



AFSTA E-Review

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ZIMBABWE SET TO HOST THE 15TH AFSTA ANNUAL CONGRESS

By Aghan Daniel



A scenic view of Victoria falls-Zimbabwe, destination to the next AFSTA Congress 2015

After a very successful Congress in Tunis, focus now turns to Victoria Falls in Zimbabwe for the 15th AFSTA Congress.

According to the chair of The National Organizing Committee (NOC) for the AFSTA Congress 2015, Mr. Walter Chigodora, Zimbabwe, has started putting everything in place for the Congress due from 3rd to 5th March 2015 in the scenic city.

"We are lining up a very memorable outing for the seed sector in Africa and we are indeed up to the task", said the NOC chairman.

Agriculture is the mainstay of the Zimbabwean economy and provides many raw materials required by the manufacturing sector. It has been the main contributor to the growth rate and employs about 30% of the working population.

For starters, Zimbabwe is blessed with fertile soil, mineral wealth and breath taking scenery. Two major rivers form the northern and southern borders.

Great Zambezi River cut across the north, while the Limpopo River forms the southern border with South Africa.

Major export commodities include tobacco and horticulture. The country also exports sugar, tea, coffee, cotton, seeds, maize, and oilseeds as well as livestock, dairy products, wild life and poultry meat. Ostrich and game farming have become increasingly important over the last few years. Ostrich meat now complements the export of top quality beef to the European market.

Zimbabwe offers a challenge to hunt that more authentic experience. The country offers an amazing safari. You can bungee jump from the Victoria Falls bridge if you're one for adrenaline sports; there is hiking and trekking; how about a splash into white water rafting, kayaking, or canoeing (depending on your thrill level). There are parks to visit, whether it's the Nyanga National Park, ancient ruin sites like Great Zimbabwe Ruins in Masvingo Khami, Dhlo-Dhlo, and Naletale; the Bvumba Mountains, and so on.

Then there are the "balancing rocks" strewn throughout Zimbabwe, another wonder of nature.

Victoria Falls, a town in the province of Matabeleland North, Zimbabwe lies on the southern bank of the Zambezi River at the western end of the Victoria Falls themselves. It is connected by road and railway to Hwange (109 km away) and Bulawayo (440 km away), both to the south-east.

The Victoria Falls Airport has international services to Johannesburg and Namibia. According to Mr Walter Chigodora, delegates have an opportunity to sample all that the falls can offer by taking a ride on Zambezi Helicopter over the scenic Victoria Falls. And guess what, one has a chance of walking away with his recorded trip on DVD at an additional cost of USD 30 only.

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cont... ZIMBABWE SET TO HOST THE 15TH AFSTA ANNUAL CONGRESS

The settlement began in 1901 when the possibility of using the waterfall for hydro-electric power was explored, and expanded when the railway from Bulawayo reached the town shortly before the Victoria Falls Bridge was opened in April 1905, connecting Zimbabwe to what is now Zambia. It became the principal tourism center for the Falls, experiencing economic booms from the 1930s to the 1960s and in the 1980s and early 1990s.

Visit our website www.afsta.org for more updates on the Congress.



Mr. Denias Zarayinka (SeedCo) and Mr. Justin Rakotoarisaona (AFSTA) after an exhilarating Vic Falls Chopper ride

NEW PROGRAM TO LIFT FOOD PRODUCTION IN SUB-SAHARAN AFRICA LAUNCHED

A new initiative is set to unlock the productivity in sub-Saharan Africa's dry areas and improve smallholder incomes and food security for countries in the region through systems solutions and a regional alliance of strategic partnerships.

The program will draw on outcomes from International Centre for Agricultural Research in the Dry Areas (ICARDA's) newly established research platform in Ethiopia in partnership with the Ethiopian Institute of Agricultural Research (EIAR), scaling out validated innovations to the neighbouring countries in Eastern Africa and the Great Horn of Africa for region-wide impacts.

Sub-Saharan Africa is already the hub of several research initiatives, but the region stands to gain from a systems approach to increasing drylands productivity for the first time – a niche expertise ICARDA is bringing to the region through its research platform strategically located in Ethiopia. Ethiopia offers

a unique opportunity to develop agro-ecosystem based solutions given its diversity of lowlands and highlands production systems.

The countries partnering on the regional initiative – Ethiopia, Kenya, South Sudan, Tanzania, Somalia, and Djibouti – are set to gain from the fully participatory approach of the program right from the onset. A two-day program launch and consultation event, held May 28-29, in Addis Ababa, provided an opportunity for heads and members of the National Agricultural Research Systems of all six countries to steer the research agenda to ensure the initiative responds to their national priorities, needs and challenges.

The research agenda further benefited from insights and active participation of several alliances that play a major role in sustainable agricultural development in the region, such as the Forum for Agricultural Research in Africa (FARA), Association

for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA), African Forum for Agricultural Advisory Services (AFAAS), Inter-Governmental Authority on Development (IGAD), and Centre for Agricultural research and Development in Southern Africa (CCARDESA).

Mr. [Adekunle Adewale](#), FARA's Director for Partnership & Strategic Alliance, calls the initiative a new window to development for Africa and notes the joint shaping of research agenda as an important step for success so the activities respond to the gaps and enjoy buy-in from all stakeholders. The regional program will complement other partners' research activities in the region by addressing crop, rangeland and livestock productivity in an integrated manner. The discussions with the countries identified near-term priorities for the research agenda under four thematic areas: cereal-legume crop systems, livestock/rangelands/crop

... cont NEW PROGRAM TO LIFT FOOD PRODUCTION IN SUB-SAHARAN AFRICA LAUNCHED

integrated production systems, natural resources management and socio-economic policy.

Mr. [Hezron Mogoka](#), steering ASARECA's Natural Resource Management and Biodiversity program, believes the biggest increase in food productivity in Africa will come from dryland areas, basing it on the findings of a scoping study. Africa's population is fast growing putting increasing demands for food supply. The platform with its systems approach research offers the potential to

transform rural communities from bare subsistence living to market-oriented systems, he says.

Amongst the several priorities, all six countries agree on focusing on more productive value chains and development of agri-businesses, as they look forward to working with the new initiative, hosted at ILRI's campus in Addis Ababa, Ethiopia.

The establishment of the research platform on integrated crop-livestock production systems in Ethiopia is part of ICARDA's larger decentralization strategy.

The centre aims to work more closely with its partner countries and speed the delivery of research benefits to smallholder farmers, while better aligning its research along agro-ecosystems to ensure targeted solutions for better livelihoods in dry rural areas.

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AFRICA CAN ERADICATE STRIGA – IITA

By Charles Nyachae

Improved technologies being promoted by the Integrated Striga Management for Africa (ISMA) project have shown promise that *Striga*—a parasitic weed that destroys cereal and legume fields—can be eradicated from Africa.

Infesting up to 4 million hectares of land under maize production in sub-Saharan Africa, *Striga* causes farmers yield losses of up to 80% representing about US\$1.2 billion, and affects approximately 100 million people in the continent.

In the last three years, the ISMA project has deployed an integrated approach for managing *Striga* while improving soil fertility and reducing the *Striga* seed bank for sustainable increases in crop yields in some selected communities in Nigeria and Kenya.

Specifically, these included cultural practices such as intercropping maize with legumes (soybean and groundnut); crop rotation of maize with soybean; a “push-pull” technology that involves intercropping cereals with *Striga*-suppressing *Desmodium* forage legume; using *Striga*-resistant

maize and cowpea varieties; using maize varieties resistant to Imazapyr (IR)—a BASF herbicide (*StrigAway*®) which is coated on the maize seeds, thus killing the *Striga*; and adopting *Striga* biocontrol technologies which uses a *Striga* host-specific fungal pathogen.

Dr David Chikoye, IITA Director for Southern Africa, said results from the project showed that the battle against *Striga* could be won.

“We will eradicate *Striga* in Africa just as America did,” he said at the Annual Review and Planning Meeting of ISMA in Abuja held between 21-23 May.

IITA Deputy Director General for Research, Dr Ylva Hillbur, in her opening remarks called for concerted efforts from partners to tackle the *Striga* challenge.

Over 70 stakeholders gathered in Abuja for the 3-day annual event which sought to evaluate the successes, challenges, and opportunities of the project, identify gaps, and plan how to implement the decisions to successfully scale out *Striga* management technologies to rural farmers in the next coming year.

Dr Mel Olouch, ISMA Project Manager, said “We have established partners and stakeholder capacity in Kenya and Nigeria and installed *Striga* seed processing facilities in Kenya; awareness is high. Already, registration of the herbicide has been achieved in both countries and we expect to release two IR maize varieties in Nigeria in 2014.” He said that some of the scaling up approaches that need to be adopted include the use of volunteer farmers to reduce costs and increase ownership, and use of complementary inputs and empowerment of stakeholders to give farmers the best technologies.

The Senior Program Officer for Agriculture Development of the Bill & Melinda Gates Foundation, Dr Yilma Kebede, in his address, looked at future plans for the project while expressing that the project is close to reaching farmers and addressing their concerns/problems due to *Striga*. He emphasized that there needs to be concerted efforts to profile the farmers reached such that the take-home message will be sustainable for them in the long



... cont AFRICA CAN ERADICATE STRIGA – IITA

By Charles Nyachae

run. “Demonstrations need to be focused and there is greater need to engage a wide range of stakeholders in controlling Striga. The various institutions involved should synergize to promote the project and scale out to farmers because no one partner will be responsible for the success of the technologies in the end,” he said.

Project partners include CIMMYT, AATF, ICIPE, Bayero University, KNARDA, BSADP, seed and chemical companies, extension workers, Scientists and the private sector.



Farm damaged by Striga

ZAMBIA SUPPORTS BIOTECH ADOPTION AND RESEARCH - OFFICIAL

By Aghan Daniel

The law which established the National Biosafety Authority passed by Zambia nearly six years ago has good intentions of regulating GMOs and not rejecting the technology, a senior NBA official in the country has reiterated. According to Mr Filipo Zulu, the government seeks to ensure that proper procedures are followed in the adoption of the technology in the country.

To demonstrate this commitment, Mr Zulu said that the government has already advertised the post of the Chief Executive Officer for the authority and hoped that it will be filled soon. These pronouncements were made during a one day awareness workshop organized by the African Seed Trade Association (AFSTA) and Zambia’s National Institute for Scientific and Industrial Research (NISIR) in Lusaka held nearly two weeks ago.

The workshop, which aimed at creating awareness among seed companies on biotechnology and GMOs in particular, was facilitated by scientists who are directly involved in the application of biotechnology in improving crops and breeding methods. The participants in the workshop comprised of seed traders, out growers, university representatives, government representatives and representatives from Civil Society Organizations and COMESA.

In support of Mr. Zulu, the chairman of the NBA in Zambia, Dr Paul Zambezi, the government of Zambia has showed good intentions by moving fast to put in place the NBA and by further forming a forum to discuss biotechnology issues called Zambia Platform on Public Awareness and Public Participation (ZPAPP).

The platform, being hosted by NISIR expressed readiness to learn from other countries such as Kenya who are currently engaged in public education on biotechnology to help them model their operations in line with the Open Forum on Agricultural Biotechnology (OFAB).

A member of the platform, Mr. Shadrack Chisenga, said the platform seeks to provide balanced information among Zambians and hoped that they will collaborate with OFAB in the coming months.

Making a presentation during the same workshop, Mr Dominic Chanda of the Zambia National Farmers Union (ZNFU) blamed scientists in Zambia for not making adequate efforts to sensitize consumers on biotechnology and GMOs specifically. “Scientists have not gone out of their way to provide information to help make decisions,” he said.



... cont MALAWI CONTINUES STRIDES TOWARDS GM CROP RELEASES, DESPITE CHALLENGES

By Daniel Aghan

According to the Chief Executive Officer of The Alliance for Commodity Trade in East and Southern Africa (**ACTESA**), Mr Agent Chuula, COMESA Member States are at different stages when it comes to biotechnology policy choices and capacity. However, he noted, GMO issues have become increasingly relevant to the region, because biotechnology products are already in food chains, trade, and food-assistance packages. Thus, he added, it is important collectively the region should have a better understanding of what biotechnology is all about. He lauded AFSTA for increasingly engaging with stakeholders throughout Africa in sensitizing key stakeholders in the seed value chain on GMOs and biotech issues.



Participants following the workshop proceedings in Lusaka, Zambia

MICRODOSING: CUTTING WASTE & PUTTING NUTRIENTS EXACTLY WHERE THEY ARE NEEDED IN FERTILIZER USE

By Bunmi Ajilore

For many smallholder farmers, the cost of purchasing fertilizers to nourish their crops is a necessary but often exorbitant part of their cost of production. Often, it is part of the main costs that determine if the farmer makes a profit or loss on production at the end of the harvest season.

Due to an awareness of this fact, many African governments – including Nigeria and Kenya – are now subsidizing the cost of fertilizer purchase for their farmers to drive down their input cost, their entire cost of production and as a result help make their produce more competitive and gain better market access through reduced selling price.

Despite this expensive cost of fertilizer and its effect on the competitiveness and market access of farmers, the conventional mode of fertilizer application by many farmers – including smallholders –

calls into question the efficiency of the use of this expensive resource. Many farmers usually practice the age-long broadcasting/heavy application with little thought for use-efficiency and often with the erroneous belief that the higher the dosage the better the yield.

This is not only economically inefficient but it is also damaging to the health of the soil and ecologically unsustainable. Also, over the years, this indiscriminate and uncontrolled application can lead to soil acidification and salinization. These can significantly reduce the productive capacity of the soil and may require heavy investment in corrective measures or, for smallholder farmers, lead to the abandoning of farmlands and deforestation or the opening up of new agricultural lands – another act which is unsustainable in the long term.

Besides, the indiscriminate use of fertilizer also impacts other natural resource sectors like fishery negatively. The excess nutrients in the soil are leached out during the rains and are washed downstream into groundwater and surface water bodies causing eutrophication – a process whereby waters in lakes/streams become abnormally enriched with nutrients.

This excessive enrichment causes an explosion in the population of algae and other microorganisms in the water and subsequently leads to the depletion of oxygen available to the fish and other water organisms. This reduced oxygen, in turn, may lead to suffocation and death of many aquatic organisms and negatively impact local fisheries and those whose livelihoods depend on them.

This is why microdosing is a more sustainable approach to fertilizer usage.



... cont MICRODOSING: CUTTING WASTE & PUTTING NUTRIENTS EXACTLY WHERE THEY ARE NEEDED IN FERTILIZER USE

It is a usage approach that strives to cut waste and put fertilizer exactly where it is needed. According to an article posted on the Farming First magazine website in January 2011, "microdosing involves the application of small, affordable quantities of fertilizer onto the seed at planting time, or a few weeks after emergence".

It is a method particularly suited to smallholder farmers with small piece of farmlands. Because the fertilizer is applied at the base of each crop plant, microdosing

can also help in weed management by starving weeds seeds of this growth resource and helping crops to out-compete weeds through the stimulation of a faster growth rate and canopy formation of crops which shuts out other vital resources like light from weed seeds. This method leads to a reduction in the cost of weeding and herbicidal control.

In all, the technique enhances the efficiency of fertilizer use and result in improved productivity. In economic terms, it reduces the cost of production of smallholder farmers

and at the same time increases their output through better and more efficient resource use. That, in my view, is a right combination for wealth creation for smallholders.

The author is an agriculturist; environmental biologist and ecotoxicologist. He is an advocate of sustainable agriculture, climate change mitigation and adaptation, food security, environment, and youth involvement/participation in shaping and implementing the policies influencing these issues.

AFSTA CONTINUES TO SERVE IN AU AGENCIES

By Grace Gitu, Technical Officer, AFSTA

The African Seed Trade Association was elected vice rapporteur in the steering committee of Inter-Africa Phytosanitary Council fully managed by AU (AU-IAPSC) during the 8th Steering committee meeting held recently in Accra, Ghana.

During the meeting, AFSTA was recognized for its key role in the Africa seed industry and applauded for informing delegates on seed trade trend in Africa. According to AFSTA's Technical Officer, Mrs Grace Gitu, who serves as the vice rapporteur, seed movement can be a potential transfer of pests to new areas if its trade is not well regulated and the need for integrated approach in the phytosanitary measures in Africa. The meeting held on June 10 to 13, 2014 recommended AFSTA to Comprehensive Africa Agriculture Development Programme (CAADP) as a key collaborator in matters of seed and also to be given observer status at the International phytosanitary organizations e.g. IPPC, CPM among others. "This is an honour to the association as it provides AFSTA with better opportunities to



Delegates at the AU Inter-African Phytosanitary Council (IAPSC) in Accra, Ghana

collaborate with other institutions at a higher level, considering that AFSTA was mandated to oversee the phytosanitary aspects related to seed within the AU-IAPSC," she added.

The 8th steering committee was officially opened by the Minister of Food and Agriculture in Ghana, Mr. Clement Kofi Huamudo. In his opening

speech, he highlighted need to strengthen the laws and regulations governing plant health issues, for a strong agricultural transformation in Africa. He urged all the member states to work together towards this achievement through regional strategies and for harmonized plant health regulations in the continent.



Q & A SECTION



Rogério Marcos Chiulele (pictured), is a lecturer at Mozambique's Universidade Eduardo Mondlane's Crop Science Department. He is also the lead scientist for cowpea research in Mozambique for the Tropical Legumes I (TLI) project. This gives Rogério a crucial tri-focal down-to-earth and away-from-the-clouds perspective on cowpea pedagogy, research and development. It is through this pragmatic triple-lens prism that Rogerio speaks about his work from this Southeast Africa nation. After the protein and profit, next stop for him and team is ridding cowpeas of pod-sucking pests, among other things slated for the future. But back from the future to the present and its rooted realities...Problems, yes, but also lots of good scores, plus a deft sleight of hand that are bound to have you starry-eyed, we bet.

...cowpeas rank fourth as the most cultivated crop..."



Q: Tell us about Mozambique and cowpeas: are they important?

The devastating effects of nematodes on cowpea roots.

In Mozambique, cowpeas are an important source of food, for both

protein and profit, particularly for the resource-poor households that benefit from cowpea income and nutrition. In terms of cultivation, cowpeas rank fourth as the most cultivated crop after maize, cassava and groundnuts, accounting for about 9 percent of the total cultivated area, and estimated at nearly four million hectares of smallholder farms. The crop is produced for grain and leaves, mostly for household consumption but it is becoming increasingly important as a supplement for household income.

But while its potential for food, protein and income is recognised, the realisation of such potential is still limited by drought due to irregular and insufficient rain; affliction by pests such as aphids, flower thrips and nematodes; diseases such as cowpea aphid mosaic virus and cowpea golden mosaic virus; and cultivation of low-yielding and non-improved varieties.

...we backcross to varieties with traits that farmers prefer..."

Q: And on cowpea research and breeding?

Since 2008, Universidade Eduardo Mondlane [UEM] established a cowpea-breeding programme for addressing some of the limiting constraints affecting cowpea production and productivity. This has been possible through collaboration with different funding institutions such as the Generation Challenge Programme.

That same year [2008], a UEM research team that I coordinate qualified for a GCP capacity-building à la carte grant. In this project, we screened 300 Mozambican cowpea lines for drought tolerance. From these, we identified 84 genotypes that were either high-yielding or drought-tolerant. We further evaluated the 84 genotypes for another three seasons in two locations. From the 84, we identified six genotypes that not only had the two sought-after traits, but were also adapted to different environments.

In 2010, the UEM team joined the TLI project. For the six pre-identified genotypes, the UEM breeding programme is using marker-assisted recurrent selection [MARS] and marker-assisted backcrossing [MABC], combining drought tolerance and resistance to major biotic stresses occurring in Mozambique. In MABC, we are conducting a backcross to varieties with traits that farmers prefer, which includes aspects such as large seeds, early maturity and high leaf production.

...we conducted a farmers' participatory varietal selection to glean farmers' perceptions and preferences on cowpea varieties and traits..."

Q: What is the main focus in your work, and how and when do farmers come in?



The breeding work conducted by UEM is targeting all Mozambican agroecologies, but with particular focus on southern Mozambique which is drought-prone. In addition to drought, the area is plagued by many pests such as aphids, flower thrips, nematodes and pod-sucking pests. So, in addition to drought tolerance, we are conducting screening and selection for resistance to aphids, flower thrips and nematodes. In the near future, we will start screening for resistance to pod-sucking pests.



The AFSTA Congress 2015 will be held from 3-5 March 2015 at Elephant Hills Hotel in Victoria Falls, Zimbabwe



Dont miss it! Check our site www.afsta.org for regular updates on the Congress

COMING SOON AFRICAN SEED MAGAZINE

The African Seed Traders Association (AFSTA) will be launching its first magazine called AFRICAN SEED in March 2015. We will call for articles for this magazine and there will be a good opportunity to advertise. A more detailed communication will be sent to you in due course.

AFSTA WEB ADVERTISEMENT

This is a reminder that AFSTA Secretariat is offering online an advertising opportunity for all members on a first-come first-served basis as the advertisement slots are limited. Your logo will be placed at the top right hand side and will flash alternately as it currently is currently on the AFSTA website (www.afsta.org) Your logo will be linked to your website or if you want to advertise a particular product you can send us artwork to be linked to your logo. The cost of the website advert is US\$ 250 for a period of one year.

UPCOMING EVENTS

1. *ESA Annual Meeting: 12-14 Oct 2014, Lisbon, Portugal*
2. *APSA Congress 2014: 10-14 Nov. 2014, Macau, China*
3. *World Seed Congress 2015 25-27 May 2015, Kraków, Poland*
4. *AFSTA Congress 2015: 3-5 March 2015, Victoria Falls, Zimbabwe*

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Disclaimer:

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