

BHUTAN MANDATORY STANDARD FOR HONEY

1. PREAMBLE

This Technical Regulation is issued pursuant to the Food Rules and Regulations of Bhutan 2017. This standard is based mainly on the Codex standard for Honey (CODEX STAN 12-1981) and standard of the neighbouring countries

2. SCOPE

The products covered by this Technical Regulation include honey collected from wild and apiaries. This Technical regulation applies to all honeys produced by honey bees and covers all styles of honey presentations which are processed and ultimately intended for direct consumption.

3. DESCRIPTION

3.1 Product Definition

Honey is the natural sweet substance produced by honey bees from the nectar of plants or from secretions of living parts of plants or excretions of plant sucking insects on the living parts of plants, which the bees collect, transform by combining with specific substances of their own, deposit, dehydrate, store and leave in the honey comb to ripen and mature.

3.2 Product Description

Honey consists essentially of different sugars, predominantly fructose and glucose as well as other substances such as organic acids, enzymes and solid particles derived from honey collection. The colour of honey varies from nearly colourless to dark brown. The consistency can be fluid, viscous or partly to entirely crystallized. The flavour and aroma vary, but are derived from the plant origin.

4. ESSENTIAL COMPOSITION AND QUALITY FACTORS

4.1 Honey sold as such shall not have added to it any food ingredient, including food additives, nor shall any other additions be made other than honey. Honey shall not have any objectionable matter, flavour, aroma, or taint absorbed from foreign matter during its processing and storage. The honey shall not have begun to ferment or effervesce. No pollen or constituent particular to

honey may be removed except where this is unavoidable in the removal of foreign inorganic or organic matter.

4.2 Honey shall not be heated or processed to such an extent that its essential composition is changed and/ or its quality is impaired.

4.3 Chemical or biochemical treatments shall not be used to influence honey crystallization.

4.4. Composition

4.4.1	Moisture content	
(a)	Honeys not listed below	not more than 20%
(b)	Heather honey (<i>Calluna</i>)	not more than 23%
4.4.2	Sugar content	
4.4.2.1	Fructose and Glucose Content (sum of both)	
(a)	Honey not listed below	not less than 60 g/100g
(b)	Honeydew honey, blends of honeydew honey with blossom honey	not less than 45g/100g
4.4.2.2	Fructose/glucose ratio	Minimum 0.95%
4.4.2.3	Sucrose Content	
(a)	Honey not listed below	not more than 5 g/100g
(b)	Alfalfa (<i>Medicago sativa</i>), Citrus spp., False Acacia (<i>Robinia pseudoacacia</i>), French Honeysuckle (<i>Hedysarum</i>), Menzies Banksia (<i>Banksia menziesii</i>), Red Gum (<i>Eucalyptus camaldulensis</i>), Leatherwood (<i>Eucryphia lucida</i>), <i>Eucryphia milligani</i>	not more than 10 g/100g
(c)	Lavender (<i>Lavandula spp</i>), Borage (<i>Borago officinalis</i>)	not more than 15 g/100g
4.4.2.4	Reducing sugars (g/100mg)	Min 65
4.4.3	Water insoluble solid content	
(a)	Honeys other than pressed honey	not more than 0.1 g/100g

(b)	Pressed honey g/100g	not more than 0.5 g/100g
4.4.4	Specific gravity	Minimum 1.35 to 1.4
4.4.5	Ash or mineral content (g/100mg)	Max 0.5
4.4.6	Aniline chloride test	Negative
4.4.7	Acidity as formic acid	Max 0.20%
4.4.8	Water insoluble content (g/100mg)	Max 0.5
4.4.9	HMF (Hydroxymethyl furfural) content (mg/Kg)	Max 50

5. CONTAMINANTS

5.1 HEAVY METALS

Honey shall be free from heavy metals in amounts which may represent a hazard to human health. The products covered by this Standard shall comply with those maximum levels for heavy metals established by the Bhutan Technical Regulation for Heavy metals

5.2 RESIDUES OF PESTICIDES AND VETERINARY DRUGS

The products covered by this Technical Regulation shall comply with those maximum residue limits for honey established by the Bhutan Mandatory Standard for Pesticide Residues and Bhutan Mandatory Standard for Veterinary Drug Residues.

It shall be free from antibiotics.

6. HYGIENE

6.1 It is recommended that the products covered by the provisions of this standard be prepared and handled in accordance with the appropriate sections of the Recommended International Code of Practice - General Principles of Food Hygiene recommended by the Codex Alimentarius Commission (CAC/RCP 1-1969), and other relevant Codex texts such as Codes of Hygienic Practice and Codes of Practice.

6.2 The products should comply with any microbiological criteria established in accordance with the Principles for the Establishment and Application of Microbiological Criteria for Foods (CAC/GL 21-1997).

6.3 The material shall be prepared and handled under strict hygienic conditions by persons free from contagious and infectious diseases and only in premises maintained in thoroughly clean and hygienic conditions, having adequate and safe water supply, and duly approved and licensed by

the concerned authorities. All workers shall use clean and washed clothing. Necessary precautions shall be taken to prevent incidental contamination of the product from soiled equipment or from personnel suffering from injuries.

6.4 All equipment coming in contact with raw materials or products in the course of manufacture shall be kept clean. An ample supply of steam and water, hoses, brushes and other equipment necessary for proper cleaning of machinery and equipment shall be available. The equipment may be sterilized by immersing in or swabbing with hypochlorite solution or other suitable chlorine solution.

6.5 It is recommended that the products covered by the provisions of this standard be prepared and handled in accordance with the appropriate sections of the Recommended International Code of Practice – General Principles of Food Hygiene recommended by the Codex Alimentarius Commission (CAC/RCP 1-1969), and other relevant Codex texts such as Codes of Hygienic Practice and Codes of Practice.

7. PACKAGING

Honey need to be packed in glass bottled with tight caps.

8. LABELLING

8.1. Products shall be designated 'honey'.

8.2 Honey may be designated by the name of the geographical or topographical region if the honey was produced exclusively within the area referred to in the designation.

8.3 Honey may be designated according to floral or plant source if it comes wholly or mainly from that particular source and has the organoleptic, physicochemical and microscopic properties corresponding with that origin.

8.4 Where honey has been designated according to floral or plant source then the common name or the botanical name of the floral source shall be in close proximity to the word "honey".

8.5 Where honey has been designated according to floral, plant source, or by the name of a geographical or topological region, then the name of the country where the honey has been produced viz, Royal Kingdom of Bhutan shall be declared.

8.6 The product shall be appropriately labeled as per the Bhutan Standard for Labelling of Prepackaged Foods.

8.7 The product label need to contain the following Precautionary Warning: “not recommended for feeding children below one year.