



FINAL DRAFT EAST AFRICAN STANDARD

Roasted macadamia kernel — 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.

The Community has established an East African Standards Committee (EASC) mandated to develop and issue East African Standards (EAS). The Committee is composed of representatives of the National Standards Bodies in Partner States, together with the representatives from the public and private sector organizations in the community.

East African Standards are developed through Technical Committees that are representative of key stakeholders including government, academia, consumer groups, private sector and other interested parties. 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 Principles and procedures for development of East African Standards.

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.

The committee responsible for this document is Technical Committee EASC/TC 015, *Oil seeds, edible fats and oils*.

Attention is drawn to the possibility that some of the elements of this document may be subject of patent rights. EAC shall not be held responsible for identifying any or all such patent rights.

Roasted macadamia kernel — Specification

1 Scope

This draft East Africa Standard specifies the requirements, methods of sampling and testing for roasted macadamia of varieties (cultivars) grown from *Macadamia integrifolia*, *Macadamia tetraphylla* and *Macadamia ternifolia*, and their hybrids intended for human consumption.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

CODEX STAN 192, *General standard for food additives*

EAS 38, *Labelling of pre-packaged foods — Specification*

EAS 39, *Hygiene in the food and drink manufacturing industry — Code of practice*

ISO 542, *Oilseeds — Sampling*

ISO 735, *Oilseed residues — Determination of ash insoluble in hydrochloric acid*

ISO 1026, *Fruit and vegetable products — Determination of dry matter content by drying under reduced pressure and of water content by azeotropic distillation*

ISO 6579, *Microbiology of the food chain — Horizontal method for the detection, enumeration and serotyping of Salmonella — Part 1: Detection of Salmonella spp.*

ISO 7251, *Microbiology of food and animal feeding stuffs — Horizontal method for the detection and enumeration of presumptive Escherichia coli — Most probable number technique*

ISO 16050, *Foodstuffs — Determination of aflatoxin B1, and the total content of aflatoxins B1, B2, G1 and G2 in cereals, nuts and derived products — High-performance liquid chromatographic method*

3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at <http://www.iso.org/obp>

3.1

roasted macadamia kernels

product obtained by dry heat treatment or frying of raw macadamia kernels in edible oil with or without seasoning

4 Requirements**4.1 General requirements**

4.1.1 Roasted macadamia kernels shall have typical characteristic flavour and odour of well roasted kernels with no evidence of musty, rancid or other undesirable tastes or odours

4.1.2 Roasted macadamia kernels shall be practically free from living insects, moulds, dead insect, mites, insect fragments, excrement and rodent contamination or any other substance which are injurious to health

4.2 Raw material requirements

4.2.1 Raw macadamia kernels complying with DEAS 1004: 2019.

4.2.2 Where seasonings are used, they shall comply with the relevant EAS standards

4.3 Specific quality requirements

Roasted macadamia kernels shall comply with the specific requirements stipulated in Table 1 when tested to the methods specified therein.

Table 1 — specific requirements for roasted macadamia

| S/N | Characteristic | Requirements | Methods of test |
|-----|--|--------------|-----------------|
| i | Moisture and volatile matter % (m/m), max. | 2.0 | ISO 665 |
| ii | Free fatty acid (as oleic acid), %, (m/m), max | 2.0 | ISO 729 |

4.4 Grading

Roasted macadamia may be graded. Where grading is done, the macadamia shall comply with the grades in Table 2.

Table 2 — Grades for roasted macadamia

| S/N | Grade | Description | Whole kernel percentage | Size range (m/m) |
|---|----------|-------------------|-------------------------|------------------|
| i) | Premium | Whole kernels | 100 | 25 to 15 |
| ii) | Popular | Wholes and halves | min. 50 | 17 to 10 |
| iii) | Cocktail | Wholes and halves | 11 to 49 | 17 to 10 |
| iv) | Medium | Halves and pieces | Max. 10 | 12 to 4 |
| v) | Chips | Pieces and bits | None | 5 to 0.5 |
| NOTE Tolerance — Up to 5 % by mass of the next lower grade. | | | | |

5 Food additives

Roasted Macadamia kernel may contain only the permitted food additives in the CODEX STAN 192.

6 Contaminants

6.1 Pesticide residues

Roasted macadamia shall comply with those maximum residue limits for pesticide residues established by Codex Alimentarius Commission for this commodity.

6.2 Aflatoxin

Total Aflatoxin shall not exceed 10 µg/kg while aflatoxin B1 shall not exceed 5 µg/kg when tested in accordance with ISO 16050.

7 Hygiene

Roasted macadamia kernels shall be produced, prepared, handled and stored in accordance with EAS 39.

macadamia kernels shall comply with the microbiological limits given in Table 3 when tested in accordance with the methods specified therein.

Table 3 — Microbiological limits for roasted macadamia kernel

| S/N | Microorganism | Maximum limit | Test method |
|-----|-----------------------|-----------------|-------------|
| i | Salmonella per 25 g | Shall be absent | ISO 6579-1 |
| ii | E. coli MPN/g | Shall be absent | ISO 7251 |
| | Staphylococcus aureus | Shall be absent | |

8 Packaging

Roasted cashew kernels shall be packaged in containers made from food grade packaging material and sealed in a manner that will safeguard the hygienic, nutritional and organoleptic properties of the product

9 Weights and measures

Roasted Macadamia kernels shall be packaged in accordance with the weights and measures regulations of the destination country.

NOTE EAC Partner States are signatory to the International Labour Organizations (ILO) for maximum package weight of 50 kg where human loading and offloading is involved.

10 Labelling

In addition to the labelling requirements specified in EAS 38, the following information shall be declared

- a) whether whole or broken;
- b) dry roasted or fry roasted;
- c) may cause might be allergenic allergy;
- d) salted where applicable; and
- e) the type of oil used where applicable.

11 Nutrition and health claims

Roasted macadamia kernels may have claims on nutrition and health. Such claims when declared shall comply with EAS 803, EAS 804 and EAS 805

12 Sampling

Sampling shall be done in accordance to ISO 542.

Bibliography

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