

# FarmBasket Forest Honey Test Report, December 2021

## Customer Copy

### FSSAI Quality

(FSSAI Manual – Beverages Sugar & Confectionary Products: 2015)

Sr. No.	Test Name	Specified Requirement	LOQ	Results	Test Method
1	Moisture %	Max 20	1.0	18.4	Method 6.2
2	Ash %	N.A.	0.10	0	Method 6.7
3	Specific Gravity at 27° C	Min 1.35	1.0	1.47	Method 6.3
4	Acidity (as formic acid), %	Max 0.2	0.05	0.14	Method 6.8
5	Fiehe's Test	N.A.	-	Negative	Method 6.6
6	Total Reducing Sugar, %		50.0	76.15	Method 6.4
7	Fructose-Glucose Ratio	0.95-1.50	0.50	1.11	Method 6.5
8	Sucrose, %	N.A.	0.50	0	Method 6.4

### Heavy Metal Residues

(FSSAI Manual – Metals: 2016, Method 5.0)

9	Lead (as Pb), mg/kg	Max 2.5	0.5	0	Method 5.0
10	Arsenic (as As), mg/kg	Max 1.1	0.05	0	Method 5.0
11	Tin (as Sn), mg/kg	Max 250.0	0.1	0	Method 5.0
12	Cadmium (as Cd), mg/kg	Max 1.5	0.05	0	Method 5.0
13	Antimony (as Sb), mg/kg	N.A.	0.05	0	Method 5.0
14	Nickel (as Ni), mg/kg	N.A.	0.05	0	Method 5.0

### Heavy Metal Residues Testing

(USDA CLS TM-4.5-2006)

15	Mercury (as Hg), mg/kg	Max. 1.0	0.05	0	USDA CLS TM-4.5-2006
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### Hydroxy methyl Furfural (HMF)

(IS 4941 – Annex F)

23	Hydroxy methyl Furfural, mg/kg	Max 80.0	10.0	0	IS 4941 Annex F
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### Essential Minerals

(FSSAI Manual – Metals: 2016, Method 5.0)

24	Zinc (as Zn), mg/kg	N.A.	0.5	1.24	Method 5.0
25	Calcium (as Ca), mg/kg	N.A.	2.5	257.5	Method 5.0
26	Potassium (as K), mg/kg	N.A.	0.5	66.51	Method 5.0
27	Iron (as Fe), mg/kg	N.A.	1.0	37.93	Method 5.0
28	Sodium (as Na), mg/kg	N.A.	2.5	233.80	Method 5.0
29	Magnesium (as Mg), mg/kg	N.A.	2.5	16.18	Method 5.0
30	Phosphorus (as P), mg/kg	N.A.	1.0	34.21	Method 5.0
31	Manganese (as Mn), mg/kg	N.A.	0.5	0.89	Method 5.0
32	Selenium (as Se), mg/kg	N.A.	0.5	3.10	Method 5.0

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### Authenticity Testing (Artificial Syrups Adulteration)

Sr. No.	Test Name	Specified Requirement	LOQ	Results	Test Method
33	Diastase Activity (Schade Unit)	3, Min		60	
34	Electrical Conductivity			0.73 mS/cm	
35	Water Insoluble Matter	0.10%, Max		0.09%	IHC Method
36	Proline, mg/kg	180, Min		210	AOAC: 979.20
37	Pollens Count & Plant Elements	5000 count/g, Min		3,15,200 count/g	IS 4941:1994
38	C4 Sugars	7% max		0%	AOAC 998.12
39	$\Delta\delta^{13}\text{C}$ (per cent) Protein – Honey (Diff. in $^{13}\text{C}/^{12}\text{C}$ between honey and its associated protein extracts)	$\geq -0.1$ per million		-0.03 per million	AOAC 998.12
40	$\Delta\delta^{13}\text{C}$ Max (Max. Diff. between all measured $\delta^{13}\text{C}$ values) per million	$\pm 2.1$ per million		1.6 per million	FSSAI Official, by LC-IRMS
41	$\Delta\delta^{13}\text{C}$ Fru-Glu (The Difference $^{13}\text{C}/^{12}\text{C}$ ratio between fructose and glucose) per million	$\pm 1.0$ per million		-0.7 per million	FSSAI Official, by LC-IRMS
42	Foreign Oligosaccharide	0.7% Peak, max	0.7	Not Detected	FSSAI Official, by LC-IRMS
43	2-Acetylfuran-3-Glucopyranoside (2-AFGP) as marker for Rice Syrup, mg/kg	Absent	1	Absent	FSSAI Official, by LC-MS-MS

### Other Nutritional Parameters

44	Energy, Kcal/100 gm	N.A.	-	322.40	FAP Chap 3, 3.5
45	Carbohydrate, %	N.A.	0.50	80.60	IS 1656
46	Total Sugars, %	N.A.	1.0	76.15	
47	Fat, %	N.A.	0.25	0	IS 6287
48	Polyunsaturated Fat, gm/100gm	N.A.	0.5	0	AOAC 996.06
49	Monounsaturated Fat, gm/100gm	N.A.	0.5	0	AOAC 996.06
50	Trans Fat, gm/100gm	N.A.	0.1	0	AOAC 996.06
51	Saturated Fat, gm/100gm	N.A.	0.5	0	AOAC 996.06
52	Cholesterol, mg/100gm	N.A.	0.5	0	AOAC 996.06
53	Vitamin A, ug/100gm	N.A.	5.0	0	IS 5886
54	Vitamin D, ug/100gm	N.A.	1.0	0	IS 5835
55	Vitamin C, ug/100gm	N.A.	1.0	0	IS 5838
56	Vitamin E, ug/100gm	N.A.	0.5	0	IS 6287
57	Total Protein	N.A.	0.25	0	IS 7219

### Foreign Matters

58	Mould	Absent	-	Absent	
59	Dirt	Absent	-	Absent	
60	Scum	Absent	-	Absent	
61	Bee Wax	Absent	-	Absent	
62	Bee Fragments and Insects	Absent	-	Absent	
63	Other Extraneous Matter	Absent	-	Absent	