

Global Actions for Improving Access by African Farmers to Quality Seeds



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Simeon Kibet

General Manager, Quality Assurance,
Kenya Plant Health Inspectorate Service

(www.kephis.org)



Introduction

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- Agriculture is the mainstay of many African economies, an engine of prosperity in the continent.
- Quality seed of suitable varieties is the main driving force of competitive agriculture.
- Seed is the most critical input as it determines the upper limit of crop yield and therefore productivity of all other agricultural inputs in farming systems.



Access to High Quality Seeds

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- Delivery of high quality seeds requires multi-institutional approach.
- Seed is handled by different players (breeders, producers, regulators).
- All these have a critical role to play for delivery of high quality seed to the farmers.



Role of Breeders

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Quality objectives

- Develop varieties with superior attributes – Yield, stress tolerance, quality attributes
- Package technology and deliver the same to user – farmers, industry, etc
- There are critical quality requirements to ensure technology is delivered to users intact.



Role of Breeders

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Quality considerations

- Stability – Varietal performance across environments and generations
- Eliminate inferior attributes – mutants, sterility etc
- Ensure variety has a unique descriptor – helps propagate the variety intact.

Role of Breeders



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Variety Maintenance

- Is the responsibility of every breeder
- Important as it ensures variety maintains its essential characteristics for performance and identification (Certification, PBR)
- The breeder's seed field should show minimum variation for morphological traits as compared to other seed classes



Role of Breeders

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Varietal Maintenance

- Avoid pollen contamination and varietal mixtures.
- Continual elimination of outliers to maintain uniformity.
- Ensure proper agronomic practices e.g elimination of weeds – seeds may be easily carried in breeders' seed.
- Ensure crop health is maintained. Two pronged:
 - ▣ Ensure Breeders' seed is healthy
 - ▣ Eliminate seed borne, especially latent viral infections, which are not easy to detect



Role of Breeders

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The Breeder should establish a water-tight system to ensure that a handful of seeds are multiplied to produce tonnes of seeds while maintaining the varietal attributes

Role of Seed Merchants



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Objectives of Quality Control

- Ensures that seed received by farmers is of high quality so as to maximize their crop production.
- Minimize losses through rejections to ensure favourable prices and good business.



Role of Seed Merchants

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A seed company:

- takes full responsibility with regards to the quality of the seed

“Quality control is a measure without an upper limit”



Role of Seed Merchants

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To ensure high standards of seed quality, a seed company should:

- have adequate trained and competent personnel knowledgeable in seed related matters and conversant with the seed industry;
- Have adequate land for seed production:
 - ▣ Free from soil-borne diseases
 - ▣ Enough space to ensure pollen control and avoid varietal mixtures
 - ▣ Accessible to operators and regulators



Role of Seed Merchants

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To ensure high standards of seed quality, a seed company should:

- Appoint seed growers with a thorough understanding of agronomic and field quality standards.
- Growers should have adequate capacity – manpower, machinery, storage facilities etc
- Growers should deliver all seed, including rejects to the seed merchant



Role of Seed Merchants

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To ensure high standards of seed quality, a seed company should:

- Have proper storage and seed handling facilities
- Ensure safe conveyance of the seed
- Have an established distribution system:
 - ▣ Agents
 - ▣ Sub-agents
 - ▣ Stockists



Quality Control at Merchant Level

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To ensure high standards of seed quality, a seed company should:

- Have a proper outreach system for marketing and training.
- Have capacity to estimate the market demand of seed to avoid over/under production

Quality awareness creation among all seed handlers and farmers is very critical

Role of Seed Merchants



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- Keep records of each seed lot, produced tested and certified, purchased, sold etc to ensure traceability of the seed;
- Ensure official re-sampling and testing of seed lots whose validity of certification has expired;

“An internal system for regularly checking the quality of seed is highly recommended”



Role of Regulators

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- Encourage and facilitate development and release of superior varieties of crops through evaluation and testing.
- Implement a plant breeders' rights system to ensure that breeders are compensated for their breeding investment thereby encouraging development of new varieties.



Role of Regulators

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- Regulators offer seed quality assurance by ensuring the minimum standards are kept.
- Uses clearly defined standards, which takes into consideration the needs of the producer and the consumer.

*“Quality assurance is about minimum standards while
Quality control is about maximum standards”*



Role of Regulators

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- Clarifying and implementing policy and legal framework on seeds to all stakeholders.
- Creating awareness and training of seed stakeholders on quality aspects.
- Supporting the seed industry to set up internal regulatory mechanisms.
- Ensuring regional and international cooperation and harmonization in assuring seed quality and facilitating safe movement of seed across national borders.



Role of Regulators

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Promote self regulation in seed quality assurance resulting in:

- reduced cost and increased efficiency and hence profitability due to increased productivity.
- reduced pressure on government to offer regulation services.
- government concentrating more on formulating policy and playing oversight role.

Role of Seed Trade Associations



- Seed Trade Associations have a critical role to play in advocating:
 - Relevant legislation
 - Discipline in the seed industry
 - Focused national policies
 - Well informed/sensitized policy makers
 - Well established seed distribution systems
 - Friendly business environment
 - Market access
 - Access to good varieties
 - Suitable breeding environment
 - Harmonization of national and international policies and standards



Enabling Environment for Improved Access to Quality Seed

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- Close interaction between players through stakeholder consultations, trainings and workshops.
- Presence of staff with cross-cutting experience in breeding, production and regulation.
- Good will from government.
- Openness to change
- Willingness to learn from and embrace international systems

END



Thank You