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NORD MAZEDONIEN

Report date 29.12.2023

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Analytical report

AR-23-TH-013891-01-PTH04



Sample Code

296-2023-00014179

Sample name	Sample 2- Honey - Badar
Packaging	Plastic cup
Sampler	Client
Number sample tubes	1
Type of seal	Without seal
Amount	approx. 160 g
Reception temperature	room temperature
Reception date time	21.12.2023
Start / End of analysis	21.12.2023 / 29.12.2023

Test results

Sensory analysis

THH25	Sensory Analysis of Honey (#)
Method	ICS SOP 520-02 (2018-08)

sensory indication

Color: light

Consistency: viscous

Odor: typical for honey

Taste: sweet, no specific floral aroma, mild, slightly honey-specific

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Eurofins Food Integrity Control Services GmbH · Berliner Straße 2 · D-27721 Ritterhude
The place of execution and jurisdiction is Walsrode - lower district court Walsrode HRB 206619.

Managing Director: Dr. Kurt-Peter Ræzke

VAT No.: DE301552996

Hypovereinsbank SWIFT-BIC: HYVEDEMM17 IBAN: DE77 2073 0017 7000 0022 00

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Microscopy

THH21 Pollen Analysis - Bot. & Geogr. Origin (ADV) (#)

Method DIN 10760 mod. (2002-05) [ICS SOP 520-11 (2018-03)]

Modification: Sample amount

Microscopic examination of pollen

Number of pollen counted: 500

Number of types of pollen identified: 18

Other components of sediment: elements of fungus, spores, bee hair, crystalline matter, wax particles, plant tissue, vegetable fibers, black particles

Yeast content / 10 g honey: <10.000 (very low)

Starch content: < 5/500* Pollen

Amount of honeydew particles: low

Pollen from nectarless plants: 8

Very frequent pollen > 46 %

96% Rhamnaceae/diff. genera/Kreuzdorngewächse/Buckthorn Family

Frequent pollen 16 - 45 %

none

Single pollen 3 - 15%

none

Isolated pollen < 3 %

2% Fabaceae/Amorpha fruticosa/Bastardindigo/False Indigo

1% Fabaceae/Trifolium/Klee/Clover

Apiaceae/Foeniculum/Fenchel/Fennel

Fabaceae/Onobrychis/Esparsetten/Sainforn

Fabaceae/Trifolium pratense spec./Rotklee/Red Clover

Fabaceae/Trifolium repens spec./Weissklee/White Clover

Fabaceae/Vicia spec./Bohne/Bean

Fagaceae/Castanea sativa/Edelkastanie/Sweet Chestnut

Hypericaceae /Hypericum spec. /Echtes Johanniskraut/St. John's Wort°

Lamiaceae/Teucrium/Gamander/Germander

Papaveraceae/Papaver spec./Mohn/Poppy°

Poaceae/diff.genera/Süßgräser/Graminea°

Ranunculaceae /Clematis spec./Waldrebe/Clematis

Rosaceae/Potentilla spec./Fingerkraut/Cinquefoil°

Sapindaceae/Acer spec./Ahorn/Maple

Unknown pollen

Vitaceae/Vitis vinifera/Wein/Vine°

°nectarless plant

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Physico-chemical analysis
THH05 Electrical conductivity (20 °C) (#)
Method ICS SOP 510-06 (2021-04)

Conductivity at 20°C

Result	Uncertainty	Unit
0.86	(± 0.07)	mS/cm

(#) = Eurofins Food Integrity Control Services is accredited for this test.

Assessment

According to the pollen-analysis, organoleptic properties, and corresponding physical-chemical parameters (electrical conductivity) the above-mentioned sample may be called "Honeydew Honey with Blossom Honey" (Honey directive 2001/110/EU, Article 2 from June 23rd, 2014, in connection with Annex I and relevant literature: BMEL (2022). Neufassung der Leitsätze des Deutschen Lebensmittelbuchs für Honig. GMBI 2022, S. 429-430).

Based on the current scientific knowledge, the analyzed pollen spectrum indicates "Southeastern Europe (Macedonia possible)" as regional origin (Honey Directive 2001/110/EC; Article 2 in connection with Annex I and relevant literature).

The organoleptic properties lie on the edge of the naturally occurring range of a natural honey (Honey directive 2001/110/EU, Article 1 in connection with Annex II from June 23rd, 2014 with relevant literature: BMEL (2022). Neufassung der Leitsätze des Deutschen Lebensmittelbuchs für Honig. GMBI 2022 S. 429-430).

Signature



Head of Laboratory / Laborleiter (Dr. Christof Kunert)

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Sample name Sample 2- Honey - Badar
Packaging Plastic cup
Sampler Client
Number sample tubes 1
Type of seal Without seal
Amount approx. 160 g
Reception temperature room temperature
Reception date time 21.12.2023
Start / End of analysis 21.12.2023 / 29.12.2023

Test results

Physico-chemical analysis

THH01 5-Hydroxymethylfurfural (HMF) (#)

Method ICS SOP 510-08 (2019-09)

5-Hydroxymethylfurfural

Result <2 *
Uncertainty
Unit mg/kg

THH02 Moisture (#)

Method DIN 10752-2 2018-09

Water content

Result 17.7
Uncertainty (± 0.2)
Unit g/100 g

THH03 pH Value (#)

Method ICS SOP 510-06 (2021-04)

pH-value

Result 4.6
Uncertainty (± 0.1)
Unit

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**THH04 Diastase activity (#)**

Method ICS SOP 510-04 (2021-04)

Diastase activity

Result	Uncertainty	Unit
38.4	(± 3.1)	DN

THH06 Free acid (#)

Method ICS SOP 510-06 (2021-04)

Free acidity

Result	Uncertainty	Unit
15	(± 2)	mmol/kg

THH07 Water insoluble substances (#)

Method DIN10743 2013-05

Water insoluble matter

Result	Uncertainty	Unit
0.013	(± 0.002)	g/100 g

THH08 Sugars in Honey (LC-ELSD) (#)

Method DIN 10758 (1997-05) mod. [ICS SOP 510-02 (2021-03)]

Modification: ELSD Detection; Downscaled sample preparation; LC flow rate

Fructose

Result	Uncertainty	Unit
36.0	(± 2.9)	g/100 g

Glucose

26.6	(± 2.1)	g/100 g
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Fructose / Glucose

1.35	(± 0.10)	
------	----------	--

Glucose+Fructose

62.6		g/100 g
------	--	---------

Sucrose

<0.1 *		g/100 g
--------	--	---------

Turanose

2.3	(± 0.5)	g/100 g
-----	---------	---------

Maltose

1.3	(± 0.3)	g/100 g
-----	---------	---------

THH11 Glucose / Moisture Ratio (Calculation) (#)

Method calculation

Glucose / Moisture

Result	Uncertainty	Unit
1.50		

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* = below indicated quantification level

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Assessment

Regarding the examined parameters the sample corresponds to the legal regulations (Honey directive 2001/110/EU, Article 2 in connection with Annex II and relevant literature: BMEL (2022). Neufassung der Leitsätze des Deutschen Lebensmittelbuchs für Honig. GMBI 2022 S. 429-430).

Remark:

Values in brackets: expanded measurement uncertainty ($F = 2.58$; 99%).

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