

January – April 2011
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Supporting seed success in Malawi

In March 2011, in collaboration with Malawi's Chitedze Research Station, part of the country's Ministry of Agriculture and Food Security, CIMMYT hosted a field day for eight large and small Malawian seed companies, together with representatives from several non-governmental organizations and the Malawi Seed Trade Association. This was part of the DTMA project activities in the country.

"Today you will get an opportunity to see the newly developed drought tolerant maize hybrids and OPVs in the regional trials and what support CIMMYT can offer to you to scale up production of these varieties," Peter Setimela, seed systems specialist from CIMMYT-Zimbabwe, told the participants. The DTMA project, through CIMMYT offers maize germplasm, technical backstopping for variety release and capacity building assistance to seed producers in eastern and southern Africa, while IITA supports those based in West Africa.

Cyprian Mwale, maize breeder from the Chitedze Research Station, walked the visitors through the regional trials and some of the variety

demonstrations containing drought tolerant germplasm which has been selected by the Malawi national program for release in the coming season.

Felix Jumbe, a seed producer and secretary general of the Seed Trade Association of Malawi (STAM), said, "We are very happy that CIMMYT has organized this field day as most of the emerging seed companies who don't have breeding programs depend 100% on CIMMYT germplasm. I really hope this continues every year." Jumbe and his peers were also happy about CIMMYT's policy of granting exclusive rights to seed companies for production of hybrids.

At the end of the day several seed companies selected a number of hybrids and OPVs from the various maturity groups and requested more information on the performance data of the hybrids across Malawi. To this end, the results from the CIMMYT 2010 southern African regional trials were distributed to the participants.



Seed company participants examining maize traits in DT trials in Malawi



Participants at the field day in Malawi

Uniting to defeat drought in Africa

In February 2011, DTMA teams from Ethiopia, Kenya, Tanzania and Uganda gathered in Nairobi, Kenya for an award ceremony to recognize the best teams in terms of excellence and team work in helping eastern Africa's maize farmers fight famine and hunger caused by drought. The teams have been involved in developing and deploying varieties with increased drought tolerance and these competitive awards recognized 2010 efforts. Ethiopia won the maize breeding award while Kenya won the technology dissemination one.

"The ultimate test of our work is whether the new variety gets to the farmer or not," said Wilfred Mwangi, DTMA Project Leader while congratulating the winners.

Dr Ephraim Mukisira, Director of the Kenya Agricultural Research Institute (KARI), presented the awards to the teams during a colorful and joyous dinner reception.

"We need a new spirit, new passion to fight a common enemy – drought induced hunger and famine. We win in one season and in the next we're back to the battle," said Dr Mukisira.

He urged the scientists to use their knowledge to transform rural environments.

"This award will encourage me to get even better results to serve the maize farmers in the low moisture environments in Ethiopia," said Gezahegn Bogale, maize breeder and leader of the maize team at the Melkassa center of the Ethiopian Institute for Agricultural Research (EIAR).



Dr James Gethi receives the DTMA 2010 excellence award from Dr Ephraim Mukhisira, KARI Director

Both KARI and EIAR are strong DTMA project partners, who also collaborate closely with seed companies and other stakeholders through the country Maize Working Groups.

Dr Gezahegn Bogale receives the DTMA 2010 excellence award in breeding from Dr Ephraim Mukhisira, KARI Director



Doing away with imports: Angola produces its own drought tolerant maize seed



(L-R) Cosmos Magorokosho, CIMMYT Zimbabwe maize breeder, Antonio Faceira, seed producer, Dibanzilwa Nginamau, Angola National Maize Program, Jorge Muondo, technician, Angola National Maize Program

In breaking with its past practice of importing foreign maize seed, Angola is taking bold steps to domestically produce its improved varieties in an effort to boost maize production to match the nation's rising demands. Timely and crucial, these improved varieties will help feed Angola, a southern-African country that faces frequent droughts.

As some imported seed comes from as far away as France, it is often not adapted to the local growing conditions, causing it to succumb to drought and maize diseases such as Grey Leaf Spot and Leaf Blight. In the most tragic of cases, farmers would lose their entire crop.

The driving forces behind this effort are the Angolan government, national program maize breeders, and local seed producers who are

collectively implementing a national seed production strategy.

Dibanzilwa Nginamau, a maize breeder with the Angolan Institute for Agronomic Investigation (IIA), has led the collaborative testing and official registration of ZM523, an open-pollinated, drought tolerant maize variety produced in Angola. Through a partnership among the IIA, the Angolan Seed Authority (SENSE), the Angolan Extension Department (IDA), CIMMYT, and the Zimbabwean seed company AgriSeeds, large scale commercial seed production of ZM 523 will begin in 2011 with 14 metric tons of basic seed imported from Zimbabwe.

“We have started by partnering with CIMMYT, who will provide basic seed and technical backstopping to local Angolan seed producers, with the aim of producing 2,000 tons of certified quality maize seed for our smallholder farmers by October 2011,” said Marcos Nhunga, Director of Agriculture Extension in the Angolan Ministry of Agriculture. Once the seed is produced, farmers will receive the new variety through government seed distribution schemes.

While many of the country's smallholder farmers are familiar with open-pollinated maize varieties, a switch to hybrids would give them the chance to significantly increase their maize yields, improving their food security and livelihoods. For the time being, however, the interest in hybrids is greater among the large-scale commercial farmers.

Nginamau has been evaluating CIMMYT hybrid varieties at the IIA research station in Huambo for the past four years. One of these varieties, CZH03030, shows promise. Currently, Antonio Faceira, a local seed business owner and farming entrepreneur, has devoted one hectare on his Kambondo farm to this hybrid, in a pilot, to gain experience in hybrid seed production and evaluate the hybrid on a wider scale. So far, the crop has performed well with harvest expected in April. If it proves suitable for the area, then seed production will likely expand in the 2011/2012 season, with CIMMYT-Zimbabwe providing the basic seed.

Great start for DTMA project

During February 28 to March 22, 2011, two external reviewers – Greg Edmeades and Dave Westphal –contracted by the Bill & Melinda Gates Foundation conducted a review of the project; from its inception to date. To set things off, the reviewers met in Nairobi, Kenya with the DTMA project teams from CIMMYT, IITA, NARS as well seed company representatives from the 13 project countries, who shared highlights of their achievements and challenges. Afterwards, to gain deeper insights the team further interacted with teams in Kenya, Ethiopia, Zimbabwe, Malawi, Nigeria and Benin. Overall, the reviewers had a positive impression of the project's achievements and commented that the project had been off to “a great start!” and noted that “at the end of Phase 2, the project is in good heart, enthusiasm is high.”

Biting drought causes seed shortage in Kenya

The months of March to June represent the main planting season in Kenya. However, this year, farmers will not have enough maize seed to plant because of a biting drought that affected seed companies' production activities and outputs between 2008 and 2010. This development brings into sharp focus the need for drought tolerant maize varieties to insure seed companies and farmers against such shocks.

Photo credits

Cosmos Magorokosho
Peter Setimela

John MacRobert
Anne Wamalwa

The Drought Tolerant Maize for Africa (DTMA) Project is being implemented jointly by CIMMYT and the IITA, and is funded by the Bill & Melinda Gates Foundation and the Howard G. Buffett Foundation. The project is part of a broad partnership also involving national agricultural research and extension systems, seed companies, non-governmental organizations (NGOs), community-based organizations (CBOs), and advanced research institutes, known as the Drought Tolerant Maize for Africa (DTMA) Initiative. Its activities build on longer-term support by other donors, including the Swiss Agency for Development and Cooperation (SDC), the German Federal Ministry for Economic Cooperation and Development (BMZ), the International Fund for Agricultural Development (IFAD), and the Eiselen Foundation. The project aims to develop and disseminate drought tolerant, high-yielding, locally-adapted maize varieties and to reach 30-40 million people in sub-Saharan Africa with these varieties in 10 years.