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**PAKISTAN STANDARD
FOR
HONEY (3RD REVISION)**



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PAKISTAN STANDARD SPECIFICATION
FOR
HONEY (2ND REVISION)

0. FOREWORD

- 0.1 This Pakistan Standard was adopted by the Pakistan Standards & Quality Control Authority, Standards Development Centre on **19-01-2012** after the draft finalized by the Sugar Industries Technical Committee had been approved by the National Standard Committee for Agriculture & Food Products.
- 0.2 This standard was laid down in 1982 and first revised 1992 secondly revised in 2007. The committee felt it necessary to revise in the light of latest development in the industries.
- 0.3 All the Honey that is marketed in Pakistan falls under three categories, namely :-
1. Comb Honey it is sold in sealed whole combs or section of such combs.
 2. Extracted Honey it is obtained from Bees un-caped broodlesa Combs.
 3. Pressed Honey Bulk of the Pressed Honey is obtained from the rock bee Apis darsota.
- 0.4 While revising this specification the committee recognized the need to market honey separately so that there can be growth or consumer demand of honey, which is geared scientifically and processed hygienically. This increase in consumer demand is also likely to rapid development.
- 0.5 In the preparation of this standard the views of the Consumers, Manufactures, Technologist and testing authorities have been taken into consideration.
- 0.6 For the purpose of deciding whether particular requirement of this standard is complied with the final value observed or calculated the result of a test or analysis shall be rounded off in accordance with PS:103 Method of Rounding of Numerical Values, the number of significant places retain in the rounded of value shall be the same as that of the specified value in the standard.

1. SCOPE

- 1.1 This standard applies to all honeys produced by honey bees and covers all styles of honey presentation which are offered for direct consumption.
- 1.2 The standard also covers honey, which is packed in non-retail (bulk) containers and is intended for re-packing into retail packs.

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2. **DESCRIPTION:**

2.1 **Definition of Honey:**

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

2.2 **Description**

Honey consists essentially of different sugars, predominantly glucose and fructose. 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 usually derive from the plant origin. It should not contain any sweetening agents and additions.

2.3 **Subsidiary Definitions and Designations**

2.3.1 **Origin**

2.3.1.1 **Blossom Honey or Nectar Honey** is the honey which comes from nectarines of flowers.

2.3.1.2 **Honeydew Honey** is the honey which comes mainly from secretions of living parts of plants or excretions of plant sucking insects on the living parts of plants. Its colour varies from very light brown or greenish to dark brown.

2.3.2 **Methods of Processing**

2.3.2.1 **Extracted Honey** is honey only obtained by centrifuging decapped broodless combs.

2.3.2.2 **Pressed Honey** is honey obtained by pressing broodless combs with or without the application of moderate heat.

2.3.2.3 **Drained Honey** is honey obtained by draining decapped broodless combs.

2.3.3 **Styles** – Honey which meets all the compositional and quality criteria of Section 3 of this standard may be presented as follows:

- a. Honey which is honey in liquid or crystalline state or a mixture of the two;
- b. Comb Honey which is honey stored by bees in the cells of freshly built broodless combs and which is sold in sealed whole combs or sections of such comb;
- c. Chunk Honey which is honey containing one or more pieces of comb honey;

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- d. Crystallized or Granulated Honey which is honey that has undergone a natural process of solidification as a result of glucose crystallization;
- e. Creamed (or creamy or set) Honey is honey which has a fine crystalline structure and which may have undergone a physical process to give it that structure and to make it easy to spread.

3. **ESSENTIAL COMPOSITION AND QUALITY FACTORS**

3.1 Honey shall not have any objectionable flavour, aroma, or taint absorbed from foreign matter during its processing and storage. The honey shall not have begun to ferment or effervescence.

3.1.2 **Antibiotic residue (negative)**

3.2 Honey shall not be heated to such an extent that its essential composition and quality are impaired.

3.3 **Apparent reducing sugar content, calculated as invert sugar.**

- | | | |
|----|---|----------------------|
| a. | Honey not listed below | - not less than 65 % |
| b. | Honeydew honey | - not less than 60 % |
| c. | Blackboy (<i>Xanthorrhoea preissii</i>) | - not less than 53 % |

3.4 **Moisture Content :**

- | | | |
|----|-----------------------------------|----------------------|
| a. | Honey not listed below | - not more than 21 % |
| b. | Heather honey (<i>Calluna</i>) | - not more than 23 % |
| c. | Clover honey (<i>Trifolium</i>) | - not more than 23 % |

3.5 **Apparent Sucrose Content:**

- | | | |
|----|---|----------------------|
| a. | Honeys not listed below | - not more than 5 % |
| b. | Honeydew honey, blends of honeydew honey and blossom honey, Robinia, Lavender, Citrus, Alfalfa, Sweet Clover, Red Gum (<i>Eucalyptus camaldulensis</i>), Acacia, Leatherwood (<i>Eucryphia lucida</i>), Menzies Banksia (<i>Banksia menziesii</i>). | - not more than 10 % |
| c. | pRed Bell (<i>Calothamnus sanguineus</i>), White stringy bark (<i>Eucalyptus scabra</i>), Grand Banksia (<i>Banksia grandis</i>), Blackboy (<i>Xanthorrhoea preissii</i>). | - not more than 15 % |

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3.6 Water Insoluble Solids Contents:

- a. For honeys other than pressed honey - not more than 0.10 %
- b. Pressed honey - not more than 0.5 %

3.7 Mineral Content (ash) :

- a. Honeys not listed below - not more than 0.6 %
- b. Honeydew honey or a mixture of Honeydew honey and blossom honey. - not more than 1.0 %

3.8 Acidity:

- not more than 40 milliequivalents acid per 1000 grams

3.9 Diastase Activity:

Determined after processing and Blending (see NOTE) - not less than 3

3.10 Hydroxymethyl furfural Content:

- not more than 80 mg/kg

The natural acidity of the Honey shall not be changed artificially

3.11 Fiehel's Test

Negative (Test method at Annex-1)

NOTE: Have a diastase activity of not less than 8 (Goth scale) provided that the Hydroxy methyl-furfural is not more than 40 mg / kg, except in the case of honey having low natural enzyme content (e.g. citrus) where the diastase activity shall not be less than 3 provided that the hydroxyl methyl-furfural is not more than 15 mg / kg.

4. FOOD ADDITIVES

4.1 None permitted.

5. HYGIENE

5.1 It is recommended that the product covered by the provisions of this standard be prepared in accordance with PS:1825 (Good Manufacturing Practice in Manufacturing Processing, Packing or Holding Human food).

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5.2 Honey should be free from visible mould and, as far as practicable, be free from inorganic or organic matters, foreign to its composition, such as, insects, insect debris, brood or grains of sand, when the honey appears in retail trade or is used in any product for human consumption.

5.3 Honey shall not contain toxic substances arising from micro-organisms or plants in an amount, which may constitute a hazard to health.

5.4 PACKING AND MARKING

The following rules shall be observed in Packing and Marking.

5.5 Packing and Marking

5.6 The product shall be filled in clean, dry and suitable containers, and does not cause any change in its properties. The screwed caps of the glass containers shall be of non-corrosive and non-reactive material to honey and shall be provided with cork washers to avoid spilling.

Marking – Each container shall be suitably worked so as to give the following information.

- a) Name of the material
- b) Batch or code number or
- c) Net weight
- d) Name and address of the processor
- e) Best before use
- f) Pakistan Standard Number

5.7 Transportation and storage

5.8 Transportation shall be carried out in such a way so as to protect containers from mechanical damage and contamination

5.9 The packaged product shall be stored at a safe distance from sources of heat and contamination.

6. LABELLING

6.1 PS:1485 Labelling of Prepackaged Foods shall apply and also the following provision shall apply.

6.1.1 The Name of the Food

6.1.2 Subject to the provisions of 6.1.5 product conforming to the standard shall be designated “honey”.

6.1.3 No honey may be designated by any of the designations in Section 2.3 unless it conforms to the appropriate description contained therein. The styles in 2.3.3 (b), (c), (d) and (e) shall be declared.

6.1.4 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.

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

7. TESTING

7.1 Sampling

7.1.1 The following shall be observed on drawing, preparing and handling of test samples:

7.1.1.1 Samples shall be taken in a place not exposed to air draughts and dust as possible.

7.1.1.2 The sampling instruments shall be clean and dry.

7.1.1.3 Precaution shall be taken to protect the samples, the material being sampled, the sampling instrument and containers of samples from any contamination.

7.1.1.4 The samples shall be kept in air-tight glass containers or any other suitable containers without effect on the characteristics of the sample and shall be completely filled with the sample.

7.1.2 Sample size

Sample shall be taken at random so as to represent one lot or batch according to Table 1, and if the lot is declared to consist of different grades of honey, the containers belonging to the same grade shall constitute a separate lot.

TABLE 1
SIZE OF SAMPLE TO BE SELECTED FOR TEST

No. of container in lot or batch	No. of containers to be drawn	
	500 g and above	Below 500 g
Up to 25	3	6
26 to 150	4	6
151 to 500	5	9
501 and above	7	12

7.1.3 Method of sample drawing

7.1.3.1 Containers of 500 g or above:

- Draw equal quantities of the material from different parts (top, middle, bottom, etc) of the selected container as mentioned in Table 1 to obtained about 300 g of material, and mix well.
- Divide it into three individual samples and each sample shall be transferred to containers and tightly closed, then sealed.
- One sample shall be sent to the Lab. for analysis; the second shall be kept by the sampling authority and third shall be kept by the exporter, or producer or agent.

7.1.3.2 In case of containers of less than 500 g.:

- Divide at random the containers drawn according to Table 1 into three equal sets.
- The containers of each set shall be sealed.
- One sample shall be sent to the Lab. for analysis, the second shall be kept by the sampling authority and the third shall be kept by the exporter or producer, or agent.

7.1.4 Sample information

7.1.4.1 Sample shall be accompanied with a report giving the following information

- Source of the lot or the manufacture's name and address.
- Place of shipment
- Place and date of destination.

- Type and condition of product (name, grade – if any – volume or weight of container unit etc.
- Number of containers in the lot.
- Number of withdrawn containers.
- Batch number, code number or date of processing.
- Place, date and time of sampling.
- Name and signature of sampler.
- Place to which the sample shall be sent.

7.1.4.2 The following information shall be mentioned on each of the sample containers:

- Date of sampling
 - Name and signature of sampler.
 - Number of report attached to the sample
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