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## EAST AFRICAN STANDARD

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**Banana seeds — Requirements for certification**

PUBLIC REVIEW 2020

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PUBLIC REVIEW 2020

## Contents

Page

|  |                              |
|--|------------------------------|
| Foreword .....   | iv                           |
| 1 Scope .....  | 1                            |
| 2 Normative references .....                               | 1                            |
| 3 Terms and definitions .....                              | 1                            |
| 4 Requirements .....                                       | 2                            |
| 4.1 Eligible varieties .....                               | 2                            |
| 4.2 Application for certification .....                    | 2                            |
| 4.3 Field inspection .....                                 | 3                            |
| 4.4 Specific field requirements .....                      | 3                            |
| 4.4.1 Clones .....   | 4                            |
| 5 Clone specifications .....                               | 4                            |
| 4.3 Land requirements .....                                | 4                            |
| 4.4 Rotation .....   | 4                            |
| 4.5 Spacing .....  | 4                            |
| 5 Certificates .....                                       | 4                            |
| 6 Packaging .....  | 4                            |
| 7 Labelling .....  | 5                            |
| 10 Methods of sampling and testing .....                   | Error! Bookmark not defined. |
| Annex A (normative) Scope of application of standard ..... | Error! Bookmark not defined. |
| Annex B (informative) Seed crop declaration form .....     | Error! Bookmark not defined. |
| Annex C (Normative) Seed test certificate .....            | 6                            |
| Bibliography .....   | 7                            |

## 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. XXXXXX.

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*.

Attention is drawn to the possibility that some of the elements of this document may be subject of patent rights. EAC shall not be held responsible for identifying any or all such patent rights.

# Banana seeds — Requirements for certification

## 1 Scope

This Working Draft East African Standard specifies the requirements for certification for banana (*Musa paradisiaca* L) seeds. It applies tissue culture, macro-propagation and conventionally produced planting materials”

## 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.

## 3 Terms and definitions

For the purposes of this standard, the terms and definitions given in UPOV 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

#### **previous cropping**

minimum 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

### 3.2

#### **isolation**

minimum distance between a field of vegetable seeds and any other vegetable seed of the same species that is required to prevent contamination

### 3.3

#### **seed producer**

person or entity registered to produce seed

### 3.4

#### **inspector**

official belonging to a quality control department responsible for performing field control and sampling of seeds

### 3.5

#### **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

**3.6 previous cropping**  
minimum number of growing seasons that elapses 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

**3.7 seed certification agency**  
recognized agency responsible for the certification of seed

**3.8 off-type**  
plant of the same species which does not exhibit the recognised and accepted habit and characteristics of the variety being grown

**3.9 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

**3.10 roguing**  
removal of off-types and diseased plants or any other unwanted plant from a seed crop if they may reduce the quality of the harvested seed

**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 and for which the origin, production history and identity is known

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

## **4 Requirements**

### **4.1 Eligible varieties**

**4.1.1** Varieties eligible for seed certification shall be those that have been registered in the national list of varieties/national variety catalogue.

**4.1.2** Each 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.

### **4.2 Application for certification**

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

- a) name, address and contact details of the seed grower;
- b) crop and variety to be sown;
- c) physical location;

- d) area and reference number of the field, and its cropping history for the past two cropping seasons;
- e) class of seed to be produced; and
- f) registration number of the seed grower.

**4.2.2** 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 seed harvested.

### 4.3 Field inspection

**4.3.1** 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

**4.3.2** All the categories (tissue culture plantlets (basic seed), macro-propagation and conventional suckers) of banana planting materials shall be inspected and certified by the national certification agency before their distribution

**4.3.4** For conventional suckers two inspections in field are necessary – at 3-4 months after planting and when plants have bunches (near to be harvested). This is for field producers having seed fields and for selective random inspection for clients who bought plantlets from tissue culture and have planted them in the field – to check the proportion of off-types and wrong varieties for quality control of tissue culture plants from a private seed supplier (tissue culture lab).

**4.3.4** For macro-propagation and tissue culture, one visit of plants in nurseries is needed by inspection to check on general plant vigour/diseases.

**4.3.5** The inspector shall inspect the crop in accordance with the banana international protocols and guidelines.

**4.3.6** The cultural condition 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.

### 4.4 Specific field requirements

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

**Table 1: Field requirement for banana planting materials**

| S/N | Variables                                      | Standard for each class |                                   |                                  |
|-----|--|-------------------------|-----------------------------------|----------------------------------|
|     |  | Macro-propagation       | Tissue culture (basic/Foundation) | Conventional suckers (Certified) |
| i   | Pure living clones (minimum) True type variety | 98                      | 95 % (by number)                  | 98.0 % (by number)               |
| iii | Seed born diseases (to be specified)           | Absent                  | Absent                            | Absent                           |



#### **4.4.1 Clones**

**4.4.1.1** Foundation clones being a group of common ancestry shall be genetically pure in absolute terms. Off-types should be discarded under the supervision of National recognized Certification Authority Certification Agency.

**4.4.1.2** The plants should be free from bunchy top, nematode, and Panama disease, banana bacterial wilt, banana streak virus black, Cigar end rot and black sigatoka, Banana Xanthomonas Wilt.

### **5 Clone specifications**

**5.1** The diameter of the banana seed sucker shall be of range from 5.0 – 10.0 cm.

**5.2** The clone lot shall have maximum size of 5.0 % (by number)

#### **4.3 Land requirements**

Land intended for banana seed production shall be prepared timely and in such way that a clean level seedbed is obtained. Seed fields for banana seed crops shall be prevented from contamination and build up of soil-borne diseases from the same kind of crops grown in the previous seasons unless the seeds crops grown in the previous season was a certified seed of varietal purity.

#### **4.4 Rotation**

If the field is located in the area or region known to be contaminated with fusarium wilt and banana bacterial wilt, banana bunch top, banana streak viruses, this field is suspected and shall not be used for the production of planting materials.

#### **4.5 Spacing**

The spacing between banana seed plants in clone propagation plots shall have a minimum spacing of 1.5 m and between row 1.5 m.

### **5 Certificates**

**5.1** Banana seeds lot shall have required certificates including certificate of origin, phyto-sanitary certificate and inspection certificate

**5.2** For locally produced seed, the inspection certificate shall be issued upon compliance with field and laboratory 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.

**5.5** The test certificate shall indicate at least the result of the purity and germination test and date of the inspection.

### **6 Packaging**

**6.1** Banana seeds shall be packaged in containers that preserve the quality of the seeds.

## 7 Labelling

Banana seeds shall be labelled with the following information:

- a) species indicated at least in its botanical name;
- b) variety;
- c) class;
- d) date of test of the last official testing for the purposes of certification;
- e) reference number of lot;
- f) country of production;
- g) declared net or gross weight or declared number of seeds;
- h) chemical used for seed dressing where applicable; and
- i) the words "retested" where at least disease has been re-tested (month and year) may be indicated.

PUBLIC REVIEW 2020

**Annex A**  
(Normative)

**Seed test certificate**

This certificate is issued for a seed lot which has satisfied all the requirements of the certification scheme

|   |                 |                     |                     |                      |                    |  |                 |               |                     |                      |  |
|---|-----------------|---------------------|---------------------|----------------------|--------------------|--|-----------------|---------------|---------------------|----------------------|--|
| Previously issued certificate number..... |                 |                     |                     | Certificate No. .... |                    |  | Standard: ..... |               |                     |                      |  |
| APPLICANT INFORMATION                     |                 |                     |                     |                      |                    |  |                 |               |                     |                      |  |
| Seed lot reference number                 |                 |                     | Species and variety |                      |                    | Class  |                 | Weight of lot |                     | Number of containers |  |
|   |                 |                     |                     |                      |                    |  |                 |               |                     |                      |  |
| Name of testing laboratory:               |                 |                     |                     |                      |                    | Test number:   |                 |               |                     |                      |  |
| ANALYSIS RESULTS                          |                 |                     |                     |                      |                    |  |                 |               |                     |                      |  |
| Purity                                    |                 |                     |                     | Germination          |                    |  |                 |               | Moisture content, % |                      |  |
| Pure seed, %                              | Inert matter, % | Other crop seeds, % | Weed seeds per kg   | Normal seedlings     | Abnormal seedlings | Fresh seeds  | Hard seeds      | Dead seeds    |                     |                      |  |
|   |                 |                     |                     |                      |                    |  |                 |               |                     |                      |  |
| Kind of inert matter:                     |                 |                     |                     |                      |                    | Statement of packaging and re-labelling: (if applicable) |                 |               |                     |                      |  |
| Kind of other crop seeds:                 |                 |                     |                     |                      |                    |  |                 |               |                     |                      |  |
| Kind of weed seeds:                       |                 |                     |                     |                      |                    |  |                 |               |                     |                      |  |
| Other determinations                      |                 |                     |                     |                      |                    |  |                 |               |                     |                      |  |

National Seed Certification Authority

Signature .....

Place and date .....

## Bibliography

RS 275-2: 2015, *Seeds — Requirements for certification — Part 2: Rice*

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