

# Advanced Course- Asia

## Conservation Agriculture:

### Gateway for Productive & Sustainable Cropping Systems

**5<sup>th</sup> Batch  
commencing  
from October 08, 2014**

#### **Dates**

October 08-21, 2014

#### **Venue**

BISA-PAU,  
Ludhiana, India

The Conservation Agriculture (CA) practices with increased acceptance across the globe are today being considered as harbinger for agriculture sustainability and productivity. Its positive impact on natural resources, and adaptation to and mitigation of climate change effects is widely acknowledged. In Asia, CA is a relatively new introduction and capacity development on CA is vital for development, adaptation and scaling-out for impact at scale in the region. Hence, a course on conservation agriculture shall offer a unique capacity development opportunity to the scientific community associated with the areas of natural resource management. The advanced course on CA in South Asia, was initiated during 2010 is presently organized by CIMMYT and BISA under the aegis of CGIAR Research Programs on WHEAT, CCAFS, and in close collaboration with Indian NARS (ICAR, PAU etc).

This course links the advances and multidisciplinary approach for sustainable intensification of maize and wheat system, restoration of natural resource degradation and resilient cropping system with vast expertise across Asia, Africa and America. Keeping in view the high response, the participation in course has now been widened across the range of organizations in the Asian region.



## Learning Objectives

By the completion of the course, the participants would be able to:

- Develop enhanced understanding on the principles of conservation agriculture, application of new tools and techniques and CA implements for diverse production systems, agro-ecologies and farmer circumstances
- Synthesize and apply the information and knowledge related to CA technologies such as
  - Basic understanding on CA research
  - Basic elements of CA adapted of range of situation
  - CA machinery protocols for different production environments
  - Component technologies for CA viz. genotype adapted to CA, crop enhancement, precision water management, precision nutrient management, weed management strategies, crop residue management
- Acquire skills to plan and manage long-term basic and strategic research trials on CA and monitor soil, plant and GHG emissions vis-a-vis different cropping systems
- Generate scientifically-sound hypotheses, data management strategies, and interpret data and summarize them into scientifically sound conclusions and recommendations and linking to knowledge networks
- Understanding on innovation system, business models for out-scaling and impact pathway

## Desired Behavioural Outcomes

- At their respective regions, the participants are expected to appreciate the imperative need of nurturing a new attitudinal approach in the working environment towards implementing farmer and environment-friendly technologies including CA
- Initiate activities, and extend to farmers the location-specific CA based management solutions/technologies
- Deliver short-term ToT courses on CA

## Contents and Methodology

- Conservation agriculture based crop management technologies: principles and practices
  - Small holder precision agriculture: concepts and applications
  - Calibration, operation and maintenance of conservation Agriculture machinery
  - Component technologies for CA systems
  - Innovation systems and pathways: CA hubs and modules
  - Crop-livestock interactions in relation to CA
  - Impact assessment of CA technologies
  - In-field hands-on for CA based crop management technologies for planting to harvest including decision support tools
- Interaction with farmers, stakeholders of public and private sector domains and CA machinery manufacturers.
- Field visit to experiment station/research platform.
- Slide presentations, video films, small group discussions, brainstorming, and exercises
- Individual mentoring and problem-solving approaches

## Eligibility for participation

- Minimum level of Master of Science (MSc) in Agriculture/M.Tech.(Engineering)
- Women and youth are encouraged to participate.
- Good proficiency in English to allow full participation in the program and during discussions and interactions.
- Active involvement in conservation agriculture research for Development (CAR4D).
- Demonstrated professional experience and leadership potential.
- Good health, as the course includes hands-on field activities
- Participants health insurance is mandatory
- Maximum number of participants: Fifteen (15).



## Course fee and Logistics

Course fee is \$3000 per participant, which includes:

- Accommodation & Food
- Field trips, training material and internet wi-fi facility
- Local Transportation



**Participants are responsible for their own international travel and the corresponding incidental expenses.**

Medium of instruction: English.

**Nominations to reach Training Executive on or before 15<sup>th</sup> July, 2014**

## About CIMMYT

The International Maize and Wheat Improvement Centre, known by its Spanish acronym, CIMMYT ([www.cimmyt.org](http://www.cimmyt.org)), is a not-for-profit research and training organization with partners in over 100 countries. The centre works to sustainably increase the productivity of maize and wheat systems and thus ensure global food security and reduce poverty

## About BISA

The Borlaug Institute for South Asia (BISA) ([bisa.org](http://bisa.org)) is a non-profit research institute dedicated to the improvement of food security and reduction of hunger in South Asia. BISA is a collaborative effort between the ICAR, Govt of India and CIMMYT. The objective is to harness the latest technology in agriculture to improve farming productivity. It is a concerted effort to catalyze *second Green Revolution*.

## For application and other details contact:

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