

# RUFORUM MONTHLY

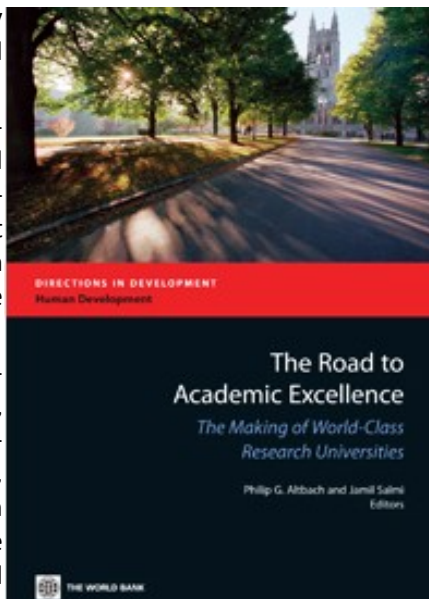
The Monthly Brief of the Regional Universities Forum for Capacity Building in Agriculture

## THE ROAD TO ACADEMIC EXCELLENCE: THE MAKING OF WORLD CLASS RESEARCH UNIVERSITIES

Building world class research universities is significantly more complex than many countries estimate, new World Bank report. Below find captions from the Press Release.

Washington — In a global economy that depends on sophisticated innovation and knowledge to drive growth and wealth, a new World Bank report on higher education suggests that low- and middle-income countries should resist the temptation to establish world-class universities to cash in on research earnings and court global prestige before educating their own citizens to high tertiary standards.

According to the new report, *The Road to Academic Excellence: The Making of World-Class Research Universities*, which charts the experience of 11 leading public and private research universities in nine countries from Africa, Asia, Latin America, and Eastern Europe, elite research universities are outpacing the smartest companies in the world with their original research. In one recent global study on new patents, for example, leading universities and research institutions are driving more scientific strides in biotechnology than private companies and firms.



The new report concludes that top-performers in the research university world share three common characteristics, without which 21st Century universities cannot survive, let alone, excel: a high concentration of talented academics and students, significant budgets, and strategic vision and leadership.

"Looking at the elite research and grant money cascading out of world-class universities, as well as their new thinking in the humanities and social sciences, you can certainly understand why countries might think that a top-flight research institution is all that stands in their way of reducing poverty, leaping forward in their national development, and establishing new footholds in the global knowledge economy," says Dr. Jamil Salmi, the Bank's Higher Education Coordinator, and a co-author of the new report. "But this decision cannot be simply tactical. It must be a long-term strategic decision that aspiring countries take, weighing all the facts, while banishing any notion of fast results."

In most cases, world-class universities have students and faculty who are not exclusively from the country where the university operates. This enables them to attract the most talented people, no matter where they come from, and open themselves to new ideas and approaches. Unquestiona-

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- *RUFORUM Monthly* provides information on activities of the Regional Universities Forum for Capacity Building in Agriculture.
- This *Monthly Brief* is available on the last week of every month ■

## ANNOUNCEMENTS

**World Hunger Day** 28 May, 2012, London, United Kingdom

**International Conference on Science Agriculture and Engineering.** Omoku-Nigeria. September 3-7, 2012

**3rd RUFORUM Biennial Conference.** 24 – 28 September 2012. Entebbe, Uganda

**Conference 2012: Growing the Bioeconomy – Social, Environmental and Economic Implications.** 2 - 5 October 2012, Banff, Alberta, Canada

**Training of Trainers on Climate Change Adaptation for Agriculture & Natural Resource Management.** October, 2012

**Southern and Eastern African Association for Farming Systems Research – Extension (SEAFSRE) 11th Regional Conference.** 19-21 November 2012, South Africa

More information on RUFORUM activities can be accessed on the RUFORUM BLOG at <http://ruforum.org/a/ruforumblog/>



## THE ROAD TO ACADEMIC EXCELLENCE: THE MAKING OF WORLD CLASS RESEARCH UNIVERSITIES

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bly, the world's best universities enroll and employ large numbers of foreign students and faculty in their search for the most talented. In this respect, the fact that world-class universities succeed in mobilizing a broadly diverse national and international academic staff is likely to maximize these research institutions' knowledge-networking capacity.

#### It Costs Millions

Another conclusion from the new Bank study is that building and operating world-class universities can cost millions of dollars. For example, the authors show that in late 2007, Saudi Arabia announced plans for a new \$10 billion graduate research university; Pakistan plans to spend \$750 million for each of its new universities of engineering, science, and technology during the next few years; and the School of Medicine established by Cornell University in Qatar in 2002 costed \$750 million. The availability of abundant money and international prestige creates a virtuous circle that allows elite universities to attract more top professors and researchers, as is often the case for leading U.S. colleges.

Recent years of global economic crisis, though, have significantly affected research universities, potentially boosting East Asia's universities. East Asian countries have weathered the economic storm better than their Western counterparts, as they seek to join the top ranks of the global research elite. For example, India has increased its higher education investment by 31 percent since 2010, and China has continued to fund its excellence programs in support of the nation's leading universities.

#### Vision and Leadership Matter

Although unlimited money and attracting the world's best and brightest students and teachers helps strengthen a country's bid to create a world-class university, strategic vision and leadership are also vital, without which national aspiration to a world-class university ranking falls short.

According to the new report, world class universities thrive in environments that foster competitiveness, unrestrained scientific inquiry and academic freedom, critical thinking, innovation, and creativity. Moreover, institutions that have complete autonomy are also more flexible because they are not bound by cumbersome bureaucracies and externally imposed standards, even in light of the legitimate rules and statutes that bind them. As a result, they can manage their resources with agility and quickly respond to the demands of a rapidly changing global market.

"To make the grade, you also need inspiring and persistent leaders, a strong strategic vision of where the institution is

going, a philosophy of success and excellence, and a culture of constant reflection, organizational learning, and change. On top of that, you can't be impatient, either," says Professor Philip G. Altbach, Director of the Center for International Higher Education at Boston College, and a co-author of the new Bank report.

The report says that not every country needs comprehensive world-class universities, at least not while more fundamental tertiary education needs are not being met. Many countries, it adds, would be better off initially focusing on developing the best national universities possible. For example, higher-level research institutions in Sub-Saharan Africa that are equipped to provide quality education and conduct relevant applied research can play a key role in training skilled workers to be fluent in the latest technologies and apply them in industries to make a broader range of products that win customers worldwide.

"Good-quality tertiary education is also key to stimulating innovation, from producing new varieties of crops and sources of energy that can speed progress toward reducing poverty, achieving food security, fighting disease, improving health, and creating new jobs," says Ghana's Education Minister, the Honorable Betty Mould-Iddrisu.

In the foreword to the new report, India's Minister of Human Resource Development, Dr. Kapil Sibal, writes that the ultimate test of modern research universities is whether they can be flexible enough to encourage learning across disciplines and to harmonize education with the needs of society. Innovation, he writes, is seen as the mantra for development, "a realization so pervasive that nations are scrambling to create institutions and organizations that would facilitate the process of knowledge creation."

For more information on the new publication, Please visit <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTEDUCATION>.

#### KEY MESSAGES

The case studies presented suggest that a faster and more effective approach to achieve world-class university status is to establish a new institution.

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New universities can grow into high-quality research institutions within two or three decades when talent, resources, and governance are adequately aligned from the beginning

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Outstanding research universities do not operate in a vacuum; they evolve from a tertiary education ecosystem which affects the performance of individual institutions.

## STRENGTHENING AGRICULTURAL INFORMATION COMMUNICATION MANAGEMENT (AICM): A Focus on the AICM Regional Program at University of Nairobi (UoN)

The regional Master of Science in Agricultural Information & Communication Management (MSc AICM) program at the University of Nairobi (UoN) is one of RUFORUM's success stories that shows how the RUFORUM initiated Regional Programmes could be institutionalized by the RUFORUM member universities. UoN has been offering the MSc AICM Program since 2008 and this is the 3<sup>rd</sup> intake with a total of 12 students. The 1<sup>st</sup> intake had 13 students who have graduated. The 2<sup>nd</sup> intake had 12 students and they are all finalizing their research. The current intake began their studies in October 2010 and hope to graduate in September 2012. Four of the students are taking the thesis option of the programme and eight are taking the project option. The students expect to begin their research in October 2011.

RUFORUM's vision for the AICM programme is to develop a new cadre of agricultural professionals that can support the innovative use and application of ICT tools for the improvement of how agricultural knowledge and information is communicated, shared, disseminated and managed.

Recently some of the students under the AICM program at UoN shared their experiences and expectations from the AICM programme. All the students indicated that the main reason they enrolled for the programme was because of its uniqueness. The following are brief profiles of the students, their reasons for enrolling into the programme and what they hope to achieve after being trained:



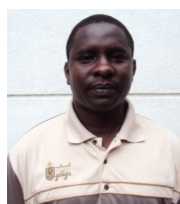
**Jane Njeru:** She is the Class Representative and works with the Kenya Ministry of Agriculture in the Extension Department. Her background is in Agriculture and what she hopes to achieve from this program is skills in Knowledge Management of Information in Agriculture. The reason she applied for this program was to enhance her knowledge in improving the access of information to farmers.



**Emmanuel Katali:** He has a background in Agriculture and is currently working with a publishing house. He hopes to get exposure/experience in publishing Agricultural materials and information. He applied for this programme because the development of content in Agriculture is lacking and he would like to widen his knowledge and support Agricultural Publishing.



**Dorine Odongo:** Prior to her enrollment for the course, she was working at the Kenya Agricultural Research Institute (KARI) as a Research Officer. Her background is in Biological Sciences. The experience working with farmers gave her an appreciation of the gap that is there between farmers and agricultural technologies and the need for information to reach the farmers.



**Kimathi Ngari:** His background is in Agriculture and he is working at the Kenya Ministry of Agriculture. He applied for this course because he would like to improve communication between farmers and extension services. He hopes that the programme, through use of interactive website as a tool of communication will facilitate linkages with other students to help in sharing ideas on research.



**Patrick Kirim:** Works with the Kenya Ministry of Agriculture as an extension worker. He has been in this field for 15 years and hopes that this programme will improve his skills in creating linkages between research and farmers. Patrick appreciates the link between ICT and improving information delivery and marketing of agricultural products and services.



**Joseph Gogo:** He is currently unemployed. His background is in Animal Science. He hopes that this programme will enrich his skills in management of agricultural resources. He hopes to apply his skills to improve knowledge management, communication and public relations.



**Lydia Nyambok:** She was one of the top students in her class of Agricultural Economics. She works in the Agricultural Education and Extension Department at University of Nairobi (UoN). She hopes that through this programme she will improve linkages between extension and farmers.



**Duncan Marigi:** He works with the Kenya Ministry of Agriculture at the Planning and Policies Department. He applied for the AICM programme because he believes that communication and knowledge manage-

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## STRENGTHENING AGRICULTURAL INFORMATION COMMUNICATION MANAGEMENT (AICM)

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ment is the way to strengthen the agricultural sector.



**William Hamisi:** He taught agriculture at high school and agricultural college levels and now works at the Kenya Ministry of Agriculture dealing with parastatals. The reason he applied for the program was because he felt there was a missing link between what agriculture extension know and what is disseminated and would like this information and knowledge to be shared effectively.



**Johanesh Makodiah:** He has a background in Agricultural Engineering and Agricultural Education and Extension. He has worked with the Kenyan Ministry of Agriculture for 18 years as an extension officer before moving to the current employer, World Vision Kenya as a Food Security Officer in 2005. He hopes that this program will add value to his job by impart-

ing skills of knowledge transfer to the different players along the agricultural value chain.



**Francis Nganga:** He has worked at the Kenya Ministry of Agriculture since 1985. He applied for the program because the course was different and he wanted more information, knowledge and skills to disseminate agricultural information. He recognizes technological development and the potential use of the ICTs in agriculture. He is also keen to see that the e-learning approach is used to deliver the MSc AICM Programme.



**Pauline Mburu:** She works at the Kenya Agricultural Research Institute (KARI) as a librarian and has a background in information science. She applied for the program because it is relevant to what she is doing. She advises that the course could be better marketed or advertised.

**11 of the above students are self sponsored and 1 (Lydia) is sponsored the University of Nairobi.**

## MOI UNIVERSITY STUDENTS EXECUTE A SECRET ACT OF APPRECIATION



Above: Some of the students singing a welcoming song at the appreciation party

Former and current students of Moi University, mainly FORUM and RUFORUM students, Chepkoilel Campus, Soil Science Department chose the 24<sup>th</sup> of July 2010 as a day to appreciate their “academic fathers”. They had teamed up in secret for a while to see that the event succeeded. The students networked across continents with a lot of dedication and commitment. Professor Caleb O. Othieno and Professor John R. Okalebo are not just role models to soil science students fraternity but also academic fathers. Together with the students, they have worked as a team and made their flag to fly high in the entire University and worldwide. It was amazing to

hear the students in their speeches express how the two Professors had made an impact in their lives by nurturing and shaping them to be soil scientists that strongly embrace the words “Soil is wealth protect it”! They chose to show their gratitude through a party, presentation of gifts to the two professors and their families.

Success of this noble task of the two academic fathers has diversified the potential of their students in Kenya, Africa and beyond. From the students supervised by the professors, 98% have secured jobs locally and abroad. A key note from one of the students emphasized the honesty and kindness of the two Professors in disbursing student based funds for research and stipends.

The students demonstrated their basics of Soil Science by presenting a soil profile cake which was described by one of the upcoming soil scientist. The sharing of the cake was crowned by describing the Professors as parent materials (C Horizon) and the students being soil forming from them (Upper Horizons).

Finally the Professors with their faces radiant with joy, gave speeches commenting that the students can fit well in Criminal Investigative Department (CID) for having kept this secret act of appreciation from them. Also they said the students have kept them young by keeping them very busy.

## HIGHLIGHTS OF MOI UNIVERSITY OUTREACH AND CARP PROJECT ACTIVITIES

The Community Action Research Programme (CARP) was initiated by RUFORUM in 2009 as a mechanism to enhance the ability of universities to improve the relevance and effectiveness of agricultural education at African Universities. The Programme builds on the RUFORUM Graduate Research Grants (GRG) that focuses on field based research and training for MSc students offering university staff opportunity to, among others, gain experience at managing research grants, strengthen student supervision and mentoring and developing and delivering knowledge and innovations (as evidenced in peer reviewed publications) that respond to small-holder farmer needs. The CARP provides an opportunity for more comprehensive and sustained action research studies concentrated on particular geographical areas or on selected commodities. The approach in either case is on enhancement of value chains, strengthening student training, responding to farmer problems through action research, and improving feedback of these experiences into university curricula for future training. It is expected that sustained action at postgraduate level will spill over into curricula at African universities and similarly enhance the capacity of teaching staff to innovate and subsequently enhance training capacity

### Inception Workshop

A Project Inception Workshop was held in March 2011 at Chepkolel University College (A constituent College of Moi University). The theme of the Workshop was 'Shifting from Teaching to Experiential Learning'. The workshop was attended by different stakeholders. The workshop objectives were to:

1. Provide an opportunity for participants to develop a common, accurate and up-to-date understanding of problems related to agricultural production
2. Learn about various experiences on outreach strategies among different stakeholder categories
3. Review university training, research and outreach programs in order to identify opportunities for integration of experiential learning into the curriculum,
4. Identify priority actions and activities for the improvement of agricultural productivity in Western Kenya
5. Recommend on how to initiate and promote experiential learning approaches in the Faculties/Colleges of agriculture in the targeted universities
6. Map a way forward to strengthen linkages between different stakeholders in agriculture

### Fertilizer performance trials (CARP)

Western Kenya soils are considered inherently deficient in important macronutrients especially, P and N and yet use of fertilizers to replenish fertility and increase crop yields is indispensable. Use of fertilizers is one of the technologies

set for out scaling in the CARP project. Fertilizer performance trials were set in the first week of April 2011 at the Farmer Associations of Teso (AFDEP), Bungoma (BUSSFO), Vihiga (MFAGRO) and Busia(ARDAP). This uniform field trial was intended to determine which available fertilizer performs best on maize and inoculated soybean. Soil samples were taken for laboratory analysis. Farmers, students and Project team members participated in the planting of the trials and field day as shown in the photo below.



In the trial, five fertilizer types viz; CAN, TSP, DAP SYMPAL +KS and CANPAL each at  $125 \text{ kg ha}^{-1}$  were compared against the control on either soybean or maize. Statistical analyses yielded no significant differences ( $p < 0.05$ ) among all the fertilizer types at all sites meaning that the fertilizers were equally good. Likewise, in Bungoma, crop yields obtained under different fertilizer types were not significantly different from the control. This suggested that at these sites, it may be uneconomical to use inorganic fertilizers. Thus integrated approaches using organic materials and/or incorporation of legumes into the system would be much more economical. However, these observations are only preliminary and thus justify setting up of field experiments to prove them. The preliminary fertilizer trials highlighted 2 possibilities:

1. Farms had heterogeneous soil fertility and identifying true crop limiting factors requires much more than simple crop experiments
2. Before planting the fertility experiments scheduled for the 2011 short rains (SRs) it would be worthwhile to track the cropping history of the farms to avoid making wrong conclusions.

### Reconnaissance survey

In the month of June 2011, a reconnaissance survey was held at the Farmers Association's level. During the reconnaissance survey, the Project team held discussions with the management and members of the Farmer Associations with the aim of presenting them with the Project

*(Continued on page 6)*

## PROFILING SOME OF RUFORUM RESEARCH OUTPUTS



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**University:** Makerere University

**Program:** Crop Science (Plant Biotechnology)

**Funding Agency:** RUFORUM

**Year of Graduation:** 2010

**MSc Thesis Title:** Introgressing resistance to *Fusarium* root rot into andean bean genotypes from meso-american variety and mapping of associated resistance Quantitative Trait Loci

**Key Words:** *Fusarium* root rot resistance; quantitative trait loci; recombinant inbred lines

### MSc Thesis abstract:

Resistance to *Fusarium* root rot in common bean (*Phaseolus vulgaris* L.) has been determined to be a quantitative trait. The objective of this study was to identify quantitative trait loci that condition resistance to *Fusarium* root rot in one good source of resistance (MLB-49-89A). Two populations of 62 and 90 F<sub>4:5</sub> recombinant inbred lines (RILs) from K132 x MLB-49-89A and K20 x MLB-49-89A respectively, were evaluated for *Fusarium* root rot resistance in the screen house. Disease symptoms were evaluated at 28 days after planting (DAP) using a 1-9 disease scale. Both single marker analysis and composite interval mapping were used to detect the Quantitative trait loci (QTL) in the K132 population and only single marker analysis on the K20 population. Single marker analysis identified two closely linked Simple sequence repeat (SSR) markers (PVBR87 and PVBR109) as being significantly associated

with *Fusarium* root rot resistance ( $P < 0.0001$ ) in the K132 population. Composite interval mapping detected a major QTL in K132 population between PVBR87 and PVBR109 with a LOD score of 6.1 and coefficient of determination ( $R^2$ ) of 34%. Also, PVBR87 and PVBR109 that were significantly associated with *Fusarium* root rot resistance in K132 population, also showed significant associations ( $R^2 = 14\%$ ,  $P < 0.001$ ) in the K20 population. The identified QTL could facilitate marker-assisted selection for *Fusarium* root rot resistance in common bean after validation in other mapping populations.

### What I have been doing after the MSc study

I am pursuing a PhD study in Plant Breeding, Genetics and Biotechnology at Michigan State University in the USA. I secured the Michigan State University PhD admission because of the high quality of the MSc thesis I obtained from Makerere University. After graduating from Makerere University and prior to my PhD studies in the USA, I served as a lecturer at the University of Zambia. During the one year stay at University of Zambia after the MSc study, we developed a proposal and got a grant from Alliance for a Green Revolution in Africa (AGRA) for supporting MSc training in Plant Breeding and Seed Systems for the SADC region. I am currently on a PhD study leave at a Michigan State University in the USA. I thank the University of Zambia for granting me this study leave.

### My current and future interests and how I plan to pursue this path

My focus now is to successfully complete my PhD study. There after I will return to my teaching/research position at University of Zambia. My hope is that together with my colleagues at University of Zambia we will strengthen graduate training in the Department of Crop Science at University of Zambia, and work closely with other universities in the region and RUFORUM alumni.

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objectives and identifying the appropriate technologies to be tested and promoted by the Project. The fields where the experiments would be carried out were also identified. Enumerators and project cooperators formally reviewed the survey questionnaire in Vihiga district as show in the photo the below.

### Short rains field experiments

After students developing proposals with supervisors, short rains 2011 field experiments were planted replicated thrice at three farmer associations (AFDEP, BUSSFO and MFAGRO) selected sites. The aim is to assess Nitrogen dynamics of soil fertility technologies of a maize –legume system and the performance of different cowpea grown under different soil management technologies in Western Kenya.



Above: Project team hold discussions with the management



## PROFILING SOME OF RUFORUM RESEARCH OUTPUTS



**Gender:** Male  
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**University:** Makerere University  
**Program:** Plant Breeding and Seed Systems  
**Funding Agency:** SCARDA – ECA  
**Year of Graduation:** 2011  
**MSc Thesis Title:** Inheritance of resistance

to rice yellow mottle virus disease in rice in Uganda

**Key Words:** RYMV, NERICA, GCA, SCA, SSR markers

#### MSc Thesis abstract:

*Rice Yellow Mottle Virus sobemovirus* (RYMV) is highly variable and several resistance-breaking strains have been identified. This makes breeding for durable resistant very complicated since a variety proven to be resistance to the dominant strain in one location may succumb in another location where a different strain exists. One strategy to improve the durability of RYMV is to pyramid genes for both complete and partial resistance. However, the appropriate sources of resistance to RYMV need to be identified and characterised. In this study, the mode of inheritance of resistance to RYMV strain in Uganda was determined for nine (9) parental lines that had been recently introduced into the rice breeding program. Five of these have been reported to be resistant to RYMV and include upland NERICA varieties 8, 11, 12, 13 and an *O. Sativa* lowland variety, Gigante, while three lowland NERICA's, 4, 6, 10 and IR64 (an *O. Sativa* lowland variety), are susceptible. RYMV inoculum was collected from three main rice growing areas in Uganda that represent —hot-spots for RYMV disease. These were Iganga in Eastern Uganda, Lira in Northern Uganda, and Luweero in Central Uganda. When the isolates were tested on RYMV susceptible cultivar (IR64), preliminary results indicated that the isolate from Iganga (in Eastern Uganda) was most virulent, and was thus used in this study. The several isolates that were collected are presently being characterised. Four patterns of reaction to RYMV were observed among the cultivars; (a) four highly susceptible lowland cultivars (N-4 lwl, N-6 lwl, N-10 lwl and IR64 lwl) showed severe symptoms, (b) one susceptible upland cultivar (N-12) had moderate symptoms, (c) three moderately resistant upland cultivars (N-8 upl, N-11 upl and N-13 upl) had mild symptoms, and (d) a resistant lowland cultivar (Gigante lwl) had very mild RYMV symptoms. A full diallel mating design was used to generate F1 and F2 progeny. Segregating F2 progeny were planted in both field and screen house in an  $\alpha$ -lattice design, and inoculated by standard mechanical procedures. GCA effects were significant ( $P < 0.001$ ), and were larger than SCA effects. Both the field and screen house experiments expressed strong genotypic differences. GCA, SCA and reciprocal effects were significant in both experiments ( $P < 0.001$ ). The narrow sense

coefficient of genetic determination based on genotype means was relatively high in both screen house (76%) and field (84%) experiments. These results suggest that additive gene effects were more important than non-additive effects, and that selecting as early as F2 or F3 generations can be effective. However, the fact that reciprocal effects showed a consistent tendency of F2 progeny to reflect the resistance level of the female parent indicates the need for careful choice of male and female parents in hybridisation programs to achieve RYMV resistance in the offspring. The *Chi*-square analysis of phenotypic evaluation confirmed the 3S:1R ratio of a single recessive gene in the cross IR64 (susceptible) x Gigante (resistant) and a two-gene ratio of 13S:3R in the cross N-4 lwl (susceptible) x N-11 upl (resistant). Additionally, chromosomal segments reported to be linked to a resistant gene for RYMV were screened using appropriate SSR markers. Of the 17 SSR primer pairs used, 7 (41%) were polymorphic between RYMV resistant (N-11 upl) and susceptible (N-4 lwl) parental genotypes. Results from three markers chosen for evaluation matched the expected 1:2:1 ratio of co-dominant markers for the F2 segregating population. Significant coefficient of determination ( $R^2$ ) values for SSR markers RM 17 (0.28\*\*\*) and RM 252 (0.21\*\*\*) suggested a close association with phenotypic scores for RYMV resistance. Information generated through this study will provide guidance for breeding for resistance to RYMV in Uganda.

#### What I have been doing after the MSc study

I am now employed as a research scientist in my home country, South Sudan. I am involved in Integrated Seed Sector Development in South Sudan (ISSD). I am also the team leader (Yei-South Sudan) of the project on Community based market oriented seed production (Cobama); I am in charge of planning and designing research experiments, surveys and national/regional trials for rice, maize, sorghum, cowpeas and groundnuts. I also run workshops for scientists and training sessions for farmers and other agribusiness communities. Currently, I am part of the team developing the South Sudan Agricultural draft policy documents and I am the coordinator (South Sudan) in the project "Upscaling NERICA adoption of Southern Sudan and Northern Uganda" Call No. ASARECA\_RC10\_KMUS-03.

#### My current and future interests and how I plan to pursue this path

I am currently working on modalities for promoting NERICA rice in South Sudan, and initiating a rice breeding program. I plan to further my studies in plant breeding (PhD) and collaborate with NARS, CGIARs, Forum for Agricultural Research in Africa (FARA), Alliance for a Green Revolution in Africa (AGRA) and other institutions within and outside my country.



## 10<sup>th</sup> African Crop Science Society Conference

### 10<sup>a</sup> Conferência da Sociedade Africana de Ciências Agronômicas

10 - 13 October 2011



During the 10th African Crop Science Society Conference held in Maputo, Mozambique (October 10 – 13, 2011), four Council Awards were presented to outstanding scientists. Below a list of winners of prizes who received their awards during the conference, a great congratulations to all of them:

1. Prof. Monty Jones (Executive Director, FARA)
2. Prof. Kasem Zaki Ahmed (Minia University, Egypt)
3. Prof. Joyce Kikafunda (Makerere University, Uganda)
4. Dr. John S Tenywa (Makerere University, Uganda)

#### Below are the Statistics of the ACS 2011 Conference

**Total number of participants:** 447

**Opening of Conference:** His Excellency Minister of Education of Mozambique Zeferino Martins

**Closing of Conference:** His Excellency Minister of Science and Technology of Mozambique Venâncio Massingue

**Conference Keynote Speaker :** Prof. Belay Kassa, President of Haramaya University, Ethiopia

Number of invited keynote speakers: 45

Number of countries represented: 39

Number of African countries represented: 25

**Total number of presentations:** 342

**Total number of oral presentations:** 232

**Presentations at thematic sessions:** 147

Theme A - Agronomy, Crop Physiology and Cropping Systems: 18

Theme B - Horticulture: 14

Theme C - Crop Genetics and Improvement: 24

Theme D - Crop Protection: 27

Theme E - Biotechnology: 20

Theme F - Integrated Crop and Livestock Systems: 4

Theme G - Soil and Water Management: 16

Theme H - Agricultural Extension and Education: 3

Theme I - Agricultural Economics: 4

Theme J - Post Harvest and Food Sciences: 5

Theme K - Environment and Climate Change Effects on Agriculture: 12

#### At Symposia: 6

Symposium 1 - Impacts of climate change in Agriculture: 3

Symposium 2 - Linking crop science research to policy, practice and people: 3

#### At workshops: 76

Workshop 1 - Women in agriculture: 7

Workshop 2 - Advances in Sweetpotato research and delivery: 7

Workshop 3 - Biotechnology for Africa agriculture: 7

Workshop 5 - Positioning Nematology in Africa: 7

Workshop 6 - Management of invasive pests: 7

Workshop 7 - Urban and Peri-urban agriculture: 10

Workshop 8 - Biomass and energy agriculture: 11

Workshop 9 - Neglected and underutilized species: 5

Workshop 10 - Pesticidal plants: 9

Workshop 11 - Advancing weed research in Africa: 6

#### At opening and closing ceremonies: 3

Opening: 1

Closing: 2

#### Number of poster presentations 110

Theme A - Agronomy, Crop Physiology and Cropping Systems: 6

Theme B - Horticulture: 6

Theme C - Crop Genetics and Improvement: 21

Theme D - Crop Protection: 24

Theme E - Biotechnology: 7

Theme F - Integrated Crop and Livestock Systems: 1

Theme G - Soil and Water Management: 3

Theme H - Agricultural Extension and Education: 8

Theme I - Agricultural Economics: 4

Theme J - Post Harvest and Food Sciences: 10

Theme K - Environment and Climate Change Effects on Agriculture: 6

Other themes: 14

Number of exhibitors: 20

Number of sponsors: 29

#### Number of participants in field visits Total 195

Casa do Gaiato – agriculture school for street children: 37

Xinavane – sugar cane production outsourcing program: 35

Urban agriculture: 40

Bananalândia – Private Fruit crops production for exports: 42

National research station and outsourcing seed production: 41

#### Awards Received:

Best paper : Salmina Mokgehle

Second best paper: Sabine Tui

Best poster: Jude Odhiambo

Second best paper: Pedro Fato

Best resource poor research: Mayada Beshir (Makerere University)

Second best resource poor research: Florence Mtambanegwe (University of Zimbabwe)