Cassava pellets — Specification
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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 East Africa. It is envisaged that through harmonized standardization, trade barriers which are encountered when goods and services are exchanged within the Community will be removed.

In order to meet the above objectives, the EAC Partner States have enacted an East African Standardization, Quality Assurance, Metrology and Test Act, 2006 (EAC SQMT Act, 2006) to make provisions for ensuring standardization, quality assurance, metrology and testing of products produced or originating in a third country and traded in the Community in order to facilitate industrial development and trade as well as helping to protect the health and safety of society and the environment in the Community.

East African Standards are formulated in accordance with the procedures established by the East African Standards Committee. The East African Standards Committee is established under the provisions of Article 4 of the EAC SQMT Act, 2006. 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.

Article 15(1) of the EAC SQMT Act, 2006 provides that "Within six months of the declaration of an East African Standard, the Partner States shall adopt, without deviation from the approved text of the standard, the East African Standard as a national standard and withdraw any existing national standard with similar scope and purpose".

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.

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Cassava pellets — Specification

1 Scope

This draft East African Standard specifies the requirements, sampling and test methods for cassava pellets obtained from (Manihot esculenta Crantz) 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.

EAS 38, General standard for the labelling of pre-packaged foods
EAS 39, Code of practice for hygiene in the food and drink manufacturing industry
CODEX STAN 192, General standard for food additives
EAS 738 Fresh sweet cassava — Specification
ISO 5809, Starches and derived products — Determination of sulphated ash
ISO 7251, Microbiology of food and animal feeding stuffs — Horizontal method for the detection and enumeration of presumptive Escherichia coli — Most probable number technique
AOAC 943.02-1943, PH of flour. Potentiometric method
AOAC 942.15 Acidity (Titratable) of Fruit Products
EAS 900, Cereals and Pulses - Sampling
EAS 901, Cereals and Pulses – Test Methods
CODEX STAN 193, Codex general standard for contaminants and toxins in food and feed
ISO 5498, Agricultural food products — Determination of crude fibre content — General method
ISO 6579-1, Microbiology of food and animal feeding stuffs — Horizontal method for the detection of Salmonella spp.
ISO 10520, Native starch — Determination of starch content — Ewers polarimetric method

3 Terms and definitions

For the purpose of this standard, the following term and definition shall apply.

3.1 cassava pellets
Dried and hardened cylindrical particulate material produced through chipping/ grating, drying, milling and palletization into a uniform appearance and texture.

3.2 foreign matter
Inorganic matter such as sand, glass, metal, stones, clay and mud and organic matter such as chaff, straw, weed seeds and insects or insects fragments, rodent hairs

4 Requirements

4.1 General requirements
4.1.1 Cassava pellets shall be processed from fresh matured sweet cassava roots or bitter cassava roots conforming to EAS 738.

4.1.2 Optional Ingredients that may be used in the cassava pellet processing include cassava leaves, protein sources of animal or plant origin, vitamins and minerals.

4.1.3 Cassava pellets shall be

a) uniform colour characteristic of the source of the raw material.
b) free from objectionable odour with no sign of deterioration after 90 days of storage
c) tasteless, and
d) free from foreign matter

4.2 Specific requirements

4.2.1 Cassava pellets shall conform to the compositional quality requirements shown in Table 1.

<table>
<thead>
<tr>
<th>Analytical characteristic</th>
<th>Requirement</th>
<th>Method of test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total acidity, %, by mass, max.</td>
<td>1.0</td>
<td>AOAC 942.15</td>
</tr>
<tr>
<td>pH</td>
<td>5 - 7</td>
<td>AOAC 943.02</td>
</tr>
<tr>
<td>Cyanide content, mg/kg, max.</td>
<td>10</td>
<td>EAS 744</td>
</tr>
<tr>
<td>Starch content, %, by mass, min.</td>
<td>60</td>
<td>ISO 10520</td>
</tr>
<tr>
<td>Moisture, % by mass, max</td>
<td>9.0</td>
<td>EAS 901</td>
</tr>
<tr>
<td>Fibre, % by mass on dry weight basis, max.</td>
<td>2.0</td>
<td>ISO 5498</td>
</tr>
<tr>
<td>Sulphated ash, % by mass, max.</td>
<td>0.6</td>
<td>ISO 5809</td>
</tr>
</tbody>
</table>

5 Food Additives

Food additives may be used in the preparation of composite flour in accordance with Codex Stan 192.

6 Contaminants

6.1 Pesticide residues

Cassava pellets shall conform to maximum residue limits for pesticide residues established by the Codex Alimentarius Commission.

6.2 Other contaminants

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

7 Hygiene

Cassava pellets shall be prepared and handled in a hygienic manner in accordance with EAS 39 and shall conform to microbiological limits specified in Table 2.
Table 2 — Microbiological limits for cassava pellets

<table>
<thead>
<tr>
<th>Micro-organisms</th>
<th>Maximum limit</th>
<th>Methods of Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total aerobic count, CFU/g, max.</td>
<td>$10^4$</td>
<td>ISO 4833-1</td>
</tr>
<tr>
<td><em>Escherichia coli</em>, MPN/g</td>
<td>Absent</td>
<td>ISO 7251</td>
</tr>
<tr>
<td><em>Salmonella spp</em> per 25g</td>
<td>Absent</td>
<td>ISO 6579</td>
</tr>
<tr>
<td>Yeast and mould, CFU/g, max.</td>
<td>$10^3$</td>
<td>ISO 21527-1</td>
</tr>
</tbody>
</table>

8 Packaging

Cassava pellets shall be packaged in food grade materials, which is hermetically sealed to safeguard the hygienic, nutritional, and organoleptic qualities of the product.

9. Labelling

In addition to the requirements of EAS 38; the following labeling requirements shall apply and shall be **legibly** and **indelibly** marked:

a) the common name of the food to be declared on the label shall be cassava pellets;
b) the net contents by weight in metric units;
c) the name and physical address of the manufacturer / distributor;
d) the country of origin;
e) lot identification;
f) date of manufacture and best before date;
g) the statement ‘Human Food’ shall appear on the package.
h) storage conditions as ‘store in a cool dry place away from contaminants’
i) instructions on disposal of used package.

10 Method of sampling and analysis

Sampling shall be done in accordance with EAS 900.