



DEAS 1035: 2020

ICS 65.020.20

EAST AFRICAN STANDARD

Banana seeds — Requirements for certification

EAST AFRICAN COMMUNITY

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PUBLIC REVIEW DRAFT OCTOBER 2022

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Foreword

Development of the East African Standards has been necessitated by the need for harmonizing requirements governing quality of products and services in the East African Community. It is envisaged that through harmonized standardization, trade barriers that are encountered when goods and services are exchanged within the Community will be removed.

The Community has established an East African Standards Committee (EASC) mandated to develop and issue East African Standards (EAS). The Committee is composed of representatives of the National Standards Bodies in Partner States, together with the representatives from the public and private sector organizations in the community.

East African Standards are developed through Technical Committees that are representative of key stakeholders including government, academia, consumer groups, private sector and other interested parties. Draft East African Standards are circulated to stakeholders through the National Standards Bodies in the Partner States. The comments received are discussed and incorporated before finalization of standards, in accordance with the Principles and procedures for development of East African Standards.

East African Standards are subject to review, to keep pace with technological advances. Users of the East African Standards are therefore expected to ensure that they always have the latest versions of the standards they are implementing.

The committee responsible for this document is Technical Committee EASC/TC 012, *Seed and propagation materials*.

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Banana seed — Requirements for certification

1 Scope

This Working Draft East African Standard specifies the requirements for certification for banana (*Musa* spp) seed.

It applies to tissue culture, macro-propagation and conventionally produced planting materials.

Draft East African Standard specifies the certification requirements for pre-basic, basic and certified seed of banana (*Musa* L. species). It includes requirements for tissue culture, macro-propagation and conventionally produced planting materials categories, eligible varieties, application for certification, specific nurseries and field requirements, field inspection, size of the suckers and plantlets, certificates, packaging, labelling, and post-control tests.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

International Seed Testing Association ISTA Rules

OECD Schemes for Varietal Certification or the Control of Seed Moving in the International Trade.

Rwanda :

The provided references to be deleted and find applicable references There are no normative references in this document.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at <http://www.iso.org/obp>

3.1

seed

part of plant which is or is intended to be used for propagation and includes any true seed, any vegetative material including seedling, corm, cutting, bulb, bulbil, layer, marcott, root, runner, scion, set, split, stem, stock, stump, sucker or tuber so used or intended to be so used

3.3

previous cropping

number of growing seasons that elapse between the production of a crop of the same species in a field and the production of a crop entered in the certification scheme in the same field

3.4

isolation

distance or time between two crops of banana that is required to prevent contamination either mechanically or by cross pollination

3.5

seed producer

person or entity registered to produce seed

3.6

inspector

authorized official responsible for carrying out field and seed inspections for certification purposes

3.7

label

tag or other device that is attached to seeds or that accompanies any lot of bulk seed and which describes the kind of seed and any other required information

3.8

seed certification agency

national authority responsible for the certification of seed

3.9

off-type

plant of the same species which does not exhibit the recognised and accepted habit and characteristics of the variety being grown

3.10

variety registration

recording of a new variety in a national variety catalogue/national variety list when it has been tested and satisfied the requirements for distinctness, uniformity, stability, and has value for cultivation and use

3.11

basic seed

plantlet from tissue culture certified planting material: planting material from pre-basic seed and propagated through macro-propagation or conventional method

3.12

seed certification

quality assurance system whereby seed is subjected to official control and inspection

3.13

seed lot

defined quantity/number of banana seed bearing the same reference number, origin, production history and identity

3.14

stability

condition of a variety distinguishing characteristics to remain unchanged after repeated growing cycles

3.15

production cycle

period which elapse from the time of planting to the harvesting of the first bunch or period between two subsequent harvests

3.16

seed from tissue culture

plantlets produced through micro-propagation (in vitro multiplication) which have been hardened in the screen house

3.17

macro-propagation

mass multiplication using large plant parts (corms, part of shoot) where the apical dominance is removed to induce the growth of multiple lateral shoots

3.18

micro-propagation

multiplication using small shoots and plant growth hormones under laboratory conditions, to induce multiple lateral shoot and root formation

3.19

suckers

lateral shoot that develops from the rhizome and usually emerges close to the parent plant under conventional conditions

4 Classes of banana seed

For the purpose of this standard, the following classes of seed shall apply:

- a) pre-basic seed;
- b) basic seed; and
- c) certified seed.

5 Categories of banana seed

For the purpose of this standards the following categories of banana seed shall apply:

- a) tissue culture plantlets;
- b) macro-propagation plantlets; and
- c) suckers.

6 Requirements

6.1 Eligible varieties

6.1.1 Varieties eligible for seed certification shall be those that have been registered in at least one-member country of the EAC in the national list of varieties/national variety catalogue. The country adopting the variety shall test it for at least one season.

6.1.2 The national seed certification authority shall keep the official descriptor of the varieties it has registered in hard and electronic copies and these shall be made available within EAC on request.

5.2 Application for certification

5.2.1 The minimum information for an application for certification of a seed crop shall include the following:

- a) name, address and contact details of the banana seed grower/producer;
- b) crop and variety to be sown;
- c) physical location;
- d) area and reference number of the field/screen house, and its cropping history for the past two cropping seasons;
- e) class of seed to be produced;
- f) registration number of the seed grower;
- g) proof of origin of the seed to be planted; and
- h) date of planting.

5.2.2 Information and records related to the previous cropping history, origin of seed planted, and field inspections shall be kept and used for certification to ensure full traceability of quality, genetic identity and purity of the planting material obtained.

5.3 Field inspection

5.3.1 Starting material for each category shall be from certified planting materials and the producer shall keep all records for the traceability of the origin of the starting materials.

5.3.2 All the categories (tissue culture and macro propagated plantlets, and conventional suckers) of banana planting materials shall be inspected and certified by the national certification authority before their distribution.

5.3.3 For conventional suckers two inspections in field are necessary – at 3-4 months after planting and when plants have bunches (near to be harvested). The field producing conventional planting materials shall be re-inspected and re-certified on an annual basis. The cultural conditions (isolation, off-type, pests and diseases) of the conventional field and the stage of development of the crop shall be such as to permit varietal identity and varietal purity and health status to be adequately checked.

5.3.4 For macro-propagation and tissue culture plantlets, at least one inspection will be conducted in the nurseries to check on general plant vigour, pests/diseases and genetic purity.

5.3.5 The inspector shall inspect the banana plantlets in the nurseries, in accordance with the protocols and guidelines of the EAC Partner States.

5.4 Specific requirements for banana seed (nurseries and field)

Field for the production of banana seeds shall comply with minimum requirements as specified in Table 1.

Table 1 — Nurseries/field requirements for banana seed

S/N	Variables	Standard for each class		
		Macro-propagation: nurseries	Tissue culture (basic/Foundation): nurseries	Conventional suckers (Certified): field
i.	Minimum number of cropping seasons	Does not apply	Does not apply	2 seasons
ii.	Isolation distance, m, min.	2	2	500
iii.	Pure living clones, true-to-type variety, %, (by number), min.	98	95	98.0
iv.	Weevils and nematode, %, max.	0	0	2
v.	Banana bacterial wilt, Fusarium wilt (Panama disease)	Absent	Absent	Absent
vi.	Black sigatoka, yellow sigatoka and cigar end rot	Absent	Absent	Absent
vii.	Banana bunchy top virus, banana bract mosaic virus, banana streak virus	Absent	Absent	Absent

6 Size of the suckers and plantlets

The diameter at the base of the banana seed sucker shall be of range from a minimum of 5.0 to a maximum of 15.0 cm.

The diameter of the tissue culture and macro-propagated seed should be 4-6 cm at the collar region, with about 3 to 4 leaves.

5 Certificates

5.1 Banana seed lot shall have required certificates including certificate of origin, phyto-sanitary certificate and inspection certificate for compliance.

5.2 For locally produced seed, the inspection certificate shall be issued upon compliance with field/nursery requirements.

5.3 Inspection certificate shall be valid for a period of six months.

5.4 After the expiring of the validity of the certificate the seeds shall be re-inspected for diseases. If the test result complies with the minimum standards, a new inspection certificate shall be issued for the seed lot, which cancels the previously issued certificate, and shall include the certificate number of the cancelled inspection.

6 Packaging

Banana seeds may be packaged in containers that preserve the quality of the seeds.

7 Labelling

Banana seed shall be labelled or accompanied by documents providing the following information:

- a) variety;
- b) category as tissue culture, macro-propagation plantlets or suckers;
- c) reference number of lot;
- d) number planting materials;
- e) identification of the producer; and
- f) country of production.

Bibliography

International Seed Testing Association ISTA Rules

OECD Schemes for Varietal Certification or the Control of Seed Moving in the International Trade.

UPOV, *International Union for the Protection of New Varieties of Plants*

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