Notice Calling for suggestions, views, comments etc from stakeholders on the draft notification revision of standards for Honey and standards for Bee Wax & Royal Jelly.

File No. Stds /SCSS&H/ Notification (05)/FSSAI-2017.- In the Food safety and Standards (Food Products Standards and Food Additives) Regulations, 2011,-

a. In the regulation 2.7 relating to Sweets & Confectionery, after the sub-regulation 2.7.5, the following sub-regulation shall be inserted, namely:-

"2.7.6 Dry Mixtures of Cocoa and Sugars

1. **Definition**: This standard applies to dry mixtures of cocoa and sugars intended for direct consumption. Dry Mixtures of Cocoa and Sugars is the product obtained from Cocoa Cake transformed into powder.

2. **Essential Requirements:**
   a) Moisture Content, percent by mass **:** Not more than 7%
   b) Dry Mixtures of Cocoa and Sugars

Parameter	**Cocoa Butter Content (as a minimum cocoa powder content on a dry matter basis)**			
	Level	**≥20% m/m**	**≥10% m/m but < 20% m/m**	**< 10% m/m**
Cocoa powder content in dry mixtures	Not < 25% m/m	Sweetened Cocoa, or Sweetened Cocoa Powder, or Drinking Chocolate	Sweetened Cocoa, Fat-reduced, or Sweetened Cocoa Powder, Fat-reduced, or Fat-Reduced Drinking Chocolate	Sweetened Cocoa, Highly Fat-reduced or Sweetened Cocoa Powder, Highly Fat-reduced or Highly Fat-Reduced Drinking Chocolate
	Not < 20% m/m	Sweetened Cocoa Mix, or Sweetened Mixture with Cocoa	Sweetened Cocoa Mix, Fat-reduced, or Sweetened Mixture with Cocoa, Fat-reduced:	Sweetened Cocoa Mix, Highly Fat-reduced or Sweetened Mixture with Cocoa, Highly Fat-

				reduced
	< 20% m/m	Sweetened Cocoa-flavoured Mix	Sweetened Cocoa-flavoured Mix, Fat-reduced	Sweetened Cocoa-flavoured Mix, Highly Fat-reduced

c) Chocolate Powder: mixture of cocoa powder and sugars and/or sweeteners, containing not less than 32% wt/wt cocoa powder (29% wt/wt on a dry matter basis).

3. **Optional Ingredients**

(a) Spices

(b) Salt (Sodium chloride)

b. In the regulation 2.8 relating to "SWEETENING AGENTS INCLUDING HONEY", for sub-regulation 2.8.3, the following shall be substituted, namely:-

" 2.8.3: Honey and it's by products

1. Honey

(a) Honey shall be the natural sweet substance produced by honey bees from the nectar of blossoms or from secretions of plants, which honey bees collect, transform and store in honey combs for ripening. It shall possess pleasant aroma, sweet flavour and taste characteristic of honey.

(b) It shall be free from organic and inorganic matter including visible mould, insects and insect debris, fragments of bees, brood, pieces of bees wax, grains of sand, , and any other extraneous matter.

(c) It shall comply with the following requirements:

Sr. No.	**Parameters**	**Permissible Limits**
1.	Specific gravity at 27° C, Min	1.35
2.	Moisture, percent by mass, Max	20.0
3.	Total reducing sugars, percent by mass, Min Carvia callosa and Honeydew honey, percent by mass, Min	65.0 60.0
4.	Sucrose, percent by mass, Max Carvia callosa and Honeydew honey, Max	5.0 10.0
5.	Fructose to Glucose ratio (F/G Ratio)	0.95 – 1.20
6.	Total Ash, percent by mass, Max	0.50

7.	(a) Acidity expressed as formic acid percent by mass, Max, (b) Free Acidity milliequivalents acid/ 1000 g, Max	0.20 50.0
8.	Hydroxy Methyl Furfural (HMF) mg/kg, Max	80.0
9.	Diastase activity, Schade units, Min	8.0
10.	Water insoluble matters percent by mass, Max,	0.10
11.	Fiehe's test	Negative
12.	Aniline chloride test	Negative
13.	C4 Sugar, percent by mass, Max	7.0
14.	Pollen count/g , Min	50000
15.	Special marker for Rice Syrup (SMR)	Negative
16.	Trace marker for Rice Syrup (TMR)	Negative
17.	Foreign oligosaccharides	Nil
18.	Proline, mg/kg, Min	200
19.	Electrical Conductivity (a) Honeys not listed under Honeydew, Max (b) Honeys listed under Honeydew, Min	 0.8 mS/cm 0.8 mS/cm
20.	(a) $\Delta\delta^{13}C$ Max(Maximum difference between all measured $\delta^{13}C$ values); percent (b) $\Delta\delta^{13}C$ Fru – Glu (The difference in $^{13}C/^{12}C$ ratio between fructose and glucose);percent (c) Δδ13C (%) Protein – Honey (The difference in $^{13}C/^{12}C$ between honey and its associated protein extract)percent	± 2.1 ± 1.0 ≥ – 1.0
21.	Total Oligosaccharides, percent (erlose, theanderose, and panos)	3.0-4.0

(d) Honey can be labelled according to floral or plant source, if it comes from any particular source, and has the organoleptic, physicochemical and microscopic properties corresponding with that origin.

(i) In the case of "Monofloral Honey", the minimum pollen content of the plant species concerned shall not be less than 45 percent of total pollen content; and

(ii) In the case of "Multi floral Honey", the pollen content of any of the plant species shall not exceed 45 percent of the total pollen content.

Note: "Carvia callosa" is the honey derived from flower of *Carvia* callosa plant which is described as thixotrophic and is gel like extremely viscous when standing still and turns into liquid when agitated or stirred.

"Honeydew honey" is the honey which comes mainly from excretions of plant sucking insects of Order *Hemiptera* on the living parts of plants or secretions of living parts of plants.

2. Bee Wax

(a) Definition:

Beeswax is obtained from the honeycombs of bees (Family*Apidae* e.g. *Apis mellifera* L) after the honey has been removed by draining or centrifuging. The combs are melted with hot water, steam or solar heat; the melted product is filtered and cast into cakes of yellow beeswax. White beeswax is obtained by bleaching the yellow beeswax with oxidizing agents, e.g. hydrogen peroxide, sulfuric acid, or sunlight.

Beeswax consists of a mixture of esters of fatty acids and fatty alcohols, hydrocarbons and free fatty acids; minor amounts of free fatty alcohols are also present

(b) Description:

(i) Yellow beeswax: Yellow or light-brown solid that is somewhat brittle when cold and presents a dull, granular, non-crystalline fracture when broken; it becomes pliable at about 35°. It has a characteristic odour of honey.

(ii) White beeswax: White or yellowish white solid (thin layers are translucent) having a faint and characteristic odour of honey.

(c) Requirements:

When tested in accordance with method specified in JECFA for Beeswax (INS No. 901) shall conform to the following requirement:

Sr.No.	Parameter	Permissible Limit
1.	Solubility	Insoluble in water; sparingly soluble in alcohol; very soluble in ether
2.	Melting point range, °C	62 – 65
3.	Acid value	17 – 24
4.	Peroxide value, Max	5.0
5.	Saponification value	87 -104
6.	Carnauba wax	Absent
7.	Ceresin, paraffins and certain other waxes	Absent

8.	Fats, Japan wax, rosin and soap	Absent
9.	Glycerol and other polyols, percent by mass, Max	0.5
10.	Lead, mg/kg, Max	2.0
11.	Ash, percent by mass, Max	0.50
12.	Total Volatile matter, percent by mass, Max	0.75

3. Royal Jelly

(a) Definition: Royal jelly is the mixture of secretions from hypopharyngeal and mandibular glands of worker bees, free from any additive. It is the food of larval and adult queens.

It is a raw and natural food, unprocessed except for filtration which does not undergo addition of substances. The color, taste and the chemical composition of royal jelly are determined by absorption and transformation by the bees fed with the following two types of foods during the royal jelly production time:

- type 1: only bee's natural foods (pollen, nectar and honey);
- type 2: bee's natural food and other nutrients (proteins, carbohydrates)

(ii) **10-hydroxy-*2*-decenoic acid (HDA):** HDA is the characteristic component of royal jelly.

(b) Requirements:

(I) **Description** Royal jelly is milky white, pale yellow, with lustre. It is pasty or jelly-like at normal temperature with fluidity, and shall be free from the bubble and foreign substances. Minor crystallization phenomena can occur naturally in royal jelly during storage.

(II) **Odor and taste:** It is pungent, unfermented and shall not be rancid. It is acerb, spicy, and brings acrid taste to palate and throat.

(III) **Chemical requirements** Royal jelly shall comply with the requirements as follows:

Table 1 — Chemical requirements of royal jelly

Sr.No.	Characteristic	Permissible limit	
		Type 1	Type 2
1.	Moisture content percent by mass, Max	62.0-68.5	
2.	10-HDA percent by mass, Max,	1.4	

Sr.No.	Characteristic	Permissible limit	
	Min.		
3.	Protein, percent by mass	11-18	
4.	Total sugar, percent by mass	7-18	
5.	Fructose, percent by mass	2-9	
6.	Glucose, percent by mass	2-9	
7.	Sucrose, percent by mass, Max	3.0	NA*
8.	Erlose, percent by mass, Max	0.5	NA*
9.	Maltose, percent by mass, Max	1.5	NA*
10.	Maltotriose, percent by mass, Max	0.5	NA*
11.	Total acidity, ml of 1 mol/l NaOH l/100 g	30.0-53.0	
12.	Total lipid, percent by mass	2-8	
13.	C13/C12 Isotopic ratio (δ ‰)	−29 to −20	−29 to −14

*NA = Not applicable

Furosine is an additional, optional quality parameter which shows freshness of royal jelly