

NATIONAL, REGIONAL & INTERNATIONAL CERTIFICATION PROCEDURES AND STANDARDS

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University of Nairobi

International Organisations

1. International-

- a. OECD Seed Schemes – Field certification
- b. ISTA laboratory methods
- c. AOSCA Laboratory methods
- d. IPPC disease movement

2. Regional – Trading blocks, Policy

- a. EAC / ASARECA
- b. COMESA

OECD SEED SCHEMES

- Objective Control of Seed Moving in International Trade
- open to all Members of the Organisation, as well as to any Member of the United Nations
- implemented by the Authorities designated for that purpose by governments
- A State desiring to adhere to one or more OECD Seed Scheme(s) shall notify the Secretary General
- Applicable to eight groups of species of cultivated plants which include:-

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OECD Seeds Schemes

- Grass and Legume Seed Scheme
- Seed Scheme for Crucifers and other Oil and Fibre Species
- Cereal Seed Scheme
- Fodder beet and sugar beet
- Seed Scheme for Subterranean Clover and Similar Species
- Maize Seed Scheme

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- Sorghum Seed Scheme
 - Vegetable Seed Scheme
- Each Scheme includes a set of Rules and Regulations aiming at the varietal certification of seed, except for the Vegetable Seed Scheme, "Standard Seed", may not be certified but only controlled

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OECD

- Schemes are based on principles:
- include only those varieties which are officially recognized as distinct and having an acceptable value in at least one participating country. Names of varieties are published in official lists
- Certified Seed produced must be related directly through one or more generations to authentic Basic Seed of the variety

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- Satisfactory conditions for the production and processing of Basic and Certified Seed must be ensured and verified by field inspection and post-control tests.
- Post-control tests are conducted to ascertain that the Schemes are operating satisfactorily.
- tests are intended to determine that the characters of varieties have remained unchanged in the process of multiplication.

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- and to enable the varietal identity and purity of individual seed lots to be verified

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Acceptance of varieties & parental components

- satisfactory results obtained by tests (including comparative field tests) in at least one participating country. (NDA or competent authority) based on internationally recognized guidelines.
- variety should be distinct , sufficiently uniform and stable in the expression of its characteristics

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- official description of the variety, and the parental components of hybrid variety issued by NDA
- Include essential morphological, physiological or other additional characteristics of the variety
- Kept Under the custody of NDA

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- A sample components of hybrid varieties shall be retained by the National Designated Authority
- Sample and description constitute reference used by NDA for varietal identity and purity confirmation at inspections and post control plots.
- Only seed of listed varieties is eligible for certification.

Seed classes/categories

- Pre-Basic Seed;
- Basic Seed;
- Certified Seed

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Seedlot sampling and analysis

- Sampling, fastening and labeling of containers done by the NDA
- drawn according to current international methods for seed sampling recognised by the National Designated Authority.
- For certified seed a sample is stored for one year.

ISTA

- The International Seed Testing Association is an association of persons and laboratories
- Founded in 1924, with the aim to develop and publish standard procedures seed testing.
- Association produces internationally agreed rules for seed sampling and testing and promote their uniform application.
- ISTA is independent and acts free from economic interest and political influence

ISTA

- Promote research in all areas of seed science and technology, including sampling, testing, storing, processing, and distributing seeds, to encourage variety (cultivar) certification
- Accreditation Programme including Accreditation Standard, Proficiency Testing Programme and Auditing Programme guaranteeing harmonised, uniform, seed testing

ISTA

- issuing of the ISTA International Seed Lot Certificates by officially independent ISTA accredited and authorised laboratories
- Orange certificate:- represents a seedlot. Sampling and testing is done by the lab
- Blue ISTA sample certificate:Represents a sample.Client delivers a sample for testing
- Cooperation with related organisations such as ISF, OECD, UPOV and many others.

ISTA procedures

- Procedure for sampling a seedlot :-
 - Seedlot preparation
 - Minimum sampling intensity
 - Types of samples
- Procedures for obtaining submitted and working sample
 - Minimum size of working sample
 - Sample reduction methods

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- Testing procedure
- Reporting results
- Interpretation of results

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ISTA standard

- Adapted from ISO 17025 to meet specific needs of seed labs
- **Key features of ISTA standard:-**
- Sampling
- Independence of labs
- Use of ISTA Rules
- Staff competence
- Mandatory participation in referee testing programmes.

AOSCA

- Association of Official Seed Certifying Agencies
- Established in 1919 as the International Crop Improvement Association.
- Member agencies in US, & Global member countries located in Canada, South America, Australia and New Zealand

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Responsibilities

- establish minimum standards for genetic purity and identity and recommend minimum standards for seed quality for the classes of certified seed.
- standardize seed certification regulations and procedures, and operational procedures in inter-agency seed certification.

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Responsibilities

- cooperate with seed regulatory agencies in the determination of policy, regulations, definitions or any procedures relating to the labeling and distribution of seed moving in intra-state, inter-state or international commerce.
- cooperate with the Organization of Economic Cooperation and Development (OECD) and international organizations involved in the

Responsibilities

- development of standards, regulations, procedures, and policies to expedite movement of seed and encourage international commerce in improved varieties

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Seed Classes

- Breeder
- Foundation seed
- Registered seed
- Certified seed

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Field and laboratory standards

- Use OECD certification schemes
- Seed sampling and testing:-Procedures approved by AOSA.
- Use certification labels for seed that meets standards.

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IPPC

- International Plant Protection Convention
- Is a 1951 multilateral treaty overseen by the FAO.
- Convention has 182 parties, which includes 179 United Nations member states
- Aims control the introduction and spread of pests of plants and plant products.
- The only international standard setting body for plant health.
- Members shall base their sanitary or phytosanitary measures on its standards, guidelines or recommendations

Regional bodies

EAC / ASARECA

- Rationalization and harmonization of seed policies, laws, regulations and procedures initiated in 1999.
- By the Eastern and Central Africa Program for Agricultural Policy Analysis (ECAPAPA),
- The process involved
 - national studies on key constraints
 - consultation on opportunities for improvements and
 - dialogue between the countries to reach common agreements.

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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

Eligibility for certification

- Establish a regional variety list/catalogue
- Harmonization done on several crops:-

Maize, sorghum, sunflower, soybean, groundnut

- Proposals to consider crops like cassava, wheat, common bean, rice and sesame.

- Varieties eligible for certification are examined, tested and registered in one

Eligibility for certification

member country and in the variety catalogue of that country

- Field inspection according to OECD seed schemes.
- Sampling and testing according to ISTA Rules.

Seed classes

- Pre-basic-Violet band on white
- Basic-White
- Certified First Generation-Blue
- Certified second Generation-Red

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COMESA harmonization initiative

- Common Market for Eastern and Southern Africa
- Harmonization in the 4 areas with 12 selected crops
- COMESA regulations signed Ministers Feb 2015
- Aligning member regulations is ongoing

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Registration of a new variety

- Results of two seasons of DUS and VCU
- Suggested denomination
- Proof of release in two member states
- Reference sample provided to the authorities

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Certification procedure

- Eligible varieties registered in COMESA variety catalogue
- Seed Classes:-
 - Prebasic (violet band on white label)
 - Basic(White)
 - C1G (Blue)
 - C2G(Red)

Field parameters and Laboratory methodologies

- Certification standards provided for the 12 selected crops on: Minimum cropping history, Isolation, Maximum offtypes, Minimum number of inspections, diseases
- Laboratory standards for:- Minimum germination, minimum pure seed, Maximum moisture.

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National procedures and standards

- Normally carried out by National Seed Authorities
- National Seed Authorities are established by an Act of the parliament and the same Act defines their role
- Roles vary from country to country
- Compulsory vs Voluntary certification
- Minimum standards vs truthful labeling.

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