org.in. The application should be filled online only. The filled in application should be approved by their competent authority and should be uploaded in the CBP vortal. The approved copy along with the postal order of Rs. 50/- payable in favour of '**Course Director**' (non- refundable registration fee) has to be sent to the Course Director through surface mail or speed post.

Boarding, Lodging and Travel

Free lodging and boarding facilities will be provided to the participants in the Training Hostel of the University. The participants should abide by the UAS rules. TA to the participants will be paid as per their entitlement for class of travel restricted to the maximum AC-II rail fare or bus as the case may be on the production of original receipt/ticket from the shortest route.

How to reach the venue

University of Agricultural Sciences, Bangalore is located on Bangalore- Hyderabad National Highway No. 7 with its headquarters at GKVK which is 14 km from Bengaluru city railway station/ central bus terminal (Majestic) and 21 km from Kempegowda International Airport, Bengaluru.

Important Dates

- ✓ Last date for receiving application: 05-07-2017
- ✓ Intimation to selected candidate: 08-07-2017
- ✓ Confirmation from selected candidate: 10-07-2017.

Course Director

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