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Dr Kyetere hails the role of seed companies in enhancing food security in Africa at AFSTA congress

Dr Denis T. Kyetere, the AATF Executive Director has said that the seed industry plays a critical role in ensuring access to improved agricultural technologies by farmers thereby contributing to agriculture and rural transformation. Speaking at the 14th Africa Seed Trade Association (AFSTA) annual congress held in Tunis, Tunisia in March 2014, Dr Kyetere said that innovative technologies in seed is vital for agribusiness to thrive and to contribute to access to food. As such he said, commercial interests in seed business should be encouraged.

Access to technology occurs at two levels, he said. "One is when they are accessed by intermediaries such as scientists, researchers and other value chain players like seed companies for research and development and business growth and the other level is when farmers ultimately access the technologies and are able to plant and produce their own food".

Smallholder farmers' access to improved agricultural technologies is key to better food security in Africa. Defining food security he said it assumes availability of food in sufficient quantities -through planting and producing own food or through purchase. He termed seed companies as allies in food security efforts as they facilitate farmers' access to planting materials in the form of seed. He made a case for the great potential there is for Africa to feed itself, that if exploited would have beneficial spill over effects into the seed business. "The continent has 600 million hectares of uncultivated arable land which makes up 60 percent of the global total; It has irrigation potential with only 30 percent of 42.5 million hectares of potential irrigated; there is a ready market for agricultural produce given that Africa's population is growing



Dr Denis T. Kyetere, the Executive Director AATF addresses participants during the 14th AFSTA congress held in Tunis, Tunisia in March 2014

and is expected to reach 1 billion by 2030 and the prospects of rapid urbanisation" he said.

To be able to harness the potential Africa has to feed itself, Dr Kyetere emphasised the need to build the capacity of farmers to receive and adopt innovations and change their way of farming and perceptions so as to approach farming as a business. Facilitating better access to inputs and output markets would also create demand for technologies in the form of seed. He also called for building agro-dealer capacity to promote the pathway for marketing and contribute to the seed industry development.

He urged agricultural development partners to work with seed companies in order to enhance food security in areas such as seed production and sales; micro-propagation and tissue culture; seed distribution network development; provision of technologies; farmer education and awareness creation to support technology/seed uptake and farmer input access support through provision of micro-credit facilities.

AATF has a memorandum of understanding with AFSTA which aims to facilitate technology transfer and commercialisation of new crop varieties to contribute to the achievement food security in Sub-Saharan Africa. ■

WEMA celebrates successes at annual meeting

The receipt of the Notre Dame Global Adaptation Index (ND-GAIN) Corporate Award in December 2013, a record number of released maize varieties in Africa, commercialisation and harvesting of the first drought-tolerant conventional maize hybrid by smallholder farmers in Kenya were some of key achievements that were highlighted and celebrated at the Water Efficient Maize for Africa (WEMA) Project's 6th annual review and planning meeting that was held in Entebbe, Uganda in February 2014. During the meeting, which marked the end of the first year of the second phase of the project, partners took stock of achievements and challenges of the project and planned for year 2014.



Farmers who planted the new WEMA maize variety DroughtTEGO hybrid WE1101 in western Kenya with their harvest in January 2014

"For the first time in the history of maize research in Africa, a single entity (WEMA) released 16 hybrids in one year," remarked Dr Sylvester Oikeh, the WEMA Project Manager as he gave a snapshot of 2013 achievements. The project targets to release 25 hybrids during Phase II (2013-2017). Relatedly more than 70 new hybrids have been nominated for national performance trials or advanced trials in the five project countries of Kenya, Uganda, Tanzania, Mozambique and South Africa in 2014. The varieties that are expected to provide 20-35 percent more grain yield than other commercial hybrids under moderate drought, are being sold to farmers under the brand name *DroughtTEGO*[™] by licensed seed companies in Kenya.

In January 2014, farmers in western Kenya harvested the first *DroughtTEGO*[™] hybrid WE1101. According to Dr Gospel Omanyia, the manager in charge of Projects Management and Deployment at AATF, the hybrid recorded an average yield of 4.5 tonnes per hectare during the short rains season harvest.

At the meeting, Dr Lawrence Kent, Senior Programme Officer, Bill & Melinda Gates Foundation expressed his excitement about the products coming out of the Project's development pipeline. He urged all partners to work hard to get the maize varieties into the hands of more farmers. "I am excited about the products coming out, but we need to get more farmers to use the product, turn 7,000 into 700,000 into 7 million farmers. We therefore, need to get more seed companies on board", he said.

The project was however not without challenges, some of which included the threat of the Maize Lethal Necrosis (MLN) disease in East Africa and unfavourable biosafety regulations in some of the countries that WEMA operates in that have prevented the field trials of the maize varieties. To address the MLN challenge, CIMMYT's Global Maize Programme Director Dr Prasanna Boddupalli mentioned that the Centre has come up with strict guidelines on MLN free germplasm, taking tremendous precautions to ensure that it doesn't spread to other countries.

Dr John McMurdy, USAID's International Research and Biotechnology Advisor called on the project to intensify its efforts towards improving biosafety regulations in the project countries. "In as much as there are several partners championing the WEMA cause, it is instrumental to address the question of political will towards an enabling biosafety environment in the countries that will allow for the testing and commercialisation of biotechnology products for the benefit of farmers in Sub-Saharan Africa."

Dr Denis T. Kyetere, Executive Director of AATF, said that the just concluded year had set a precedent for success and with the ND-GAIN Award, the WEMA project has renewed vigour to achieve its goal of enhancing food security in Sub-Saharan Africa and getting drought-tolerant and insect-pest protected maize varieties in the hands of smallholder farmers.

For more information on the WEMA Project contact Sylvester Oikeh (s.oikeh@aatf-africa.org) ■

Striga Project receives boost from Feed the Future to upscale maize production in East Africa

The livelihoods of smallholder maize farmers in East Africa are set for transformation with the launch of a new initiative that will upscale the commercialisation of StrigAway[™] – an herbicide-resistant seed and treatment that controls the infestation of the Striga weed. The initiative which was officially launched in February 2014 in Nairobi, Kenya is a partnership between AATF and Feed the Future Partnering for Innovation through a programme funded by the US Agency for International Development (USAID). With this grant, AATF will scale commercialisation of StrigAway[™] – a herbicide-resistant seed and treatment – to improve productivity for maize, one of the most important food crops in East Africa. The funding will help AATF and its partners, BASF, International Maize and



Farmer Bertha Otor displays a cob harvested from StrigAway maize that she planted on her Striga infested farm during the launch of the new initiative in February 2014

Wheat Improvement Center (CIMMYT) and local seed companies, promote the technology package in Kenya, Tanzania, and Uganda.

“This partnership is really about increasing the food security of thousands of smallholder farmers in East Africa. Farmers who have access to this technology will have better maize yields and higher earnings from the sale of excess produce,” said Denis T. Kyetere, the Executive Director, AATF during the launch.

Striga a parasitic weed that attacks cereals and affects the agricultural productivity of approximately 1.4 million hectares in Kenya, Tanzania, and Uganda can cause a 20-80 percent crop loss in maize, leading many farmers to abandon fields with heavy *Striga* infestation. *StrigAway™*, which includes conventionally bred herbicide resistant maize varieties and herbicide seed coating, was developed by BASF and CIMMYT.

By the end of this three-year initiative it is expected that there will be a total of 4,000 demonstration plots and nearly 1,000 metric tonnes of seed sold to over 20,000 smallholders in the target countries. Technical support for local seed companies will ensure the seed is commercially multiplied, treated, and available for purchase through a vast network of agricultural input retailers for smallholder farmer customers. AATF will work with partner seed companies to promote *StrigAway™*, including managing a discount programme for select agro-dealers, offering promotional seed packs to farmers, and leading a campaign to increase the understanding of the product.

While officiating the launch, Mr Philip Maketi, the Director Technical Training at the Ministry of Agriculture, Kenya said that on its own, the Striga weed is a major contributor to food insecurity in the region and especially among poor rural

smallholder farmers. Acknowledging the research efforts that have developed different methods of controlling Striga, he said the on-farm tests of some of the available technologies clearly indicate that farmers will benefit and their harvests will double when the weed is reduced and possibly eliminated from their farms.

Farmer Bertha Otor from western Kenya said that infestation of the weed has been known to cause total crop failure and attested to the fact that *StrigAway™* maize works and urged for more farmers to be encouraged to adopt the technology. Richard Obbo from Uganda said that *StrigAway™* maize which has been tried on-farm in Uganda is a technology that gives immediate returns when dealing with the *Striga* challenge.

For more information on the Striga Control in Maize Project contact Gospel Omanyanya (g.omanya@aatf-africa.org) ■

Hybrid Rice Project holds breeders training

The Hybrid Rice Breeding by Design Project held a breeders training in March 2014 aimed at building their capacity in hybrid rice seed production. The training participants drawn from both national agricultural research institutes and private seed companies from Kenya and Tanzania were taken through the use of the Thermo-sensitive Genetic Male Sterility (TGMS) lines to develop 2-line rice hybrids, seed production, planting and management techniques for hybrid yield trials, data collection on traits of interest and seed processing and storage. The participants were also able to review and receive training on newly developed web based weather software that will aid them in determining the ideal rice testing and production locations in the region. The Hybrid Rice project is a public private partnership that is using the 2-line breeding technique to develop rice hybrids with yield advantage. The use of this technology is based on a single gene recessive mutation, which causes TGMS recessive plants to become sterile in high temperatures, but remain fertile in cool temperatures.

Partners in the project include AATF that is overseeing the project management, Hybrid East Africa Ltd responsible for germplasm development and training and aWhere who is developing information technology tools to support germplasm development while the national agricultural research systems and private seed companies are providing the technical backstopping services, testing, developing germplasm and adopting the technology.



Breeders who attended the training organised by the Hybrid Rice Project in Malindi, Kenya in March 2014 undertaking a field practical session

aWhere has consolidated weather records in areas of interest dating back to 1980 consisting of, daily minimum and maximum surface temperature history for eastern, southern and west Africa. In addition, the project has developed online tools which will allow partners to determine when and where to conduct various breeding operations, seed multiplication and hybrid rice production, and has carried out an analysis on spatial

characterisation of hybrid rice and seed multiplication environments across East Africa.

The project which kicked off in 2012 has already developed the first set of 100 hybrid lines for testing in 2014.

For more information on the Hybrid Rice Project contact Kayode Sanni (k.sanni@aatf-africa.org) ■

Cassava Mechanisation and Agro-processing Project spreads to Uganda

Uganda became the third country to join the Cassava Mechanisation and Agro-processing Project (CAMAP) after Nigeria and Zambia with the delivery of the first batch of mechanisation equipment to the National Crops Resources Research Institute (NACRRI) in Namulonge in February 2014. The equipment which include a tractor, a disk plough, and a set of two disc harrows will enable activities to kick off in the country during the 2014 short rains season. The second batch comprising of three cassava planters, three cassava root diggers and three boom sprayers cum cultivators from Brazil are expected to for delivery in Uganda in May 2014. In readiness for using the equipment, the

Project will facilitate training of operators on their use and maintenance.

The first pilot district for the project will be Apac which is about 300km from Kampala and is the leading cassava producer in Uganda with an active farmers group whose members have a combined acreage of 1,800 acres under cassava and so would benefit from mechanisation of the crop's production processes. Moyo is the other district earmarked for the project. CAMAP Uganda will be a partnership between AATF, NACRRI and farmer organisations in the two districts and work is expected to expand to other disticts in the coming years.



The tractor that has been procured for the Cassava Mechanisation project in Uganda

For more information on CAMAP contact George Marechera (g.marechera@aاتف-africa.org) ■

Picture speak



Dr Denis T. Kyetere and Dr James Okeno of AATF host visitors at the AATF exhibition stand during the AFSTA Congress held in Tunis, Tunisia in March 2014



Mr Philip Makhethi, the Assistant Director, Technical Training at the Ministry of Agriculture Kenya makes a contribution during the launch of the new Striga Project initiative held in Nairobi Kenya in February 2014



Farmers attend a field day hosted by the WEMA Project at Mukuyuni, Machakos in eastern Kenya in March 2014



Joseph Ndwiga of AATF meets with members of the AFOSEN farmer group in Apac district, Uganda in February 2014 to discuss their participation in the Cassava Mechanisation and Agro-processing Project



The Syngenta Corporation team comprising of Mr Dimitri Pauwels (left), President, Africa Growth; Ms Gupta Niyati (2nd left), Market Development Manager Africa Venture Team and Kinyua M'bijjewe (2nd right) Head of Corporate Affairs for Africa and Middle East, meet with AATF staff to discuss possible areas of collaboration at AATF Nairobi offices in March 2014



AATF staff take time off for a group photo during the 2014 annual review and planning meeting held in Naivasha, Kenya in February 2014

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