



A lasting tribute to Norman Borlaug



On 25 March 2012, CIMMYT celebrated what would have been Norman Borlaug's 98th birthday with the unveiling of a new statue at CENEB, Ciudad Obregón, Mexico. CIMMYT Director General, Thomas Lumpkin, presented this tribute to the "Father of the Green

Revolution" in front of a crowd of over 100 people from 34 countries, which together produce 97 percent of the world's wheat.

In his speech, Lumpkin paid tribute to the legacy left by Borlaug, both in Ciudad Obregon and around the world, and emphasized how important it is that this statue by Katharine McDavitt represents Borlaug in the field, in his prime. The bronze statue, sponsored by the Patronato, took hundreds of

hours to make, and replicates are being planned for the CIMMYT headquarters at El Batán, and in Borlaug's home state of Iowa.

Borlaug's daughter, Jeanie, also spoke at the commemoration. Jeanie acts as the chair of the Borlaug Global Rust Initiative (BGRI), which aims to continue Borlaug's work by reducing the world's vulnerability to stem, leaf, and yellow rusts of wheat. The BGRI was well represented at the event, alongside many of Borlaug's other colleagues.

Lumpkin also used this opportunity to express his pleasure that one of Borlaug's last wishes, his desire to rebuild CIMMYT's links with Mexico, has been fulfilled.

Collaboration with Mexico inspired Borlaug's work in wheat research, and ultimately led to the Green Revolution and the saving of approximately one billion lives through improved wheat varieties.

On Borlaug's birthday we are reminded of what CIMMYT is capable of, and why our work is so important; he "believed that no child deserved go to bed hungry, and that all children deserved an education," said Jeanie, "with all these challenges ahead, a hungry world depends on you." ¶

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Pakistani representatives make a welcome return to CIMMYT Mexico

For some attendees, the unveiling of the new Norman E. Borlaug statue at CENEB was particularly poignant. It was a young Pakistani researcher who, in 1961, selected the variety that later became known as Mexipak; a high-yielding, white grain wheat that became one of the mega-varieties that launched the Green Revolution. In 1966, Pakistan imported 41,000 tons of Mexipak seed from Mexico – one of the biggest seed imports in history. Quarantine restrictions would make this a difficult task today, but it is estimated that this large-scale mission saved one million people from starvation and famine during the Green Revolution.

Norman Borlaug continued his relationship with Pakistan, though CIMMYT had to close its office there in the 1980s. This office was reopened in 2010, and during this year's Visitors Week at CENEB, Ciudad Obregon, CIMMYT was delighted to welcome a delegation of eight Pakistanis, representing the Pakistani Agricultural Research Council (PARC), the Ministry of Food Security and Research, the Nuclear Institute for Food and Agriculture, and the Directors General of Agriculture Research from Khyber



Pakhtunkhwa (KPK) and Sindh, two of Pakistan's four provinces. Rick Ward, Head of CIMMYT's office in Pakistan, accompanied the delegates, who joined four Pakistani Borlaug Fellows currently conducting research at CENEB.

Syed Ghanzanfar Abbas, Director of Mechanization, PARC, said that visiting CIMMYT-Mexico was "a dream come true". The delegates were delighted to see the research that CIMMYT is conducting at CENEB, and enjoyed hearing the presentations and meeting CIMMYT staff. ¶¶

Field day of the International Maize Improvement Consortium for Asia

On 13 March 2012, the first field day of the International Maize Improvement Consortium–Asia (IMIC-Asia) was held. The meeting, organized by CIMMYT-Asia and held at the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), welcomed 50 participants from 26 national, regional, and multinational seed organizations.

B.S. Vivek, CIMMYT-Asia senior maize breeder, started the day with a warm welcome and a brief overview of the field demonstrations of maize materials. The participants then made field selections of those

that interested them. The afternoon session started with Vivek detailing the progress made in IMIC-Asia since the consortium began in 1 July 2010. P.H. Zaidi, CIMMYT-Asia senior maize physiologist, then coordinated a discussion on priority traits and locations for IMIC hybrid evaluations. The meeting concluded with members giving their impressions of the field day and suggestions to further strengthen IMIC activities. They expressed their appreciation of CIMMYT's efforts and the progress already made. They were confident that it would serve as a platform for strengthening their maize breeding programs and their product portfolios.

The consortium approach has been adopted to enable partnerships between CIMMYT and private seed companies to facilitate the development and testing of inbred and hybrid maize, and for training of maize breeders. Some of the underlying principles include client-determined research prioritization; a more focused, demand-driven approach; and an engagement where partner accountability is better defined. This mode of operation with partners is expected to have a targeted impact on agricultural productivity and poverty. ¶¶



Field day of the International Maize Improvement Consortium for Asia

Low soil fertility: Problems and progress



Tunga Silvar grows maize to feed his wife and four grandchildren on about 0.5 hectares of land in Mawanga, Zimbabwe, a hilly area some 45 kilometers northeast of Harare. Like other farmers in the region, he is acutely aware of the value of nitrogen fertilizer, continually juggles his limited household finances to get it, and is poorer and

hungrier when he can't. "We used to sell maize, but in the last five years we haven't been able to do so," says Silvar. "I had to pay school fees for my grandchildren, so I couldn't buy fertilizer. Fertilizer is very important, especially in our type of soil. If you don't apply it, you can barely harvest anything."

After water, nitrogen is the single most important input for maize production. In sub-Saharan Africa where fertilizer use is negligible, improved maize with tolerance to low nitrogen (N) conditions could give maize farmers more abundant harvests, greatly improving their food security and livelihoods.

Improved Maize for African Soils (IMAS), a project funded by the Bill & Melinda Gates Foundation and USAID and conducted jointly with the Kenyan Agricultural Research Institute (KARI), South Africa's Agricultural Research Council (ARC), and the DuPont Company Pioneer Hi-Bred, aims to overcome these problems by developing hybrids with 25-50 % more yield than current commercial seed in low-N soils. The second annual IMAS meeting in Harare in late February 2012 drew more than 40 scientists from these organizations and CIMMYT to review progress and develop shared work plans for the following year.

Accomplishments to date include establishment of a low N phenotyping network across eastern and Southern Africa and application of cutting-edge molecular breeding techniques for low N tolerance. Several recently-identified, low-N tolerant inbred lines from diverse genetic backgrounds are being used in new hybrid combinations and to initiate pedigree breeding. New and existing elite hybrid combinations and synthetics are being evaluated in the regional low N phenotyping network, which now has access to more than 60,000 rows in N-depleted plots of experiment stations region-wide. Over the past year CIMMYT maize breeders Bish Das and Amsal Tarekegne have engaged several additional seed companies in work on low-N tolerant maize. As part of this, representatives from 11 companies in eastern and southern Africa attended a field day in Harare to showcase the latest products and highlight new support from the Foundation to scale-up seed production for existing commercial or advanced hybrids and OPVs that perform well in low N fields.

Strengthening the Malawi's seed sector

Seed companies provide the vital link to get improved maize varieties into farmers' hands. A major focus of the Drought Tolerant Maize for Africa (DTMA) project has been to strengthen small- and intermediate-scale seed enterprises and thereby speed delivery of drought tolerant varieties. The project has provided training and help to develop business plans ("road maps" for seed delivery), improved drought tolerant hybrids, and assistance in seed production. As one example of the benefits of this approach, three years of support in seed production and business planning have helped the seed company Demeter in Malawi go from strength to strength. The company now produces over 2,000 tons of seed, and its portfolio includes the open-pollinated varieties ZM309, ZM523, and ZM721 developed under DTMA. ▶



► New companies are also appearing on the scene. One example is Funwe Farm, a company that is starting to grow with support from CIMMYT and the Programme for Africa's Seeds Systems of the Alliance for a Green Revolution in Africa (AGRA-PASS). John MacRobert, seed systems specialist for sub-Saharan Africa, and Amsal Tarekegne visited Funwe's seed production fields to smooth out initial teething problems in the production of foundation seed of a CIMMYT hybrid released by the Malawi government as MH26. "By supporting companies like Demeter and Funwe we are helping to ensure farmers get access to improved varieties," said MacRobert. "Our partnerships with seed companies are really starting to pay off."



On-farm performance: the definitive challenge of breeding

Late and erratic rainfall in Zimbabwe has many farmers facing the prospect of poor harvests. The current hardships from drought though may furnish some hope for farmers. New drought tolerant varieties are being tested in on-farm trials under farmer management. Many of the trials are experiencing drought stress—a

perfect opportunity to identify the best varieties for such harsh conditions. A recent visit to on-farm trials in the Murewa District of Zimbabwe showed many new drought tolerant products performing well. Local farmer Sailas Ruswa is growing a trial and was enthusiastic about what he saw: some varieties showed signs of severe drought stress, but a few were holding up well and were expected to produce good yields. ¶¶

New maize storage system as CIMMYT expands

All of us who work at CIMMYT have noticed its recent growth—new faces, new projects, and new facilities being constructed at El Batán and elsewhere. All of this means more research is getting done, and, in particular, the global maize program is using and producing more breeding materials.

Until recently, the question for the maize program was, where to put them? "The old system just didn't have the capacity to store any more seed," says Efrén Rodríguez, head of data processing and seed distribution.



Marcial López Méndez from the Maize-HarvestPlus subprogram

In a smart solution to the space problem, between 07 February and 16 March 2012 a new system of movable shelving units was installed in the genetic resources center. These can be moved sideways using a winding handle, eliminating the need for a permanent passage between each set of shelves.

The previous fixed shelving had a capacity of 2,880 boxes, whereas the new storage system can hold 4,104—an increase in capacity of more than 40%, with further space available on top of the units if needed. It also takes up slightly less space.

Thanks to Gary Atlin, Félix San Vicente, and Natalia Palacios for their support to this project.

The new storage system is an essential step in supporting the Maize Improvement Consortium for Latin America (IMIC-LA), which is a component of the Sustainable Modernization of

Traditional Agriculture (MasAgro) initiative. Improvements will also be made in on other places such as a second drying room and storage space for Seeds of Discovery materials. ¶¶

A healthy space in your life

On 27 March 2012 around 40 participants, mostly women, attended an informative talk given at El Batán by Dr Pedro Castro, head of the epidemiology service at the UMF 069 clinic of the Mexican Social Security Institute (IMSS) in Texcoco. It covered how to prevent cervical and breast cancer and sexually-transmitted diseases. "People often think 'nothing like this is going to happen to me,'" says Dr Castro, "but it's better to take preventative action, above all if there is a history of any type of cancer in the family, as this increases the risk." Among the various recommendations he gave to the participants, it is key for women to have regular examinations, including pap smears, colposcopies, and mammograms. Cancer does not appear overnight—it is a process that takes time and early detection can save your life.



Dr Castro also left information leaflets in the medical office. The talk was coordinated by Gabriel Saavedra as part of the campaign to promote staff health in CIMMYT. More talks are coming soon.

A healthy space at Tlaltizapán



On the 23 and 36 March 2012, staff from IMSS-Zacatepec, Morelos gave medical examinations to all staff at the Tlaltizapán station. In total they carried out 130 medical checks (including vital signs, weight, and glucose and cholesterol measurements). They also gave vaccinations against influenza, tetanus, and hepatitis, and in some cases made referrals to specialists. These types of activities help improve staff awareness of the importance of looking after your health. ¶

All quiet on the western front



The risk management unit (RMU) congratulates the security staff on completing their Saturday course on private security, from 11 February-17 March 2012. The course was taught by the company "Misiones Regionales de Seguridad" and the participants were Israel Vergara Rivas, Jesús Ramírez Hernández, José Ramón Ortega Castro, Sergio Miranda Gutiérrez, Filogonio Corona Aguilar, Efraín Conde Delgadillo, Carlos Frutero Rodríguez, Hedilberto Velázquez Romero, Mauro Pascual Sánchez Rosas, Fernando Vergara Rivas, Hermelindo Velázquez Alvarado. Well done colleagues and thank you for your hard work!

The RMU is grateful for the director general's office support for this event. ¶

CIMMYT-Nairobi welcomes new communications consultant



Kenyan communications specialist Florence Sipalla recently began a March-July 2012 consultancy based at CIMMYT's Nairobi office and covering for science writer/editor Anne Wamalwa during Anne's maternity leave. Florence will focus her support on the Drought Tolerant Maize for Africa (DTMA)

and Improved Maize for African Soils (IMAS) projects, but will be available to work across projects as she learns more about CIMMYT's work in Kenya, Africa, and globally. Holder of an MA in African Literature from the University of the Witwatersrand, South Africa, and a BA in Language and Literary Studies from Moi University, Eldoret, Kenya, Florence has worked as a communications officer, business communication tutor, sub editor, and freelance writer in initiatives such as the African Woman and Child Feature Service, the CGIAR Gender & Diversity Program, and the French Institute of South Africa. She will work directly with Anne up to 11 April; afterwards work requests should be channeled through communications head Mike Listman, with a copy for Anne and Florence. Welcome to CIMMYT, Florence! ¶

Birthdays 01-13 April

Mayra Jacqueline Barcelo 1; Leonardo Ornella 1; Boniface Nyamande 1; Hedilberto Velázquez 2; Francisco Hernández 2; Manuel Valdés 4; Isidoro Colín 4; Martha Willcox 4; Nayelli Hernández 5; Vicente Morales 5; Wilfred M. Mwangi 5; Saleh Gholipour 5; Emma Maramba 5; Anne Bouma 6; Andrés Corona 7; Roman Delgado 7; José Arturo Quintana 7; Félix Domínguez 9; Manuel López 10; Munyaradzi Mutenje 10; Miguel Mellado 11; Enrique Rodríguez 11; Aarón Pesa 11; Raymundo Sereno 12; Surinder Vasal 12; Violeta Calvo 13; Máximo Flores 13; Md. Moshin Al-Sadat 13. ¶¶

CIMMYT offices will be closed 05 and 06 April, next Thursday and Friday for Easter holidays. Also, please note daylight savings time will go into effect in Mexico on Sunday 01 April. Clocks should be set one hour ahead.



We'll publish our next Informa on 13 April 2012.