SEED CERTIFICATION, IMPORT & EXPORT FOR KENYA

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SEMIS-Seed Quality Assurance and Seed Enterprise Quality Management
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Introduction seed legislation

• Farmers started off by gathering, then planting, then sharing, then selling
• Hence there has to be order
• Agriculture is critical hence regulation
• Seed is life
• Nation must plan
Major Components

- Policy
direction
targets
How to get there
- Law or Act that stipulates
What to be done, how, sanctions
- Regulations
Implement the law
Gives minor details
OBJECTIVES

Objectives of Seed Certification & Quality Control Are Two Fold

1. Ensures that farmers receive quality seed input so as to maximize their crop production.

2. Ensures that farmers are not at risk of being provided with low quality inputs by fraudulent traders.
SEED CERTIFICATION

- Seed is the basic input that sets the potential for crop yield hence requires defined processes in its production, processing and marketing.
- Seed Quality Assurance Services operate within the guidelines and procedures stipulated in The Seeds and Plant Varieties Act (Cap 326) of the laws of Kenya.
- Inspections (both in the field and factory processing) is undertaken as per the OECD set standards. Laboratory seed tests/analysis are carried out as per the ISTA standards/rules.
SEED CERTIFICATION SCHEME

• Seed certification as stipulated in Cap.326 of the laws of Kenya ensures that only superior crop varieties are available for use by the farmers.

• Official seed certification begins with known parentage and the multiplication/crossing patterns are technically defined & observed.

• The following are seed classes:-
Seed Classes

1. **Breeders** - The original nucleus seed from the breeder.

2. **Pre-basic** - The harvest from the breeders seed.

3. **Basic** - The harvest from pre-basic.

5. **Standard seed**- The last status/class that is used during emergencies only. 

NB:

6. **For all hybrid seeds**, certification schemes end at C.I.G. But for self pollinated plants, only up to C.IV.G is classified.

- The breeders, **pre-basic and basic seeds** are labeled with KEPHIS white label while **C.I.G** is labeled with blue, **C.II.G-C.IV.- red** and **Standard** -Grey.
CERTIFICATION PROCESS

The process of **Seed Certification** involves the following processes:

1. Field inspection
2. Seed Processing
3. Seed testing
4. Labeling and sealing
5. Post control
6. Post Certification survey
1. **Field inspection** – This is the first step

Before it commences, the merchant must

1. Register fields for inspection
2. Provide proof of origin of the parents
3. Observe the minimum isolation distance

**Inspection is carried out to ensure that**

- The crop is true to type
- It has no genetic or physical contamination
- The crop is healthy (free from disease/pests)
CERTIFICATION PROCESS – Cont...

2. Seed Processing

Seed crops are harvested and processed to remove weeds, inert matter, immature seeds, broken & diseased seeds. They are graded and treated with protective chemicals.

3. Seed Testing

Lab tests are useful in determining purity, germination capacity, moisture content and health status of seed lots.
4. **Labeling and sealing**
   - Every seed lot is then labeled with a label and a seal
   - This ensures that the seed cannot be tampered with without damaging the seal, label or container beyond repair.

5. **Post Control**
   - These tests are meant to ascertain that the preceding control measure have been effective. They ensure that varietal characters remain unchanged during multiplication.
6. Post Control Survey

- This is done by all the KEPHIS regional offices all over the country. It ensures that all is well at planting time. Samples are taken from points of sale and farmers and are planted alongside the post control plots for comparison. Complaints of low quality seed are therefore easily verified.
THE SEEDS AND PLANT VARIETIES ACT

CHAPTER 326 LAWS OF KENYA
• An Act of Parliament to confer power to:-
  ❖ Regulate transactions in seeds, including provision for the testing and certification of seeds
  ❖ For the establishment of an index of names of Plant Varieties
  ❖ To empower the imposition of restriction on the introduction of new varieties
  ❖ To control the importation of seeds
To authorize measures to prevent injurious cross-pollination

To provide for the grant of proprietary rights to persons breeding or discovering new varieties

To establish a Tribunal to hear appeals and other proceedings and for connected purposes.
PART II – SEEDS REGULATIONS
(SECTION 3), Regulation 2 (Interpretation)

Breeders seed: Means seed which has been produced by a person or institution responsible for the maintenance of the cultivar.

Certified seed: Means progeny of basic seed or certified seed of higher classes.
• **Cultivar**: Means a subdivision of any seed species which can be distinguished from other sub-divisions of that species by means of growth, plant type, flower or other physiological characteristics.

• **Compulsory certification**: Means mandatory certification for those cultivars that have been tested in National Performance Trials, officially released and indexed.
• **Dressing:** Means a stage of seed processing where application of chemical substances on the surfaces of seeds is done for purposes of controlling pests and diseases.

• **Field inspection:** Means an examination of a crop seed field including checking for effective isolation distance, hectarage of seed field, off-types, foreign cultivar and diseased plants as part of seed certification program.
• **Government certified seed**: Means seed in respect of which a certificate has been issued in accordance with those Regulations.

• **Germinated seeds**: Means lots in respect of which in the course of germination tests have produced seedlings with normal growth characteristics of the shoot and root systems.
• **Isolation:** Means the required distance or time between two crops of the same species or between two crops of too closely related species to prevent contamination either mechanically or by pollination.

• **Labeling:** Means the process of affixing a tag or identification mark so as to ensure correct identification of any container of seed.
• **Licensed seed seller:** Means any person or institution licensed to sell Government tested and certified seed only.

• **Noxious weeds:** Means a plant declared to be a noxious weed under section 3 of the suppression of noxious weeds Act.

• **Off-type plant:** Means a plant which does not exhibit the recognized and prescribed growth habits and characteristics of the cultivar being grown.
• **Post control:** Means the growing of plants from seed lots which have been certified to further determine and confirm cultivar purity and freedom from disease infection.

• **Seed Lot:** Means a specified quantity of seed which measures to prescribed maximum weight and which is represented by one sample in laboratory seed testing or post control plots, and is homogeneous and physically identifiable by a unique reference number.
**Seed Quality:** Means seed lots that have met the minimum standards and hence are of high cultivar purity, high genetic and physical purity, free from noxious weeds, seed borne diseases and pests and have met the national standard germination capacity.

- **Regulation 10 (1)**
- **Only cultivars officially released by the Minister and advanced breeder’s lines which have potential for release shall be eligible for certification.**
(3) Any seed crop which contains noxious weed or seed-borne diseases that are difficult to eradicate shall not be eligible for certification.

(4) No seed shall be certified unless it has been produced, inspected, sampled, tested and it complies with the standards set out in the fourth schedule.

11 (1) The seed grower or agent shall, one month after a seed crop is planted, apply for a field inspection by completing Form SR5 in the Sixth Schedule and payment of prescribed fee in the fifth schedule.
• A field inspection for the purposes of certification shall be conducted by Government seed inspectors and shall be confined to registered seed grower’s fields and fields of advanced breeder’s lines which have potential for the release as cultivars.

• (3) A seed inspector shall have the power of entry into any field registered for field inspection.
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• (3) A seed inspector shall have the power of entry into any field registered for field inspection.
15(3) Certified seed lots which have met the prescribed minimum standards shall be packed in bags or containers, securely closed, sealed by a seed inspector and labeled with a label whose serial number shall be entered into the work order used in processing the seed.

(4) The certificate label referred to in paragraph (3) shall specify

(a) class.

(b) Species and cultivar of seed
• (c) Lot number
• (d) date of sealing
• (e) weight of the package, bag or container.
• (f) Warning text if seed is dressed.
• (6) No person, other than the ultimate user, shall remove labels, seals or open mechanically sewn or closed packets of seed.
• 17(1) No seed shall be offered for sale unless it has been certified or it has its quality declared under regulation 16
(2) No species of seed specified in the second schedule shall be offered for sale unless it has been certified.

SECOND SCHEDULE CROPS.

Crops under compulsory certification.

Cereals: maize, wheat, barley, sorghum, millet, oats, triticale.

Pulses: Beans (dry) beans (green podded), peas, cowpeas, pigeon peas.
• **Oil crops:** sunflower, oil-seed rape, linseed, soya beans, sesame

• **Grasses:** setaria, Rhodes grass, Sudan grass, Congo signal, panicum sp.

• **Pasture legumes:** Centro, Stylo, Desmodium, Clover, Lucern, Siratro, Lupins

• **Root crops:** Irish potato
Seed Importation and Exportation

REQUIREMENTS

• In order to import or export seed into Kenya one must:-

1. Be a **registered** seed merchant.

2. Notice to import/export seed by filling form **SR 14** provided by KEPHIS.

3. Obtain a **Plant Import Permit** (PIP) from KEPHIS on which the conditions to be met by the exporting country are specified.

4. Obtain a **Phytosanitary Certificate** from the corresponding Seed Certifying body in the country of origin for import addressing the conditions specified in the PIP.
5. Obtain an international orange (ISTA) certificate from the official seed tester (KEPHIS) for exports or the seed certifying body in the country of origin for imports. This will accompany the seeds.

6. **Seed to be inspected** by KEPHIS at the port of exit/entry, sampled & verification tests done, before sale - imports.
• **Note:** Research and educational institutions, and other organizations can import seed on trial/experimental basis.

• The conditions are that:
  - There are limits on the amount (weight) of seed to be imported
  - The seed shall not be distributed for commercial purposes.
REGISTRATION OF SEED RELATED INSTITUTIONS

1. Seed merchant, agent, subagent, stockist, seed grower,

2. Associations

Seed Enterprises Management Institute
University of Nairobi
REGISTRATION AS A SEED MERCHANT

• Requirements for registration as a Seed Merchant are as follows:-
  – Be a registered company in Kenya.
  – Be conversant with and be ready to comply with the conditions as set in the seed regulations (The Seed and Plant Varieties Act: Cap 326, Laws of Kenya).
  – Have adequate and knowledgeable personnel who are conversant with seed matters.
  – Specific requirements for production, processing, marketing and distribution are as follows:
REGISTRATION AS A SEED MERCHANT...

1. Production:
   a) Adequate land and equipment to handle basic seed.
   b) Contractual agreement with growers.
   c) Adequate field officers to advise growers.

2. Processing:
   a) Equipment and machinery to process seed.
   b) Storage space.
   c) Capacity to print and label packets /containers as required by the seed regulations.
   d) Marketing
   e) Adequate distributive channels that covers all the agriculturally important region of the country.
   f) Have agreement with agents /sub-agents / stockist to distribute seed on one's behalf.
3. Marketing and Distribution:
• The merchant’s appointed agents/sub-agents/stockists should be identifiable as such
• They should have understanding and knowledge on seed issues
• They should have adequate storage.

• Apply through the secretary of the seed committee (MD KEPHIS) to register as a seed merchant by filling form SR 3 & enclosing the registration fee as stipulated in the seed regulations.
REGISTRATION AS A SEED STOCKIST

• REQUIREMENTS FOR ONE TO BE A SEED STOCKIST IN KENYA

– Own or lease a **permanent business outlet** suitable for selling seed
– Be **appointed** by a registered seed merchant as their seed stockist
– Apply to the District Agricultural Committee (DAC) to be considered for appointment as a seed stockist or sub-agent
– Collect application forms (SR 12) from the nearest KEPHIS regional office and pay Kshs. **1000/=** annual registration fees per application.
– The applicant and seed merchant should **fill in the forms** and return them to the KEPHIS regional office.
REGISTRATION AS A SEED STOCKIST

- REQUIREMENTS FOR ONE TO BE A SEED STOCKIST IN KENYA...
  - KEPHIS seed inspectors will then inspect the premises of the applicant to establish whether they:

  - Have adequate storage capacity for seed quantities that one may desire to store.
  - Is clean, vermin proof, and waterproof.
  - Has enough lighting and is well ventilated.
  - Have suitable display (e.g. not in direct sunlight)
REGISTRATION AS A SEED STOCKIST

• REQUIREMENTS FOR ONE TO BE A SEED STOCKIST IN KENYA...

– If approved, the regional office then prepares the Seed Seller’s License (Form SR 13). This is issued in the name of the applicant and sent to the seed stockist.

– The seed merchant will issue a seed stockist card to their appointed stockist who has been licensed to sell seed.

– This card and licensed should be readily displayed for inspection by seed inspectors.
Seed Sellers Associations

- STAK - National
- AFSTA - Regional
- ISF - Global
REGIONAL AND INTERNATIONAL AGREEMENTS TO FACILITATE SEED TRADE

E. O. SIKINYI, PhD
2 types

• International- Technical
  a) OECD Seed Schemes
  b) ISTA laboratory methods
  c) IPPC disease movement

• Regional – Trading blocks, Policy
  EAC / ASARECA
  SADC
  COMESA
  AWASA
Introduction
EAC / ASARECA

• Rationalization and harmonization of seed policies, laws, regulations and procedures initiated in 1999.

• By the Eastern and Central Africa Programme for Agricultural Policy Analysis (ECAPAPA), precursor to PAAP

• The process involved
  ➢ national studies on key constraints
  ➢ consultation on opportunities for improvements and
  ➢ dialogue between the countries to reach common agreements.
• Technical agreements reached in 2002
• From 2002, individual countries have been modifying their policy environments to conform to the common agreements through review of policies, laws and regulations.
• But to date, changes minimal
HARMONIZATION OF SEED REGULATIONS

- ASARECA undertook study on regional seed markets in late 1990’s
- Study showed seed markets were too small to attract investment
- Each country had different laws, policies, regulations and standards
- Harmonization was key to addressing the identified issues
Key areas

Five key areas were identified to restrict seed movement in region:

• Variety evaluation, release and registration process
• Seed certification
• Phytosanitary measures
• Plant Variety Protection
• Import/export documentation
Process

• National resource persons were hired to undertake country studies in 1999
• The country reports were discussed nationally
• The outputs were discussed with national policy makers
Process cont..

- Regional consultations held, with input from national and external resource persons
- Agreements were finally arrived at in June 2000
- These were summarized in ASARECA Monograph No. 4 of 2000
MECHANISM OF IMPLEMENTATION

• Seed Regional Working Group (S-RWG) established June 2001
• However, there was no progress
• S-RWG transformed to Eastern Africa Seed Committee (EASCOM) from Nov 2004, to include policy makers
COMPOSITION OF EASCOM

each ASARECA member had 4 reps as follows:

• National Seed Trade Associations
• National Certification Agencies
• Ministries of Agric policy dept
• Plant breeders assoc/NARI
Agreements

• Technical agreements were reached in the 5 areas in 2002.
• Additionally an independent National Designated Authority to oversee the agreements was recommended
• Little progress was achieved in implementation of the agreements
• Formation of EASCOM to effect implementation in 2004
• Members NDA, Seed Industry, Ministry (Policy) and Breeders
• Nature of agreements either Legal or Procedural
EASCOM’s functions

• Influence review of seed policies, laws and regulations to implement agreements
• Strengthen national seed and plant breeders’ associations
• Develop and maintain data bases and disseminate information to stakeholders
• Spearhead capacity building for seed industry stakeholders
EASCOM Functions cont.

• Represent seed industry in regional economic blocs - the East African Community (EAC) and the Common Market for Eastern and Southern Africa (COMESA) Committees

• Create an effective network of seed industry stakeholders in the region

• Enhance seed market development

• Strengthen the Private-Public partnerships
## Progress in implementation of harmonization agreements in ECA countries

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<tr>
<th>Policy milestone</th>
<th>Achievements by country to date</th>
<th>Work in progress</th>
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<tbody>
<tr>
<td>Enacted legislation (Seed Act) that accounts for harmonization agreements; Madagascar Seed Act 1994 reviewed in 2010, Rwanda (Seed Act 2003), Tanzania (Seed Act 2003), Uganda (Seed and Plant Act revised in 2010; 2006)</td>
<td>Burundi (Seed Act 2009), Kenya (Seed Bill revised in 2010)</td>
<td>Review of: Sudan Seed Act 2006; Uganda draft Plant Variety Protection Bill of 2008; Ethiopia Seed Proclamation of 2006</td>
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<td>Finalised seed Act implementing regulations;</td>
<td>Kenya (NPT Regulations 2009); Tanzania (Seeds Regulations 2007); Uganda draft Seed Regulations of 2010 to implement the Seed and Plant Act of 2006,</td>
<td>Rwanda, Burundi, Ethiopia, Madagascar</td>
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<td>Finalised Plant Breeders Rights Act in accordance with UPOV 1991 and its implementing regulations</td>
<td>Ethiopia (PBR Proclamation 2006 requires significant revisions); Kenya (UPOV 1978), Tanzania and Uganda (largely UPOV 1991 compliant)</td>
<td>Burundi, Rwanda, Sudan, Madagascar, Eritrea, DRC have no pvp systems but are developing based on UPOV (1991), Kenya has a draft Bill (1991 compliant)</td>
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<td>Autonomous certification agency</td>
<td>Kenya Plant Health Inspectorate Service (KEPHIS), Tanzania Official Seed Certification Institute (TOSCI) and Plant Breeders Rights (PBR) Office in Tanzania in 2005</td>
<td>Uganda considering autonomous seed Service to oversee variety evaluation, release and registration</td>
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**SEMI's UoN Seed Enterprises Management Institute University of Nairobi**
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<th>National Seed Trade Association</th>
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<td>Acceded to OECD and ISTA seed testing rules</td>
<td>Kenya is a member to both OECD and ISTA, Ethiopia, Madagascar and Rwanda considering South Sudan is shifting from the American classification system to OECD</td>
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<td>Developed quarantine pest list</td>
<td>Published the KE, UG, TZ as the ET is being finalized</td>
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<tr>
<td>Simplified export/import documentation procedures</td>
<td>Kenya, Ethiopia to put theirs in place</td>
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• **Member States commit to harmonizing, within two years**, seed trade regulations in the region and to finalize a regional protocol for the protection of new varieties of plants within the same period;

• **It urges member States and development partners to work in collaboration with the COMESA Secretariat to implement the decisions of this Victoria Declaration on Agriculture**, together with all decisions of the Ministers as contained in the Report of the Fifth Meeting of the Committee of Ministers.
COMESA harmonization initiative

• Formation of COMRAP-ACTESA, a specialized agency for inputs (COMESA)
• Harmonization in the 4 areas, except PVP left out with 12 selected crops
• 6 technical workshops held, and a validation workshop
• Agreements to Ministers by end of July
• Hopefully will fast track implementation
Issues

- Under EAC, free goods movement, seeds and plant materials excluded
- Agreements are yet to be incorporated in national laws and regulations
- Biosafety laws and regulations need to be urgently included in activities
- Under EAAPP we may still find restriction in technology movement within region, technology from RCoE’s to others
- What is our role in ensuring success of EAAPP
Issues

• How do we assist each other in the region, e.g. reaching EAC secretariat to incorporate agreements, use of standards committee at EAC
• Expand to other crops
• Can we have regional offices for PVP
• Can we influence the process and policy environment to implement EAAPP
• Can we have an action plan?
PLANT VARIETY PROTECTION IN KENYA

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SEMIS-Seed Quality Assurance and Seed Enterprise Quality Management
Sept 27, 2012
PLANT VARIETY

• Means a plant grouping within a single botanical taxon of the lowest known rank, which grouping, irrespective of whether the conditions for the grant of a breeder’s right are fully met, can be:
PLANT VARIETY cont.

- Defined by the expression of the characteristics resulting from a given genotype or combination of genotypes
- Distinguished from any plant grouping by the expression of at least one of the said characteristics
- Considered as a unit with regard to its suitability for being propagated unchanged
Plant Variety Protection

Plant variety protection, “plant breeder’s right” is a form of intellectual property right granted to the breeder of a new plant variety, by the state, in relation to certain acts concerning the exploitation of the protected variety which require the prior authorization of the breeder.
THE NEED FOR VARIETY PROTECTION

• Plant breeding is long and expensive

BUT

• Plant varieties can be easily and quickly reproduced

→ Breeders need protection to recover investment and encourage further innovation for Society
PVP LEGISLATION

• In Kenya, provision for protection of plant varieties is contained in the Seeds and Plant Varieties Act of 1972, Cap 326
• 1975 – The Act became operational.
• The Act provides for grant of proprietary rights to persons breeding or discovering new varieties of plants.
• 1991 - The Act was revised.
PVP LEGISLATION cont

- 1994 - regulations for the implementation of PVP put in place.
- 1997 – the office to administer the PVP was established.
- May 1999 - Kenya acceded to UPOV under the 1978 Convention.
- 2002 – Minor amendments on acceding UPOV
- A reviewed draft of the legislation which recognises emerging national and global developments in the seed industry is ready.
Section arrangements in the Act

- Part I - Preliminary
- Part II – Seeds
- Part III – Seed Testing
- Part IV - Control of imports and prevention of cross pollination
- Part V – Plant Breeders Rights
- Part VI - General
Part V Breeders Rights

- Grant of PBR
- Conditions for grant
- Period for grant
- Nature of Rights
- Protected varieties
- Maintenance of reproductive material
- Licenses
- Regulations
- Establishment of Tribunal
- Jurisdiction of Tribunal
QUALIFICATION FOR PROTECTION

Variety
- New
- Distinct
- Uniform
- Stable
- Acceptable denomination
- Of any plant species except algae and bacteria
QUALIFICATION FOR PROTECTION

Applicant

- Breeder
- Discoverer
- Employer
- Successor in Title
PVP

- PVP is a contract between the breeder and the State
- Breeder to be protected for a limited period of time by State
- Must provide the Farmer the variety in adequate quantities
- State may take action eg Compulsory License.
ENFORCEMENT OF RIGHTS

• PBRs are private rights and should be enforced by owner.
• The state, thro PVPO only provide evidence incase of infringement.
• Law provides for Tribunal.
• Some states are taking up measures for enforcement, trade issue, National interest.
Exceptions to Breeder's Rights

1. Private non-commercial use
2. Experimentation
3. Breeding other varieties
4. Farmers privileged to save and replant 'seeds' harvested from protected variety
ROLE OF PVPO

- Receive and process the application
- Ensure conditions for protection
- Issue grants
- Annul or cancellation of grants
- Maintain the registry
A breeder’s right SHALL be declared null and void if the variety was:

- not **Novel** or **Distinct** at the time of grant
- not **Uniform** or **Stable** at the time of grant - *if the grant was essentially based upon information provided by the breeder*
- granted to a **person not entitled** to it - *unless transferred to an entitled person*

**NO OTHER REASONS**
Cancellation of PBR

1. The variety did not meet the criteria when PBR was granted.

2. The person granted PBR was not entitled to the rights, and the rights have not been subsequently transferred to him or his successor in title.

3. The variety does not meet the protection criteria anymore.

4. The rights holder can no longer provide the propagation materials of the variety.
SUMMARY

• Promote innovation in Variety development
  Creating enabling environment for Breeders

Protect the Interest of the Farmers
THANK YOU