

DRAFT TANZANIA STANDARD

Livingstone potato — Specification

DRAFT STANDARD FOR COMMENTS ONLY

TANZANIA BUREAU OF STANDARDS

0. Foreword

Livingstone potato also known as the kaffir potato, or numbu/ming'oko/ m bao or mung'unya, is a species of plant in the dicotyledonous family Lamiaceae. It is indigenous to Africa and in Tanzania the crop is mainly grown in Njombe, Mbeya, Lindi Mtwara and Rufiji. This crop can benefit many subsistence farmers since it is native, easy to grow and quite nutritious. The demand for this product is increasing thus the need to ensure its safety and quality.

In developing this standard assistance was drawn from stakeholders who provided necessary information and samples.

In reporting the result 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 Tanzania standard specifies the requirements, methods of sampling and test for livingstone potato intended for human consumption.

2. Normative references

The following referenced documents are indispensable for the application 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.

Rearrange in ascending order

TZS 4, *Rounding off numerical values.*

TZS 109, Food processing unit – Code of hygiene

TZS 538/EAS 38, *General standard for labeling of prepackaged foods*

CAC/RCP 44, *Code of practice for packaging and transport of fresh fruit and vegetables*

CAC/RCP 53, *Code of Hygienic Practice for Fresh Fruits and Vegetables*

CODEX STAN 192, *General standard for food additives*

CODEX STAN 193, *Codex general standard for con* TZS 538/EAS 38, *Labelling of prepackaged foods — General requirements taminants and toxins in food and feed*

TZS 1002: 2009 Fresh fruits and vegetables – Sampling

3. Terms and definitions

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

3.1 livingstone potato

roots obtained from a plant of the species *Plectranthus esculentus*

3.2 whole

fresh storage roots which have not been subjected to any mechanical damage or peeling of its initial harvested mass with the exemption of trimming.

3.3 sound/wholesome

free from pests, diseases, serious deterioration (such as but not limited to decay, breakdown, freezing damage, or softness) or adulteration/contamination, that appreciably affects their appearance, edibility and the keeping quality of the produce or market value.

3.4 practically free

produce without defects in excess of those that can be expected to result from, and be consistent with good cultural and handling practices employed in the production and marketing of the livingstone potato

3.5 clean

practically free from dirt or staining or other foreign matter or extraneous matter

3.6 food grade packaging material

material, made of substances which are safe and suitable for their intended use and which will not impart any toxic substance or undesirable odour or flavour to the produce

3.7 extraneous matter

organic matter of plant origin other than livingstone potato

3.8 foreign matter

organic and inorganic materials (such as sand, soil, glass) other than extraneous matter in livingstone potato

4 Requirements

4.1 General requirements

Livingstone potato shall have reached an appropriate degree of physiological development taking into account the characteristics of the variety and the area in which they are grown, ability to withstand normal transport and handling conditions and ability to arrive in a satisfactory condition at the place of destination.

4.2 Minimum requirements

Livingstone potato supplied to the market shall be:

- a) firm;
- b) whole;
- c) fresh;

- d) wholesome/sound;
- e) not affected by rot, mould or deterioration as to make it unfit for consumption;
- f) clean, and practically free of any visible extraneous matter or foreign matter, except permitted substances used to prolong its shelf life;
- g) of colour, taste and texture characteristic of the variety; and
- h) practically free of pests and damage caused by pests;

4.3 Quality tolerances

Tolerances for the quality requirements shall be such that:

- a) no more than 3 % of livingstone potato may be affected by rot, mould or deterioration as to make it unfit for consumption; and
- b) no more than 3 % of livingstone potato may be affected by damage caused by pests.
- c) defects in shape not exceeding 5% of the root
- d) bruising, not exceeding 10 % of the surface area of the root
- e) lesions not more than 2 mm in depth and not more than 3% of the surface coverage;
- f) internal defects in not more than 3 % by number or mass of the root; and
- g) common scab not extending 3 % of the surface area and intrusion not exceeding 2 mm.

5. Contaminants

5.1 Pesticide residues

Livingstone potato shall conform to maximum limits for pesticide residues established by the Codex Alimentarius Commission.

5.2 Other contaminants

Livingstone potato shall comply with the maximum levels of the Codex General Standard for Contaminants and Toxins in Food and Feed (CODEX STAN 193).

6. Hygiene

Livingstone potato shall be handled in hygienic manner in accordance with the appropriate sections of TZS 109 and CAC/RCP 53.

7. Sampling and test

Sampling shall be done in accordance with TZS 1002 and testing shall be done according to test methods prescribed in this standard.

9. Packing, marking and labelling

9.1 Packing

9.1.1 Livingstone potato shall be packaged in such a way to protect the produce from pest, mechanical, heat and frost damage.

9.1.2 Livingstone potato shall be packaged in food grade packaging materials that will safeguard the hygienic, nutritional, and organoleptic qualities of the produce.

9.1.3 In order to maintain the produce quality during transportation and marketing, Livingstone potato shall be packaged and transported in accordance with the appropriate sections of CAC/RCP 44.

9.2 Marking and labelling

In addition to the requirements of TZS 538; the following labelling requirements shall apply and shall be legibly and indelibly marked

- a) name of the produce to be shown on the label shall be "Livingstone potato";
- b) name and location address of the vendor and/or packer shall be declared;
- c) country of origin of the produce;
- d) lot identification (batch number);
- e) declaration of preservatives, if used;
- f) date of harvest and packing;
- g) storage conditions; and
- h) statement (Food for human consumption)
- i) The language on the label shall be Kiswahili and/or English". Another language may be used depending on the designated market.

9.3 The package may also be marked with TBS Quality Mark.

NOTE: The TBS Standards Mark of Quality may be used by the manufacturers only under license from TBS. Particulars of conditions under which the license are granted may be obtained from TBS