



Partnerships

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First confined field trials for nitrogen-efficient, water-efficient, salt-tolerant rice planted in Uganda and Ghana

The Nitrogen-efficient, Water-efficient and Salt-tolerant (NEWEST) rice Project marked a significant milestone with the planting of the first confined field trials in Uganda and Ghana in April 2013. The installation of the trials followed approval received from the National Biosafety Committees of the two countries in 2012.

Dr Denis T. Kyetere, the Executive Director, AATF said that the rice trials in the two countries were a significant milestone for the project, advancing the prospect of improved rice varieties that will address the constraints of nitrogen deficiency, drought and salinity in rice production for smallholder farmers.

Mr Eric Rey, the President and Chief Executive Officer of Arcadia Biosciences applauded the developments and progress saying 'these first test plantings in Uganda and Ghana are an important step in our efforts to help alleviate the challenges of feeding a growing population with technologies that are both environmentally responsible and economically sustainable.'

The NEWEST rice project partnership is coordinated by AATF and is developing genetically improved African rice varieties with enhanced agronomic traits, specifically nitrogen-use efficiency, water-use efficiency and salt tolerance. The partnership consists of Arcadia Biosciences who is donating the trait technologies, producing transgenic plants and providing technical support; Public Intellectual Property Resource for Agriculture is donating the enabling technologies for plant transformation; International Centre for Tropical Agriculture, the National Agricultural Research Organisation, Uganda and Crop Research Institute, Ghana are involved in field testing for trait gain.



The Uganda team during the first planting of the NEWEST rice CFT in Uganda in April 2013

Rice is an important staple food and a commodity of strategic significance across much of Africa whose production remains low despite rising consumer demand. Several abiotic factors account for the low rice production, but nitrogen deficiency and drought have been cited as leading constraints to upland rice production, while high salinity is increasingly becoming a major problem in many rice growing areas of Africa.

Similar trials are expected to be planted in Ghana later in the year. Uganda and Ghana are the first pilot countries for the NEWEST rice Project.

For more information on the NEWEST Rice Project contact Prince Addae (p.addae@aatf-africa.org) ■

Dr Kyetere highlights the power of technology in boosting food productivity at 2013 Africa Business Round table

Dr Denis T. Kyetere, the Executive Director of the African Agricultural Technology Foundation (AATF) has said that technology can boost Africa's agricultural productivity and translate to poverty reduction. Speaking at the Africa Business Round Table during the Spring meetings of the World Bank/International Monetary Fund held in Washington DC, USA in April 2013, Dr Kyetere said that injecting appropriate agricultural technologies and addressing some of the key challenges facing smallholder farmers will see Africa grow and perhaps turn into a key exporter of agricultural produce.

"Technological interventions to increase yields and productivity provide opportunity and future growth area for Africa's agriculture" Dr Kyetere added.

"Regional, sub-regional organisations, and government strategies recognise that science and technology can contribute to agricultural growth. He said this recognition provides a strong position to start from.

Dr Kyetere said that Africa has great potential to accomplish more through its agriculture. He highlighted the uncultivated arable land, describing it as a gold mine and as a key resource.

"With more than 70 percent of Africa's resource constrained people depending on agriculture for their livelihoods the importance of agriculture to Africa's economic development cannot be over emphasised," he added.

According to the International Fund for Agricultural Development, growth in agriculture is 11 times more effective in reducing poverty in Sub-Saharan Africa,

and the gross domestic product growth generated by agriculture is more effective in reducing poverty than that in other sectors.

With technological interventions, Dr Kyetere said that the current yield gaps such as in cereals that still stands at around 1.2 tonnes per hectare, compared to an average yield of 3 tonnes per hectare in the developed world could be addressed.

"Given the low levels of production and the available technologies worldwide, the arena is open for Africa to choose and select the best options to fit its purposes," he said.

"Some of the technologies include those that will generate new varieties of plants and livestock; varieties adapted to climate change; varieties with better or efficient utilisation of water and other minerals such as nitrogen; labour saving technologies, fertiliser utilisation and value adding technologies among others" he added.

In his address Dr Kyetere presented Africa as an investment opportunity that has great potential for further growth given the support, and participation of the larger global community and appealed to the members of the international community gathered for the round table to actively partner with likeminded organisations to build Africa's strengths to further develop its agriculture and with it, economies.



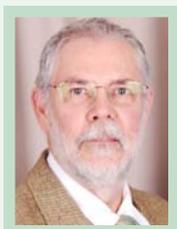
Dr Denis T. Kyetere (center) at the round table meeting in April 2013 in Washington DC, USA

However, he cautioned that to successfully exploit the potential that technology offers to Africa, partnerships between public and private sectors must be put in place and nurtured, to take advantage of the potential that each one offers agricultural development.

Dr Kyetere also took the opportunity to outline the role that AATF plays in technology access and delivery to support Africa become food secure. Pointing out that AATF was marking 10 years of operation this year he said that the Foundation had grown into an effective mechanism for negotiating access and delivery of agricultural technologies from both public and private institutions all over the world – whether proprietary or otherwise – on behalf of Africa's scientists and farmers.

For more information on AATF visit <http://www.aatf-africa.org> ■

Dr Larry Beach joins the AATF Board



Dr Larry Beach joined the AATF Board of Trustees as a member during its 21st meeting held in Arusha, Tanzania in April 2013. The admittance of Dr Beach into the Board is in line with its endeavor to bring on board members with experience and expertise that is relevant to AATF's work. Dr Beach was formerly with United States Agency for International Development, Bureau for Food Security as the Senior Biotechnology Advisor, before he retired at the end of 2012.

During the meeting the trustees reviewed the Foundation's project implementation progress, approved the 2013 work plan and budget and also took time to visit the World Vegetable Center, Madira Research Farm, based in Arusha.

For more information on Dr Beach please visit <http://www.aatf-africa.org/about-us/governance/board-trustees/larry-beach> ■



AATF Board of Trustees members when they visited the World Vegetable Centre in Arusha, Tanzania in April 2013

Advocacy takes center stage at OFAB 2013 review meeting

The Open Forum for Agricultural Biotechnology in Africa (OFAB) has been urged to extensively use all public communication strategies to reach its various stakeholders with balanced biotech information. In a speech read on his behalf at the opening of the third OFAB annual review and planning meeting, Prof Makame Mbawara, Tanzania's Minister for Communication, Science and Technology acknowledged that there were a lot of concerns about biotechnology that needed to be addressed for people to give the technology a chance. He urged OFAB to ensure that all audiences were reached irrespective of wherever they are whether in the streets, farms or offices.

Speaking at the same meeting, Dr Denis Kyetere, the Executive Director of AATF underscored the need for increased information sharing and advocacy to create a conducive environment for science, technology and innovation to thrive in Africa. Dr Kyetere stressed the contribution that modern biotechnology can make towards reducing global hunger and malnutrition and decried the negative propaganda against the technology.

Participants also discussed and received training in the socio-political and economic contexts of global biotechnology advocacy, and message development for effective advocacy. Speakers from Asia, South Africa and Europe also shared their experiences in transferring transgenic

food crops like maize, soybeans and *Bt* cotton to farmers and biosafety trends in Africa. One of the key presentations helped debunk the myth that the European Union would cut trade links with countries that grow GMOs and cited growing trade with USA, Canada, China, India, South Africa, Mexico and Argentina, among other biotech countries. The

OFAB fraternity was urged to redouble its advocacy efforts to see that policy makers develop supportive biosafety laws, policies and regulations that don't stifle biotechnology research, development and deployment on the continent.

Facilitators and speakers at the meeting included, Mr Jay Byrne the President of V-Fluence Interactive Public Relations, USA; Dr Margaret Karembu, Director of ISAAA-AfriCenter and Dr Mariechel Navarro, the Director of ISAAA Knowledge Centre based in the Philippines; Dr Nompumelelo Obokoh, the Chief executive Officer of AfricaBio, South Africa; Dr Guy Van den Eede, European Union's (EU) Director General Joint Research Centre Adviser for Bio-Economy



OFAB review and planning meeting participants during a group discussion session in May 2013

and Prof Diran Makinde, the Director of the Ouagadougou-based Africa-Union's Africa Biosafety Network of Expertise.

The meeting which was held in May 2013 and hosted by OFAB Tanzania in Dar es Salaam, brought together leaders of all the six country chapters of OFAB (Kenya, Uganda, Nigeria, Tanzania, Ghana and Burkina Faso), representatives from the Bill & Melinda Gates Foundation, and AATF among others. The meeting participants also took time to review the 2012 activity implementation and develop a work plan for 2013.

For more information on OFAB contact Daniel Otunge (d.otunge@aatf-africa.org)

Journalists in Kenya engage project scientists on *Striga* control

Simplicity of language, availability as experts and continuous engagement with journalists were some of the key issues discussed during a two-day workshop involving *Striga* Control in Maize project scientists and media held in June 2013 in Kisumu. Bureau chiefs of key media houses met with scientists involved in *Striga* control initiatives to share ideas on how to improve awareness on the effects of the weed and on available control technologies.

The first day of the meeting involved an intense interaction between the journalists and scientists to discuss the challenges in reporting science and agriculture and how the two could work together. The scientists provided a brief on the project while the bureau chiefs shared the various stages of the news story cycle process. The discussion on what makes news helped the scientists to understand how to package information to make it newsworthy and support their goal of raising awareness on the technologies they are working on.

The second day provided an opportunity for the journalists to visit farmers and get

a first-hand account of the *Striga* weed problem and the opportunities that the available technologies are offering. The discussions and interviews generated a number of stories and follow-up issues.

Key points that came out of the discussions included the need for simplicity by scientists in their information with impact of the technology being of greater interest than the science behind the technology. Availability by scientists as experts was also noted as important, noting media deadlines and clarity on details were non-negotiable with regard to news items. It was also agreed that the journalists-scientists relationship was a mutual one and thus there is need for continuous engagement through updates.

In Tanzania a farmers' field day was held



Journalists and scientists during the field visit in Siaya county, Kenya in June 2013

in Muheza, Tanga, for farmers, local leadership, and agricultural extension officers. The participants were able to visit demonstration plots where performance of the TAN 222 IR maize variety had outperformed the commercial check in controlling the *Striga* weed.

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

Cassava mechanisation project holds first field events in Zambia

The Cassava Mechanisation and Agro-processing Project (CAMAP) held its first field events for farmers in Zambia during June 2013. The two field days held in Mansa and Samfya districts of Luapula province showcased the cassava production technologies that involve the mechanisation of most production and processing activities. During the field days, employment of best agronomic practices for cassava production was also discussed.

The field days involved host farmers demonstrating how they established their cassava farms, giving the participants an opportunity to compare the new information with their traditional practices. They all attested to the great difference in terms of crop vigour and growth rate since the new methodology, unlike traditional methods, involved planting improved cassava varieties versus old stems, using fertilizer, the recommended length of stems and spacing and weeding frequently.

Participants were also able to see the functioning of the cassava planter and up rooter which demonstrated labour and time saving advantages of the machinery. Farmers in Zambia will be able to use the machinery during the next planting season later in the year.

The two field days were attended by over 300 participants including farmers, project partners from Zambia Agricultural Research Institute, the Ministry of Agriculture, and the National Agriculture Information Services, the media and local administration.

The goal of CAMAP, which is being implemented in Zambia and Nigeria as the first pilot countries for the Project, is to support the adoption of labour-saving cassava production technologies for use by



A cassava planter demonstration during the farmer field day in June 2013 in Mansa, Zambia

smallholder farmers in Africa for sustainable improvements in food security, incomes and livelihoods of farmers, processors, and marketers in the cassava sector.

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

External review of the Pod-Borer Resistant Cowpea and NEWEST rice projects indicate they are on track

The Pod-Borer Resistant Cowpea Project and the NEWEST rice projects underwent an external review commissioned by the United States Agency for International Development (USAID) in April 2013 with the reviewers' preliminary findings indicating that the two projects are on track in achieving the set milestones.

The review involved interviews with partners working on the two projects and visits to trial sites. All project components were reviewed. These include project

management, product development regulatory compliance, communications and outreach, intellectual property management and product deployment.

The Pod-Borer Resistant Cowpea Project is developing a *Maruca* resistant cowpea, while the NEWEST rice Project is developing improved African rice varieties with enhanced agronomic traits, specifically nitrogen-use efficiency, water-use efficiency and salt tolerance. Both the rice and cowpea varieties are for use by smallholder farmers in Sub-Saharan Africa.



Prince Addae, Francis Nang'ayo, Natalie Bogdmova, Vanessa Cook, Umaru Abu, Stella Simiyu-Wafukho during the Cowpea and Rice projects external review in April 2013

For more information contact Prince Addae (p.addae@aatf-africa.org) ■

First WEMA Project Bt maize trials harvested in Kenya

Following the decision in 2011 to include insect-pest resistance in the drought-tolerant maize varieties being developed by the Water Efficient Maize for Africa (WEMA) Project, the first maize trials with the *Bt* trait were harvested in Kenya in May 2013.

Speaking during the harvest, Dr Stephen Mugo, a maize breeder at the International Maize and Wheat Improvement Center, one of the partners in the WEMA Project said that the successful trial and harvest was a milestone in the country's struggle to attain self-sufficiency in maize production.

Describing the Bt maize confined field trials that had been going on since January 2013, Dr Sylvester Oikeh, the WEMA Project Manager at AATF said that the Project expects the drought-tolerant varieties being developed to also benefit from insect-protection which will give farmers a seed that not only needs less water, but also resists pests especially the stem-borer.

Similar trials were planted in Uganda in May 2013.

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



The WEMA team inspects maize stalks for stem borer infestation during the Bt maize trial harvest in Kiboko, Kenya in May 2013