



New maize hybrids for DR Congo on the horizon



Dr Silvestro Meseka (right) with a partner examines maize harvest.

Efforts to improve the productivity and production of maize in DR Congo have received a boost as trials across the various agroecological zones in that country show promising results.

Dr Silvestro Meseka, IITA Maize Breeder who is back from the field, reports that the results are the product of a collaborative research project on the introduction of improved maize hybrids and varieties that was initiated by IITA in early February 2013 under the CGIAR Research Program MAIZE. First, two senior technicians were invited and trained after which hybrid and variety trials of different maturity groups for evaluation at Mvuazi (Bas Congo), Kipopo (Katanga), and Ngandajika (Kasai-Oriental) were deployed.

According to him, the main purpose of this research was to evaluate and identify high-yielding, adaptable maize hybrids and varieties for release to farmers that will contribute to food security as well as increase income of maize-growing smallholders in DR Congo.

Maize hybrids trials

More than 150 maize hybrids were evaluated at the Institut National pour l'Etude et la Recherche Agronomiques (INERA) testing sites at Kipopo (4° 58'S, 17° 50'E and 1300 m altitude), Ngadajika (6° 43'S and 23° 56'E, 779 m altitude), and Mvuazi (5° 27'S, 14° 54'E and 470 m altitude) during the main season (November 2013–February 2014). Maize genotypes tested at Kipopo were improved for adaptation to the mid-altitudes, while those tested at

Mvuazi and Ngandajika were developed for adaptation to lowland agroecologies. Most of the hybrids combined tolerance to multiple stresses including drought tolerance (DT) with high yield potential.

During the harvest (March 2014), six DT hybrids with superior performance were selected from more than 150 hybrids with the active participation of the maize breeder, Dr Kankolongo Mbuya, and the support staff of the national maize breeding program at Ngandajika Research Station (NRS). The criteria used for selection included ear aspect traits (good and uniform ear fill, uniformity of grain color and ear size, low number of ear rots, ear tip cover) and standability. Similar results were also reported at Mvuazi Research Station.

Potential maize productivity

Dr Meseka said the potential of maize productivity is high in DR Congo, especially in Kasai-Oriental, Katanga, and Bas Congo Provinces. "The performance of some maize varieties seemed to be relatively stable even in fields where inorganic fertilizers were not being applied," he added.

Because most improved varieties were lost during the civil unrest, most farmers (85%) use saved seeds from local varieties.

Currently, there are three improved high-yielding maize varieties, LONGE-5, MUDISHI-3, and KATOKI WA LUKASA being grown in DR Congo. Two of the varieties (LONGE-5, MUDISHI-3) were improved for enhanced levels of quality protein and can be referred to as quality protein maize

(QPM), while KATOKI WA LUKASA is normal maize that combined high grain yield with resistance to downy mildew (DMR). KATOKI WA LUKASA and MUDISHI-3 were originally introduced from IITA as AK9331-DMR-ESR-Y and DMR-ESR-W-QPM, respectively. According to maize breeders in DR Congo, maize varieties such as SHABA and KASAI introduced from CIMMYT in the mid-1970s; and IKENE-1, KWILU, and SAMARU introduced from IITA around the same time were well adapted to several agroecologies (Bandundu, Kinshasa, Bas Congo, and Kasai-Oriental provinces) in DR Congo. This is because most IITA maize genotypes were basically improved for resistance to maize streak virus (MSV) and downy mildew, two major foliar diseases of economic importance in the tropics, which are also common in most maize growing agroecologies in DR Congo.

Most farmers prefer white kernel maize for food and this helped in the rapid adoption of the two QPM varieties. However, there is growing interest in yellow maize (KATOKI WA LUKASA) with the advent of poultry and piggery industries in DR Congo.

Former World Bank Vice President for Africa, Oby Ezekwesili at IITA



The former World Bank Vice President for Africa, Dr Oby Ezekwesili met with Drs Kenton Dashiell, IITA Deputy Director General (Partnerships and Capacity Development); and Robert Asiedu, IITA

Director for Western Africa in IITA recently and discussed possible areas that could advance the course of research in Africa and create more impact on the continent.

Dr Ezekwesili, who currently serves as an advisor to presidents of several African nations, promised to speak about the work of IITA to donors and policymakers. She is a former minister of Education, and Solid Minerals Development of Nigeria.

Burundi promises to allocate land to IITA

The Government of Burundi has pledged to allocate land to IITA to build its facilities in Bujumbura.

The Burundi Minister of Agriculture, Mrs Odette Kayitesi, made the pledge during the visit to her office by IITA Directors as part of the activities of the IITA Directors' meeting held from 31 March to 3 April 2014 in Bujumbura, Burundi.

Mrs Kayitesi and the Adviser to the 2nd Vice President, Dr Déo-Guide Rurema, lauded the work of IITA in Burundi. She described the relationship between IITA and Burundi as a "marriage."

Present at the meeting were Drs Ylva Hillbur (DDG R4D), Kenton Dashiell (DDG PCD), and Directors Robert Asiedu (Western Africa), Victor Manyong (Eastern Africa), Bernard Vanlauwe (Central Africa), and David Chikoye (Southern Africa). The Monitoring and Evaluation Specialist, Thomas Wobill, also attended the meeting.



IITA Directors on a field visit.

A field trip to Cashi village and AGROBIOTEC, a private tissue culture lab in Bujumbura, formed part of the

program of the meeting. The directors also met partners from ISABU, FAO, IFAD, CRS, and other institutions.

Research at IITA excites UN delegation



UN team at the Business Incubation Platform (BIP) where aflasafe™ is being produced.

The UN team in Nigeria expressed excitement over the research activities at IITA in a recent visit.

The team held a retreat in IITA three

weeks ago, and used the opportunity to pay a courtesy visit to the Management of the Institute during which they applauded IITA for its efforts towards eradicating

global poverty and hunger.

Then Acting DG Omoshalewa Sholola; and Project Leader of the Cassava Weeds project, Dr Alfred Dixon, gave an overview of the Institute's activities and also provided answers to questions raised about transgenic research, plant health including the biocontrol of aflatoxins, capacity development, and engagement with partners and donors.

One of the UN team members was Dr Patrick Kormawa, an IITA alumnus who is currently the Nigeria Country Representative with UNIDO.

The team made a tour of the campus and noted that the presence of institutions such as IITA in Africa was indicative that a Green Revolution is in sight. The meeting with IITA management was facilitated by Toyin Oke, IITA Head of Resource Mobilization, Protocol, and External Liaison (RMPEL).

Immigration team pledges to support IITA

The Immigration Service in Nigeria has pledged to work more closely with IITA by rendering efficient support on immigration-related issues to advance research in Africa.

This pledge is part of an outcome of a visit by the Immigration team to IITA in which they were received by IITA DG Nteranya Sanginga and DDG-Corporate Services, Kwame Akuffo-Akoto.

The visit helped the Immigration Service to better understand and appreciate the work of IITA in relation to global food security and wealth creation, and how the Immigration Service plays a crucial role in facilitating entry and movement of the needed human resources.

Assistant Comptroller General Nura Graham, who led the delegation, was all praises for the Institute for its excellent research and committed staff.

Earlier, DDG Akuffo-Akoto gave a brief about IITA's work, and its vision and mission. While commending the Nigerian

Government for being a good host, he craved the support of the Immigration Service to help the Institute achieve its mission.



Immigration team visit the Genetic Resources Center.

"IITA is in the right place...Africa"

In his presentation to staff working in the Partnership and Capacity Development directorate, Dr Kenton Dashiell gave an update of the activities of the directorate with a conclusion that IITA is in the right place at the right time...

"A few weeks ago I met Shane Masters from Australia, who is helping us prepare a business plan for our Business Incubation Platform (BIP). He is about to finish his MBA in France. He said they had a guest speaker, an executive in the World Bank, who advised the class that the area in the world with the fastest growth in the next several years will be Africa. The speaker advised the students to seriously consider taking advantage of this fact and to work in Africa. He went on to explain that the country with the most opportunities for new businesses is Nigeria.

So, I thought it would be interesting to look at what PCD has been doing in Nigeria.

Here are a few examples:

- We have held discussions with the Oyo State Government and at their request developed a proposal to build a Youth Training Center on our Ibadan campus to train 5000 young people from Oyo State in the next 2 years.
- We were the major partner and the only partner with the Oyo State Government in the Oyo State Economic Summit that showcased the importance of agriculture production and the processing of agricultural products for the economic development of the State.
- Because of the support we gave to the Allied Atlantic Ethanol Factory in Sango-Otta, Ogun State, by helping them to link up with cassava producers, we were Special Invited Guests at the opening of their new factory.
- We have worked with the Ondo State Government to prepare a project proposal on rehabilitating their agriculture training center for youth at Ore. Discussions are continuing on how the project will be implemented.
- At the request of the Minister of



Dr Dashiell

Agriculture of Nigeria we prepared a proposal to increase soybean production in Nigeria to 1 million tons in 2014.

- We are working with the University of Ibadan to help them develop their curriculum for an MBA in Agriculture.
- At the request of the Jigawa State Government we have prepared a proposal for research and extension on cassava, maize, soybean, and cowpea.
- We have prepared proposals for Notore Chemical Industries Ltd., Monsanto, and Syngenta for conducting research with them in Nigeria. These projects are being reviewed and there is a good chance of approval.

• AgriServe has prepared a detailed Business Plan for Wells Farm in Edo State. This is a 9000-ha farm for growing cassava and then producing starch and gari.

Some other activities that have been organized by PCD include the IITA Alumni Reunion held in IITA Ibadan with over 60 alumni participating last March.

The first Capacity Development newsletter will be ready soon.

Our Communication Office was heavily involved with organizing the CGIAR Consortium meeting at our Tanzania office and is now preparing for the inauguration of our IITA Kalambo facilities near Bukavu.

The International Association of Research Scholars and Fellows (IARSAF) held a successful seminar in Ibadan.

Concerns

Our agreements on projects are becoming

more and more complex on both Intellectual Property Rules and Financial Reporting processes. We will need to ensure good training of our staff and partners in these new regulations.

We have set internal guidelines and rules for project administration, proposal development, etc. As IITA grows larger and is more decentralized and complex we all need to enforce and follow these rules or we will have big problems.

Some closing thoughts

Today I am thinking about three very important subjects that we need to address to have the positive impact on the lives of rural families in Africa that we all want. We work hard every day to achieve this goal and we need to make sure all our efforts are productive. The three key areas I am thinking of are Women, Youth, and Business. From the random selection of subjects that I have discussed above we seem to be addressing Youth and Business fairly well but the subject of Women needs more attention. We need to change this very quickly.

Going back to my meeting with Shane Masters we also talked about business plans. He explained that when professional investors receive a business plan they quickly review the Executive Summary and if it looks good they then go to the last pages of the plan and read the CVs of the executives and managers of the proposed business. If these people have a history of being successful then they will probably support the project. If the CVs do not clearly show there are successful people on the team the investor will reject the plan.

My point is that to be successful in any endeavor we must have a team of well-qualified, dedicated people. Success is all about the people. Having a great plan is important and essential but all will fail if the team is not qualified or not working together well.

I think we have a great team in PCD and I enjoy working with all of you. Yes we can improve in many areas. Thanks to all of you for all the hard work you do for the rural families of Africa."

Cassava Weeds Management project trains partners



IITA team and partners from University of Agriculture Makurdi.

The Sustainable Weed Management Technologies for Cassava Systems in

Nigeria project has organized training for its partners at the Federal University of

Agriculture Abeokuta, the National Root Crops Research Institute, Umudike, and the University of Agriculture, Makurdi.

The main objective of the training was to build the capacity of finance and administrative staff in the three institutions.

Training presentations at the various institutions focused on financial reporting, contractual requirements, overview of the project's finance, and budgets.

In all the training sessions, partner institutions and IITA revised their budgets within the limits and scope of the original approved budget.

Resource persons for the training were Kayode Awobajo, Project Resource Manager/Deputy Head of the IITA Project Administration Office; and Nike Osuolale from the Special Projects Unit of the IITA Finance Directorate.