



DRAFT TANZANIA STANDARD

Cooking banana - Specification

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0 foreword

Cooking banana (*Musa* spp.) are banana cultivars whose fruits are generally used in cooking and recognized for its higher level of starch content with less sugar. They are commonly marketed while green in colour; normally not considered to be suitable for dessert even when ripened.

This Tanzania Standard was prepared in order to provide guidance to cooking banana producers and traders as well as regulators, and to ensure safety and quality of the produce.

In the preparation of this Tanzania Standard considerable assistance was derived from: Uganda Standard US 997:2014 *Standard for Cooking banana*.

In reporting the results of a test or analysis made in accordance with this standard, if the final value observed or calculated is to be rounded off, it shall be done in accordance with TZS 4 (see clause 2).

1. Scope

This standard specifies requirements, sampling and test methods of cooking banana grown from *Musa* spp. and of family Musaceae to be supplied raw to the consumer after preparation and packaging. Cooking banana for industrial processing are excluded.

2. Normative references

The following referenced standards are indispensable for the application of this standard. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced standards (including any amendments) applies.

- a) TZS 4, *Rounding off of numerical values*
- b) TZS 109, *Food processing and manufacturing units -Code of hygiene - general*
- c) TZS 538, *Labelling of prepackaged foods - General requirements*
- d) TZS 1002, *Fresh fruits and vegetables - Sampling*
- e) TZS 1003, *Guide to the pre-packaging of fresh fruits and vegetables*
- f) TZS 1743, *Code of hygienic practice for fresh fruits and vegetables*
- g) Codex Stan 193, *Codex General standard for contaminants and toxins in food and feed*
- h) *Codex pesticide residues in food online data base*
- i) CAC/GL 21, *Principles for the Establishment and Application of Microbiological Criteria for Foods*

3. Terms and definitions

For the purposes of this standard, the following terms and definitions apply;

3.1 cluster

group of attached bananas/fingers from a split hand

3.2 produce

raw cooking banana

3.3 sound

produce not affected by rotting or deterioration to make it unfit for consumption

3.4 finger

individual cooking banana

3.5 clean

practically free of any visible foreign matter

3.6 pest

any organism that directly or indirectly affects the quality and safety of the produce

3.7 whole

uninjured, unbroken and undamaged cooking banana

3.8 stalk

stem of the banana bunch

3.9 hands

group of attached fingers

3.10 crown

part of the hand connecting the hand to the stalk

4 Requirements

4.1 General requirements

In all classes, subject to the special provisions for each class and the tolerances allowed, cooking banana shall be:

- whole and firm (taking the finger as the reference);
- sound;
- clean;
- practically free of pests and/or damage caused by them;
- free of damage caused by low or high temperatures;
- practically free of bruises;
- free of malformation or abnormal curvature of the fingers;
- with pistils removed (deflowered);
- with the stalk intact, without fungal damage or desiccation;

- free from ripening;
- free from fused fingers;
- free from finger end rot;
- of the correct length; and
- without splits or broken pedicels or tips.

4.1.1 In addition clusters shall include:

- a) a sufficient portion of the crown of normal colouring, sound and free of fungal contamination; and
- b) a cleanly cut crown, not bevelled or torn, with no stalk fragments.

4.1.2 Cooking banana may be presented in one of the following styles:

- raw (green, unpeeled), in form of clusters or fingers or bunch;
- other sufficiently distinctive styles of presentation

4.2 Specific requirements

4.2.1 Classification

Cooking banana are classified into three classes defined below:

4.2.1.1 “Extra” class

Cooking banana in this class shall be of superior quality and characteristic of the variety and/or commercial type. The fingers shall be free of defects, with the exception of very slight superficial defects, provided these do not affect the general appearance and quality of the produce, the keeping quality and presentation in the package.

4.2.1.2 Class I

Cooking banana in this class shall be of good quality and characteristic of the variety.

The following slight defects of the fingers, however, may be allowed, provided these do not affect the general appearance and quality of the produce, the keeping quality and presentation in the package:

- a) slight defects in shape and colour; and
- b) slight skin defects due to rubbing and other superficial defects not exceeding 2 cm² of the total surface area.

The defects shall not, in any case, affect the flesh of the fruit.

4.2.1.3 Class II

This class includes cooking banana which does not qualify for inclusion in the higher classes, but satisfies the requirements specified in 4.1. The following defects, however, may be allowed, provided the cooking banana retains its essential characteristics as regards the quality, the keeping quality and presentation:

- a) defects in shape and colour, provided the product retains the normal characteristics of cooking banana and

- b) skin defects due to scraping, scabs, rubbing, blemishes or other causes not exceeding 4 cm² of the total surface area. The defects shall not, in any case, affect the flesh of the fruit.

4.3 Provisions concerning sizing

The reference fruit for measurement of the length is the median finger on the outer row of the clusters. For all classes the minimum length shall not be less than 10cm.

4.4 Provisions concerning tolerances

Tolerances in respect of quality and size shall be allowed for produce not satisfying the requirements of the class indicated.

4.4.1 Quality tolerances

4.4.1.1 “Extra” class

Five percent by number or weight of cooking banana that do not satisfy the requirements of the class, but meet those of Class I

4.4.1.2 Class I

Ten percent by number or weight of cooking banana that do not satisfy the requirements of the class, but meet those of Class II.

4.4.1.3 Class II

Ten percent by number or weight of cooking banana that do not satisfy neither the requirements of the class nor the general requirements, with the exception of produce affected by rotting, major imperfections or any other deterioration rendering it unfit for consumption.

4.4.2 Size tolerances

For all classes, 10 % by number or weight of cooking banana that do not satisfy the specific class requirements as regards sizing, but falling within the size immediately above or below that indicated in Clause 4.3.

4.5 Provisions concerning presentation

Cooking banana may be presented as clusters or as single fingers. Clusters with no more than one missing fingers are allowed, provided the crown is not torn but cleanly cut, without causing damage to the neighbouring fingers.

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6 Hygiene

6.1 It is recommended that the produce covered by the provisions of this Standard be prepared and handled in accordance with TZS 109 (see clause 2) and TZS 1743.

6.2 Cooking banana shall be free from parasites, pathogenic microorganisms or substances originating from them in amounts, which may present a hazard to human health in accordance with the principles and guidelines for the establishment and application of microbiological criteria related to food (CAC/GL 21).

7 Contaminants

7.1 Heavy metal contaminants

Cooking banana shall comply with those maximum metal contaminants established by the Codex Stan 193.

7.2 Pesticide residues

Cooking banana shall comply with those maximum residue limits established in the Codex pesticide residues in food online data base.

8 Sampling and tests

8.1 Sampling

Representative samples of cooking banana shall be drawn as prescribed in TZS 1002 (see clause 2).

8.2 Tests

Tests shall be done in accordance with the methods prescribed in this standard.

9. Packing, marking and labelling

9.1 Packing

Cooking banana shall be packed in such a way as to protect the produce properly. The materials used shall be of food grade, clean and of a quality such as to avoid causing any external or internal damage to the produce. The use of materials, particularly of paper or stamps bearing trade specifications, is allowed, provided the printing or labelling has been done with nontoxic ink or glue.

9.1.1 The containers shall meet the quality, hygiene, ventilation and resistance characteristics that shall ensure suitable handling, shipping and preserving cooking banana. Packages (or lot for produce presented in bulk) shall be free of foreign matter and objectionable smell.

9.1.2 The use of any substance tending to modify the natural characteristics of the produce, especially form, texture and taste shall be prohibited.

The produce shall also be packed in accordance with TZS 1003 (See clause 2).

9.1.3 The contents of each package shall be uniform and contain only cooking banana of the same origin, variety, and quality. The visible part of the contents of the package shall be representative of the entire contents.

9.2 Marking and labelling

9.2.1 In addition to the requirements of the TZS 538; each package shall legibly and indelibly bear the following information in Swahili or and English on the same side:

- a) Name of the produce as Cooking banana
- b) Commercial identification which may include cooking banana in fingers or clusters
- c) Name and address of exporter, packer and/or dispatcher;
- d) Country of origin;
- e) Identification code and/or batch number
- f) Class;
- g) Net weight (optional);
- h) Storage instructions;
- i) Name of the variety or commercial type (optional);
- j) Pack date

9.2.2 Certification mark – Each container may also be marked with TBS certification mark.

NOTE: The use of TBS certification mark is governed by provisions of the Standards Act, 2009. Details of the conditions under which a license for the use of TBS certification mark may be granted to manufacturers or producers, may be obtained from TBS.

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