DRAFT EAST AFRICAN STANDARD

Stingless bee honey — Specification

EAST AFRICAN COMMUNITY
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Foreword

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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.

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Stingless bee honey — Specification

1 Scope

This Standard specifies requirements, sampling and test methods for stingless bee honey produced by subfamily *Meliponinae* intended for direct 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.

AOAC Official method 985.16 determination of Tin in canned foods — Atomic Absorption Spectrophotometric Method

AOAC 920.181 Determination of Ash content of Honey

AOAC Official Method 920.183 Sugars (Reducing) in Honey

AOAC 920.184 Determination of Sucrose in Honey

AOAC 958.09 Determination of Diastase Activity

AOAC 962.19 Determination of Acidity (Free, Lactone, and Total)

AOAC 968.38b Determination of Moisture Content

AOAC 980.23 Determination of hydroxymethylfurfural (HMF) content

AOAC Official Method 983.20 Mercury (Methyl) in Fish and Shellfish Gas Chromatographic Method

AOAC Official method 999.11 Determination of Lead, Cadmium, Copper, Iron and Zinc in Foods — Atomic Absorptions Spectrophotometry after dry ashing

EAS 38, Labelling of pre-packaged food-general requirement

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

ISO 4831, Microbiology of food and animal feeding stuffs — Horizontal method for detection and enumeration of coliforms — Most probable number technique

ISO 6634, Fruits, vegetables and derived products — Determination of arsenic content — Silver diethyldithiocarbamate spectrophotometric method

ISO 21527-2, Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of yeasts and moulds — Part 2: Colony count technique in products with water activity less than or equal to 0,95
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

stingless bee honey

the natural sweet, sour or bitter substance produced by stingless bees of subfamily Meliponinae from the nectar of plants or from secretions of living parts of plants, which the stingless bees collect, transform by combining with specific substances of their own, deposit, dehydrate, store and leave in the honey pots to ripen and mature.

4 Requirements

4.1 General requirements

Stingless bee honey shall;

a) not have added food ingredient, including food additives, nor shall any other additions be made other than honey;

b) not have any objectionable matter, flavour, aroma, or taint absorbed from foreign matter during its processing and storage;

c) not have begun to ferment or effervesce;

d) not have pollen or constituent particular to honey removed except where this is unavoidable in the removal of foreign inorganic or organic matter;

e) not be heated to such an extent that its essential composition and/or its quality is impaired;

f) not be chemically or biochemically treated to influence honey crystallisation;

g) have the colour varying from near colourless to dark brown (amber) depending on the botanical source;

h) have the consistency of either fluid, viscous or partly or entirely crystallized;

i) have the flavour and aroma derived from plant origin; and

j) be free from visible mould and as far as practicable, be free from inorganic or organic matter foreign to its composition, such as insects, insect debris, brood or grains of sand, or soil, when the honey is offered for sale or is used in any product for human consumption.

4.2 Specific requirements

Stingless bee honey shall also comply with the requirements given in Table 1 when tested in accordance with the test methods prescribed therein.
Table 1 — Requirements for stingless bee honey

<table>
<thead>
<tr>
<th>S/N</th>
<th>Characteristic</th>
<th>Requirement</th>
<th>Test method</th>
</tr>
</thead>
<tbody>
<tr>
<td>i)</td>
<td>Moisture, % m/m, max.</td>
<td>32</td>
<td>AOAC 969.38 b</td>
</tr>
<tr>
<td>ii)</td>
<td>Reducing sugar, % m/m, min. %</td>
<td>50</td>
<td>AOAC 920.183</td>
</tr>
<tr>
<td>iii</td>
<td>Sucrose, % m/m, max.</td>
<td>6</td>
<td>AOAC 920.184</td>
</tr>
<tr>
<td>iv)</td>
<td>Acidity, % m/m, max. meq/kg</td>
<td>85</td>
<td>AOAC 962.19</td>
</tr>
<tr>
<td>v)</td>
<td>Ash, % m/m, max.</td>
<td>0.5</td>
<td>AOAC 920.181</td>
</tr>
<tr>
<td>vi)</td>
<td>Hydroxymethyl furfural, mg/kg, max.</td>
<td>40</td>
<td>AOAC 980.23</td>
</tr>
<tr>
<td>vii</td>
<td>Diastase activity, schade, min.</td>
<td>3.0</td>
<td>AOAC 958.09</td>
</tr>
</tbody>
</table>

5 Heavy metal contaminants

Stingless bee honey shall be free from heavy metals in amounts which may represent a hazard to human health and shall conform to the limits specified in Table 2 when tested in accordance with the test methods prescribed therein.

Table 2 — Requirements for heavy metal contaminants

<table>
<thead>
<tr>
<th>S/N</th>
<th>Heavy metal</th>
<th>Requirement</th>
<th>Test method</th>
</tr>
</thead>
<tbody>
<tr>
<td>i)</td>
<td>Lead, mg/kg, max.</td>
<td>0.1</td>
<td>AOAC 999.11</td>
</tr>
<tr>
<td>ii)</td>
<td>Arsenic, mg/kg, max.</td>
<td>0.1</td>
<td>ISO 6634</td>
</tr>
<tr>
<td>iii</td>
<td>Tin, mg/kg, max.</td>
<td>5.0</td>
<td>AOAC 985.16</td>
</tr>
<tr>
<td>iv)</td>
<td>Cadmium, mg/kg, max.</td>
<td>0.01</td>
<td>AOAC 999.11</td>
</tr>
<tr>
<td>v)</td>
<td>Mercury, mg/kg, max.</td>
<td>0.03</td>
<td>AOAC 983.20</td>
</tr>
</tbody>
</table>

6 Residues of pesticides and veterinary drugs

Stingless bee honey shall comply with pesticides and veterinary drugs maximum residue limits for stingless bee honey established by the Codex Alimentarius Commission.

7 Hygiene

Stingless bee honey shall be processed and handled in hygienic manner in accordance with the EAS 39 and shall comply with the microbiological limits stipulated in Table 3 when tested in accordance with test methods specified therein.

Table 3 — Microbiological requirements for stingless bee honey

<table>
<thead>
<tr>
<th>S/N</th>
<th>Microorganism</th>
<th>Requirement</th>
<th>Test method</th>
</tr>
</thead>
<tbody>
<tr>
<td>i)</td>
<td>Coliform count, MPN/g, max.</td>
<td>Absent</td>
<td>ISO 4831</td>
</tr>
<tr>
<td>ii)</td>
<td>Yeast and mould count, cfu/g, max.</td>
<td>&lt; 10</td>
<td>ISO 21527-2</td>
</tr>
</tbody>
</table>

8 Packaging

Stingless bee honey shall be packaged in a food grade material that protects the integrity and safety of the product.
9 Weights and measures
The volume and fill of the container shall comply with weights and measures regulations in the respective partner state.

10 Labelling
In addition to the labelling requirements given in EAS 38, the package shall be legibly and indelibly marked with the following information:

- a) name of the product as “Stingless bee honey”;
- b) name, location and physical address of the processor/packer;
- c) country of origin;
- d) date of packaging;
- e) best before;
- f) instructions for storage;
- g) net content in SI unit; and
- h) batch/lot number.

11 Nutritional and health claims
Any nutritional and health claims associated with this product shall be in accordance with EAS 805 and shall follow nutritional labelling concepts in accordance with EAS 804.

12 Sampling
Sampling of stingless bee honey shall be done in accordance with CAC/GL 50.
Bibliography
