CIMMYT
International Maize and Wheat Improvement Center

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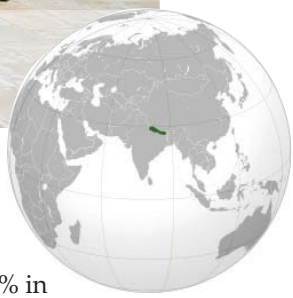
Global Maize Program meeting: The old and the new intersect in Kathmandu



Applying advanced technologies and reconciling dramatic growth in funding, staffing, and complex partnerships with the need to speed farmers' access to options for better food security and incomes were the themes of discussion among more than 60 specialists in maize breeding, agronomy, socioeconomics, and diverse related disciplines who met in Kathmandu, Nepal during 28-31 January 2013. "This was a great opportunity for old and new staff to get acquainted and help launch the vibrant evolution of our Program to meet clients and stakeholders' needs," said GMP director B.M. Prasanna. "The participation of colleagues from other programs and organizations was crucial, allowing us to identify and address logjams and potential synergies and continue our journey toward being an *institution*, rather than a mere collection of isolated projects."

Over the four days, participants representing more than 20 nationalities heard presentations and debated improvements on phenotyping, breeding efficiency and genetic gains, seed production and delivery, use of doubled haploids, genomic selection, cropping systems and conservation agriculture, the Generation Challenge Program's integrated breeding platform, breeding informatics and database management, gender, and interfaces with the CGIAR Consortium Research Programs MAIZE and CCAFS.

Nepal furnished a perfect setting for deliberations on maize and the valued role of national partners in our work. The crop accounts for more than 3% of Nepal's GDP and some 20% of calorie intake, and is crucial for farmers in remote hill areas who struggle to advance amid changing climates, poor infrastructure and market access, and worsening shortages of labor. These and other issues were highlighted in a presentation by Dr. K.B. Koirala, Coordinator of the National Maize Research Program (NMRP) of the Nepal Agricultural Research Council (NARC), at the Council's Khumaltar research station on 30 January. "The average land holding in the hills is half a hectare, and households typically spend 75% of their income on food," said Koirala, who also made reference to the country's long-standing partnership with CIMMYT, celebrated on its 25th anniversary in 2010.

Through our partnership with NMRP, maize productivity has increased more than 36% in the last three decades—around 3% per annum—based partly on the release of 24 improved varieties and hybrids, including the quality protein maize Poshilo Makai-1 ("nutritious maize" in the local language).

Visitors to Khumaltar also had an update on the Hill Maize Research Project, which as of 1999 and with funding from Swiss Agency for Development and Cooperation (SDC) and (beginning in 2010) the United States Agency for International Development (USAID), has worked ▶

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with national research and extension partners, non-governmental organizations, and farmers to develop, test, and disseminate high-yielding maize varieties, support seed production and marketing, and test and promote resource-conserving farming practices. "Because we target women and disadvantaged groups, more farmers have adopted improved varieties and practices and benefited," said Guillermo Ortíz-Ferrara, CIMMYT maize breeder and HMRP leader. "To date we've reached nearly 50,000 households in the 20 hill districts."

Lone Badstue (CIMMYT gender and monitoring and evaluation specialist; third from left, bottom) talks with four coordinators of community-based seed production groups in Nepal (top, from right). Also present are Katrine Danielsen, Senior Advisor, Social Development and Gender Equity of the Royal Tropical Institute of Denmark (far left), and Kamala Sapkota, intern working in the Hill Maize Research Project (second from left).

Because established companies generally do not market seed in hill areas, the HMRP has supported seed production and sale by 195 community-based seed production groups, most of whose members are women. Farmer-coordinators from 10 districts in the mid-hills of Nepal shared their experiences with meeting participants at Khumaltar, citing their interest in "graduating" to formal status as seed companies and mentioning marketing and transport as key constraints. "The Hill Maize Research Project has completely changed our mentality from seeing maize as only a food crop to viewing it as something we can sell," said one of the farmers.

At the end of the meeting B.M. Prasanna gave special thanks to all CIMMYT-Nepal office staff, as well as to G. Ortiz Ferrara, for the excellent logistical support provided in the organization of the Annual Global Maize Program meeting.

Genetic analysis and plant breeding course at El Batán

Fifty-three researchers gathered at CIMMYT-El Batán for a week-long course on genetic analysis and plant breeding. The course lasted from 21 to 25 January and was organized by CIMMYT's Genetic Resources Program and the Generation Challenge Program. Through lectures, practices, and discussions led by Marianne Bänziger, Jiankang Wang, and Huihui Li, participants learned about plant breeding methodology, construction of genetic linkage maps, principles of QTL mapping and statistical comparison of different mapping methods, modeling of plant breeding, and other related topics. The researchers came from South Africa, China, Colombia,

Cuba, Ethiopia, Georgia, Germany, India, Iran, Italy, Kazakhstan, Kenya, Malawi, and Mexico.

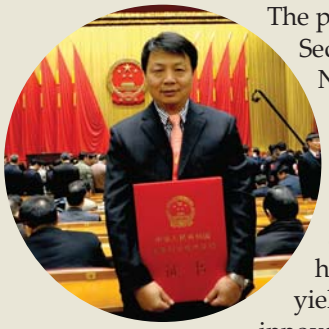
During the closing session, participants discussed the positive outcomes of the course, including their newly improved ability to create maps and better understanding of QTL analysis. "It was a really good course. I was really impressed by how the ICIM [inclusive composite interval mapping] package has developed. It's very logical, intuitive, and user-friendly," commented wheat geneticist David Bonnett. Prior to presenting the certificates to the participants, Wang thanked the training office for arranging the course, and noted that CIMMYT plans to organize the course every two years.

Oklahoma State University students help CIMMYT researchers in Obregon

Nine Oklahoma State University (OSU) graduate students travelled to Ciudad Obregon to work on the refinement of a hand planter for farmers in developing countries with Ivan Ortiz-Monasterio, CIMMYT agronomist. During their stay, which lasted from 21 to 25 January 2013, the students also collected Normalized Difference Vegetative Index (NDVI) data using the new GreenSeeker 2 sensor and a pocket sensor developed for developing-countries farmers.

Since 1991, over 100 graduate students from OSU have worked on short- (one week) or long-term (one year) CIMMYT projects in Mexico with Ivan Ortiz-Monasterio, Ken Sayre, and Matthew Reynolds. As a result, CIMMYT has been one of the key players in vetting and testing the GreenSeeker sensors. Furthermore, OSU and CIMMYT have developed a new hand planter for maize farmers in marginal landscapes of developing countries. These hand planters, which deliver one seed per strike, enable seed singulation (16-20 cm apart) that allows for more homogeneous plant stands, improved soil conservation, and increased grain yields when compared to the conventional system in which 2 to 3 seeds are planted 30-35 cm apart.

Second Class of National Science and Technology Award to Fan Xingming and his team



The prestigious Second Class of National Science and Technology Awards was presented to the "Tropical and subtropical high-quality, high-yield germplasm: innovation research and application" maize project led by Fan Xingming, a CIMMYT partner from the Institute of Food Crops (IFC) at the Yunnan Academy of Agricultural Sciences (YAAS), on 18 January 2013 in Beijing, China.

The project, coordinated by the national maize innovation team, has achieved great results in tropical and subtropical maize germplasm improvement, combining ability analysis and heterosis classification, establishing new methods to classify heterotic groups, and developing and registering 25 high-yielding maize hybrids, including Yunrui 8, Yunrui 1, and Yunyou 19. This has helped to resolve the long-lasting problem with the lack of tropical and subtropical superior maize hybrids in China. The hybrids have been planted on a cumulative area of 11 million hectares in the provinces of Yunnan, Guangxi, and Guizhou in southwestern China, and contributed to the provision of resources for poor farmers in the mountainous areas and among minority groups.

Besides the above stated, the project has also received the Science and Technology Progress Award from the Ho Leung Ho Lee Foundation, three first and nine second prizes at the Provincial Sciences and Technology Award ceremony, and the Golden Prize at the 14th National Invention Exhibition. Dai Jingrui and other scientists from the Chinese Academy of Agricultural Sciences praised the project for its domestically established methods, advanced global techniques, and extensive application of outputs benefiting farmers both economically and socially.

This is the first time in the history of YAAS that the Academy has received a national science and technology award, which reflects the importance and success of the collaboration between CIMMYT and YAAS in the sphere of maize germplasm improvement. Congratulations!

Register for the international course on Genomic Selection and Prediction

We would like to invite you to participate in the course on Genomic Selection and Prediction which will take place at the CIMMYT headquarters in El Batán, Mexico, from 23 to 27 September 2013. The course will be taught by Daniel Gianola (Sewall Wright Professor of Animal Breeding and Genetics University of Wisconsin, Madison, WI, USA) and Gustavo de los Campos (Assistant Professor, Department of Biostatistics University of Alabama, Birmingham, AL, USA). Visit our website for more information.

Recent publications by CIMMYT staff

Adoption of multiple sustainable agricultural practices in rural Ethiopia. 2013. Hailemariam Teklewold; Berresaw Menale Kassie; Shiferaw, B. *Journal of Agricultural Economics* Online first

Genetic analysis and mapping of seedling resistance to Septoria tritici blotch in 'Steele-ND'/'ND 735' bread wheat population. 2013. Mergoum, M.; Harilal, V.E.; Singh, P.K.; Adhikari, T.B.; Kumar, A.; Ghavami, F.; Elias, E.; Alamri, M.S.; Kianian, S.F. *Cereal Research Communications* Online first

Maize-based conservation agriculture systems in Malawi: Long-term trends in productivity. 2013. Thierfelder, C.; Chisui, J.L.; Gama, M.; Cheesman, S.; Jere, Z.D.; Bunderson, W.T.; Eash, N.S.; Rusinamhodzi, L. *Field Crops Research* 142:47-57.

Holiday in Mexico

CIMMYT´s Mexican locations will be closed on Monday 04 February 2014 as we celebrate the Day of the Mexican Constitution.

Staff movements in El Batán

Giselle Liberto joined the Human Resources team as senior manager for IRS administration and services on14 January 2013. She is in charge of approving all transactions regarding contracts, policy, and established processes. Giselle holds a degree in Business Administration and Finance from the Greenoaks University College, Johannesburg, South Africa. A national of Malta and South Africa, she has a multicultural and international background with 30 years of experience in human resources and administration. She is proficient in all aspects of IRS management, including facilitation of the processes with AIARC and VanBreda. Prior to coming to CIMMYT, she was in charge of IRS Administration at Bioversity, where she worked for the last 14 years.

Giselle's contact information: Email g.liberto@cgiar.org, extension 1210.

The Risk Management Unit is pleased to welcome three new members:

José Daniel Álvarez Martínez joined CIMMYT as Head of Security on 21 January. Daniel comes to CIMMYT with a bachelor's degree in tourism from Instituto Politecnico Nacional and over 9 years of experience in the security sphere, primarily from the hotel industry, but also the public sector. Daniel has taken several courses in security and received a certificate in security issues in Israel in 2004.

Fernando Abraham Rodríguez Gómez joined as Specialist in Occupational Health and Safety on 18 January. Fernando has over 5 years of experience working in private companies with a focus on environmental control, laboratories, safety, and hygiene issues. Fernando holds a bachelor's degree in environmental systems and is currently working towards a master's degree in sciences for sustainable development with specialization in project management.

Cuauhtémoc Márquez Ortiz has been appointed the Head of Medical Services and will join CIMMYT on 5 February. He holds a bachelor's degree in medicine from the Autonomous University of the State of Mexico, and a master's degree in population and health from the Metropolitan Autonomous University, Mexico. He has over 20 years of experience as general physician in public and private health institutions, including CIMMYT's Medical Service, Mexican Social Institute of Social Security, and the ABC Hospital.

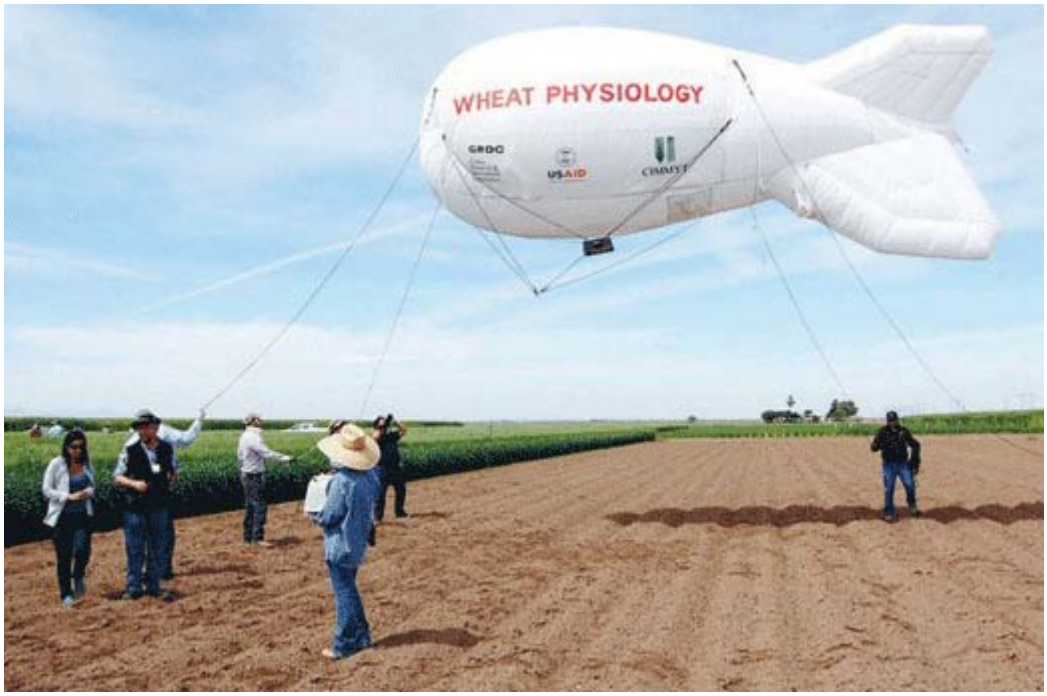
With great sorrow we inform you that Mr. Enrique Hurtado Franco, father of Gerardo Hurtado, passed away on January 31, in Mexico City. Gerardo is the Human Resources Coordinator at El Batán. Our thoughts and best wishes are with him and his family during this difficult time.

Birthdays 01-09 February

Noel Pimienta 1; Amsal Tarekegne 2; Jeetendra Aryal 2; Benhilda Masuka 2; Patience Gomo 2; Darshan Singh 2; Sri Kant Chaubey 2; Karla Verónica Rodríguez 3; Dil Bahadur Rahut 3; Elahi Baksh 3; Simin Li 3; Nothando Moyo 3; Irene Islas 4; Verónica Ogugo 4; Alejandro Herrera 5; Lokman Hossain 5; Tripti Agrawal 5; José Juan González, 6; Lucy Segura 7; Rubén Celaya 7; Adelina González 8; Juan Israel Peraza 8; Rubén Patricio 9; Manuel de Jesús Ruiz 9.

Weekly photo contest...

Weekly photo contest winner: Obregon blimp has been eyeing plots for almost a year!



With many of the CIMMYT wheat scientists currently heading up to Obregon, and the anticipation of the WYC meetings and Visitor's Week in March, here's a little reminder of the exciting developments of last year's event: CIMMYT's first blimp providing a fast, non-destructive screening of plant physiological properties over large areas. This photo was sent to us by Rodrigo Sara, Intellectual Property and Legal Counsel.

We have two runners-up this week

Hugo De Groote, CIMMYT agricultural economist/principal scientist, shared with us a photo he took when crossing the Blue Nile gorge in Ethiopia on his way to Bure, Ethiopia, to visit the NuME (Nutritious Maize for Ethiopia) project sites.

"Dreaming of nature in Mexico City: Xochimilco Ecological Park." Those of you based at El Batan, Mexico, may find inspiration for a trip for the upcoming long weekend in this photo sent to us by Emma Julieta Barreiro, who used to work with CIMMYT as translator, and Eduard Urbanek.

Don't forget to send us your entries for next week's competition. Please email them to Barbora Nemcova (b.nemcova@cgiar.org)—or hand them over on a USB stick—and to look out for the winners on CIMMYT's flickr, where they are shared under a Creative Commons license. Congratulations to the winner and thank you to all our participants!

Informa is published every Friday by CIMMYT Corporate Communications. We welcome your input, preferably in both English and Spanish. The deadline for submissions is 3:00 p.m. on the Wednesday before publication. We reserve the right to edit all contributions. Please send proposed material to Connie Castro c.castro@cgiar.org.
web site: www.cimmyt.org