

DRAFT TANZANIA STANDARD

STINGLESS BEE HONEY – SPECIFICATION

DRAFT STANDARD FOR PUBLIC COMMENTS.

TANZANIA BUREAU OF STANDARDS

STINGLESS BEE HONEY – SPECIFICATION

0 FOREWORD

Beekeeping (Apiculture) with stinging bees belonging to the genus *Apis* is more widespread than stingless bees – beekeeping (meliponiculture) which is well-known in tropical countries. Both groups of bees belong to the family *Apidae*, order *Hymenoptera*. They are differentiated at the subfamily level, *Apinae* for stinging bees and *Meliponinae* for stingless bees.

This Tanzania Standard was prepared to ensure the safety and quality of stingless bee honey produced and/ or traded in the country.

In reporting the results of a test or analysis made in accordance with this standard, if the final value observed or calculated is to be rounded off, it shall be done in accordance with TZS 4 (See clause 2).

1 SCOPE

This Standard prescribes requirements, methods of sampling and testing for stingless bee honey produced by subfamily *Meliponinae* of genera *Melipona*, *Scaptotrigona* and *Trigona* intended for direct human consumption.

2 NORMATIVE REFERENCE (Rearrange in ascending order and proper format)

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

TZS 109 Food processing units – Code of hygiene

TZS 1492 Fruits, vegetables and derived products – Sampling and methods of test – Part 6: Determination of tin content

TZS 268 General atomic absorption– Spectro - Photometric method for determination of lead in food stuffs

TZS 76 General method for determination of arsenic silver diethyldithiocarmate photometric method

TZS 851 *Honey – Specification*

TZS 538 labelling of pre-packaged food -General requirement

TZS 118 Microbiology of food and animal feeding stuffs – Horizontal method for enumeration of micro-organisms – Colony count technique at 30°C

TZS 119 Microbiology of food and animal feeding stuff horizontal method for the detection and enumeration of coliforms- most probable number technique.

TZS 4 Rounding off numerical values

3 TERMS AND DEFINITIONS

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

3.1 stingless bee honey

is the natural sweet substance produced by stingless bees of genera *Melipona*, *Scaptotrigona* and *Trigona* 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

4.1.1 Stingless bee honey shall be free from objectionable flavor, aroma and foreign matter

4.1.2 The color of stingless bee honey shall be uniform throughout and characteristics

4.1.3 Stingless bee honey shall not contain any food additives

4.2 Specific requirements

Stingless bee honey shall also comply with the requirements given in table 1.

Table 1- Requirements for Stingless bee honey

Characteristics	Requirements	Methods of tests TZS 851 (see clause 2)
Moisture, Max %	28	A.3
Reducing sugar, Min %	50	A.1
Sucrose, Max %	6	A.2
Acidity, Max meq/Kg	400	A.6
Ash, Max %	0.5	A.5
Hydroxymethyl furfural, Max mg/Kg	40	A.11
Diastase activity, Min	3.0	A.7

5 CONTAMINANTS

5.1 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.

Table 2: Requirements for metal contaminants

Metal	Requirements (mg/kg, max)	Methods of test
Lead	0.1	TZS 268
Arsenic	0.1	TZS 76
Tin	5.0	TZS 1492

5.2 Residues of pesticides and veterinary drugs

Residues of pesticides and veterinary drugs of stingless bee honey shall comply with those maximum residue limits given in Table 3.

Table 3 – Requirements for pesticides and veterinary drugs residues

Substance	Category	Requirements (Max)	Methods of test
Coumaphos	Insecticide, mg/kg,	1.0	HPLC
Phenol	Disinfectant, mg/kg,	1.0	HPLC
Streptomycin	Antibiotic, mg/kg,	1.0	HPLC
Tetracycline	Antibiotic, mg/kg,	1.0	HPLC
Sulfonamide	Antibiotic, mg/kg,	1.0	HPLC
Organophosphorus	Pesticides, ppb,	50	GLC
Organochlorine	Pesticides, ppb,	50	GLC

In addition to table 3 above stingless bee honey shall comply with those maximum residue limits of pesticides and veterinary drugs established by the Codex Alimentarius Commission for this commodity.

6 HYGIENE

6.1 Stingless bee honey shall be prepared under Good Hygienic Practices as stipulated in TZS 109 (See clause 2).

6.2 Stingless bee honey shall be free from pathogenic microorganisms and shall comply with the microbiological limits given in Table 4.

Table 4 – Microbial requirements for Stingless bee honey

Characteristic	Requirements	Methods of test (See clause2)
Total plate count cfu/ml, max	1 x 10 ³	TZS 118
Coliforms MPN/ml	absent	TZS 119

7 SAMPLING AND TESTING

7.1 Sampling

The product shall be sampled as prescribed in TZS 851 (See clause 2)

7.2 Test

7.2.1 Testing shall be done as provided in the respective Tables of this standard.

8 PACKING, MARKING AND LABELING

8.1 Packing

The product shall be packed in suitable food grade materials

8.2 Marking and labeling

8.2.1 The product shall be marked and labeled in accordance with TZS 538 (see clause 2).

8.2.2 In addition each Container/packet of product shall be legibly and indelibly marked with the following information:

- a) Name of the product
- b) Batch or code number
- c) Date of packing and expiry date.
- d) Name, contact and physical address of the packet
- e) Net weight
- f) Country of origin
- g) Storage condition
- h) Packer registered trade mark, if any

8.2.3 The containers may also be marked with the TBS Mark of Quality.

NOTE - The TBS Mark of Quality may be used by the packers only under licence from TBS. Particulars of conditions under which the licenses are granted, may be obtained from TBS.

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