

## **SEED ENTERPRISE MANAGEMENT INSTITUTE PROJECT (SEMIs) ACHIEVEMENTS IN 2015**

The Seed Enterprise Management institute (SEMIs) project at CAVS is a collaborative project between the Department of Plant Science and Crop Protection in the University of Nairobi, Alliance for a Green Revolution in Africa (AGRA), International Maize and Wheat Improvement Centre (CIMMYT), Iowa State University (ISU), Kenya Plant Health Inspectorate Services (KEPHIS), Kenya Agricultural and Livestock Research Organization (KALRO), Kenya Seed Company Ltd. (KSCo), Agricultural Consultants, and private and public institutions involved in seed production. Funding for SEMIs comes from AGRA's Programme for Africa's Seed Systems (PASS).

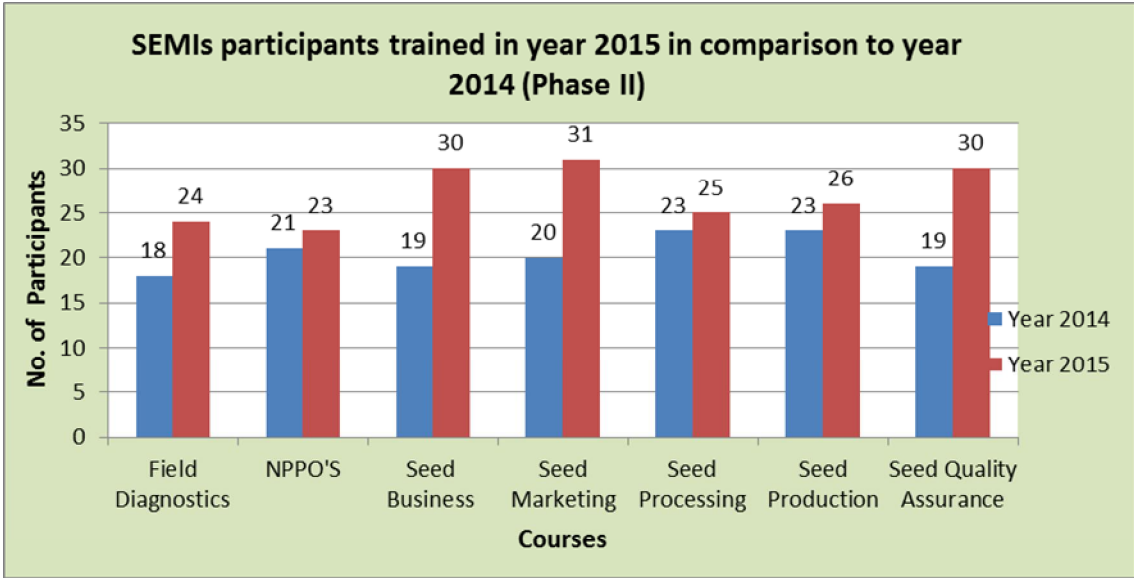
SEMIs was set up to contribute towards alleviation of food and nutrition insecurity and poverty reduction in sub-Saharan Africa. The project management team comprises of Prof. Agnes W. Mwang'ombe, EBS (Principal Investigator) and Prof. Florence M. Olubayo.

### **ACTIVITIES UNDERTAKEN IN 2015**

Among core objectives of the SEMIs project is to provide capacity mainly in the form of training to seed company personnel from small to medium seed companies in sub-Saharan Africa. In that regard, SEMIs has been running seven short courses on; seed production, seed drying processing and storage, seed business management, seed marketing, seed quality assurance, management and control processes, seed production field diagnostics, and National Plant Protection Organizations and Seed Quality Regulators (NPPOs) since 2010. The project has also installed a modern seed processing factory in CAVS alongside breeder bean production in Kabete and Kibwezi fields.

#### **A. Personnel training**

A total of 189 participants from 17 African countries representing 114 seed companies benefited from SEMIs short-course trainings in 2015. The beneficiary countries included Mali, Burkina Faso, South Sudan, Sierra Leon, Liberia, Ghana, Nigeria, Zambia, Niger, Ethiopia, Uganda, Kenya, Rwanda, Tanzania, Malawi, Congo DRC, and Mozambique. The short-term courses have proved to be very popular due to their emphasis on practical application which emphasizes on both field and laboratory practice as well as business approach. Knowledge from the trainings gained by these personnel has resulted in increased production and availability of quality seeds by the respective companies to growers and local farmers.



Participants of Seed Business Management in group photo with AGRA president at CAVS



Prof. Kiarie with participants at the field station demo plots



Participants at the Seed Quality laboratories at Kenya Seed Company, Ruaraka.

On the other hand, 10 students are currently pursuing MSc. Seed Technology and Business Management course which is one of the long-term courses initiated by SEMIs and offered at the Department of Plant Science and Crop Protection.

### B. SEMIs Seed Processing Factory

The SEMIs project completed Installation of its seed processing machines comprising of corn sheller air-screen cleaner, gravity separator, seed treating machine and packaging machine in August 2015. The factory began offering processing services to other small seed companies for which Elgon Kenya Limited is among such companies. So far 88.48 tonnes of seed maize and 10 tonnes seed beans has been processed and packaged at SEMIs Seed processing factory. This service provision to smaller seed companies is one of the key sustainability mechanisms of the Institute.



Installed seed processing plant in SEMIs factory building



Participants at a practical session in SEMIs factory with Dr. Yuan Shyy



Packaging of maize seeds on-going at SEMIs factory



Processed Seeds at SEMIs warehouse

### C. Breeder Bean seed Production

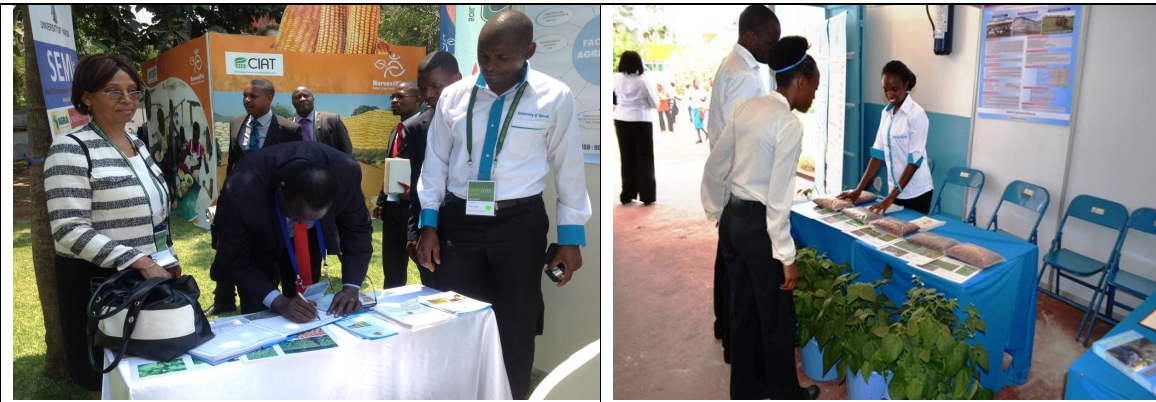
The project is currently multiplying breeder seed of six released bean varieties namely, Kenya Wonder, Kenya Sugar bean, Miezi Mbili, Super Rosecoco, Kabete super and Kenya Red Kidney. These bean varieties are licensed to Kenya Seed Company and Elgon Kenya

Limited. The project produced 3.5 tons of white label breeders' seed during the long rains of March –June, 2015 in both Kibwezi and Kabete fields. Currently project has 10 acres of breeder seed bean crop at Kibwezi field station and 4 acres bean crop at Kabete Field Station, all planted end October, 2015.

	
<p>Kenya Red Kidney at Podding stage</p>	<p>Miezi Mbili variety at podding stage</p>
	
<p>Inspection of SEMIs beans at vegetative growth stage by KEPHIS inspectors at kabete Field</p>	<p>KEPHIS Inspection at Kibwezi Farm</p>

#### D. Participation in forums and exhibitions in 2015

SEMI was exhibited in the high level African Green Revolution Forum (AGRF) held from 29 September – 4 October 2015 in Lusaka, Zambia. Prof. Agnes W. Mwangómbe, Prof. Florence M. Olubayo and Mr. Daniel O. Wasonga showcased the institute at the forum which was themed “Walking the Talk on Youth and Women: Bringing Inclusive Agricultural Markets to Life.” Concurrently, the project activities were also exhibited at the annual Agricultural Society of Kenya (ASK) Nairobi International Trade Fair (NITF) held in Nairobi from September 28 – October 4, 2015. During the ASK show, students, farmers, seed growers and different seed companies interacted with SEMI staff represented by Ms. Caroline Ndumi and Ms. Florence Kiwunja to learn about the institute and its activities. Other fora where the project was also showcased include the 1st Nairobi Innovation week exhibition held at the University of Nairobi from 5<sup>th</sup> – 7<sup>th</sup> August, 2015.



Hon. Beda Machar Deng, South Sudan's Minister for Agriculture, Forestry and Tourism signs visitors' book at SEMIs exhibition Stand at the African Green Revolution Forum, Lusaka Zambia, 29 September – 2 October 2015. To the left is SEMIs PI, Prof. A.W. Mwang'ombe.

Caroline Ndumi, SEMIs research assistant showcases seeds produced by SEMIs during the 2015 ASK Nairobi International Trade Fair, 28 September - 4 October, 2015.

**E. SEMIs Infrastructure construction**

Phase II which consist of Laboratories and offices is 90% complete with finishing works remaining to be completed by the contractor.



Phase II consisting of labs, offices and classes- Finishes and fitting works remaining

**F. Web-based knowledge platform created**

SEMI's has a running website, [www.semis-africa.org](http://www.semis-africa.org), which is currently on process to linking all seed companies in Sub-Saharan Africa and particularly those trained under SEMI's seed courses. At the same time, resource materials covering topics on seed production and processing, pest and disease management, and seed enterprise management can be accessed from SEMI's website which has the University of Nairobi repository link.