Seed Enterprise Management Institute (SEMIls)

UNIVERSITY OF NAIROBI, CAVS

Prof. Agnes W. Mwang’ombe
Alliance for a Green Revolution in Africa-AGRA

**Total funding:** 4,495,432.00 USD  
**Phase One:** 3 years (2010 – 2013)  
**Phase Two:** 2 years (2014 – 2016)

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**Institutions**

**University of Nairobi**
- **PI:** Prof. A.W. Mwang’ombe  
- **Management:** Prof. F. Olubayo & Prof. Kiarie Njoroge  
- **Project Officer:** Dr. C. Orek; **Admin. Asst:** Florence Kiwunja; **Field Assts** Rosebena Cherono, Francis Maina, Caroline Ndumi & B. Kirangu

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**CIMMYT:**  
Dr. John MacRobert  
(Author-Seed Business Mgt in Africa)

**KEPHIS:**  
DR. Onsando-Director  
KEPHIS  
Mr. Kibet

**KARI:**  
Dr. Riungu-Director KARI Muguga

**Consultants**  
Aline O’Connor  
Paul Seaward  
Paul Okete

**ISU**  
Dr. Misra  
Dr. Y. Shyy  
Dr. Joe Cortes  
Dr. Mike Stahr
Overall Objective / Goal: Build capacity of seed companies & their associated personnel to efficiently produce high quality seed for increased agricultural productivity, nutrition and alleviation of poverty in Sub-Saharan Africa.

Specific Objective 1: To train seed industry practitioners on the best practices to efficiently produce and market large quantities of high quality seed to meet the farmers planting schedules at affordable prices.

Specific Objective 2: To improve the University of Nairobi capability to train seed technology and entrepreneurial skills.

Specific Objective 3: To exploit the ICT capabilities to facilitate seed trade and information sharing on seed issues and related aspects for fast adoption and utilization of good seeds in agriculture throughout Sub-Saharan Africa.
SEMIs PARTNERSHIPS

UoN

CIMMYT

ISU

IOWA STATE UNIVERSITY

KARI, KEPHIS, KENYA SEED

AGRA

CONSULTANTS

SEMI

agra-alliance.org

uonbi.ac.ke

cimmyt.org

iastate.edu

kephis.org

kenyaseed.com

SEMI

Seed Enterprises Management Institute

University of Nairobi

GROWING THE SEED INDUSTRY IN AFRICA
Over 17 African Countries!
# SEMIs COURSES at UoN:

<table>
<thead>
<tr>
<th>COURSE</th>
<th>MAIN FACILITATORS</th>
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<tbody>
<tr>
<td>Seed Production</td>
<td>UoN/CIMMYT/KARI/KEPHIS, Leldet, Kenya Seed, KEPHIS (Dr. John MacRobert &amp; Prof. Kiarie Njoroge)</td>
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<tr>
<td>Seed Drying, Processing &amp; Storage</td>
<td>UoN/IOWA STATE UNIVERSITY/KARI/KEPHIS/SEED COMPANIES-Dryland seed company, KARI Katumani; (Dr. Y. Shyy)</td>
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<tr>
<td>Seed Business Management</td>
<td>UoN/SCH. OF BUSINESS; SEED COMPANIES (Aline O’ Connor Funk &amp; Dilip Gokhale)</td>
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<td>Seed Marketing</td>
<td>UoN/SCH. OF BUSINESS, CONSULTANTS, DRYLAND SEED COMPANY, LELDELT</td>
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<td>Seed Quality Assurance &amp; Seed Enterprise Quality Management</td>
<td>UoN/ISU/KEPHIS/KARI/SEED COMPANIES (Dr. Joe Cortes &amp; Mike Stahr)</td>
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<td>Seed Production Field Diagnostics</td>
<td>UoN/KEPHIS/KARI/Seed companies (New for 2014)</td>
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<tr>
<td>Plant Protection Organizations (NPPOs) Quality Regulators</td>
<td>UoN/KEPHIS/KARI/Seed companies (New for 2014)</td>
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### SEMIs Summary of Trained Seed Industry Personnel (Phase 1 & Phase 2)

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<td>Seed Legislation &amp; Accreditation</td>
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<td>TOTAL (Annually)</td>
<td>172</td>
<td>132</td>
<td>149</td>
<td>52</td>
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SEMIs Unique Curricula:

- Involvement of stakeholders in curricula development:
  - ISU, consultants, CIMMYT, UoN, KARI, KEPHIS, Seed Companies
- Annual curricula review to keep abreast on seed issues and changing trends in the seed industry

Result

One of the best “thought-through” and relevant curricula in Africa focused on Seed
SEMIs World Class Facilitators!

Dr. J. MacRobert - CIMMYT

Prof. Kiarie Njoroge-UoN CAVS

Jenny Leakey - Leldet

Aline O’Connor – Seed Business mgt & Marketing

Dr. Y. Shyy - Processing-ISU

KEPHIS for Seed quality

Dr. Joe Cortes - Seed Quality-ISU
SEMIs Graduates: at the Helm of the Seed Industry in Africa Today!

- Graduates are using the knowledge acquired at SEMIs to scale up production of high quality seed, benefitting farmers and helping alleviate hunger in the continent.

- SEMIs graduates together with AGRA have contributed greatly in the increased seed production being experienced in Africa Today!

- So far over 120 seed companies from over 17 African Countries have benefited from training at SEMIs.

Participants visit Dry Land Seed Co. in Kenya
SEMIs Contribution To Long Term Courses in Seed Technology & Business at UoN:

Curriculum already in place for:

I. Certificate in Seed Technology & Business
II. Diploma in Seed Technology & Business
III. Post-graduate Diploma in Seed Technology & Business
IV. MSc. in Seed Technology & Business

- The long term courses will complement the short term courses for those who want to learn more on seed systems
- The University is currently in the process of rolling out the programme
1) Foundation / Breeders’ Seed Production: Lack of foundation seed is a major constraint to seed production in Africa today

Bean varieties under Production by SEMIs:
- Miezi mbili
- Kenya Wonder
- Kenya Red Kidney
- Kabete Super
- Kenya Sugar Bean
- Super Rosecocco

Seed crop at the University Field farm at CAVS
Provision of foundation seed for seed Co.

White label Bean seed produced at SEMIs

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<tr>
<th>Year</th>
<th>Tonnage</th>
<th>Variety</th>
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<tbody>
<tr>
<td>2011</td>
<td>700 Kgs</td>
<td>Kenya Umoja</td>
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<tr>
<td>2012</td>
<td>1.7 tonnes</td>
<td>Miezi mbili, Kenya wonder, Kabete super</td>
</tr>
<tr>
<td>2013</td>
<td>1.76 tonnes</td>
<td>Kenya Red Kidney, Miezi Mbili</td>
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</tbody>
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“A major constraint for seed production in Africa is access to foundation seed”!

Prof. Mwang’ombe presenting White label breeder’s seed to Kenya seed company

Elgon Kenya Seed company Collecting their White label seed
Modern Seed laboratory and Seed Processing facility being constructed at CAVS with SEMIs funds

**Phase 1:** Seed Processing Unit.
- Seed from UNISEED and other seed companies to be processed

**Phase 2:** Modern Seed Laboratory for Seed Quality Assurance
- Seed Quality Laboratory
Phase 1: Seed Processing Unit

- Once complete the Seed processing factory will be able to process over 5000 MT of seed
- The Processing Unit will be utilized by UoN for processing seed from UoN (UniSeed) & other seed companies and also for training
SEMIs Seed Processing Unit under Construction:

- Seed Processing line under construction in China
- Seed Sheller under construction in USA

Seed Processing unit to be operational by end of 2014
3) SEMIs participates in National & Regional Workshops and Meetings on Seed Issues!

Agricultural Sector Development forum - Former President Kibaki in attendance

Kenya - Agricultural transformation Day in Nairobi, Kenya

Other meetings

<table>
<thead>
<tr>
<th>Event</th>
<th>Year</th>
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<tbody>
<tr>
<td>Iowa state University (ToT)</td>
<td>2010</td>
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<tr>
<td>FARA Meeting</td>
<td>2011/13</td>
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<tr>
<td>KARI congress</td>
<td>2012</td>
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<tr>
<td>STAK congress</td>
<td>2012/2013</td>
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H.E. Mohamed Shein Pres. Of Zanzibar at the AFSTA-Congress Zanzibar

Enterprises Management Institute
University of Nairobi
SEMIs at the ASK show in Nairobi

Rosebenna from SEMIs talks to farmers on the New Bean Varieties
SEMI is a “Port” of call for seed sector players:

- Agricultural / Seed Institutions visit SEMIs to share experiences and learn from SEMIs.
- Point of reference for seed trends.
- In the future SEMIs is to be platformed to become the leading seed reference point in Africa.

Seed company personnel from Tanzania with STAK officials visiting SEMIs in 2013.
Collaboration with Stakeholders & Experts:

Guest Lecture on Seed Business Module Course by Dr. Julius Kipng’etich - Former Director, Kenya Wildlife Services (KWS)

“as I move across Africa, I see African Farmers have changed their strategy to improved seed”

Dr. Joe DeVries-Director, PASS

Observed Changing trends in the Seed Industry in Africa.....
SEMIs Project Monitoring and Evaluation:

A monitoring and Evaluation Team from AGRA visited SEMIs on 19th February 2012 to assess the project.
SEMIs is nurturing competence in Strategic Seed Business management in Africa

Seed Business Management Course

2011: Business Course for Seed Company CEO’s

2012: Participants visit Dry land Seed Company seed store in Machakos

2013: Seed Business Course participants being addressed by Dr. Joe DeVries of AGRA

Seed Business Class with Dilip Gokhale Consultant from India
Seed Marketing & Processing Courses

2011: Marketing Course Participants visiting the seed in Kenya

2012: Marketing Course Participants with Simlaw Seed Company MD, Mr. Soi

2012: Seed Processing Participants on Familiarization with Certified Seed Packaging at a seed company in Kenya
Seed Production Course

2012: Production Participants Visit KARI Wheat Rust Resistance Breeding Station, Njoro

2014: Seed Production Participants at SEMIs Training, UoN, CAVS
Purpose:
➢ Provides Access to Contents for All the Courses Offered by SEMIs
➢ Online registration of Students or SEMIs Participants
➢ E-Commerce Platform to Promote Seed Trade Across Africa
➢ Link SEMIs with Seed Companies, Seed Traders, Stakeholders & Seed Associations in Africa & Beyond
➢ Share Information on Seed Issues & current events in the Seed Industry
Rewarding our Participants with certificates at the end of each course motivates them to be better “seed men & Women”
Comments from Participants:

“I like every topic we did in this course especially seed certification and de-taselling “— Anonymous.

“Previously I did not know how to project seed requirements and co-ordinate backwards for procurement of basic, pre-basic seed...” Now I know.”

Mr Omari Mduruma-Aminata seed company Tanzania

“The knowledge I have acquired through the course will be highly valued not only in our seed company but in the whole of Zambia”

Dorica Banda
Indigenous seed company Zambia
Thank you for your attention