



Wheat Improvement Training Course

**Location: Wheat Research Institute (WRI),
Ayub Agricultural Research Institute (AARI), Faisalabad, Pakistan**

Date: March 01 - May 15, 2015

Wheat Productivity Enhancement Program is pleased to announce first wheat improvement training course in Pakistan. The course is a unique professional development opportunity mutually developed by the International Maize and Wheat Improvement Center (CIMMYT), Pakistan and the Wheat Research Institute (WRI), Ayub Agricultural Research Institute (AARI), Faisalabad. It will impart improved research skills and knowledge to enable the national wheat scientists to design and run sustainable modern wheat improvement program with defined objectives.

How the course will be beneficial?

The training course covers both conventional and molecular breeding methodologies with some general reviews on plant breeding, pathology, physiology, wheat quality etc. through interactive activities such as lectures, seminars, on field demonstrations and lab work. This opportunity will familiarize the participants with new improved wheat germplasm, both CIMMYT's introduction and WRI local germplasm, current wheat research and breeding thrusts and select wheat materials

What is expected from the participants?

After completion of the course, the participants are expected to use the knowledge they acquire about wheat germplasm and new techniques in their own breeding programs.

Who can apply?

The training course targets early and mid-career scientists/ PhD students associated with wheat. This opportunity is open for participants from all provinces and regions of Pakistan. Women candidates are also encouraged to apply.

For further details contact:

- **Dr. M. Imtiaz**
Wheat Breeder/ CIMMYT Country Representative Pakistan
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- **Dr. Makhdoom Hussain**
Director WRI, AARI, Faisalabad
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Application Deadline: February 15, 2015

How to apply?

Fill and email the attached registration form to:

- Dr. Makhdoom Hussain (makhdoomhussain@yahoo.com) Cell# 0300-7213713
- Ms. Hira Khalid (h.khalid@cgiar.org) Cell# 0334-8951431

Wheat Productivity Enhancement Program (www.wpepforpakistan.org) is funded by the United States Department of Agriculture (USDA) that aims to enhance and protect the productivity of wheat in Pakistan by supporting research that leads to the identification, adoption, and optimal agronomic management of new, high yielding and disease-resistant wheat varieties.

The Wheat Research Institute (WRI) of Ayub Agriculture Research Institute (AARI) Faisalabad is a prestigious organization serving farming community in the form of wheat varieties development and provision of advanced wheat production technology since 1906. The Institute is running under the administrative control of Punjab Government. Since 1960, WRI and CIMMYT are partnered in the mission of wheat productivity enhancement in Pakistan, which also resulted in the launch of "Green Revolution".

The International Maize and Wheat Improvement Center, known by its Spanish acronym, CIMMYT® (www.cimmyt.org), is a not-for-profit research and training organization with partners in over 100 countries. The center's outputs and services include improved maize and wheat varieties and cropping systems, the conservation of maize and wheat genetic resources and capacity building.

This course is offering:

Lectures:

- Overview of plant breeding: a wheat breeding program
- Breeding for disease resistance
- Marker assisted selection and wheat breeding
- Improved wheat quality and nutritional value
- Wheat agronomy and seed production
- Wheat insects
- Physiology
- Basic statistics

Practicals:

- Field layout for experiments and sowing of trials/ nurseries (Field demonstration)
- Field labels writing
- Wheat Crossing
- Pedigree writing
- Data record sheets preparation
- Data recording and entry
- Introduction to farm machinery
- Roughing
- Selections
- Rust Inoculations
- Disease scoring
- Rust samples collection and storage
- Rust phenotyping
- Management of agronomic trials
- Aphid scoring in field
- Harvesting and packaging
- Wheat storage
- DNA isolation
- Polymerase chain reaction (PCR)
- Gel electrophoresis and documentation