

N2Africa Podcaster no. 31

May and June 2015

Introduction

While many N2Africa staff in some countries, both in Africa and elsewhere, taking hard-earned vacations, others are in full swing of the cropping season. That's the nature of such a broadly-based project as N2Africa – there are always exciting things happening. Fred Kanampiu and I have just returned from a visit to Tanzania with senior staff from the Bill & Melinda Gates Foundation which we report on below. It's always invigorating to discuss with N2Africa farmers and other stakeholders and understand their opportunities and how they are tackling difficulties they encounter. We're very grateful to Freddy Baijukya, the N2Africa Coordinator for Tanzania and his staff for organising a full and diverse programme for us.

In this Podcaster we are delighted to announce that two rhizobial inoculants, Biofix of MEA, Kenya and LEGUME-FiX of Legumetechnology, UK have been formally registered for distribution in Tanzania. Congratulations to Freddy

Baijukya and Cargele Masso of COMPRO for pushing this through. We also just heard that Legumetechnology have obtained registration for LEGUMEFiX in Kenya so things are really moving on the inoculant front! We have updates on staff changes, research on human nutrition in Ghana, on a new soyabean innovation platform in Tanzania, on N2Africa's partnership with 'Women for Women – WfW' an NGO in DRC, on new tools for data collection and the intranet portal, and on prizes received for excellent demonstrations at agricultural show in Kenya. Finally – on a less positive note please read carefully a short article I just wrote on "predatory open access journals" which are causing us problems!

For those who are off on leave we wish you all a pleasant and relaxing time – come back refreshed!

Ken Giller

Foundation Officers Visit N2Africa Activities in northern Tanzania

We were delighted to share some of the excitement of N2Africa in action with Sara Boettiger, Deputy Director for Agricultural Development (Farmer Services and Systems), her Program Assistant, Mallory Robinson and our very own Senior Project Officer, Charlene McKoin. Our visit began with a courtesy call to Hon. Daudi Felix Ntibenda, the Regional Commissioner for Arusha. He assured us that the Tanzanian Government is an active partner in all our activities in rural areas and wished us a productive visit.



Hon. Daudi Felix Ntibenda, the Regional Commissioner for Arusha shaking hands with Sara Boettiger, a Deputy Director at the Bill & Melinda Gates Foundation. Charlene McKoin is on the left, Mallory Robinson on the right.

Over the next two days, we visited farmer groups and individual farmers who work with N2Africa and partners in production and marketing of common bean in Hai and Moshi Districts, both on the slopes of Mount Kilimanjaro. The main entry points are two-fold: assistance with improved seed



N2Africa farmers at Sanya Station Village, Hai District with the foundation officers

inputs and demonstrations of better agronomic practices that enhance yields. N2Africa works closely with Faida Mali. an NGO that specializes in assisting farmers in marketing. The Director of Faida Mali. Tom Silavo introduced the farmer groups in the field and at the crop storage facilities of the Kware Saving and Credit Cooperative Society (SACCOS). The group had prepared a demonstration on the use District



Farmer winnowing common bean variety Uyole njano at Upendo, Moshi District









An impressive farmers' adaptation trial at Upendo, Moshi district. The plot in the foreground received no manure or fertiliser whereas the common beans at the back received PK fertiliser.

of Purdue Improved Crop Storage (PICS) bags to prevent post-harvest losses without the need for agrochemical treatment of the grain. The PICS bags have not been used earlier in this area and the farmers were very curious to see how they worked to kill storage pests such as Bruchid beetles.



Bernadette Majebelle demonstrating the PICs storage bags to Mwantumu Omari

We spent a lot of time discussing the opportunities and constraints with farmers. N2Africa is working with Farm Radio International and other partners to identify which common bean varieties have the best market opportunities. There is particular interest in a fast maturing, yellow, round-seeded common bean variety known as "soya njano" which fetches a premium price as it is very popular throughout Tanzania. Consumers particularly like this variety due to its good taste and quick cooking time, but above all because it causes less "gas" (flatulence). One lady farmer Mrs. Lenna, had experimented with growing *soya njano* on a small plot but was so impressed with the premium price she received that she had expanded to three acres in the current season.

Challenges that N2Africa had helped to overcome through the collective marketing were to get better prices for farmers.

In particular the farmers highlighted the use of standard measures as there are pervasive problems of fraud in crop marketing by buyers. The season was unusual (when is there a normal season?) with heavy cloud and rain persisting when the crop should be drying. Beans were badly affected by a range of fungal diseases - including powdery mildew (which the farmers call 'baridi' because it looks like frost on the leaves). This remains a challenge for N2Africa to address in future.

We were surprised that all of the N2Africa farmer groups spontaneously mentioned how useful they found the "Listening Post" programmes on Radio Free Africa. These programmes are the result of a very recent collaboration between Farm Radio International, N2Africa and other partners (see article below) and it was encouraging to hear the positive farmers response.



Opening of the glasshouse at NM-AIST

The final stop on the tour was to the Nelson Mandela African Institution of Science and Technology (NM-AIST), where Sara Boettiger together with the Deputy Vice Chancellor Prof Patrick Ndaki-





Harvesting beans from a demonstration at Upendo village, Moshi District

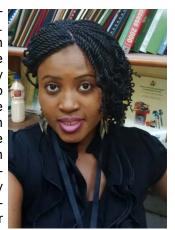
demi, officially commissioned the glasshouse that has been constructed with funds from N2Africa. The foundation delegates met N2Africa MSc student, Yusuphu Namkeleja who explained his work on rhizobium populations to better understand the need for inoculation.

Summing up at the end of the visit Sara Boettiger thanked Freddy Baijukya, Mwantumu Omari and partners for hosting the visit. She commented on the quality and scale of their work in implementing such a complex project as N2Africa.

Freddy Baijukya, Fred Kanampiu and Ken Giller

Introducing Ibironke Popoola

We have the pleasure of introducing and welcoming Ms. Ibironke Popoola, a Nutrition Research Associate in the Crop Utilisation Laboratory of IITA in Ibadan, Nigeria to N2Africa. Ms. Ibironke will be helping in N2Africa Nutrition activities under the guidance of Dr. Bussie B. Maziya-Dixon (IITA-Crop Utilization Scientist). She has been actively involved in the implementation of Nutrition and Consumer



research activities in Nigeria, Zambia, Sierra Leone and DRCongo. Prior to her appointment at IITA, she worked as a Research Assistant in the Dutch Agricultural Economics Institute – Landbouw Economisch Instituut, where she backstopped Research Scientists in the execution of research projects in the Food and Agriculture domain.

Ms. Ibironke holds a MSc. degree in Management, Economics and Consumer Studies (Management, Innovation and life Science specialisation) from Wageningen University and Research Center, Netherlands and a BSc. in Food Science and Technology from University of Agriculture, Abeokuta, Nigeria.

Fred Kanampiu

Peter Thorne taking over N2Africa Advisory Committee tasks from Alan Duncan

Alan Duncan is stepping down from his role in N2Africa. Alan will move from Ethiopia to Scotland to pursue a range of research and science management activities at University of Strathclyde and Scotland's Rural College while maintaining a link with ILRI. We are grateful to Alan for his wise counsel in his role in the N2Africa Leadership Team over the past years and in particular his very practical advice on interactions with livestock and on innovation platforms. We'll miss his dry sense of humour! We welcome Peter Thorne who will take over his responsibilities for N2Africa at ILRI.

We wish Alan and his family all success with their move back to Scotland.

Peter's background is in animal nutrition. He has worked on a range of issues relating to the interactions amongst livestock and other farming system components. Peter currently leads ILRI's USAID-funded AfricaRISING project on the sustainable intensification of mixed smallholder systems in the Ethiopian Highlands.

Ken Giller

The missing link

What started as an agreeable brain storming session, has, over time become the 'Bean Thinking' campaign to inform smallholder farming household members about good practices in common bean farming.

A group of public and private sector entities has joined with an array of initiatives into an innovative Legume Alliance. The Alliance, takes the partnerships N2Africa is involved in to the next level. The Africa Soil Health Consortium (ASHC) coordinates the Alliance, IITA-N2Africa, like the other members, have their niche roles. While the N2Africa related partnerships in the various countries will be further elaborated on in the next Podcaster, we can also look ahead with the Legume Alliance as a promising example of collaborative working which is further detailed in http://africasoilhealth.cabi.org/2015/06/03/tanzania-legume-campaign-planned-for-2015

Edward Baars



Leaving the mines for agriculture Published on N2Africa Facebook on July 2nd

N2Africa partnered with Women for Women in Kamituga (South Kivu, DRC). Together they offer the women from this region better opportunities in 'business' agriculture than they currently get from heavy work in the mines.

This story takes place in Kamituga (28 ° 10'55" E, 3 ° 3'19 "S, 1216 masl), a mountainous and forested region, located 180 km Southwest of Bukavu. The area is characterized by mining.



Site in Kamituga where BANRO SPRL (a private mining company) is in the exploration phase

Currently, agricultural production in Kamituga is almost all for self-consumption. Farmers are moving away from extensive crops (oil palm) to intensive crops like cassava and groundnuts. Only a small proportion of the local produce is sold. Underlying reasons for low commercial productivity are lack of arable land, repatriation and constant growth of the population. On top of that, farmers are seriously affected by the war and continuous insecurity in rural areas.

The problem for these impoverished farmers is that they have no alternative to supplement their income. Most of the

men are involved in mining and do not participate in agriculture. The women therefore deal with problems like lack of arable land, education of children and increased food insecurity. Therefore, these women are also obliged to leave their home villages and get involved in arduous toil in the mines. They really labour as beasts carrying and grinding stones. The women who carry stones are called "Hilux" and those grinding them are called "twangaises".



Twangaises carrying away the result of their grinding labour

Because the women from Kamituga are continuously marginalized and becoming more vulnerable, Women for Women (WfW) has chosen to extend its activities to this area. The vision is to achieve a situation in which nobody is abused, poor, uneducated or being marginalized. WfW provides skills and resources to women who survived wars, civil strife and other conflicts. The skills and resources help to overcome poverty and any other crisis for self-sufficiency, thereby promoting viable societies.

Through the partner WfW, 1800 women have been selected in the Agribusiness project in Kamituga. Four activities have been pointed out: capacity building, dissemination of legume crops (soyabean, bean, peanut), training on soyabean and cassava processing, and monitoring and evaluation.





Women Lead Farmers install demoplots in Kamituga.

On 10/03/2015 the demonstration field that involved 221 women was established. These women are the group of trainers who will train others on Integrated Soil Fertility Management (ISFM) and the dissemination of soyabean. From this training, other women from Kamituga were happy to know how much they can benefit when they move from subsistence agriculture to business agriculture. For them, the latter can be more promising than the heavy work they were used to in the mines.

Through the partnership between N2Africa and WfW, N2Africa discovered that in Kamituga soil fertility is highly variable. Due to erosion, some parts of the land have only a small amount of humus and colloids. This also results in leaching of mineral fertilizers. N2Africa disseminates different technologies to reduce erosion and increase the amount of organic residues for use after harvest.

Team N2Africa DRC
Jeanmarie Sanginga/ coordinator
Despines Bamuleke/ FLO/ Agronomist
Liliane Bahati/ Rhizobiologist Lab/ Kalambo



Do Ghanaian farmers produce what they need to eat?

In my PhD research I assess whether the food requirements of rural households in Ghana match with the food they produce. Therefore I need to know how much and which food the household members need for a healthy diet, and how much and which food they produce on their farm. To see what food is needed for a healthy diet, together with a team of scientists, research assistants and students1 I collected dietary intake data from 400 children between 6 months and 2 years old in Karaga district household in North Ghana in Northern Ghana. To see what food is produced, we collected data on what crops are produced and in what quantities during the previous year.

Currently, the 'golden standard' to measure dietary intake at population level is a quantitative 24 hour recall. To estimate dietary intake for young children, we asked mothers what their children ate the previous day from the time they woke up until the time they went to bed. We listed all dishes and for each dish. we measured the quantities of all ingredients used to prepare that dish. We collected data for young children because an adequate diet in this age period is extremely important for a healthy adult life. The dietary intake data for young children can then be used to extrapolate the food needed for other household members.



We combine the dietary intake information from the children with their nutrient requirements from the WHO in the linear modelling programme Optifood. Optifood then models the best possible nutrient adequate diet for these children based on commonly consumed foods and the quantities consumed of these foods. To see what and how much food a whole household needs, we use conversion factors2 to extrapolate the modelled best diet for young children to all other household members.

The table below shows the food needed for Abubakari's household (first column), how much of the food is needed (second column) and their reported food production (third column) per year. For example, you can see that this

household produces more maize than it needs, but also eats more maize than it needs (1125 versus 913 kg per year). However, maize does not contain all the required nutrients for a healthy diet and this household needs to eat other foods as well. Because part of the yield is sold, the income may be used to buy other foods which are needed but not produced.

Food	Total food needed (kg/year) ⁱ	Total produced (kg/year) ⁱⁱ	For consump- tion ⁱⁱ	For Sale ⁱⁱ	For seeds	For hired labour ⁱⁱ
Maize	913	1950	1125	750	75	0
Guinea corn	206					
Rice, brown local	160					
Groundnut	324	150	75	0	75	0
Cowpea, white	259					
Sesame seeds	68					
Soyabeans	0	525	225	0	75	225
Okro fruit	299					
Bra leaves	206					
Ayoyo leaves	114					
Tomato paste	75					
Onion bulb	44					
Fish anchovies	49					
Vegetable oil, fortified	70					

Modelled by linear modelling programme Optifood based on collected dietary intake data from young children

What are the next steps in this study? The example above of the best nutrient adequate diet unfortunately does not contain all nutrient levels as recommended by the WHO because the model is limited by the common foods that are consumed and the sizes of the portions. Therefore, we will add the N2Africa legumes (groundnuts, cowpea and soyabean) and/or higher portion sizes into the model. Finally, we will add other promising foods from the Ghana food composition table to the model to be able to simulate a diet that does contain all recommended nutrients. We will then have 3 different modelled diets: a locally best possible diet, a locally best possible diet plus N2Africa legumes, and a diet which covers all nutrient needs. By identifying the gaps between food that is needed and food produced, and comparing gaps for all 3 modelled diets, we can identify potential interventions both at farm and at consumption level for a more nutritious diet for all members of Abubakari's household and all other rural Ghanaian households.

Ilse de Jager

Data from field collection, in kg per year

¹ From Wageningen University, the Netherlands and the University of Development Studies, Ghana

²The conversion factors are based on household roster information and the nutrient requirements for all age groups from the WHO.



Improved access to tools and guidelines for data collection: Get that overview!

A new structure for the N2Africa intranet is online. Especially information on agronomy activities and data collection is now easier to find and access. Although only N2Africa staff can access the intranet, we also give others a look behind the scenes on how we structure and improve information flows in N2Africa.

It is the beginning of the season. Data collection is high on the priority lists of all N2Africa staff. There are input distribution lists, field books for adaptation trials, forms for diagnostic trials, surveys for agro-dealers and many more. But who does what? When should we collect these data? And where can we find the data forms? How should we fill them in? Do we have to take soil samples at this farm or not? And what about these new electronic devices on which we use Open Data Kit (ODK)? You can already see that data collection in a project such as N2Africa is not straightforward. We collect many different types of data, and every type needs to be collected in its own specific way.

We have already taken many steps to smoothen the data collection process. Data forms are simpler, there are accompanying guidelines and data collection on tablets will speed up data delivery. However, the variety of different data to be collected remains a challenge to those working

in the field. How will everybody get a clear overview of all data collection activities throughout the season and at the same time easily access the tools and guidelines?

The place to be is the updated intranet. From the homepage there is a direct link to 'Data and data collection', under which N2Africa field staff will find all links to the information that can guide them through the data collection processes, from pre-season to post-season. There is a new overview in which all N2Africa country coordinators and staff see what needs to be done, when it needs to be done and by whom (Figure 1). From there, all necessary tools, guidelines and protocols for the different types of trials and data collection activities are only a mouse click away.

The new Intranet structure is now online (http://www.n2africa.org/node/169: This link is only accessible after log into the N2 intranet.) Only the overview for the continuous collection of data for Monitoring and Evaluation is still pending. We invite all N2Africa staff to check out the new overview of what needs to be done during the season. We also invite you to let us know if and how we can improve. Last but not least, thumbs up for all those involved in data collection in N2Africa: you are the key to N2Africa's ability to learn from its activities!





Figure 1. Overview of data collection for the Adaptation trials as presented on the N2Africa intranet. This is part of the larger overview on data collection.

Greta van den Brand (*gretaj.vandenbrand@wur.nl*), Esther Ronner, Marcel Lubbers and Joost van Heerwaarden (*joost.vanheerwaarden@wur.nl*).

Do not hesitate to contact us in case you have questions or comments on the intranet!

N2Africa joins multi-stakeholder partnership to support soyabean sector development in Tanzania Published on N2Africa Facebook on June 22nd

"Partnership will address challenges facing farmers in the production and marketing of soyabean in the country"

An innovation platform that brings together all the stakeholders along soyabean value chain from farmers to government and non-government organizations and the private sector to address the challenges facing soyabean sector development in Tanzania was launched on 13 May 2015 in Dar es Salaam. Tanzania.

The platform was launched by Dr. Jackson Nkuba, assistant Director of Research and Development of the Ministry of Agriculture, Food Security and Cooperatives (MAFCS)

on behalf of MS Sophia Kaduma the Permanent Secretary (MAFC) at the end of a one and a half day meeting that brought together the stakeholders in the soyabean subsector to iron out the composition and functions of the platform.

The idea of forming a platform was initiated in December 2013 at the launch of the Catholic Relief Service (CRS) Soya ni Pesa Project, funded by United States Department of Agriculture (USDA) and implemented in three regions of Ruvuma, Njombe and Morogoro. "CRS is very pleased to see the launch of the platform and will continue to support the platform and the development of the soyabean sector



in Tanzania" CRS representative Ruth Junkin said in her welcoming remark.

Frederick Baijukya, the N2Africa coordinator in Tanzania noted that soyabean had great potential to make a difference in the livelihoods and nutrition of smallholder farmers in Tanzania. "soyabean can be processed in the home into food products which can improve the nutrition and in turn health of the communities and in particular of children. soyabean is a source of cash to farmers can also improve soils through fixing nitrogen in the soils."

Launching the platform, Dr. Nkuba noted soyabean production in Tanzania has been increasing steadily over the years with current annual production estimated at 5000 metric tons. The government soyabean sector strategy, he said, plans to increase this production to 2 million metric tons by year 2020.

However, he noted, even as the demand for soyabean increases, producers often fail to sufficiently meet market demand due to lack of access to inputs such as good seeds, rhizobial inoculants and fertilizers, to finance and markets, and lack of knowledge and skills of smallholder farmers on modern farming methods.

The message from the Permanent Secretary said "To address these obstacles we need to coordinate the efforts of all the different actors and development partners to have tangible and quick results. I am therefore pleased to see the formation of this innovation platform to promote the development of the soyabean sector in Tanzania. I am also very pleased to be selected as its patron."



Participants to the launch of Soybean Innovation Platform with Dr Jackson Nkuba, representative of PS, in suit on the front row

It is envisaged that the platform will enhance soyabean production in the country by facilitating learning and enhance information sharing among all the actors along the soyabean value chain, facilitate coordination of interventions and link different actors together. This in turn will lead to proper utilization of available and emerging opportunities.

The Soybean Innovation Platform is a joint effort made by Catholic Relief Services (CRS), International Institute of Tropical Agricultural (IITA), Ministry of Agriculture Food Security and Cooperative (MAFC), Rural Urban Development Initiative (RUDI), Kijenge Animal Products, TANFEED International, CARITAS Njombe, CARITAS Songea, WOPATA, MUVEK, Clinton Development Initiative (CDI), SeedCo and the Postal Bank of Tanzania. The formation of the platform was facilitated by CRS though the Soya ni Pesa Project and IITA through N2Africa.

Freddy Baijukya

BIOFIX and LEGUMEFiX inoculant products now registered in Tanzania

Inoculant products BIOFIX (from MEA Ltd - Kenya) and LEGUMEFiX (from Legume Technology Ltd - UK) are now registered in Tanzania as fertilizer supplements. This means that the two products can now be directly imported into Tanzania. Registration of these products follows efforts





Packets of BIOFIX and LEGUMEFiX inoculants

by the COMPRO-II project, which has collaborated with Tanzania Fertilizer Regulatory Authority (TFRA), N2Africa, and other stakeholders to develop registration guidelines for bio-fertilizers including rhizobium inoculants. The implementation of those guidelines was effective in October 2014. Together with the guidelines, standard procedures and laboratory methods for quality control of rhizobia inoculants are available. The soil microbiology laboratory at Sokoine University of Agriculture has been chosen for quality control on behalf of TFRA. COMPRO is investing in the lab to ensure the quality control of inoculants and for further research into beneficial microbiology products.

The BIOFIX and LEGUMEFiX inoculants have been proven profitable to soyabean producers through extensive field trials carried out by TFRA; Agricultural Research Institutions Uyole, Ilonga, Mlingano; and various projects including N2Africa, Soya ni Pesa by CRS and various projects funded by AGRA. In Tanzania, the BIOFIX inoculant will be marketed and distributed by MEA Ltd, while LEGUMEFiX will be marketed and distributed by Export Trading Group



(ETG). During the commercialization chain, the products will always have to comply with the labeling requirements prescribed in the registration guidelines for bio-fertilizers.

As the distribution of the product is important, MEA and ETG are now working on mechanisms to assure that small-holder farmers can access these inoculant products. On the other hand, COMPRO and N2Africa continue to sensitize

News from Legume Technology

Legume Technology has now achieved registration in Kenya and Tanzania. After several years of trials showing excellent results the LEGUMEFiX brand of rhizobium inoculants will now be available for commercial sales. It is hoped that LEGUMEFiX will be available to smallholders and commercial growers in both Tanzania and Kenya within a few months. Distributors are in the process of gathering market information and assessing the interest in our products so they can forecast sales and manage stock levels available for sale in both Tanzania and Kenya. Dr. Bruce Knight, the managing director of Legume Technology, has welcomed this news expressing his grateful acknowledgement of the

farmers on the use of rhizobium inoculants and to demonstrate its useful application. They do this in partnership with other initiatives including African Fertilizer Agribusiness Partnership (AFAP), Farm Radio International (FRI) and the Legume Alliance initiative by CABI-Africa Soil Health Consortium. The objective is to increase the demand of inoculants in order to grantee the markets for sustainable supply.

Freddy Baijukya and Cargele Masso

help and support received by Legume Technology saying; 'The results generated by the field trials carried out by the N2Africa and COMPRO projects were invaluable demonstrating the impressive yield improvements possible with a high quality inoculant.'

Further information including contact details for sales enquiries in Tanzania and Kenya will be made available in the near future.

Bruce Knight info@legumetechnology.co.uk / www.legumetechnology.co.uk

WeRATE R4D Platform Shines at the Agriculture Society of Kenya Kakamega Show

The Agriculture Society of Kenya (ASK) proved a great way to disseminate messages to farmers in the West Kenya Action Area shared by the N2Africa, Humidtropics and IFAD Cassava Projects. The Western Region Agriculture Technology Evaluation (WeRATE), an R4D Platform working closely with IITA, participated fully in this show, advancing its theme "Enhancing Technology in Agriculture and Industry for Food Security" through field demonstrations, sales of improved seeds and cuttings as well as other inputs, and exhibition of value-adding technologies. Numerous organizations from government, research, non-governmental organizations (NGOs), the private sector and others were also represented at this show running from 17 through 20 June 2015.

WeRATE set up a temporary One-Stop Shop during the show and sold over 600 kg of soyabean seed, 200 kg of Sympal fertilizer, 600 packets of BIOFIX legume inoculant and 1500 cuttings of improved cassava varieties. Additional

orders were received from farmer groups for the upcoming short rains growing season starting next September. Also sold was soyamilk and yoghurt, soya snacks, protein fortified flour and porridge, and soya-cassava cake. The exhibit was highly regarded by its 1242 registered adult (56% women) and over 2500 schoolchildren visitors, dignitaries and ASK Show judges. It was ranked First in the category of Best Agro-Based Processing and Second in Best NGO among the many other exhibitors. Conducting technology and product demonstration through the ASK show provides an excellent avenue for reaching farmers outside of our current network, providing a ready platform for a wide range of technologies, and we plan to rely upon this opportunity more in the future!

Prepared by Wycliff Waswa, Farm Liaison Office, WeRATE and Paul L. Woomer, N2Africa Project, IITA-Kenya, Photos provided by Wycliff Waswa



Soyabean varieties were demonstrated to farmers with and without the N2Africa recommended technology package.



School children visit the stand displaying and distributing nutritious snacks made from soyabean and cassava



WeRATE officers and staff proudly display their First Place trophy (center) and Second Place certificate (second from left)



Watch out for "Predatory Open Access Journals"!

The number of predatory journals is spiraling. A "predatory journal" is a fake journal that will publish just about anything written as long as you pay a fee. They have no proper peer-review or editorial procedures. Wikipedia provides a good description: see https://en.wikipedia.org/wiki/Predatory open access publishing

The problem for science is that the likelihood that such journals publish papers containing errors or falsehoods is much greater than where a rigorous peer review is done. Given that some reputable academics get fooled into putting their names behind such journals, those without a science training such as important stakeholders for N2Africa in farming or the business world have no way of knowing what to believe. For example, The *African Crop Science Journal* http://www.ajol.info/index.php/acsj/issue/archive is a reputable peer-reviewed journal edited by Prof J.S. Tenywa of Makerere University, Kampala, Uganda. By contrast the *African Journal of Crop Science* http://internationalscholarsjournals.org/journal/ajcr is a predatory publisher – despite the fancy website!

We see more and more of our young scientists publishing in predatory journals that have no proper refereeing procedure and basically do not count for their Curriculum Vitae. I think we need to be careful in guiding them and avoid such journals.

So how do you know if a journal is reputable? First, see whether it is listed in the ISI index. If it is not this does not

Reports uploaded on the N2Africa website

Joseph Mhango submitted his MSc thesis "Efficacy and competitiveness of indigenous Bradyrhizobia strains on soybean (Glycine max (L.) Merr.) productivity in Malawi" at Egerton University. We uploaded it on our website.

necessarily mean the journal is disreputable – for instance it could be a new journal that has not yet qualified for the ISI. Second, consult "Beall's list" on http://scholarlyoa.com/

Jeffrey Beall is a librarian at the University of Colorado Denver, USA who has published widely this topic. On his website he demonstrates how some publishers operate under fake addresses and highlights some really unbelievable scams. See for example the rewriting of Einstein's Equation $E = mc^2$ to $E = 1/22 \ mc^2$ published in the *American Journal of Physics* http://scholarlyoa.com/2014/06/17/science-publishing-group-publishes-junk-science/#more-3746. While this makes highly amusing reading, it of course calls into question all the other articles in journals from the same publisher, which gives a false address on it's website. In 2011 he listed 18 journals on his website – in 2015 this had grown to 693.

Please be vigilant and consider carefully before submitting any article. We have developed an N2Africa Guideline for Publication which could help – see http://www.n2africa.org/content/n2africa-—guidelines-co-authorship-publications. Think carefully about the audience you want to target, and if in doubt seek advice from the N2Africa team who will be pleased to assist. I am aware of at least four articles based on N2Africa funding that are already published in predatory journals! We want to ensure you get the very best route for communicating your results.

Ken Giller

2016 PanAfrican & World Cowpea Conference Update

The dates of the conference have been confirmed as 28 February - 4 March 2016. Further information can be found in the first announcement.

ANNOUNCEMENTS

Free online Summer course on the Future of Crop Production

It is still possible to participate in the Wageningen University MOOC "Future Food Production: Crops" made available on edX. There is no fee and it is open to all who wish to join. Follow this link to register: https://www.edx.org/course/future-food-production-crops-wageningenx-gffcx. Subscription is possible until September 15th.

ADVANCE II Newsletter

We received the "ADVANCE II Newsletter" June Edition. This quarterly newsletter informs you about progress, impact and successes of the ADVANCE Project. Also shared is news of how a female farmer is improving her farming operations thanks to project support, how FBOs are being strengthened, how mechanization services are being improved in Northern Ghana and many more..

Humidtropics Newsletter April-June 2015

Humidtropics sent us their latest newsletter with lots of interesting information.



ECOLEG: Ecosystemic Services Of Legumes In Agro-Ecosystems

ECOLEG: is confirmed to take place in Agropolis Montpellier Campus La Gaillarde, between august 24th and 28th, as final meeting of the GPF fabatropimed, and as an international symposium on the topic.

Objective

Fewer inputs and lesser dependency on chemical control of diseases become of paramount importance for the safety and impact on the environment. This implies new requirements with regard to the incorporation of legume species in agricultural systems and in forestry, including agro-forestry. Promoting the interaction of soil micro-organisms for legumes to acquire and use efficiently nitrogen (N) and phosphorus (P) will reduce the use of mineral-based fertilizers and increase carbon-dioxide sequestration. In addition, because of the high protein content of their seeds, grain legumes are attractive candidates for the plant-protein demand which has increased considerably over the last decades, both for food and feed uses.

For these purposes the components of an interdisciplinary strategy of research and participation of actors are proposed: Agronomy and environmental diagnosis, and sustainability assessment; N & P biogeographical cycles and C sequestration; Soil biota, symbiotic and rhizospheric microorganisms; candidate mechanisms and genes for N & P utilisation efficiency in plants. The objective of the meeting will be to revise the results obtained in these disciplinary fields over the last 5 years in PhD projects, on-going or yet defended in the above disciplines, and in multidisciplinary projects, including those coordinated by Eco&Soils of Montpellier like Intens&Fix and FabaTropiMed.

Tropical Soybean Information Portal and Soybean Innovation Lab (SIL) June Newsletter

Dr. Peter Goldsmith sent us some information on the new Tropical Soybean Information Portal as well as their newsletter.

The Tropical Soybean Information Portal (TSIP) is a one-stop data and information shop for the global community of researchers, extentionists, and private sector managers working in the soybean value chain. The site is still small, but we hope it grows to be an invaluable resource for soybean practitioners everywhere. The site is highly interactive so all materials are downloadable, and we welcome contributions. There is a Wiki page for tropical soybean terms and concepts, a video platform for webinars, and a curated database of research articles and reports. TSIP contains the largest online varietal trial information in sub-Saharan Africa. So check it out, give us your comments, and start contributing.

TSIP does want to thank their initial funders at USAID and Feed the Future. They couldn't have done this without their support.

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