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DRAFT EAST AFRICAN STANDARD

Fresh avocados — Specifications

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 6 was prepared by Technical Committee EAS/TC 016.

Fresh avocados — Specifications

1 Scope

This Draft East African Standard specifies requirements for fresh avocados (*Persea americana* Gartner or *P. Grattisima* Mill) fruits of the family *Lauraceae* to be supplied to the consumer. This does not include avocados for industrial processing.

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.

EAS 38, *Labelling of prepackaged foods — Specification*

ISO 874, *Fresh fruits and vegetables – Sampling*

ISO 6633, *Fruits, vegetables and derived products -- Determination of lead content -- Flameless atomic*

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

ISO 7558:1988, *Guide to the prepackaging of fresh fruits and vegetables*

3 Definitions

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

3.1

Foreign matter

Any organic or inorganic substances which affects the appearance and typical smell of the avocado fruit.

3.2

Diseased avocados

Avocados having an unhealthy condition caused by fungi, bacteria, virus or pest.

3.3

Injury

Any defect which more than slightly affects the appearance or edible quality of the avocado.

3.4

sound

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

3.5

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

3.6

firm

not soft, flabby, or shriveled

4 Requirements

4.1 General requirements

The fresh avocado fruits in all classes, subject to each class and tolerances allowed, shall be

- a) mature green, brownish or black colour
- b) Whole;
- c) Sound; produce affected by rotting or deterioration such as to make it unfit for consumption is excluded.
- d) Clean; practically free of any visible foreign matter
- e) Practically free of pests affecting the general appearance of the produce.
- f) Practically free of damage caused by pests.
- g) Free of abnormal external moisture, excluding condensation following removal from cold storage and packed under modified atmosphere conditions.
- h) Free of any foreign smell and/or taste
- i) Firm.
- j) Free of damage caused by low temperatures.
- k) Practically free of bruises.

4.1.2 When tasted, the ripe fruit shall be free of bitter taste. It shall not be fibrous.

4.1.3 When the stalk is present, it shall be less than 10 mm and cut clean. However, its absence is not considered a defect on condition that the place of the stalk attachment is dry and intact.

4.1.4 The development and condition of the fresh avocado 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) arrive in a satisfactory condition at the place of destination in order to ripen satisfactorily.

4.1.5 Maturity requirements

The fruit should have a minimum dry matter content at the harvest, according to the variety, to be measured by drying to constant weight:

- 21 % for the variety Hass;
- 20 % for the varieties Torres, Fuerte, Pinkerton, Edranol and Reed.

Other varieties including Antillean/West Indian/Guatemalan may show a lower dry matter content.

4.2 Specific requirements

4.2.1 Classification

For the purposes of trade the fruits shall be graded in three classes: 1) Extra class, 2) Class I, 3) Class II.

4.2.1.1 Extra class

- a) Avocados in this class shall be of superior quality.
- b) The shape and colour shall be characteristic in the variety.
- c) They shall be free from sun scorch and disease.
- d) They shall be free from scarred tissue.
- e) They shall neither be ripened nor show any pressure points.
- f) They may have very slight scratches superficial to the skin, no longer than 20 mm, provided that these do not affect the quality and presentation in the package.
- g) If present the stalk shall be intact and clipped to a length of 5 mm to 10 mm.

4.2.1.2 Class 1

This class consists of avocados, which do not qualify for the Extra Class. Avocado in this class shall be of good quality. The following slight defects, however may be allowed provided that these do not affect the general appearance of the package, the quality, the keeping quality and the presentation in the package:

- a) Slight deviations from the characteristic of the variety in shape and colour;
- b) Slight skin defects — old wounds on the fruits, which are well-healed and covered with scar tissue or cork, and slight sunburn.

The maximum total area of defects shall not exceed 4 cm². In no case may the defects affect the fruit flesh.

4.2.1.3 Class II

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

- i. Defects in shape and colouring
- ii. Skin defects (corkiness, healed lenticals) and sunburn; maximum total area should not exceed 6 cm².

In no case may defects affect the fruit flesh. The stalk if present may be damaged.

4.2.2 Sizing

Avocados can be sized through one of the following options:

- (a) By weight of the fruit, in accordance with the following table:

Mass (Weight) (g)	Code Size
> 1220	2
781 - 1220	4
576 - 780	6
461 - 575	8
366 - 460	10
306 - 365	12
266 - 305	14
236 - 265	16
211 - 235	18
191- 210	20
171 - 190	22
156 - 170	24
146 - 155	26
136 - 145	28
125 - 135	30

The minimum weight for avocados of Antillean/West Indian/Guatemalan and other not defined varieties is 170 g.

(b) By count: To ensure uniformity in size between produce in the same package when they are sized by count, the weight of the smallest fruit shall be not less than 75% of the weight of the largest fruit in the same package.

4.2.3 Tolerances

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

NOTE: nevertheless, no account should be taken for a given fruit of a deviation of more or less than 2 per cent with regard to the code number indicated.

4.2.3.1 Quality tolerances

4.2.3.1.1 Extra class

5 per cent by number of weight of avocados not satisfying the requirements of the class but meeting those of Class I or, exceptionally, coming within the tolerances of the class.

4.2.3.1.2 Class I

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

4.2.3.1.3 Class II

10 per cent by number or weight of avocados not meeting the requirements of the class nor the minimum requirements, with the exception of fruit affected by rotting, marked bruising or any other deterioration rendering it unfit for consumption.

4.2.3.2 Size tolerances

For all classes: 10 per cent, of the avocados (by mass or number), may fall into the adjacent size to that which is specified.

4.2.3.3 Combined tolerances

Quality and size tolerances together may not exceed 15 percent.

5 Contaminants

5.1 Pesticide residues

Fresh Avocado shall comply with those maximum residue limits established by the Codex Committee on Pesticide Residues for this commodity.

5.2 Metal contaminants

When tested in accordance with ISO 6633, the Lead content in fresh avocado shall not exceed 0.1 mg/kg.

6 Hygiene

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

7 Packaging

7.1 Fresh avocado 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 Fresh avocado 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 fresh avocado 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.

8 Labeling

In addition to the requirements of the EAS 38; the following specific provisions apply for each package; legibly and indelibly marked.

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

10 Sampling

Representative samples of Avocados shall be sampled in accordance with ISO 874.

Bibliography

- [1] *CODEX STANDARD FOR AVOCADO* CODEX STAN 197-1995
- [2] UNECE standard for avocados

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