

Wheat Cytogenetics / Wide Crossing

The International Maize and Wheat Improvement Center (CIMMYT) is seeking an outstanding scientist with skills in wide crossing and cytogenetics to work on introgression and characterization of genetic variation from bread and durum wheat relatives.

CIMMYT has a long-established program in wide crossing and has developed large numbers of synthetic wheats and developed or collected many amphiploids and translocation stocks.

You would be part of CIMMYT's Global Wheat Program and work closely with scientists involved in breeding, pre-breeding and genetic analysis and be supported by an experienced team of technical staff.

The primary objectives of this position are to:

- Introgress into wheat, variation from wheat primary, secondary and tertiary gene pools including production of synthetic wheats, development of new translocations and chromosome engineering of existing introgression stocks.
- Development of well-characterized wheat lines carrying novel genetic variation for use by CIMMYT co-operators and CIMMYT breeders.
- Analysis of variation in existing introgression stocks and wheat relatives in order to prioritize future introgression work.

The job will require that you:

- Plan and oversee development of new introgression stocks by crossing wheat with related species. This will often involve embryo
 rescue, chromosome doubling and other techniques to recover viable plants.
- Employ cytogenetic analysis and manipulation techniques to induce translocations or reduce the size of existing translocations.
- Develop germplasm suitable for testing the value of new introgressions in the field or managed environments and for use by breeders.
- Characterize introgression stocks including collaborating in development of high throughput selection screens to allow breeders and pre-breeders to efficiently select for variation from these stocks.
- Are familiar with high-density marker platforms and their application in diversity analyses and molecular-breeding techniques such as genome-background selection or the selection for genetic ideotypes.
- Demonstrated ability to work collegially and collaboratively in diverse, multicultural partnerships.
- Publish results in high impact scientific journals.

We are seeking candidates with the following qualifications:

- A PhD and relevant experience in plant breeding or genetics focused on wide crossing, cytogenetic analysis or genetic variation from crop relatives.
- Experience in a multi-disciplinary, collaborative team environment.
- Excellent written and verbal communication skills in English. Some knowledge of Spanish is advantageous.
- Applications of candidates with experience in other crops than wheat are encouraged.

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 works to sustainably increase the productivity of maize and wheat systems and thus ensure global food security and reduce poverty. 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. CIMMYT belongs to and is funded by the Consultative Group on International Agricultural Research (CGIAR) (www.cgiar.org) and also receives support from national governments, foundations, development banks, and other public and private agencies.

CIMMYT has had enormous impact in the developing world. It is the center of excellence for work on two of the three most important food crops in the developing world. Its most famous employee, Dr. Norman Borlaug, is credited by many with saving more lives than any other individual in the history of the world. Borlaug's work dramatically increased yields of wheat in the Indo-Gangetic plains in the 1960s and 1970s, staving off starvation for hundreds of millions. For this work, Borlaug received the Nobel Prize in 1970. Scores of other CIMMYT efforts have saved or enriched millions of lives, from releasing disease-resistant varieties and varieties resistant to drought and heat and soil deficiencies, to dispersing techniques to reduce farmer costs and post-harvest losses. In developing countries, wheat varieties developed by CIMMYT and its partners cover 75% of the area planted to modern wheat varieties.

CIMMYT offers an attractive remuneration package paid in US dollars, with a range of benefits including housing allowance, life and health insurance, education allowance (for pre-school, elementary, secondary, and other pre-university grade levels), home leave, retirement fund, and relocation shipping assistance.

CIMMYT is an equal-opportunity employer and strives for staff diversity in gender and nationality.

Apply online no later than June 15th, 2012.

At <u>www.cimmyt.org</u>, click on "About us – Job Opportunities- Position" -2011-22 Please complete the online application, including your cover letter, competencies and experience for the position, and a detailed CV/resume.