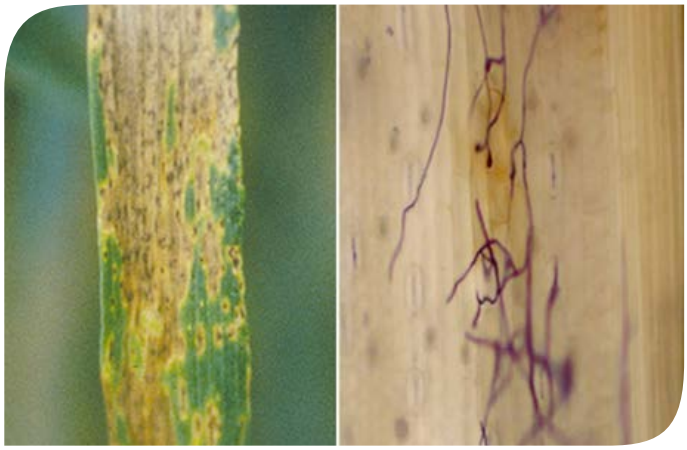
CIMMYT
International Maize and Wheat Improvement Center

informa
No. 1851 • 12 - 19 July 2013

INDIA



After screening some 500 wheat lines and varieties at 6 sites in Bangladesh, India, and Nepal, a group of scientists were able to identify 35 genotypes that resist spot blotch. This is the number-one disease of wheat in the Eastern Gangetic Plains, seriously damaging the crops of farmers—who are mostly smallholders—on some 9 million hectares.

Research battles wheat spot blotch disease

The results were reported at a meeting of participants in two projects of WHEAT, the CGIAR Research Program on this crop, at Mohanpur Campus of IISER-Kolkata, India, on 24 June 2013. Funded through multi-year competitive grants from WHEAT, the two project are "Deciphering phytohormone signalling in modulation of resistance to spot blotch disease for identification of novel resistance components for wheat improvement," led by Dr. Shree P. Pandey, IISER-Kolkata, and "Spot blotch of wheat: Delivering resistant wheat lines and diagnostic and molecular markers for resistance," led by Prof. Ramesh Chand of Banaras Hindu University, Varanasi. Among other things, participants discussed year-one outcomes and laid plans for the coming crop cycle.

Prof. Chand reported on the seedling stage resistance found in the wheat tested. In this type of resistance, the pathogen is present on wheat seedlings for up to 25 days without any infection, exhibiting responses such as lesion mimic and tissue necrosis, which appear to attenuate pathogen effects. The resistance gene *Sr2* was also found in most of the resistant seed.

Exciting moments in the meeting were the discussions of biochemical and histo-pathological parameters and their possible integration in the resistance screening. Dr. Pandey and his team reported novel research to understand phytohormone signals that regulate wheat's resistance against Bipolaris sorokiniana–the causal pathogen of spot blotch—and which are synthesized in response to the pathogen's attack. The IISER group is assembling a dictionary of signalling genes that can serve as genomic tools for resistance breeding in wheat. "Expression of these DNA 'words' changes when plants are attacked by the spot blotch pathogen," said Pandey. "Deciphering this word choice can elucidate the chain of command in plants in to the pathogen, helping breeders to design plants better-equipped with resistance genes."

Finally, there was a report on the field performance of the 500 lines at two other locations, UBKV Coochbehar and RAU Pusa.

Also in this issue

In addition to the scientists mentioned above, participants included WHEAT manager Victor Komerell; CIMMYT researcher Arun Joshi; Prof. V.K. Mishra, BHU, Varanasi; Prof. Apurba Chowdhury; Dr. P.M. Bhattacharya, UBKV; and Dr. Rajiv Kumar, Rajendra Agricultural University, Pusa, Bihar; as well as other wheat researchers from IISER-K.

"The partners here submitted separate proposals for the projects," said Komerell. "This meeting furnishes an example of how WHEAT has encouraged them to collaborate."

Regional Finance and HR workshop for South Asia

The first-ever Regional Finance and Human Resources workshop for South Asia was held in Kathmandu, Nepal, during 1-5 July 2013. Facilitated by International Finance director Anna Herremans and head of Organizational Development and Training Pooja Vinayak Sharma, the workshop was attended by participants from Afghanistan, Bangladesh, India, Nepal, and Pakistan.

The workshop began with presentations by regional country offices on some of their best practices and challenges, which was followed by group work with staff from across regional offices and a session on the CSISA project prepared by Cynthia Mathys.

During the training on the HR information system being launched across CIMMYT, participants received practical training on the use of the system, which provided them with a great opportunity to learn how information management can be guided by good data. The workshop also clarified related HR policies.

Training regional staff is critical for the recent rapid growth of CIMMYT in South Asia; such workshops are beneficial not only to CIMMYT and its projects, but also to individuals employed by CIMMYT, as it allows them to develop and update their skills and knowledge.

Judging from the participants' involvement and enthusiasm to share their experiences moving forward, the workshop was a great success.

CIMMYT/CCAFS in India: Gender, action, research

In June 2013, ML Jat (Global Conservation Agriculture Program) and research teams in Bihar and Haryana, India, welcomed CIMMYT gender specialist Tina Beuchelt and gender consultant Cathy Farnworth to discuss integration of gender perspectives into their daily research routine. The visit was triggered by the request from the CRP on Climate Change, Agriculture and Food Security (CCAFS) to enhance women's access to and use of agricultural and climate-related services and information (IDO5).

The visit began with discussions held with individual researchers on how to include a gender perspective in their work plans and field experiments, demonstration plots, out-scaling efforts, and surveys. The team visited farmers participating in CIMMYT/CCAFS projects in Bihar and Haryana, where lively small group discussions helped the visitors to gain a deeper understanding of the situation of women and men, their roles and responsibilities, and gender-related constraints existing in their small-scale farming systems. The team met with smallholder and better-off farmers, as well as landless workers and female-headed households to obtain a representative picture of those involved in agriculture in CIMMYT/CCAFS target areas. Men and women were interviewed separately, and CIMMYT staff helped to explain the production systems and the basket of climate-smart farming options currently available, and shared their thoughts on how to respond to specific gender challenges.

Given the varying agro-ecological environments and socioeconomic characteristics of farmers in each state, it was agreed that in order to address IDO5 successfully, new partners, new allies, and new ideas are needed. While the discussions proceeded well, one of the female participants made a timely and heart-felt warning: "You ask us to take risks, but where will you be if we fail?"

The trip culminated with a workshop on "Pathways of gender-equity led climate-smart farming: learning from stakeholders" organized jointly by the Directorate of Wheat Research (DWR), the Indian Council of Agricultural Research (ICAR), and CIMMYT/CCAFS in Haryana on 7 June 2013. A wonderful mix of male and female farmers; farmer organizations; researchers from ICAR, Haryana Agricultural University, and CGIAR; extension and developmental organizations, including the State Department of Agriculture; NGOs; private sector organizations; and politicians – about 65 participants in total – joined the workshop and contributed with great enthusiasm to discussions on advantages and disadvantages of different climate-smart technologies for women, more effective types of institutional support required to support women etc. Participants then formed small groups to discuss concrete ideas for action to support women in agriculture, which was followed by presentations and discussions in a plenary session chaired by DRW director Indu Sharma.

The workshop was concluded with dinner wherein Suresh Gahalawat, Deputy Director for Agriculture in Karnal at the Government of Haryana, who had showed great enthusiasm regarding the topic during the workshop, announced that: "Gender will become part of the agricultural policies of Haryana." "To start with, we will include the gender component in all schemes operated in the district," he added, confirming the importance and success of the workshop.

The Indian research team is strongly committed to integrating gender into their research activities.

Course on remote sensing using an unmanned aerial vehicle in Peru

Training on the use of remote sensing from an unmanned aerial vehicle was given at INIAP-Peru's Vista Florida experiment station on 1-5 June 2013. The course was organized by INIAP, the University of Barcelona, Spain, and CIMMYT's regional office in Colombia. Remote sensing is used in precision agriculture and for phenotyping crops that are important for the region, such as maize, rice, and sugar cane.

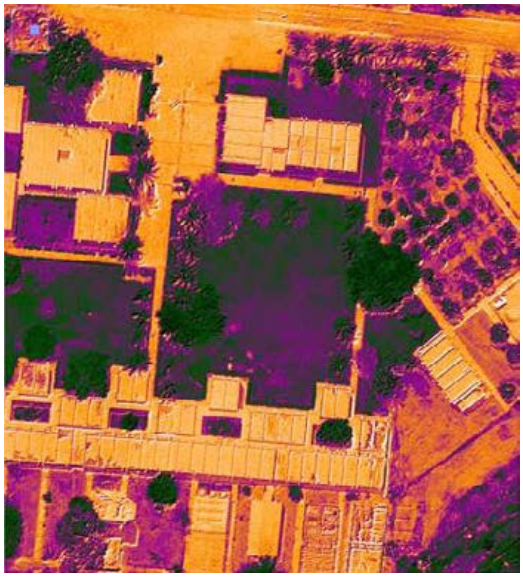
Course participants included 44 representatives from the International Potato Center (CIP), the University of Talca (Chile), INIA-Peru, and Peru's Ministry of Agriculture, among other institutions. The course is one of several activities sponsored by the "Affordable field-based HTPPs" project led by José Luis Araus of the Department of Plant Biology of the University of Barcelona and funded by CIMMYT's MAIZE CRP. During the event, a phenotyping platform developed within the framework of the project was presented to INIA.

The director of the Vista Florida station, Miguel Monsalve Aita, opened the course, which was given by distinguished academics and scientists such as José Luis Araus; Pablo Zarco and Alberto Hornero from the Sustainable Agriculture Institute, Córdoba, Spain; Antón Hernández, president of AirElectronics, Madrid, Spain; Carlos Poblete, Claudio Balbotín, and Gustavo Lobos from the University of Talca Chile; Hildo MacLean and Susan Palacios from CIP; and Luis Narro from CIMMYT's Global Maize Program.

The lectures focused on topics such as applying remote sensing in phenotyping; spectral and thermal remote sensing of stress from unmanned aircraft; image and data processing; use of software to process the gathered information; and thermal image analysis for diagnosing drought stress and controlling irrigation. In addition, Hildo MacLean showed how the Oktokopter–XL works. Luis Narro demostrated how to use the new version of the GreenSeeker for making recommendations on N application in maize and Antón Hernández showed how the unmanned aircraft Sky Walker, which comes equipped with a flight programmer, an infrared camera, and a multispectral camera for collecting data, works. The aircraft used in the demonstration was donated to the Vista Florida station as part of the project's contributions.

Another essential part of the course was the intensive training on subjects such as platform management, flight programming, and downloading and processing information that was provided to a group of technicians from INIA and private seed companies. Given that INIA technicians who are in charge of the platform need to become thoroughly familiar with it, three technicians from Vista Florida will go to Spain in September to take a course on processing and interpreting images.

The course organizers wish to express their appreciation to the Vista Florida Maize Program.



Aerial photograph taken by Skywalker at the Vista Florida experiment station

MasAgro presents high quality, high yielding maize hybrids to seed producers

Mexican seed producers and researchers who participate in the Sustainable Modernization of Traditional Agriculture (MasAgro) initiative met recently at El Cantón, a location close to Puerto Vallarta, Jalisco, Mexico, where experimental plots aimed at producing high quality and higher yielding hybrid maize seed are planted.

Investigation plot of hybrid seed production technology in Puerto Vallarta, Jal.

"The purpose of these experimental plots is to adapt the best production technologies to three mega-environments (highland valleys, tropics, and subtropics), observe the performance of seed targeted for agricultural areas where MasAgro operates, and identify new locations where hybrid maize seed with high physical and genetic quality can be produced," explained Félix San Vicente, leader of the maize component of MasAgro.

Dr. Félix San Vicente, Leader of the maize component of MasAgro.

This strategy aims to coordinate the development and multiplication of hybrid maize seed adapted to rainfed areas that are a priority for MasAgro, as well as to promote its adoption among medium- and small-scale maize farmers.

People attending the field day received information on the yield of maize hybrids developed by participants in MasAgro's Network of Seed Sector Members and Cooperators, which includes 35 Mexican seed companies and agricultural research institutes. Both white and yellow hybrids were presented—seven for highland valleys, five for the tropics, and four for the subtropics. The seeds were derived from simple and triple crosses that have higher adaptation and yield capacity. The materials presented are at the pre-commercial stage, but most are already available to seed companies that belong to the network.

CIMMYT researchers explained that the objective is to endow seed currently being improved using conventional breeding methods with key agronomic traits such as adaptation capacity, high yield, days to flowering and staggered sowing in order to better synchronize flowering.

Members of the MasAgro network hope to increase the hybrid maize seed production area in the 2013 fall-winter cycle, thanks to the high adaptation capacity and good performance shown by materials developed for tropical, subtropical, and highland valley production areas targeted by MasAgro.

Also attending the event were representatives of 23 Mexican seed companies, as well as researchers from Mexico's National Forestry, Agricultural, and Livestock Research Institute (INIFAP) and academics from the Southern Regional University Center of Chapingo Autonomous University (UACh).

CIMMYT's work highly appreciated in Ethiopia

The third Dialogue on Ethiopian Agricultural Development: Agricultural Research for National Development in the Face of Climate Change and Food Security was held during 4-5 July 2013 at the Haramaya University of Agriculture, Haramaya Harar. The Dialogue aimed to provide a platform for discussion on agricultural research for development and transformation of the sector for food security in Ethiopia.

The Dialogue was attended by World Food Prize Laureate and distinguished professor Gebissa Ejeta; two members of the agricultural standing committee of the Ethiopian parliament; alumni of the Haramaya University working at various national, regional, and international top-level positions, such as Berhane Gebrekidan, Sime Debela, Zemedu Worku, Ephirem Mamo, and Solomon Bekure; senior staff of Haramaya, Jimma, Hawassa, Dire Dawa, and Mekele universities; members of USAID's Capacity to Improve Agriculture and Food Security (CIAFS); representatives of the Ethiopian Institute of Agricultural Research (EIAR); the Ethiopian Seed Enterprise; CIMMYT; and ILRI.

Panel discussions covered 60 years of agricultural research in Ethiopia; agricultural research at regional institutes and Ethiopian universities; perspectives of users of technologies generated by the national agricultural research system (NARS); linking research at international levels with NARS for greater impact; the Ethiopian experience; presentations on contributions of agricultural research in Ethiopia in terms of food security, foreign earnings, and climate change adaptation; reflections on dialogues and issues deserving special attention; and recommendations for enhancing efficiency and productivity of NARS.

Three CIMMYT scientists –Drought Tolerant Maize for Africa project leader Tsedeke Abate, Bekele Shiferaw from the Socioeconomics Program, and Bekele Abeyo from the Global Wheat Program– presented during the panel discussions. The presentations were followed by a Q&A session, during which CIMMYT was named as top-rated CG center in Ethiopia due to its contributions, along with other institutions and centers, to national agricultural education, research for development, and extension with outputs and impacts. CIMMYT was commended by the current and former EIAR directors general and deputy director general, as well as Haramaya University senior alumni and political representatives, for its long-standing relations and close collaborative work with the NARS in generating technologies, strengthening national capacities, and reaching farmers.

As the meeting assessed the gaps and constraints of agriculture for development, ways forward, and future continuity of the dialogue, Abeyo assured the participants that "CIMMYT is committed to continue and maintain its high-quality contributions to Ethiopia."

Tracking adoption of better maize and legume farming systems in Ethiopia

Myths and cultural practices can block farmers' acceptance of a new technology, particularly the principles of reduced tillage, residue retention, and cropping rotations that underlie conservation agriculture. This was one observation in a recent visit to farmers in four districts in Ethiopia by Australian International Food Security Centre (AIFSC) director, Mellissa Wood, and AIFSC Biosecurity and Food Safety Manager, Dennis Bittisnich.

Farmers in one village who continued intensive tilling instead of conservation agriculture said that tillage helps control crop diseases. Many Ethiopian farmers also keep livestock, so crop residues have higher value as fodder for cows than as cover for soils. "Maize stover is also used as fuel for cooking fires," said CIMMYT socioeconomist Menale Kassie, who is also regional leader for the project Adoption Pathways to Sustainable Intensification in Eastern and Southern Africa. "Understanding the constraints and incentives affecting adoption is crucial, if innovations are to be relevant for farmers."

The four-year adoption pathways project is funded by AIFSC, managed by the Australian Centre for International Agricultural Research (ACIAR), and led by CIMMYT, in collaboration with national universities and research institutes in Ethiopia, Kenya, Malawi, Mozambique, and Tanzania; the University of Queensland, Australia; the Norwegian University of Life Sciences; and the International Food Policy Research Institute (IFPRI).

According to Menale, the project is closely linked to the Sustainable Intensification of Maize-Legume Systems for Food Security in East and Southern Africa (SIMLESA) program; working where SIMLESA has been promoting and testing conservation agriculture using demonstrations on farms and on national agriculture research stations.

Farmers learn from their peers, particularly early adopters and those who lend their farms to showcase the practices. Fatuma, a widowed mother of 10 and an early adopter who farms with help from her children, says reducing tillage has cut her work load. She is a role model to other farmers—a rare feat for a woman, according to village sources—and neighbors have decided to try conservation agriculture after seeing Fatuma's crops flourish.

"The project will evaluate the data and use the rich survey information to advise on potential policy and technical interventions," said Chilot Yirga, researcher with the Ethiopian Institute of Agriculture Research (EIAR) and country coordinator for the project. Innovative livestock management and community engagement can help, according to Yirga, as can providing alternative cattle feeds such as intercropped legume fodders, which also enrich soils by fixing nitrogen.

Picture: Florence Sipalla/CIMMYT

Fatuma Hirpo on her conservation agriculture demonstration plot where she has intercropped drought tolerant maize variety Mlekassa II with beans.

"The way to show this is through on-farm demonstrations," said Wood, lauding the researchers for the on-station trials and on-farm engagement. "In Australia, conservation agriculture is very important as we have a lot of drought and changing rainfall patterns; CA makes us more productive."

Picture: Florence Sipalla/CIMMYT

Participants in the field visit pose for a group photo at an on-station conservation agriculture demonstration plot which AIFSC director Mellissa Wood and Biosecurity and Food Safety manager Dennis Bittisnich visited during their tour in Ethiopia.

SIMLESA scientists receive agronomy training in South Africa

Fifteen young scientists from SIMLESA partner and spillover countries were recently trained by the Agricultural Research Council of South Africa (ARC-SA) on various aspects of agronomy and innovation learning platforms (ILePs), including conservation agriculture principles, nitrogen fixation, experimental design and field layout, agro-climatology principles, and data collection and analysis.

The training took place during 06-17 May 2013 at three ARC institutes: Institute for Soil, Climate and Water (ARC-ISCW), Plant Protection Research Institute (ARC-PPRI), and Grain Crops Institute (ARC-GCI), and aimed to expose the scientists to grain production information and to enable assimilation of terms, theories, and principles through practice. The training was based on experiential learning principles and employed a variety of interactive learning methods, scientific presentations, discussions, multiple practical sessions in the laboratory, and field demonstrations.

During field visits, such as the one to SOYGRO, a company manufacturing rhizobium inoculant and related products, trainees got to experience how the grain industry functions in South Africa from manufacturing and packing to the distribution processes.

Trainees also visited the NAMPO Harvest Day in Bothaville, Free State, taking place during the NAMPO Agricultural Trade Show, one of the largest privately organized and owned exhibitions in the world and the largest agricultural machinery and livestock show in the Southern Hemisphere. The show draws more than 650 exhibitors each year from all over the world, including Australia, Sweden, the USA, Italy, Brazil, and Germany. Another visit on the program was to the Unit of Environmental Sciences and Management at the North-West University, where Professor Driekie Fourie introduced the trainees to the University research programs and related study fields. Before the trip, Professor Johnny van den Berg from the University had given an introductory talk on integrated pest management.

The program was coordinated by CIMMYT agronomist Fred Kanampiu, Yolisa Pakela-Jezile from ARC-CO, and Annelie de Beer from ARC-GCI. Participants are expected to use their newly acquired knowledge and skills to train their colleagues.

Under the Memorandum of Understanding between ARC and CIMMYT under SIMLESA, ARC is responsible for organizing capacity building of scientists and extension officers in the five target countries (Ethiopia, Kenya, Malawi, Mozambique, and Tanzania) and the seven spillover countries (Uganda, Botswana, Rwanda, Burundi, Zambia, Zimbabwe, and South Sudan). SIMLESA is funded by the Australian government through ACIAR.

A warm farewell for two GMP colleagues on a cold evening at El Batán

Esperanza Téllez, Global Maize Program (GMP) assistant, worked at CIMMYT for 34 years. Rodolfo Caballero, research assistant to the Highlands Maize program, began to work in what would become CIMMYT when he was 13 years old in 1961 as a temporary worker in a program funded by the Rockefeller Foundation and the Mexican government. On 10 July, their colleagues said their thank you and goodbye to both of them, as they are leaving CIMMYT after a lifetime of work dedicated to the Center.

In Rodolfo's early years of working for CIMMYT, the first seed house was set up at the Chapingo Autonomous University and later at the Colegio de Postgraduados San Martin experimental station. When CIMMYT was founded in 1966, experimental stations in El Batán (highland maize), Tlaltizapan, Morelos (subtropical maize), and Puebla Lindero Poza Rica (tropical maize) were established and soon after – in 1968 – Rodolfo was hired as permanent employee for

the Highlands Maize Subprogram, where for years to follow he provided support to scientists, trained and organized employees, and helped with selection of new materials. "It is a great pleasure for me to see that after 45 years of hard and continuous work, maize inbred lines generated by the Highlands Maize Subprogram are involved in more than 30 commercial hybrids released by Mexican institutions as well as small seed companies, with the germplasm covering over 200,000 hectares," said Rodolfo looking back at his years at CIMMYT.

Esperanza began her work at CIMMYT at the Administration Program and Visitor Services in 1974. In 1977, she joined the Visitor and Conference Services Department, and in 1979, she began her work at the Global Maize Program where she started as a secretary and later on became the program assistant. "During the time that I have worked at CIMMYT, I had more than 70 bosses. I had the privilege of working with Drs. Alejandro Ortega, Gregory Edmeades, Marianne Bänziger, David Bergvinson, John Mihm, Shivaji Pandey, Martha Willcox, Félix San Vicente, and the deceased Hugo Cordova to name just a few," says Esperanza of her time at CIMMYT. "All of my bosses and colleagues have treated me kindly. I was lucky to work in such a friendly environment and I am happy to think that I had the opportunity to contribute to CIMMYT's mission."

Many were the positive words and good wishes coming from colleagues, former supervisors, and Félix San Vicente who gave a thank-you speech on behalf of program director B.M. Prasanna. The GMP presented both colleagues with a plaque, and Rodolfo received a special plaque from the Highlands Maize program.

We wish both Esperanza and Rodolfo all the best!

Socioeconomics Program welcomes Paswel Marenya

CIMMYT would like to welcome Paswel Marenya who joined the Socioeconomics Program in Ethiopia to work on SIMLESA and Adoption Pathways projects in Eastern and Southern Africa. Prior to joining CIMMYT, Paswel worked at the International Food Policy Research Institute (IFPRI) in Washington, DC, where he focused on incentives for improved land management and agricultural technology adoption to increase productivity, reduce poverty, and achieve environmental objectives. Before IFPRI, he was a lecturer in Agricultural Economics at the University of Nairobi. Paswel holds a PhD in Resource Policy and Management and a Master's degree in Applied Economics from Cornell University, USA, and a Master's degree in Agricultural Economics from the University of Nairobi, Kenya.

His wife Mercy and 2-year-old son Preston will soon join Paswel in Ethiopia.

Newcomers

Francisco Manuel Rodríguez Huerta, R programmer, Genetic Resources, 29 June.
Juan Eduardo Frutero Baños, office boy, Global Wheat Program, 06 July.
Aleyda Ariadne Sierra González, research assistant A, Genetic Resources, 06 July.
Xinyao He, associate scientist, Global Wheat Program, 01 July.
Rodelita Panergalin, program manager, Genetic Resources, 01 July.
Addis Teshome Kebede, postdoctoral fellow, Global Maize Program/Zimbabwe, 01 July.
Huntington Hobbs, associate program director, Research & Partnership Program, 08 July.

Departure

Mónica Eugenia González Castro, principal research assistant, Global Maize Program, 28 June.

Recent publications by CIMMYT staff

Determination of phenolic acid concentrations in wheat flours produced at different extraction rates. 2013. Lan Wang;Yang Yao; He Zhonghu; Desen Wang; Aihua Liu; Yong Zhang. Journal of Cereal Science 57(1):67-72.

Genetic diversity of Pyrenophora tritici-repentis in Algeria as revealed by amplified fragement length polymorphism (AFLP) analysis. 2013. Benslimane, H.; Lababidi, S.; Yahyaoui, A.; Ogbonnaya, F.; Bouznad, Z.; Baum, M. African Journal of Biotechnology 12(26):4082-4093.

Genome-wide comparative diversity uncovers multiple targets of selection for improvement in hexaploid wheat landraces and cultivars. 2013. Cavanagh, C.R.; Shiaoman Chao; Shichen Wang; Huang, B.E.; Stephen, S.; Kiani, S.; Forrest, K.;Saintenac, C.; Brown-Guedira, G.L.; Akhunova, A.; See, D.; Bai, G.; Pumphrey, M.; Tomar, L.; Wong, D.; Kong, S.; Reynolds, M.P.;Lopez da Silva, M.; Bockelman, H.; Talbert, L.; Anderson, J.A.; Dreisigacker, S.; Baenziger, S.; Carter, A.; Korzun, V.; Morrell, P.L.;Dubcovsky, J.; Morell, M.K.; Sorrells, M.E.; Hayden, M.J.; Akhunov, E. Proceedings of the National Academy of Sciences of the United States of America 110(20):8057-8062.

Integration of conservation agriculture in smallholder farming systems of southern Africa: identification of key entry points. 2013. Thierfelder, C.; Mombeyarara, T.; Mango, N.; Rusinamhodzi, L. International Journal of Agricultural Sustainability Online first

QTL for yield and associated traits in the Seri/Babax population grown across several environments in Mexico, in the West Asia, North Africa, and South Asia regions. 2013. Lopes, M.S.; Reynolds, M.P.; McIntyre, C.L.; Mathews, K.L.; Jalal Kamali, M.R.; Mossad, M.; Feltaous, Y.; Tahir, I.S.A.; Chatrath, R.; Ogbonnaya, F.; Baum, M. Theoretical and Applied Genetics126(4):971-984.

Weekly photo contest ▶

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

Women workers in Chinese fields

"It is very common to see women laboring in the fields in China," says the author of this week's photo contest winner, Jack McHugh from the Global Conservation Agriculture Program. "Men are usually working in construction or factories elsewhere." The Crop Research Institute in Yinchuan Ningxia hires women from the local village to do a vast range of tasks associated with the wheat and maize breeding programs. In this photo, women are manually planting early maturing maize into spring wheat stubble. "Seven early maturing maize varieties were planted in zero till and permanent raised bed fields to demonstrate that a second crop can be grown and harvested in conservation agriculture systems before winter," explains McHugh.

Don't forget to send us your entries for next week's competition. From now on please email them to **Connie Castro** (c.castro@cgiar.org)—or hand them over on a USB stick. Look out for the winners on CIMMYT's flickr, where they are shared under a Creative Commons license. Congratulations to John MacRobert and thank you to all our participants!