

ADVANCED COURSE

International Maize and Wheat Improvement Center
Apartado Postal 6-641, 06600 Mexico, D.F., MEXICO
www.cimmyt.org

Conservation agriculture: Laying the groundwork for sustainable and productive cropping systems

25 May- 26 June, 2009 (5 weeks)



Overview / Content

The CIMMYT CA course links the advances and multidisciplinary approach to sustainable crop management with vast experience from developing countries of Asia, Africa and Latin America.

Emphasis is given to conservation agriculture and resource conserving technologies: conventional and reduced till permanent bed planting for both irrigated and rainfed conditions, using alternative crop residue management strategies. Wheat, maize, barley, and dry beans are the crops under study. Strong emphasis is placed on the importance of interdisciplinary approaches. Breeders provide a better understanding of the nature of crop management by genotype interactions. Similarly, plant pathologists furnish a better understanding of disease interactions with new tillage and crop residue management practices. The course is conducted in English.

Participants

The Conservation Agriculture course is a globally unique training opportunity for young scientists who work in the public, private or non-governmental sectors in the areas of agronomy and sustainable management of natural resources. Participants may be asked in the future to assist with the organization and delivery of short-term, in-country courses. Participants must fulfill the following requirements:

- Good proficiency in English to allow full participation in the course program and discussions;
- Minimum level of Master of Science (MSc.);
- Active involvement in research in the area of agronomy or conservation agriculture;
- Demonstrated professional experience and leadership potential;
- Good health, as the course includes hands-on field activities.
- Successful and timely completion of the application with required attachments.



Structure and learning objectives

The course combines individual mentoring and problem-solving approaches; each participant arrives with clearly-defined learning objectives. The participants are actively involved in ongoing cropping systems management activities of CIMMYT at two experiment stations near Mexico City (El Batán and Toluca), and in nearby farmers' fields. Upon completion of the course, participants will be ready to initiate activities in their home countries and to extend to farmers the new technologies. They will also have the necessary skills for trial management and plant and soil monitoring, as influenced by management practices.

Specific objectives:

- To enhance the understanding of the use and application of the conservation agriculture planting technologies and relevant agriculture implements (with an emphasis on planters/planter modifications) for irrigated and rainfed wheat and maize production systems.
- To strengthen the ability to synthesize and apply the information and knowledge related to conservation agriculture technologies (seeding methodologies in the different planting systems, irrigation water management, crop nutrient management, weed control strategies, and the importance of crop residue management).
- To increase knowledge of long-term trial planning and management.
- To develop the skills necessary to monitor soil and plant parameters as they relate to cropping management systems, as well as their influence on physical, chemical, and biological soil quality, their effect on climate change adaptation and mitigation, and their impact on water- and nutrient-use efficiency.
- To strengthen participants' ability to generate scientifically-sound hypotheses, determine data collection strategies, and interpret data and summarize them into scientifically sound conclusions and recommendations.
- To foster new attitudinal approaches in the participants, such as improved confidence, increased motivation, and a heightened appreciation of the benefits of team work and interdisciplinary research.



Costs and logistics

The course fee is US\$ 6,000. The fee covers the costs of instruction, housing on CIMMYT's campus, meals, field trips, training materials and selected publications, internet access, health insurance (if needed), and transport to and from the Mexico City airport. Participants are responsible for making their own international travel arrangements and covering incidentals.

Maximum number of participants is nine. Application deadline is March 31, 2009. For an application form and more details contact **Petr Kosina** (p.kosina@cgiar.org)

