



COMPRO II PROJECT

# Quality & Yield

Supporting smallholder farmers' decisions on top quality commercial products



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# A word from the project leader



“ ...We envision a triangle approach that is private-sector oriented with regard to dissemination” ”

Dear reader,

As we kicked off activities for the first quarter of 2014, a number of important decisions were taken by the COMPRO II project leadership.

First and very importantly, significant revision of our dissemination objective and approach meant that for this year, more country-level partners are directly involved in implementing objective 1 in the countries.

Based on the invaluable experience and lessons gathered through the work of our lead partner Farm Input Promotions Africa (FIPS), it became clearer to us that a country-specific approach using more local partners is likely to achieve more.

As a result of this change in approach, you will be reading more from some of our new dissemination lead partners in the project countries. The dissemination partners per country are:

- The Extension Unit of the Ministry of Agriculture in Ethiopia in collaboration with the Ethiopian Institute of Agricultural Research
- Antika Seeds Company in Ghana in collaboration with Kwame Nkrumah University of Science and Technology
- FIPS in Kenya
- Notore Chemical Industries Limited in Nigeria
- Association of Fertilizer and Agribusiness Partnership (AFAP) in Tanzania, and
- Africa 2000 Network (A2N) in Uganda

We envision an approach that is private-sector oriented with regard to dissemination. This approach looks at a set of crucial components namely: the product of interest, interested manufacturer, and interested private sector.

In addition we focus on registration and compliance to the regulatory framework of the products of interest. Our dissemination partners then facilitate the process.

Our Scientific Advisory Committee provided critical feedback during the recent planning-meeting held in Kumasi last January, which will help us further refine activities this year towards, the most critical milestones. After the planning meeting, team building activities have been organised in most of the project countries to strengthen the team spirit to ensure adequate synergy in the implementation of the 2014 action plans.

We foresee renewed and greater focus and debate on such important issues as inclusion of economic data in some of our product screening outcomes. This latter focus on economic data helps us to greatly align project output with needs of the real beneficiary; the smallholder farmers.

This issue of “Quality & Yield” contains highlights of some of our partners activities based on all the project objectives.

Read the stories and send us your comments and articles for the next issue.

Dr. Cargele Masso  
**Project Leader**



*Participants at the recent follow up COMPROII country-level meeting at IITA, Lagos, 2-4 April 2014.*

## Nigeria aims for June 2014 deadline for regulatory mechanism as COMPRO II enjoys high-level support

*Story by Dr. Idayat Mudashir*

In May 2013, Nigeria formerly signed the sub-agreement that outlined specific areas of collaboration and commitments on the COMPRO II project. Eleven months on, a number of key promises made in the 2013-2014 work plans are beginning to take shape.

Progress in Nigeria has been boosted by the absence of a key challenge with many regulatory environments namely; multiple regulatory institutions and overlapping mandates.

National Agency for Food and Drug Administration and Control (NAFDAC) overarching mandate as a regulatory Agency, has allowed for faster consensus on key aspects of the COMPROII project.

“This is a particularly important aspect of the implementation as it avoids one of the typical regulatory challenges such a lengthy approval processes” notes Dr. Idayat Mudashir, who is the country representative for COMPROII activities in Nigeria.

High-level institutional support through the office Director General of NAFDAC, and growing commitment by other arms of NAFDAC such as the Directorate of Laboratory Services and Directorate of Veterinary Medicines and Allied Products has proved essential to the COMPROII work plan activities for this year.

“For us to succeed, a lot depends on the nature and scale of co-operation and assistance of all stakeholders involved in the project. In Nigeria, we are happy to note that this level of cooperation is evident from very high levels” said Dr. Cargele Masso, Project leader during a recent follow up meeting in Lagos. Dr. Masso also lauded the participation of N2Africa at the follow up meeting which, he noted, ensures synergies between IITA projects in the country. The objective 2 leader Dr Ado advised the need for research Institutions to collaborate and harmonize research work currently conducted on biofertilizer. In addition, other areas of collaboration between stakeholders of COMPRO II project include strengthening the laboratory capacity at the Institue of Agricultural Research, Ahmadu Bello University Zaria, training of laboratory technicians and NAFDAC inspectors.





*Reviewing progress and Planning for 2014. COMPRO II stakeholders in Nigeria discuss plans with the project leader.*

It was interesting to know that IITA has set up an inoculants plant to start preparatory work for formulating inoculants for Nodumax which is a legume technology to be handed-over to the private sector for dissemination in the near future.

During the meeting mentioned above, the Nigerian team also reviewed the 2014 action plan and developed an implementation plan that took into account the available resources. A crucial component of the meeting was agreement on a Monitoring and Evaluation framework and an effective risk management plan for the project activities.

While the road is still long, there is cause for optimism as NAFDAC is also in the process of addressing key challenges in laboratory capacity and accreditation. Riding on the 2013, WHO accreditation with recognized International Standard ISO/IEC 17025 of some of the Laboratory capacity, the stage is set for further improvements in other laboratory capacities that will significantly impact capacity for product screening and quality assurance and monitoring. A number of important targets are lined for 2014:

Our plans in 2014

- By June 2014, Nigeria plans to have in place the key components for an effective regulatory framework.
- Guidelines for registration of biofertilizer and biopesticides to be developed.
- Capacity building for Laboratory technicians and Inspectors to be scheduled in 2014.
- Development of Standard Operating Procedure for Laboratory testing, approval of the same and making them operational by the approved laboratories.
- On-Farm demonstration of product including Legumfix by dissemination partners Notore Nigeria Ltd to commence later this year.
- For 2014, we will target the following crops; soybean, groundnuts, cassava, and maize
- For 2014 the following inoculants will be part of our test products; Biofix, Nodumax, and local isolates
- Make ISFM a key factor for each commercial product and crop of interest for 2014



*From left to right: Dr. Angaw Tsigie, Innocent Okuku and Dr. Zebene Mikru*

## **Dissemination Partners in Nigeria, Uganda and Tanzania set outreach targets for new set of farmer and extension support manuals**

# **NIGERIA**

Innocent Okuku is convinced that Notore, the lead dissemination partner in Nigeria, will soon have a very farmer-oriented Manual and assorted extension support materials to support his work in informing farmers about the use and benefits of inoculating their soybean crop.

“We are looking at reaching at least 25,000 small holder farmers with information on inoculant this season, and the manuals and communications materials from this writeshop are crucial tools for our team of Village Promoters to reach the farmers” he explained.

Notore have set out an elaborate information outreach plan, from the recent manual production write-shop that aim to use the combination of print, radio and video approaches to reach their target farmers in the soybean producing areas.

“We believe that video has great potential as an extension support approach and we are very keen to use this approach in our dissemination work this season” said Innocent.

“It’s really great that we can count on the partnership of the Africa Soil Health Consortium to help us develop these videos as part of this dissemination plan” he explained alluding to the commitment made at the write shop to leverage the communications expertise ASHC as a key partner in the COMPRO II project.

James Watiti, Senior Communication Manager at CABI, confirmed this commitment. “One of the reasons CABI was identified as valuable partner in the COMPROII project, was because of its work in supporting knowledge sharing on integrated soil fertility management under the ASHC project. Over the last few years we have refined skills and expertise in supporting development of effective communication tools, approaches and products for partners”



*Andrew Msolla, from AFAP Tanzania works on the dissemination plan at the write shop*

## Association of Fertilizer and Agribusiness Partnership (AFAP), Tanzania

“We only recently concluded the signing of our sub-agreement under the COMPRO II project, but we already see how some of these manual content and materials can reach our farmers” explains Andrew Msolla, from AFAP, Tanzania.

AFAP plans to initially reach out to 80 extension personnel and up to 130 lead farmers with the manuals.

“We are anticipating that with the manual content and some of the other farmer-oriented communication products from this write-shop, these teams of extension personnel and lead farmers can help us reach up to 10,000 households by the end of the cropping season in 2014-2015.

AFAP plans to use, print and radio to disseminate the information. “Radio outreach potential is still very strong in Tanzania especially for local FM stations. We plan to develop and effectively use these potentially effective communication channel for these messages”. He explains.



*COMPROII MSc. Student, Johari Mohamed from Tanzania at work in the laboratory*

## Our MSc. students are working with more than seven commercial products

Dr. Susan Ikerra, the country representative for Tanzania is upbeat about the progress being made with building local capacity for product screening and monitoring.

“This year we have one PhD student and two MSc. students working on various products and crops” she explains.

One of the MSc. students, Deodatus Kiriba, is studying the effects of commercial chemical and microbiological products in the soil on maize growth and yields.

The other MSc. candidate Johari Mohamed (pictured right) is looking at the effectiveness of rhizobium inoculants commercial products on growth and yields of soybean and common bean grown on oxsoils in Morogoro region in Tanzania. The PhD. student Chrian Marciale, is looking at efficacy of Microbial pesticides against Tomato Pests and Diseases in Smallholder Farmers in Tanzania.

“I have received invaluable feedback for the Scientific Advisory Committee, which will sharpen my focus and yield better quality output from my work with biopesticides” confirms Chrian, after presenting his PhD proposal at the Scientific Advisory Committee in Kumasi, Ghana early this year.

“We recognise the importance of exposing some of our students real products in the market as part of building their capacity for effective product screening, evaluation and monitoring” she points out. As a result, this season’s crop of MSc. students will enable the COMPROII product screening activities to cover more than seven different commercial products” explains Dr. Susan Ikerra.





*From left to right: Tryphosa (A2N), James Watiti (CABI) and Dr. Angaw (EIAR)*

## Africa 2000 Network, Uganda

# UGANDA

Tryphosa Kwagala (pictured, left) from Africa 2000 Network in Uganda, is cautious but optimistic in her dissemination plans for the manuals and extension support materials.

“We do not have a very large number of extension personnel, so we will be using a combination of direct and indirect outreach with these materials” she explained.

Tryphosa points out that A2N plans to use its existing partnerships with such key players as N2 Africa in Uganda and the local high-outreach NGOs such as PIKWI to reach as many farmers as possible within the project area.

In addition, the team will take advantage of A2Ns network of farmer groups which can enable them achieve an outreach of upto 30,000 small holder farmers with the combined print and Radio approach.

“Our farmer groups regularly, bring together farmers and constitute a key information sharing outlet. If well combined with effective radio messaging and the work of extension teams and partners, we can ride on the power of word-of-mouth as well to achieve our targets, since farmer will always talk to their colleagues about new information they come across, especially from such popular media as local FM radio” she noted.



*Dr. Adugna Wajira, Deputy Director of the Ethiopia Institute of Agricultural Research formerly inaugurates the week-long write shop to develop farmer and extension support manuals and communications materials on 20 March 2014.*

## Farmer and Extension Manuals take shape

A recently concluded writeshop in Addis Ababa, Ethiopia, has set the pace for completion of the first set of COMPRO II manuals and extension support materials aimed at reaching small holder farmer with important information on the benefits, approach and quality information for rhizobium inoculants.

The write-shop which took place in from 20-25 March 2014, brought together more than twenty, scientists, researchers, Ministry personnel and extension teams from Ethiopia.

In addition to the Ethiopian teams, representatives of three dissemination lead partner agencies, namely Notore (Nigeria), Africa 2000 Network (Uganda) and Africa Fertilizer and Agribusiness Partnership (AFAP – Tanzania) participated in the writeshop.

Speaking at the inauguration of the writeshop, the Deputy Director of the Ethiopian Institute of Agricultural Research, Dr. Adugna Wakjira, reiterated the institute's commitment to partnerships that support increased sharing of knowledge in soil fertility and productivity in Ethiopia. He noted that the COMPRO II initiative was one of the strategic approaches to improve small holder productivity by providing high quality information on commercial products.

“Ethiopia has immense agricultural potential in key crops such as pulses, and the COMPRO II project, especially ongoing-going work in improving rhizobium inoculation outcomes is a great contribution to the government's Growth and Transformation programme (GTP) goals in the area of Agriculture” he explained.





## We want to reach 1 million farmers

Ethiopia set out an ambitious target to reach 1 million farmers with information on commercial biofertilizers for legume crops as part of their dissemination plan developed a recent write-shop organized in collaboration with Africa Soil Health Consortium and COMPRO II.

“Our aim is to use our extensive system of Farmer Training Centres, and the Development Agents to reach as many as 1 million farmers in pulse growing areas of Ethiopia with information.” Says Dr. Tesfaye Shimber, the Director for Soil and Water Research directorate at the Ethiopian Institute for Agricultural Research (EIAR).

Targeting, key pulse crops such as Faba bean, Chick pea, lentil, Soybean and field pea, the Ethiopian team anticipate that the manuals and other communications materials will be used by up to 25,000 Development agents and upto 35,000 lead farmers to effectively communicate the basic science and benefits of using inoculant on key pulse crops. These intermediaries are expected to eventually reach up to 1 million farmers.

Commenting on the outcomes of the Addis writeshop, Dr. Cargele Masso noted the innovative use of partnership to contribute to one of the key milestones.

“The partnership with Africa Soil health Consortium could not have come at a better time.” He said.

“The manuals that will come out of this process will be informed by a farmer-oriented approach and significantly increase the likelihood of us reaching our key target for 2014 in terms of number of farmers who are aware of biofertilizers as one of the key commercial products.”

The ambitious targets set by EAIR, received added support by the active participation of key stakeholders at the workshop including representatives from the Agricultural Transformation Agency, (ATA), N2Africa, and the Ethiopian Soil Health Consortium, Haramaya, and Jimma universities.

All stakeholders committed to support the outreach targets set by the team at the workshop.

“All the key partners are here, and we expected that under the coordination of the Ministry, and the extensive network of Farmer Training Centres and Development agents, these numbers are achievable” concluded Abebe Kirub, Director of Communications at the Institute.

Roel Merck (SAC Chairperson)

“The Scientific Advisory Committee is here to provide direction and advice to the project and we are proud of the level of commitment demonstrated by the members over the last few years.”



## Prof. Roel Merck re-elected SAC Chairperson

Bernard Vanlauwe (SAC Member)

“... IITA had recently gone through revision of strategy and soil microbiology now takes prominent position in the new strategy and therefore the COMPRO-II project is very important to IITA as it fits well with this new strategy”



Martha Byanyima (SAC Member)

“COMPRO II can learn from the regional experiences of COMESA in harmonization of frameworks and mapping of legislation.”



Vasey Mwaja (SAC Member)

“... This is a good opportunity to review objectives and identify those needing revision so as to enable the project achieve its intended purpose.”





## Learning with farmers in Western Kenya

### Coverage

- ◆ 480 farmers from 48 villages in Siaya county, Western Kenya

### Crops

- ◆ Maize monocrop, Soybean monocrop, MBILI intercropping systems.

### Products

- ◆ Biofix and legumefix are the bio fertilizers being used in the study.

### Expected outcomes

- ◆ Increase in maize production by reducing striga infestation through intercropping and using striga resistant and resistant maize varieties.

A collaborative research project between COMPROII and Paris School of Economics kicked off at the beginning of the rain season in Siaya county, Western Kenya in 2014.

Up to four hundred and eighty farmers will be involved in this initiative.

For the long rain season, of 2014, two hundred and forty farmers will participate in an elaborately laid set of researcher-designed, farmer-managed trials.

An additional two hundred and forty farmers will participate in the trials set for the short rains season later in the year.

Moses Thuita, a Post-doctoral, researcher directly involved in coordinating the project, explains;

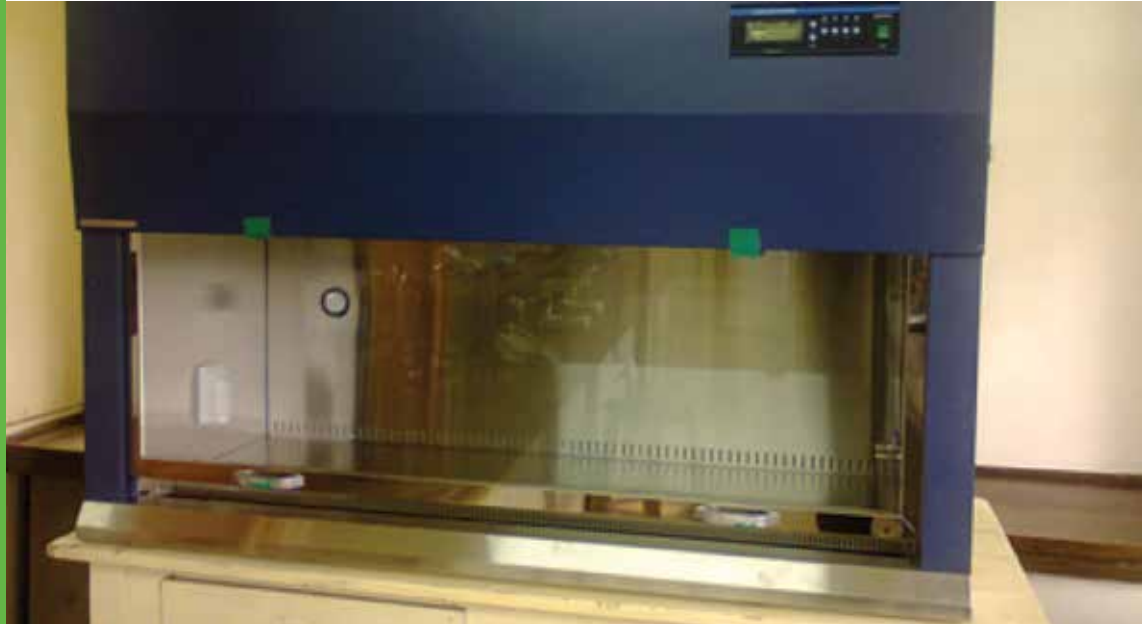
“One of our main objectives is to document farmers learning through experimentation, and its implications for technology adoption and agricultural productivity. We have put in place elaborate mechanisms including the production of five different manuals to guide the set up and management if these trials”.

The materials including the manuals given to the farmers explain the treatments combinations, application rates and quantities.

The broad goal of the project is to achieve sustainability in agriculture by increasing production, profitability, adoption and scaling up the use of Rhizobia products and mineral N and P sources on soybeans and maize under smallholder farms Siaya County, Kenya.

“I think one of the really great things about this initiative is that we will also have another chance to work with commercial products that exist in the market, to move the enquiry along from pure efficacy questions, to such issues as the mechanisms of action in the biofertilizers and possible ISFM options given variability of the soils. This information will be invaluable for other COMPROII target countries as well.





*A new Laminar Flow machine at the recently equipped Lab at Egerton University*

## Egerton University new role to help COMPROII activities in Kenya

“ We see this as a great opportunity to shorten the decision making timeframes since access to this information is now easier ”

Egerton University, which is the lead institution driving objective 2 on product screening, now sits on the Kenya Standing Technical Committee on Imports and Exports.

“By late 2012, this would have been ordinary news, but within the context of COMPRO II it is an immense opportunity to strengthen our work in the project” explains Prof. Nancy Mungai, an Associate Professor, of Soil Sciences, who is also the country representative for Kenya on the COMPRO II project.

Prior to admission into the KSTCIE, and overall assessment of the Universities laboratory capacity was conducted in October 2013.



*A new Autoclave Machine at the Egerton University Lab.*

“The products we are screening at University Laboratories are those approved by Kenya Plant Health Inspectorate (KEPHIS), who is also a key partner on the regulatory aspects of the project for Kenya.

“We see this as a great opportunity to shorten the decision making timeframes since access to this information is now easier”. She pointed out.

She further notes that the new role also allows the university to truly engage with key stakeholder who are directly involved in commercial product regulation in Kenya.

Prof. Mungai noted the timely laboratory equipment procurement supported by COMPRO II. “This could not have come at a better time”. She said.

Egerton university laboratories are among those selected to work on product screening and testing in the project.

Others include Laboratories at Makerere, University, Kwame Nkurumah university of Science and Technology, Ethiopian Institute of Agricultural Research, and Sokoine University.

COMPRO II SAC team members discuss key issues in the ongoing Laboratory capacity upgrading at Kwame Nkrumah University of Science and Technology (KNUST) in Kumasi, in January 2014, after a tour of the facility. From left: Dr. Bernard VanLauwe, Prof. Robert Abaidoo, Dr. Vasey Mwaja, Dr. Cargele Masso



## Approval or accreditation

There was consensus at the Scientific Advisory Committee and planning meeting, early this year to use the reference, ‘approved’ for laboratories that will be selected to participate in the COMPROII screening processes in the target countries.

“We should probably refer to the selected labs as approved rather than accredited because accreditation is a whole process in itself which may involve other external stakeholders” Said Dr. Idayat Mudashir.

The process of selecting participating laboratories envisages that an effective network of laboratories in the region will champion the products screening and quality monitoring work in the medium term, while building capacity to become credible agencies to conduct these type of work in their respective countries in collaboration with the main regulatory authorities.

Dr. Susan Ikerra, country representative for Tanzania concurred with these sentiments. “It is better to refer to approval as accreditation takes on very detailed work that is probably not what we are doing within the project context.

Referring to NAFDACs recent accreditation of part of its lab capacity, Dr. Mudashir noted; “An agency like NAFDAC only recently received WHO accreditation of some of its laboratory capabilities. The process was extensive and rigorous and even then only certain aspects of our capacity were accredited”.

“It is important to take into account this distinction, because given the timeframes for implementation of the COMPROII project milestones; we would prefer medium term laboratory recognition systems that allow the participating labs to be immediately active partners in the product screening and quality monitoring work.” emphasized Dr. Cargele Masso, the COMPROII project leader.

“Ultimately of course, we foresee a lot of these labs growing the capacity to such levels that they can pass the stringent requirements of international accreditation programmes” he concluded.

Laboratory capacity strengthening is a key milestone of the COMPROII project. Objective 5 and 2 of the project all incorporate, skills development as well as infrastructural and equipment upgrading for the selected labs that will participate in product screening work.

Significant progress has made with lab skills and equipment upgrading work at Egerton University (Kenya), Makerere University (Uganda), Kwame Nkrumah University of Science and Technology (Ghana), and Sokoine University (Tanzania).

“ We should probably refer to the selected labs as approved rather than accredited because accreditation is a whole process in itself which may involve other external stakeholders ”



Martha Byanyima  
(SAC Member)

## Learn from the regional blocks on harmonization, experts advice

Regional Economic Communities such as Common Market for East and Southern Africa, (COMESA), Economic Community of West African States (ECOWAS) and the East African Community, (EAC), are rich sources of knowledge for regional projects that have harmonization as a key component.

Martha Byanyima, a senior advisor at COMESA, informed the COMPRO II Scientific Advisory Committee, that a good number of ongoing initiatives on harmonization in the COMESA region, can inform the projects strategic alignment, especially with regard to effective linkages with regional policy processes that can have direct impact on national regulatory frameworks.

Noting that up to 4 target countries in the COMPROII project are within the COMESA trading region, she emphasized that need to take advantage of existing wisdom in regulatory issues.

“The region has good examples of regional initiatives that have successfully confronted similar challenges to the ones you have in the COMPROII project. Zambia, Malawi and Mozambique have dealt with Nacala corridor experience with Aflasafe registration and many other cases of best practices in mapping of legislation can complement the work of the project” she concluded.

Emmanuel Alognikou from the International Fertilizer Development Center (IFDC) echoed the message on the potential to learn from Regional blocks by sharing the experience of IFDC, with fertilizer regulatory frameworks in Ghana. He noted the importance of understanding regional policy and legislative processes, as well as identifying opportunities to move the regulatory agenda forward.



## COMPRO II PhD students share proposed study areas

COMPRO II – supported students outlined their research areas to the Advisory Committee meeting in Kumasi early this year. The students received invaluable critical feedback that should go a long way to improve both the research process but importantly enriching the quality of the analysis and findings.

Commenting on the overall quality of the students’ presentations, Dr. Roel Merck, chairpersons of the Advisory committee said “I think the students have a great resource among the members of the committee. They should make deliberate efforts to interact more frequently with the committee members as their research unfolds to improve the quality of their outcomes”.

### Details:

Name	Topic	Country	Course	Institution
Ruth Mukhongo	Integrating Bio-Fertilizers into Soil Fertility Management for Sweet Potato Production in Uganda	Uganda	PhD.	Makerere University
Ibrahim Aliyu	Effect of Rhizobial and Mycorrhizal Inoculation on Soil Biological Quality Indicators and Cassava-Groundnut Mixtures in Moist and Dry Savanna Ecologies of Nigeria	Nigeria	PhD.	IAR-ABU
Yifru Abera	Studies on Characterization and Evaluation of Indigenous and Commercial Soybean Nodulating Rhizobium Strains in Ethiopia	Ethiopia	PhD.	Addis Ababa University
Chrian Marciale	Efficacy of Microbial Pesticides against Tomato Pests and Diseases in Smallholder Farmers in Tanzania	Tanzania	PhD	Sokoine University of Agriculture
Jacob Ulzen	Mode of Action and Residual Effect of Some Selected Commercial Microbial Inoculants	Ghana	PhD	KNUST

For more information on the specific aspects of the student’s research, contact Dr. Cargele Masso, on [c.mass@cgiar.org](mailto:c.mass@cgiar.org)

‘Quality & Yield’ is the newsletter of the COMPRO II project. It is a quarterly publication that highlights key activities and experiences of the project. ‘Quality & Yield’ is produced and designed by CABI. We welcome short and medium length articles by project partners. Send your comments and articles to

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