

Quality & Yield

Supporting smallholder farmers' decisions on top quality commercial products

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A word from the project leader...

Welcome to another issue of 'Quality & Yield'.

We are excited about the volume and pace of activities across all objectives of the COMPRO II project during this last quarter. While not all activities are captured in this issue, you will

find highlights of some of the exciting work that has been ongoing. The level of commitment and engagement among partners has grown significantly in the past few months. During the month of April for a instance, we agreed on partnership with Africa 2000 Network and the Popular Knowl-

edge Women's initiative (P'KWI) to support dissemination activities in Uganda. We also signed agreements with Notore to support dissemination activities in Nigeria. Significantly, an outstanding partnership agreement with the National Agency for Food and Drug Administration and Control (NAFDAC) in Nigeria was signed in early May 2013. This later development will add much needed impetus to our work in Nigeria.

In the first year of this project, we managed to conduct more than 20 000 demonstration trials involving smallholder farmers, mainly in Kenya, Nigeria, Ethiopia, Tanzania, and Uganda. We have recently run additional demonstration trials and plan to conduct more than 40000 trials in 2013 (most of them have already started), with particular focus on soybean and maize using commercial products such as legumefix, biofix, and teprosyn among other products. Our partner FIPS Africa is taking charge of these ambitious targets.

Product screening activities continue to roll out with a training manual for in service-professionals developed and already in use to train technical staff and students in East Africa (Ethiopia, Kenya, Tanzania, and Uganda) and will be used in West Africa (Ghana and Nigeria) shortly.

In addition, effectiveness testing of bio-fertilizers and/or bio-pesticides has effectively started in project countries for soybean, maize, or faba bean. This will be closely followed by the profitability assessment of the effective product. This later point resonates closely with smallholder farmer decision making support that COMPRO II is keen to provide.

To this end, partners are also engaged in intensified networking with the scientific communities in various parts of the world to identify commercial products reported to be efficacious for specific crops such as root and tuber crops.

Notably a number of local initiatives to isolate local Rhizobial varieties continue in Ethiopia and COMPRO II is proud to have provided advanced Laboratory skills training to teams from the Ethiopian Institute of Agricultural Research (EIAR) who are involved in this activity. Indeed, the COMPRO II project has a strong focus on building the capacity of the national systems; so far 7 MSc and 4 PhD candidates have received a fellowship to work on various project objectives

particularly in quality analysis and efficacy testing areas. We have witnessed very exciting debate, analysis and now, early review of policy environments and regulations for commercial products in Kenya, Uganda, Tanzania, Ghana, Nigeria and Ethiopia. Common gaps identified include the lack of comprehensive policy provisions for regulation, registration and commercialization of bio-fertilizers and bio-pesticides in all our target countries.

With the assistance of the African Agriculture Technology Foundation (AATF), country teams are well on track to begin filling these gaps. A recent regulatory authority workshop in Nigeria, came up with a plan that seeks to directly feed into an ongoing policy review process for the national fertilizer policy.

A lot of the information on our activities can now be found on our new website www.compro2.org and the 'Quality & Yield' our flagship newsletter. These achievements are part of the implementation of the COMPRO II communications strategy developed under objective 4 with the support of our partners CABI.

As you read the highlights in the following pages, we welcome your thoughts, ideas, and more importantly your contributions to our various information outlets.

Your feedback on our activities as outlined on the COMPRO II websites and the various issues of newsletters are most welcome to serve your better.

Dr. Cargele Masso, COMPRO II Project Leader

Protocols for bio-fertilizers and bio-pesticides in Kenya



Policy, Quality standards and Accreditation protocols

A team of experts drawn from key regulatory authorities and other stakeholders in COMPRO II converged in Kenya to take forward key recommendations on improving regulatory frameworks on bio fertilizers in Kenya. The workshop took place at the Great Rift Valley Lodge in Naivasha from 8-9 April 2013.

The workshop was organised by the African Agricultural Technology Foundation (AATF). AATF is the lead organization for objective 3 of the COMRO II project which aims at strengthening regulation of commercial products in the focus countries.

The workshop was one of a series of country follow up workshops following the first regional meeting of regulatory authorities in November 2012. Similar workshops had taken place in Ghana and Uganda in the course of March 2013.

The workshop aimed to explore a number of key issues, top of which include, reviewing the Kenya component of November meeting with special focus on identifying the way forward to strengthening the regulatory environment for commercial products. Other specific objectives of the meeting included:

- Examine the structural components for functional regulatory frameworks for bio-fertilisers in other countries
- Examine existing guidelines, regulations, standards, labelling requirements and quality assurance practices for bio-fertilizers in Kenya
- Identify the most critical quality norms for testing bio-fertilizers and registration for Kenya
- Make recommendations for bio-fertiliser labelling requirements
- Make recommendations for independent-laboratory accreditation requirements/approval
- Make recommendations for information flow between the accreditation/approved laboratories and the regulatory body on existing and new bio-fertilizers/bio-pesticides in the marketplace
- Constitute a national team tasked to revise existing regulatory framework on bio-fertilizers and bio-pesticides in Kenya.

Speaking at the meeting, David Tarus from AATF welcomed the teams and pointed out that the significance of the meeting. He reminded the participants of the commitment espoused in the objective 3 of the COMPRO II project, on institutionalization of key processes for commercial products in target countries.



Dr. Cargele Masso, the COMPRO II objective leader echoed these sentiments and further gave a brief overview of the objectives of the project, pointing out the strategic relevance of objective 3 of COMPRO II which aims to support eventual institutionalization of quality as a key aspect of commercial products registration and utilization in the target countries. Dr. Joyce Jefwa speaking on behalf of IITA, reiterated the organization's continued commitment to improve the livelihoods of smallholder farmers by supporting informed use of high quality commercial products.

Part of the workshop's first order of business on the morning of 8th April, included a detailed presentation and discussion on quality norms, efficacy requirements, labelling requirements, and service delivery standards.

One of the main sessions was dedicated to reviewing and amending a set of draft norms on labelling requirements for bio-fertilizers presented in a draft document Form A 4.

The draft document used for discussion was drawn from international practice including similar from Canada and India. The main objective of this session was to develop a draft that is suited to the Kenya product regulatory environment while keeping in touch with international best practice.

Isolating & screening of local rhizobial strains in Ethiopia



Symbiotic effectiveness evaluation of soybean nodulating local rhizobial strains in greenhouse condition.

*Isolation and screening of Rhizobia is one of the critical quality control procedures in Laboratory monitoring of commercial products. Under the COMPRO II project, Ethiopia is one of the countries that recently benefited from Lab skills training programme under objective 2 of the project. In this article **Getahun Mitiku** from the Ethiopian Institute of Agricultural Research (EIAR), shares country experiences that clearly show that the skills acquired in COMPRO II are being put to good use in the isolation of local rhizobia strains*

A major problem facing Ethiopia's smallholder farmers is declining soil fertility as a result of continuous cropping without replenishing soil nutrients. In areas under intense cultivation, soils lack organic matter and important nutrients. Current demand for land has led to increasing pressure on marginal land. The need for low-cost and sustainable technical solutions to solve the soil fertility problem of smallholder farmers is apparent. Organic farming has emerged as an important priority area globally in view of the growing demand for safe and healthy food and long term sustainability and concerns on environmental pollution associated with indiscriminate use of agrochemicals. Though the use of chemical inputs in agriculture is inevitable to meet the growing demand for food in the world, there are opportunities in selected crops and niche areas where organic production can be encouraged to tap the domestic export market.

The use of biofertilizers is one of the important components of integrated nutrient management, as they are cost effective and renewable source of plant nutrients to supplement or reduce the use of chemical fertilizers for sustainable agriculture. Several microorganisms and their association with crop plants to improve soil fertility are being exploited in the production of biofertilizers.

Bio-fertilizers have paramount importance to boost the production and productivity of pulse crops. In Ethiopia, a lot of efforts were made to come up with promising rhizobial biofertilizers for most of the major pulse crops grown. During the past one decade, the Ethiopian Institute of Agricultural Research has been given due attention on the research and development of biofertilizers to develop this technology for the majorly grown pulse crops such as faba bean, field pea, lentil, haricot bean, chick pea, and soybean. As a result, efficient and effective strains for faba bean and soybean have been developed. The research work is aggressively under taking for other pulse crops at laboratory, greenhouse and field conditions to come up with promising biofertilizers.

The scaling up and demonstration of biofertilizers for faba bean in Shewa and Arsi zones and for soybean in Jimma, Pawe



Demonstration and field evaluation of soybean biofertilizers application

and Assosa areas on farmers' fields have been carried out starting from 2010 cropping season. All these efforts resulted in a conscious and self determination of farmers to aggressively demand for biofertilizers. In 2011 and 2012 cropping seasons, the Holeta Agricultural Research Center trained over 5,000 farmers and distributed 7,400 biofertilizers in the aforementioned faba bean and soybean growing areas respectively. In addition, the National Soil Testing Center run by the ministry of agriculture also distributed biofertilizers for majorly pulse growing regions of the country. The feedback of the farmers and development personnel regarding the technology has always been highly encouraging.

The Microbiology Laboratory of Holeta Agricultural Research Center is primarily engaged with isolation of local rhizobial species from nodules collected from growing plants of different food legumes, maintenance, authentication and screening of the local isolates.

Selection of best performing rhizobial isolates is done using hydroponic and clay or synthetic pots filled with sterilized sand culture under greenhouse conditions. Those isolates isolated from faba bean nodules are being tested against faba bean plants and similar work is done for every food legume. Strains obtained from different institutions and abroad- markets are also subjected to pass this selection process. Those isolates that showed high degree of effectiveness in terms of nitrogen fixation and plant growth are selected and promoted to the next step of evaluation work. Plant deep green color, vigour and root nodulation such as nodule number, size and inside color are some of the important parameters that need to be recorded.

Best performing isolates are being evaluated under field conditions for every legume crop. These isolates are also compared with full dose of recommended fertilizer rate for the test crop. The isolates are also tested if they can beat the locally available indigenous soil rhizobia. Hence, best nitrogen fixers under field conditions are again selected for demonstration and verification trials.



Demonstration and verification trials are being conducted on large farmers' fields across many different agro-ecologies. From such trials superior Rhizobium strains emerged and are subjected for pre-scale-up and scale-up of biofertilizers technology. Prior to the dissemination of the technology, farmers were practicing wheat mono-cropping which lead to declination of crop yield and soil fertility in their areas.

Faba bean farmers had many reasons to abandon faba bean production in which its low productivity, below 1 t/ha, was one. Nowadays, farmers have increased their faba bean grain to more than 4 t/ha by application of biofertilizers and other agricultural inputs and a tremendous increment in the next crop yield of wheat.

In a similar way Jimma, Assosa and Pawe farmers were very much new to soybean production. Those who were producing this crop were getting very low produces. But now they are getting more than 30% to 86% crop yield increment due to the application of biofertilizer technology.

Now, the Ethiopian Institute of Agricultural Research is working aggressively on screening of new biofertilizers technology as well as dissemination of proven biofertilizers for the smallholder pulse growing farmers of the country.

The Federation of Agricultural Commodity Associations of Nigeria

Mr. Prince P.O. Bakare, Deputy Secretary General, FACAN, believes that the highly representative model of FACAN presents the COMPRO II stakeholders with an avenue to tap to disseminate information to farmers.

COMPRO II sets out ambitious goals to reach up to two million farmers with information effective commercial products. Across the five objectives of the project, an enduring theme remains that the smallholder farmer who wants to use bio-fertilizers or bio-pesticides is well informed of the effective products in the market.

This goal is also articulated in the COMPRO II communications strategy, which spells out key approaches to reach the largest possible number of smallholder farmers.

One of the main approaches envisaged in the strategy is working with national level farmer agri-business and farmers associations and networks.

In this article, Mr. Prince P.O Bakare, the Deputy Executive Secretary of the Federation of Agricultural Commodity Associations of Nigeria (FACAN), described the work of FACAN, and how this can effectively link with the objectives of the COMPRO II project. Mr. Bakare represented FACAN at the recently held national workshop on policy, Quality Standards and Accreditation Protocols for bio-fertilizers and bio-pesticides in Nigeria, organized in Abuja, Nigeria by African Agricultural Technology Foundation (AATF), the lead agency on objective 3 on institutionalization of regulatory mechanisms for commercial products.



What is the genesis of FACAN?

Federation of Agricultural Commodity Associations of Nigeria (FACAN), the apex and umbrella body for all agricultural commodity associations in Nigeria was formed in line with Public Private Partnership (PPP) arrangement as a one stop shop between the Government and the Organized Private Sector (OPS). It took some 19 years (1991-2010) before its formation was consummated and an elected executive put in place.

The federation is strategically positioned to provide a common voice for agricultural commodity associations in the country that will promote the development of agriculture along the value chains and influence the National Economic Development especially in the areas of policy formulation, monitoring and implementation of agricultural programmes in collaboration with relevant institutions.

Our Mission

Promoting mutual understanding among agricultural commodity associations and creating enabling environment for a unified organization that is better placed operationally and financially to deliver to itself and the general public value added services in agriculture and allied business.

Organizational Structure

The Federation's structural outlook is made up as follows:

- The Board of Trustees and Patrons
- General Assembly of Agricultural Stakeholders
- National Executive Council
- Zonal (6), States (36 plus Federal Capital Territory), Local Governments (774), and Wards Executives (Including Zonal, States, L.Gs and Wards Women & Youth leaders).

The National Secretariat is located in Block D, Rooms 309-311, Federal Ministry of Industry, Trade, and Investment, Federal Secretariat, Area One, Garki- Abuja.

Our Objectives:

1. To reposition the agricultural commodity associations in order to effectively and efficiently discharge their roles in increased investments in production, processing and marketing of agricultural markets.
2. To ensure strict compliance with quality standards especially with regards to sanitary and phyto-sanitary standard (SPS) requirements.
3. To build the capacity of members of the Commodity Associations along the value chain in order to boost agricultural production to satisfy the domestic and export markets.
4. To identify relevant bodies and institutions for collaborations in the promotion of production, processing and marketing of agricultural commodities and investments in agro-allied industries.

How many farmers or farmer groups can be reached through your networks?

With a network of well over 40 commodity associations with membership spread across the country, 37 state and FCT coordinators, 774 local governments and thousands of ward executives, FACAN can successfully boast to be the only recognised organisation in the country with effective and efficient network to reach several millions of farmers groups/ cooperative bodies and practitioners in the agricultural value chains.

How do you see FACAN supporting COMPRO II objectives?

FACAN and COMPRO II are birds of the same feather. The general objective of COMPRO II is the same with the objective of FACAN i.e. to increase crop yield and improve the food security situation. COMPRO II similarly needs FACAN as a veritable vehicle to deliver its objectives taking into cognisance its composition, structure, numerical strength and geographical spread.

What are some of the unique strengths or strategic relevance of FACAN to stakeholders like COMPRO II?

The structure of FACAN adequately provides an effective and efficient vehicle for the commercialization and dissemination of products to increase crop yield and improve the food security situation of not only the smallholder farmers but the country as a whole, which translates to what stakeholders like COMPRO II project stand for. The structure affords easy and smooth flow of communication that reaches targeted beneficiaries down to the grassroots. It stands out as a ready tool for advocacy among smallholder farmers on product development and capacity building. By its composition, which includes all stakeholders along the agricultural value chain, FACAN is well positioned to be an adequate platform for test trials on various agricultural commodities in different agro-ecological zones. Its numerical strength provides an unrivalled distribution network for ideas and products.

NAFDAC Nigeria and IITA sign key COMPRO II sub-agreement



Dr. Cargele Masso, signs the agreement with NAFDAC. Looking on is Dr. Paul Orhii, Director General, NAFDAC

Abuja, 6 May 2013

"This event is critical for the full implementation of the set of activities for Nigeria in the COMPRO II project"

The sub-agreement that outlines specific areas of collaboration between IITA and the National Agency for Food and Drug Administration and Control (NAFDAC) under the COMPRO II project was signed in Abuja on 6 May 2013. Commenting on the event, Dr. Masso Cargele, project leader noted that this event greatly strengthens the collaboration between COMPRO II project and Nigerian stakeholders. Present at the signing was the Director General of NAFDAC, Dr. Paul Orhii who acknowledged the significance of the support of the COMPRO II project to the work of NAFDAC and urged increased collaboration to ensure effective regulation for bio-fertilizers and bio-pesticides in Nigeria.

The signing took place during the national workshop on policy, quality standards and accreditation protocols for bio fertilizers in Nigeria. Dr. Francis Nanga'yo, who leads objective 3 activities in the project, explained that the Nigerian workshop was the fifth in a series of national-level workshops that aimed to move forward country specific action plans for strengthening regulatory environments. Other countries that have already held the workshops this year include Kenya, Uganda, Tanzania, and Ghana.

The next national level workshop is planned for Ethiopia.

Efficacy of soya rhizobium inoculant



In furtherance of Notore's commitment to champion the African Green Revolution by promoting adoption of improved technologies and farming practices among smallholders in Nigeria, the company is partnering with IITA and FIPS-Africa to disseminate the potent commercial bio-fertilizers already screened in Nigeria as part of the 5years COMPRO II project.

The Notore anchored dissemination activities began during the rainy season of 2012 with 20 Village Promoters (VPs) working in Kaduna, Kano and Niger states to establish 100 learning plots through which over 2700 farmers were trained directly on the application of Rhizobium inoculant in Soybean production, with interesting results.

At the beginning of the season, the 20 VPs were trained on Rhizobium preparation and application by a team of scientists from IITA led by Dr Martin Jemo and supplied with seeds and Rhizobium to establish learning plots. Thereafter, each VP selected 5 groups of Soybean cultivating farmers in target communities to target with the learning plots. Each learning plot consists of three sub-plots: one in which the soybean is planted without fertilizer and Rhizobium; a second one in which the soybean is planted with fertilizer; and the third one in which the soybean is planted with fertilizer and Rhizobium. The farmers participate in the establishment and maintenance of the learning plots until harvest so that they are able to compare the performance of the various sub-plots using yield data.

Results obtained from the learning plots showed that the application of Rhizobium resulted in yield increases of more than 100% when compared to both planting with and without fertilizer. It also showed that farmers' income and livelihoods can be significantly improved by the use of Rhizobium in Soybean. Impressed by the performance of the Rhizobium treated sub-plots, the participating farmers and others in their communities have been expressing interest in buying the Inoculum from their VPs.

Asked what he learnt from the learning plot in Tufa in Niger State where he served as VP, Ayuba said 'I did not imagine that just inoculating the seeds with Rhizobium will more than double the yield, my farmers now call me everyday asking for the product'. Halimatu Musa, a female farmer in her comment said 'with this new product, I am able to get higher yield so that I have enough Soybean to feed my family as well as make some income to help my husband in educating our four children. I will share this knowledge with my other female farmers in our community'.



Following the success recorded in the 2012, Notore has developed plans to expand the activities in 2013 to reach more Soybean farmers as well as educate maize farmers in the use of Teprosyn (a seed treatment product which provides maize seedlings with the critical take-off dose of phosphorus thereby enhancing plant establishment and performance). In 2013 a total of 80 VPs will be developed to implement 800 learning plots (400 in Soybean and 400 in Maize) targeting 10,000 smallholders in 7 states.

In addition, each participating farmer will receive samples of the commercial product to enable them try it independently thereby facilitating adoption as well as farmer-to-farmer diffusion of the technology. Notore will also work with CABI (the lead agency on the communication objective of the COMPRO II project) to develop educational videos on the commercial products and the lessons from the implementation so far with which more farmers will be reached with the technology.

About Notore

Founded in 2005, Notore Chemical Industries Limited (Notore) is one of the leading fertilizer and agro-allied companies in Africa. The company's principal activities include the supply of premium fertilizers, appropriate education on best practices for farming and proper deployment of these practices for optimum results. The company has built a robust network of professionals that support farmers and farming communities across Nigeria.

Notore operates the only urea fertilizer plant in Sub-Saharan Africa thus placing it in a strategic position for championing the African Green Revolution. We also produce Ammonia and have the capability to produce NPK fertilizer.

The Notore plant is strategically located at Onne sea port in the Niger Delta region of Nigeria. Therefore, products from this plant are well positioned for effective shipment and distribution across the Atlantic coast.

Q & A with COMPRO II West Africa Coordinator

COMPRO II activities in Western Africa currently cover Nigeria and Ghana. Dr. Martin Jemo, who is the coordinator for COMPRO II activities in this region reflects on some key issues in a recent interview with 'Quality & Yield'.

COMPRO II project activities have been going on in West Africa for some time now. What are some of the major milestones you can identify?

My current main role in the project is to backstop all the activities in West Africa. We know that our partners have the capacity to make things happen, we also want to work to ensure that all these activities are well backstopped to have strong evidence in an efficient manner.

In general, the implementation of the COMPRO II project milestones are being implemented very well. All the project objectives and related milestones for year one and two are being implemented.

In the Objective 1 (dissemination of top quality products), we conducted some scaling-up activities whose results were presented in January at a retreat in Naivaisha, Kenya, this year. This year will be working to extend the activity in Ghana, and include a new state, Benue, in Nigeria. Notore is in charge of this activity. Plans are underway in preparation of our next campaign in Nigeria.

One important milestone for objective 2 (continue screening of commercial products) was to conduct a lab inventory from National partners. This was done and completed, and the need to procure more screening materials to conduct simple analyses related to COMPRO II products was identified. In regard to activities related to the SOPs, and the tracing of the micro-organisms in soils, all protocols were successfully fine-tuned. Presently we have been able to amplify regions of rhizobia genes and we are working to sequence genes regions, and then designing primers that will allow us to trace products when introduced into farmer fields.

Two national workshops to develop regulative norms and standards for the bio-fertiliser products in Ghana and Nigeria were conducted. The model we are using is adapted from Canada, India and Philippines in regulating these products that are relatively new in many African countries. This is our contribution in the objective 3.

With respect to capacity building, so far one MSc student in Ghana has been recruited and enrolled. Similarly, one PhD and one MSc student in Nigeria have started their programme. All these students received a fellowship from the COMPRO II project. The PhD student from Ghana will be selected shortly. One additional MSc from both Ghana and Nigeria will be selected some time early next year, to be enrolled in September 2014 at the latest.



What is your assessment of the comparative progress made by countries in your region in terms of addressing regulatory environments for bio-fertilizers, bio-pesticides and commercial products?

COMPRO is about institutionalisation of know-how to the national partners in testing and ensuring quality control of biological products. This is intended to reduce the use of counterfeit products by small holder farmers, which not only results in poor crop yield, but also contributes to natural resource degradation.

COMPRO II has prioritised more capacity building for MSc. and PhD candidates in the region. How has been the uptake so far?

The Msc and the Phd students in Nigeria were identified and their protocols defined. In Ghana, the MSc was also identified, while the PhD position was re-advertised recently.

There are numerous partnerships with the private sector, as anticipated in the COMPRO II project. Who are some of the private sector partners you are working with in Western Africa?

NOTORE is the main private sector partner currently engaging with us. They have years of experience in the field and have the human resources and technical infrastructure capability to adequately spread out in Nigeria to disseminate COMPRO II products. This year, NOTORE plans to distribute 20,000 small packs of seeds and rhizobial inoculants to smallholder farmers in Nigeria.

We are also trying to identify new partners in Ghana for the dissemination activities. Yara is one of our potential partners in this area.

What are some of the key challenges you have encountered so far?

Some of the labs lack minimal equipment to conduct basic analyses and this has created slight delays. But we are working towards a better solution on these issues.

Your last word for COMPRO II stakeholders in West Africa?

Although COMPRO II project is a challenging program, we are making important steps to achieve some milestones and deliver our promise both to our partners, and more importantly to smallholders farmers who are often victims of sub-standard products in the market.

Scientific Advisory Committee meeting in Naivasha, Kenya



A diverse team of more than thirty stakeholders gathered at the Great Rift Valley lodge in Naivasha for the first Scientific Advisory Committee (SAC) meeting of the COMPRO II project from 14-17 January 2013. Key institutions and partners represented at the meeting included; International Institute of Tropical Agriculture, (Nairobi, Accra and Ibadan), African Agriculture Technical Foundation (AATF) Farm Input Promotion Africa (FIPS-Africa), CAB-International (CABI), NOTORE (Nigeria), Egerton University, Makerere University, Bill & Melinda Gates Foundation, and country representatives from Ethiopia, Ghana, Kenya, Nigeria, Tanzania and Uganda.

Speaking at the meeting, Dr. Emmanuel Nteranya, the Director General of IITA, noted the significance of the meeting as a critical part of the coordination of role of IITA as objective 5 leader in the project. He hailed the project partners for their commitment to the ambitious milestones of the COMPRO II project and reiterated IITA's commitment to provide the necessary leadership support to ensure that these were met.

Dr. Prem Warrior, COMPRO II's programme officer at the Bill & Melinda Gates Foundation, emphasized the need for stronger mechanisms to institutionalize screening and quality monitoring of commercial products in the target countries. He cited the emerging evidence and the outcomes of COMPRO I project which indicated that farmers in the region may be buying and using ineffective products to the detriment of their intended crop yield improvement goals. These sentiments were echoed by Dr. Bernard van Lauwe from IITA and Dr. Cargele Masso, who is the COMPRO II project leader. Other highlights of the meeting included presentations of progress reports by all objective leaders (1-5), country progress reports from Kenya, Uganda, Tanzania, Ethiopia, Nigeria, and Ghana. The progress reports highlighted progress, achievement and challenges of each milestone. These presentations were followed by an action planning session for 2013 for each country and objective area.

Plenary discussions ranged from issues around regulatory environments for commercial products in the target countries, opportunities for regional approaches to harmonize regulation and quality control, and laboratory infrastructure and skills for effective quality control and monitoring.

Trainee profiles

Over the last one year, a lot has happened at Egerton University. First of all, our COMPRO team has grown but more importantly we are in the middle of a Laboratory infrastructure strengthening programme. By the third quarter of the first year of the project, the Egerton University team had acquired microbiology lab consumables such as pipettes, facemasks, gloves, petri dishes and sample bags. Local Purchase orders for lab glass ware and other equipment (autoclave, lamina floor hood, micro-pure, tissue grinder, auto-dispensor) have been submitted awaiting delivery. There have been some delays in fully rolling out the lab infrastructure strengthening, but things are now on track.



Egerton University MSc students:

Hezekiah Korir is a Masters of Soil Science student at Egerton University. He enrolled in Aug, 2012 and is currently doing his course work. His studies are being funded by COMPRO II. He did his BSc (Agriculture) at Egerton University and graduated in 2011. The title of his thesis is: *The Effectiveness of Native Rhizobia Strains and Selected Commercial inoculants on Glycine max (Soybean) and Phaseolus vulgaris (Bean) Yields*. He intends to screen products in the lab, greenhouse and field.



Grace Waruguru graduated in 2007 from Egerton University with a Bachelor of Education (Science), in Botany, Zoology and Geography. Currently she is pursuing a Masters degree in Plant Pathology at Egerton University, which she started from September 2011 and has already completed course work. In September 2012 she was one of the beneficiaries of a scholarship from COMPRO II Project. The project caters for her tuition fee, a monthly stipend, a Laptop, printing materials and research funding. She successfully defended her research proposal on 16th Jan 2013. Her research topic is *Assessment of Trichoderma- based Commercial Products on Phytophthora infestans in Tomato*. It is expected that the products will be effective in controlling the disease, stimulate growth and increase yields. Farmers are also expected to get information about the biocontrol that may be cost-effective and eco-friendly. This will be confirmed by the study



John Okoth is a Research Assistant in COMPRO II at Egerton University. He has a BSc (Agriculture) degree from Egerton University and MSc (Agronomy) (he has submitted his thesis for examination and intends to graduate in the 2nd quarter of 2013. He has been involved in several research projects such as: conducting elemental soil analysis in Dr. Rhoda Birech's organic project, MPN in Dr. Nancy Mungai's project, soil moisture availability analysis and elemental analysis in his MSc project. He has also been engaged in conducting surveys in Dr. Rhoda Birech's EARCIN project and Pro-Biofuel. All the above projects have been at Egerton University. In addition he has been teaching some agronomy practicals at the University.

Some of our Achievements

Green house screening of products has started with five products at two levels (recommended and double recommended rates) and two crops (maize and potato) in three soils from Bungoma, Chuka (Meru) and Egerton. Planting was done on March 1, 2013. Results from experimental units when products are used at manufacturers' recommended rate indicate a total of 63 units per crop.

'Quality & Yield' is the newsletter of the COMPRO II project. It is a quarterly publication that highlights key activities and experiences of the project. The next issue goes out in August 2013.

Send your comments and stories as well as request for interview ahead of time to **j.watiti@cabi.org** and **C.Masso@cgiar.org**

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