



DRAFT TANZANIA STANDARD

Litchi - specification

DRAFT STANDARD FOR PUBLIC COMMENTS ONLY

0 foreword

Litchi also known as lychee is a small round or oblong shaped tropical fruit with pink or red scaly skin, sweet juicy pulp when ripe.

Litchi comprises of three layers; the reddish husk, white flesh, and brown seed. The white flesh of litchi is fragrant and sweet. It can be eaten on its own, used in tropical fruit salads, or blended into cocktails, juices, smoothies, and desserts. Litchi is a healthy fruit rich in vitamins and antioxidants.

This Tanzania Standard was prepared in order to provide guidance to litchi 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: Codex Alimentarius CXS 196-1995 *Standard for litchi*.

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 quality and safety requirements, methods of sampling and test of litchis grown from *Litchi chinensis* Sonn., of the *Sapindaceae* family, to be supplied fresh to the consumer. Litchis 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, *Code of hygiene for food processing unit*
- c) TZS 538, *Packaging, marking and labeling of foods.*
- 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*
- g) Codex Stan 193, *Codex General standard for contaminants and toxins in food and feed*

h) *Codex pesticide residues in food online data base*

3 Terms and definitions

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

3.1 sound

produce not affected by rotting or deterioration such as to make it fit for consumption

3.2 clean

free from dirt, dust, insect stains or other foreign substances

3.3 pest

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

3.4 whole

uninjured, unbroken and undamaged litchis intended for consumption while fresh

3.5 bunch

several clusters of litchi fruit with a portion of the stem of the same size grouped together

4 Requirements

4.1 General requirements

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

- whole;
- sound;
- clean;
- practically free of pests and damage caused by them;
- free of abnormal external moisture, excluding condensation following removal from cold storage;
- free of any foreign smell and/or taste;
- free of physical damage that do not affects its edible part;

4.1.1 The litchis shall be sufficiently developed and mature.

The development and condition of the litchis shall be such as to enable them to:

- withstand transport and handling; and
- arrive in satisfactory condition at the place of destination.

The colouring of litchis may vary from pink to red in the case of untreated litchis; from pale yellow to pink for litchis that have been fumigated with Sulphur

dioxide.

4.2 Classification

Litchis are classified in three classes defined below:

4.2.1 “Extra” class

Litchis in this class shall be of superior quality. They shall have the shape, development and colouring that are typical of the variety or varietal type. They shall be free of defects, with the exception of very slight superficial defects, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package.

4.2.2 Class I

Litchis in this class shall be of good quality. They shall be characteristic of the variety or varietal type. The following slight defects may be allowed, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package:

- slight misshaping;
- slight defects in colouring;
- slight skin defects provided these do not exceed a total area of 0.25 cm².

4.2.3 Class II

This class includes litchis which do not qualify for inclusion in the higher classes, but satisfy the general requirements specified in clause 4.1. The following defects, may be allowed, provided the litchis retain their essential characteristics as regards the quality, the keeping quality and presentation:

- defects in shape;
- defects in colouring;
- skin blemishes provided these do not exceed a total area of 0.5 cm².

4.3 Provisions concerning sizing

Size is determined by the maximum equatorial diameter.

- The minimum size for “Extra” class is 33 mm.
- The minimum size for Classes I and II is 20 mm.
- A maximum size range of 10 mm between fruit in each package is permitted.

4.4 Provisions concerning tolerances

Tolerances in respect of quality and size shall be allowed in each package 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 litchis not satisfying the requirements of the class, but meeting those of Class I or, exceptionally, coming within the tolerances of that class.

4.4.1.2 Class I

Ten percent by number or weight of litchis not satisfying the requirements of the class, but meeting those of Class II or, exceptionally, coming within the tolerances of that class.

4.4.1.3 Class II

Ten percent by number or weight of litchis satisfying neither the requirements of the class nor the general requirements, with the exception of produce affected by rotting or any other deterioration rendering it unfit for consumption.

4.4.2 Size Tolerances

For all classes, 10% by number or weight of litchis not satisfying the requirements as regards the minimum size, provided, however, that the diameter is not less than 15mm in all classes, and/or the maximum size range of 10mm.

4.5 Provisions concerning presentation

4.5.1 Uniformity

The contents of each package shall be uniform and contain only litchis of the same origin, variety or varietal type, quality, size and colour. The visible part of the contents of the package shall be representative of the entire contents.

4.5.2 Presentation

The litchis shall be presented under one of the following forms:

4.5.2.1 Individually

In this case the pedicel shall be cut at the first knot and the maximum length of the stalk shall not extend more than 2mm beyond the top of the fruit. "Extra" Class litchis shall be presented individually.

4.5.2.2 In bunches

In this case, the bunch shall include more than three attached and well-formed litchis. The bunch must not exceed 15cm in length.

5

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.

7 Contaminants

7.1 Heavy metal contaminants

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

7.2 Pesticide residues

Litchis 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 litchis shall be drawn as prescribed in T.S 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

Litchis 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. However, the presence of a limited number of fresh leaves is permitted where litchis are presented in bunches.

9.1.1 The containers shall meet the quality, hygiene, ventilation and resistance characteristics that shall ensure suitable handling, shipping and preserving litchis. Packages 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.

9.1.3 In addition to the provisions covered by this standard, litchis shall also be packed in accordance with TZS 538 and TZS 1003 (See clause 2).

9.2 Marking and labelling

9.2.1 Each package shall legibly and indelibly bear the following information in Swahili or and English on the same side:

- a) Name and address of importer/exporter, packer and/or dispatcher/distributor;
- b) Name of the produce (litchis);
- c) Country of origin;
- d) Class;
- e) Net weight (kg);

- f) Batch number;
- g) Storage condition.

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.

DRAFT STANDARD FOR PUBLIC COMMENTS ONLY