

File No. 1-90/FSSAI/SP (MS&A)/2009
Food Safety and Standards Authority of India
(A statutory Authority established under the Food Safety and Standards Act, 2006)
(Quality Assurance Division)
FDA Bhawan, Kotla Road, New Delhi - 110002

Dated, the 17th December, 2019

ORDER

Subject: Methods of analysis of various parameters of Honey and Royal Jelly, Bees Wax, Dry mixtures of cocoa & sugars - reg.

The Scientific Panel on Methods of Sampling and Analysis, Scientific Committee and Food Authority has approved the following methods-

- (i) Methods of analysis for various parameters of Honey
(Annexure - I)
- (ii) Methods of analysis for Royal Jelly, Bees Wax, Dry mixtures of cocoa & sugars **(Annexure - II)**

2. The food testing laboratories are hereby requested to use the aforesaid method, with immediate effect.

Encl: Method



(Bhaskar N.)
Advisor (QA)

To:

1. All FSSAI Notified Laboratories
2. All State Food Testing Laboratories

Methods of Analysis for various Parameters of Honey

S. No.	Parameter	Method of analysis
1	Specific Gravity at 27°C	IS 4941:1994
2	Moisture percent by mass	IS 4941:1994
3	Total Reducing Sugars percent by mass	IS 4941:1994
	Carvia Callosa and Honeydew (TRS) percent by mass	IS 4941:1994
	Blends of Honeydew honey with blossom honey percent by mass	IS 4941:1994
4	Sucrose percent by mass	AOAC 977.20
	Carvia Callosa and Honeydew (Sucrose)	AOAC 977.20
5	F/G Ratio	AOAC 977.20
6	Total Ash percent by mass	IS 4941:1994
7	Acidity as Formic Acid percent by mass	IS 4941:1994
	Free Acidity milliequivalents acid/1000g	AOAC 962.19
8	HMF mg/kg	AOAC 980.23
9	Diastase Activity	AOAC 958.09
10	Water insoluble matters percent by mass	International Honey Commission Method
	For pressed honey percent by mass	International Honey Commission Method
11	C4 Sugar percent by mass	AOAC 998.12
12	Proline mg/kg	AOAC 979.20
13	Electrical Conductivity	International Honey Commission Method
14	$\Delta\delta^{13}C$ (Protein - Honey)	AOAC 998.12



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Methods of analysis for Royal Jelly, Beeswax and Dry Mixtures of Cocoa and Sugars

ROYAL JELLY

S. No.	Parameter	Method of analysis
1	Moisture content percent by mass	IS/ISO 12824 : 2016 – Annexure A
2	10-HDA percent by mass	IS/ISO 12824 : 2016 – Annexure B
3	Protein, percent by mass	IS/ISO 12824 : 2016 – Annexure C
4	Total sugar, percent by mass	IS/ISO 12824 : 2016 – Annexure D
5	Fructose, percent by mass	IS/ISO 12824 : 2016 - Annexure D
6	Glucose, percent by mass	IS/ISO 12824 : 2016 - Annexure D
7	Sucrose, percent by mass	IS/ISO 12824 : 2016 - Annexure D
8	Erllose, percent by mass	IS/ISO 12824 : 2016 - Annexure D
9	Maltose, percent by mass	IS/ISO 12824 : 2016 - Annexure D
10	Maltotriose, percent by mass	IS/ISO 12824 : 2016 - Annexure D
11	Total acidity, ml of 1 mol/l NaOH l/100 g	IS/ISO 12824 : 2016 - Annexure E
12	Total lipid, percent by mass	IS/ISO 12824 : 2016 - Annexure F
13	C13/C12 Isotopic ratio (δ ‰)	IS/ISO 12824 : 2016 - Annexure G

BEESWAX

S. No.	Parameter	Method of analysis
1	Solubility	JECFA INS 901 and JECFA Combined compendium of food additives specification volume 4 (page 41)
2	Melting point range, °C	JECFA INS 901 and JECFA Combined compendium of food additives specification volume 4 (page no 38)
3	Acid value	Food Chemical Codex 2016 page no 130 and page no 131
4	Peroxide value	JECFA INS 901 and JECFA Combined compendium of food additives specification volume 4 (page no 161)
5	Saponification value	Food Chemical Codex 2016 page no 130 and page no 131
6	Carnauba wax	JECFA INS 901
7	Ceresin, paraffins and certain other waxes	JECFA INS 901
8	Fats, Japan wax, rosin and soap	JECFA INS 901
9	Glycerol and other polyols, percent by mass	JECFA INS 901
10	Lead, mg/kg	JECFA Combined compendium of food additives specification volume 4 (page no 61)
11	Ash, percent by mass	IS 4028 - 1992
12	Total Volatile matter, percent by mass	IS 4028 - 1992

DRY MIXTURES OF COCOA AND SUGARS

S. No.	Parameter	Method of analysis
1	Moisture Content percent by mass	AOAC 977.10 (Karl Fischer method), IOCCC 26
2	Cocoa butter content (as a minimum cocoa powder content on a dry matter basis)	AOAC 963.15, IOCCC 14