



DRAFT EAST AFRICAN STANDARD

Fresh onions— Specification

EAST AFRICAN COMMUNITY

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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.

In order to achieve this objective, the Community established an East African Standards Committee mandated to develop and issue East African Standards.

The Committee is composed of representatives of the National Standards Bodies in Partner States, together with the representatives from the private sectors and consumer organizations. 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 procedures of the Community.

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.

EAS ... was prepared by Technical Committee EASC/TC 016

Fresh onions— Specification

1 Scope

This draft east African standard prescribes the requirements and methods of sampling and tests for fresh bulb onions *Allium cepa* (L.) of the family *Alliaceae* to be supplied to the consumer. This standard does not include onions for industrial processing.

2 Normative references

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

ISO 874 Fresh fruits and vegetables – Sampling

EAS 38 Packaging, marking and labeling of foods

ISO 7558 Guide to the prepackaging of fresh fruits and vegetables

CAC/RCP 53-2003 Code of Hygienic Practice for Fresh Fruits and Vegetables

ISO 6561 (all parts), Fruits, vegetables and derived products – Determination of Cadmium content

ISO 6633, Fruits, vegetables and derived products -- Determination of lead content -- Flameless atomic absorption spectrometric method

3 Terms and definitions

For the purpose of this standard the following definitions shall apply:

3.1 mature

well cured onions and harvested at a stage which will not result in the onions becoming soft or spongy

3.2 firm

not soft, flabby, or shriveled

3.3 well shaped

having the shape characteristic of the variety

3.4 damage

Any defect or injury which affects the appearance, storage and edible quality of onions.

3.5 diameter

the greatest dimension measured at right angles to a straight line running from the stem to the root

3.6

Food grade packaging material

Any material which when it comes in contact with food or if the area near food is unlikely to contaminate food with harmful materials

3.7

sound

Not overripe, not soft and free from diseases or insect damage, or bruising or physical injuries affecting keeping quality of the fruit.

4 Requirements

4.1 General requirements

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

- (a) intact;
- (b) sound; produce affected by rotting or deterioration such as to make it unfit for consumption is excluded
- (c) clean, practically free of any visible foreign matter
- (d) free from damage due to low or high temperatures
- (e) sufficiently dry for the intended use
- (f) without hollow or tough stems
- (g) practically free from pests
- (h) practically free from damage caused by pests and disease
- (i) free of abnormal external moisture
- (j) free of any foreign smell and/or taste.

4.1.2 The following specific defects shall be considered as damage:

- i. Seed stems which are tough or woody, or which are more than 6.35 mm in diameter;
- ii. Splits when onions with two or more hearts are not practically covered by one or more outer scales;
- iii. Tops when more than 30 percent of the onions in a lot have tops 76 mm or more in length;
- iv. New roots when most roots on an individual onion have grown to a length of 50 mm or more in length;
- v. Dry roots when more than 20 percent of the onions in a lot have practically all roots 50 mm or more in length;
- vi. Dry sunken areas when the affected areas exceed the equivalent to that of a circle 12.7 mm in diameter on an onion 70 mm in diameter which does not have the outer papery scale covering the affected areas or when the affected areas exceed the equivalent to that of a circle 19 mm in diameter on an onion 70 mm in diameter which has the outer papery scale covering the affected areas. Correspondingly lesser or greater areas are allowed on smaller or larger onions;

- vii. Sunburn when more than 33 % of the onions in a lot have a medium green color on one-third of the surface;
- viii. Sprouts when visible, or when concealed within the dry top and more than 19 mm in length on an onion 5 cm or larger in diameter, or proportionately shorter on smaller onions;
- ix. Peeling when more than one-half of the thin papery skin is missing, leaving the underlying fleshy scale unprotected;
- x. Cracked fleshy scales when one or more of the fleshy scales are cracked;
- xi. Watery scales when more than the equivalent of the entire outer fleshy scale is affected by off-color, water soaked condition. The off-color must be of some shade of brown or yellow;
- xii. Dirt, staining or other foreign matter when more than 20 % of the onions in a yellow, brown or red lot, or more than 15 % of the onions in a white lot are appreciably stained. Onions with adhering dirt or other foreign matter shall be judged on the same basis as stained onions;
- xiii. Mechanical when any cut extends deeper than one fleshy scale, or when any bruise breaks a fleshy scale; and,
- xiv. Translucent scales when more than the equivalent of two entire outer fleshy scales have a water soaked condition.

In addition the stems must be twisted or clean cut and must not exceed 6 cm in length (except for stringed onions).

4.1.3 The development and condition of the onion shall be such that enable them to:

- a) reach the appropriate stage of physiological maturity corresponding to the particular characteristics of the variety, and
- b) to withstand transport and handling;
- c) arrive in a satisfactory condition at the place of destination in order to ripen satisfactorily.

4.2 Specific requirements

4.2.1 Classification

The onions are classified in two classes defined below:

4.2.1.1 Class I

Onions in this class shall be of good quality. Their characteristics shall be typical of the variety.

The bulbs must be:

- firm and compact
- un-sprouted (free from externally visible shoots)
- free from swelling caused by abnormal vegetative development
- practically free of root tufts; however, for onions harvested before complete maturity, root tufts are allowed.

The following defects, however, may be allowed, provided they do not affect the general appearance of the produce, the quality, the keeping quality or presentation in the package:

- a slight defect in shape
- a slight defect in colouring
- light staining which does not affect the last dried skin protecting the flesh, provided it does not cover more than one fifth of the bulb's surface
- superficial cracks in, and partial absence of the outer skins, provided the flesh is protected.

4.2.1.2 Class II

This class includes onions which do not qualify for inclusion in Class I, but satisfy the minimum requirements specified above. They shall be reasonably firm.

The following defects may be allowed provided the onions retain their essential characteristics as regards the quality, the keeping quality and presentation:

- defect in shape
- defect in colouring
- traces due to rubbing
- slight marking caused by parasites or disease
- small healed cracks
- slight bruising, healed, unlikely to impair keeping qualities
- root tufts
- stains which do not affect the last dried skin protecting the flesh, provided they do not cover more than half the bulb's surface
- cracks in the outer skins and partial absence of over a maximum of one third of the bulb's surface, provided the flesh is not damaged.

5 Tolerances

5.1 Class I

10 per cent by number or weight of onions not satisfying the requirements of this class, but meeting those of Class II or, exceptionally, coming within the tolerances of that class.

5.2 Class II

10 per cent by number or weight of onions satisfying neither the requirements of the class nor the minimum requirements with the exception of produce affected by rotting or any other deterioration rendering it unfit for consumption.

6 Contaminants

6.1 Pesticide residues

Onions shall comply with those maximum pesticide residue limits established by the Codex Alimentarius Commission for this commodity.

6.2 Metal contaminants

Onions shall not contain any metallic contaminants in excess of the quantities specified in Table 3.

Table 1 – Limit for metal contaminants for carrots

Characteristics	Maximum (mg/kg)	Method of test (See clause2)
Cadmium (as Cd) Lead (as Pb)	0.05 0.1	ISO 6561 (all parts) ISO 6633

7 Hygiene

Onions shall be prepared and handled in accordance with CAC/RCP 53-2003.

8 Packaging

7.1 Onions shall be packed in such a way as to protect the produce properly. The food grade packaging material used inside the package shall be 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 non-toxic ink or glue. Packages must be free from any foreign matter and the material shall be recyclable.

7.2 Onions shall also be packed in containers in accordance with ISO 7558.

7.3 The contents of each package shall be uniform and consist exclusively of onions of the same origin, variety and/or commercial type, and quality. The visible part of the content of the package shall be representative of the entire contents.

9 Labelling

In addition to the requirements of the general standard EAS 38, containers of onions shall be legibly and indelibly marked or labeled with the following information:

- i) Name, postal and physical address of the packer or dispatcher
- ii) Name of the produce as " Onions ",
- iii) Origin of produce
- iv) Harvest date
- v) Net weight (kg).
- vi) Size code
- vii) Class
- viii) Identification code and/or batch number
- ix) storage instructions

10 Sampling

Sampling of onions shall be carried out as prescribed in ISO 874

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