

6/76	Stingless bee honey from the world 003:	Argentina 01 Australia 01 Brazil 01 Venezuela 03
<i>Austroplebeia symei</i> n=1 <i>Melipona compressipes manaosensis</i> n=1 <i>Melipona favosa</i> n=1 <i>Melipona seminigra pernigra</i> n=1 <i>Tetragonisca fiebrigi</i> n=1 <i>Trigona carbonaria</i> n=1		

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KEYWORDS

Argentina, Australia, Brazil, honey, physicochemical composition, stingless bees, Venezuela

ORIGINAL WORK

Lab collaborations.

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Table 1. Stingless bee identification

Nr.	SB species	Author, year	Entomologist	Common name	Honey samples
1	<i>Melipona favosa</i>	Fabricius, 1798	Camargo JMF USP, Ribeirão Preto, Brasil	erica	1
2	<i>Tetragonisca fiebrigi</i>	Schwarz, 1938	Camargo JMF USP, Ribeirão Preto, Brasil	yateí	1
3	<i>Melipona compressipes manaosensis</i>	Schwarz, 1932	Camargo JMF USP, Ribeirão Preto, Brasil	jupará	1
4	<i>Melipona seminigra pernigra</i>	Moure & Kerr, 1950	Camargo JMF USP, Ribeirão Preto, Brasil	uruçu	1
5	<i>Trigona carbonaria</i>	Smith, 1854	Heard TA CSIRO, Indooroopilly, Australia	no local name	1
6	<i>Austroplebeia symei</i>	Rayment, 1932	Dollin A ANBRC, North Richmond, Australia	no local name	1

Table 2. Geographical origin of honey samples

Nr.	Harvesting date ddmmyy	Location	GPS	Country
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1	15.10.05	Via Moruy-Guacurebo (Falcón)	N 11° 50.504' W 069° 57.671'	Venezuela
2	-	Misiones (Posadas)	-	Argentina
3	17.10.05	Boa Vista do Ramos (Amazônia)	S2° 54.4' W57° 32.23'	Brasil
4	17.10.05	Boa Vista do Ramos (Amazônia)	S2° 54.4' W57° 32.23'	Brasil
5	-	Brisbane (Queensland)	-	Venezuela
6	-	Rockhampton (Queensland)	-	Venezuela

Table 3. Type of stingless bee management and technology

Nr.	Hive, model	Extraction	Processing	Storage temperature
1	Box	Syringe suction	Natural	Frozen
2	Box	Syringe suction	Natural	Frozen
3	Box	Syringe suction	Natural	Frozen
4	Box	Syringe suction	Natural	Frozen
5	Box	Syringe suction	Natural	Frozen
6	Box	Syringe suction	Natural	Frozen

Table 4. Physicochemical composition
(see method and units in the reference section)

Nr.	SB species	Ash	Diastase	Free Acidity	HMF	Nitrogen	Reducing sugars	Apparent Sucrose	Vitamin C	Water
1	1	0.18	0.0	63.6	21.5	52.8	63.8	0.8	20.6	29.8
2	2	0.31	34.7	62.3	15.0	76.2	61.0	2.8	21.4	23.0
3	3	0.01	0.0	14.0	19.8	27.7	73.7	0.8	23.1	23.4
4	4	0.03	0.0	28.0	23.4	42.7	71.5	0.7	26.9	23.0
5	5	0.45	0.0	257.8	33.2	131.5	48.0	1.3	17.7	25.6
6	6	0.90	1.3	45.0	21.6	123.1	61.2	2.6	18.1	23.6
	Method	1	2	3	4	5	6	7	8	9

Table 5. Sensory evaluation

Not available.

Table 6. Bioactivity

(see method and units in the reference section)

Nr.	SB species	Antioxidant activity
1	1	45.8
2	2	62.5
3	3	35.3
4	4	0.00
5	5	299.7
6	6	193.4
Method		10

Table 7. Melissopalynology.

Not available.

Table 8. Analysts.

Analysis	Ash	Free Acidity	Nitrogen	Reducing sugars	Apparent sucrose	Water	Diastase	HMF	Vitamin C	Antioxidant activity
Analysts	Vit P						Almeida D Marchini LC Souza BA	Rodríguez-Malaver AJ		

REFERENCES

Method	Parameter	Technique	Units
1	Ash	Gravimetric ¹	g ash/100 g honey
2	Diastase	Spectrophotometric ²	DN

3	Free acidity	Titrimetric ¹	g water/100 g honey
4	HMF	Spectrophotometric ²	mg/kg honey
5	Nitrogen	Titrimetric ²	mg N/100 g honey
6	Reducing sugars	Titrimetric ¹	g reducing sugars/100 g honey
7	Apparent sucrose	Titrimetric ¹	g sucrose/100 g honey
8	Vitamin C	Colorimetric ³	mg/100 g honey
9	Water	Refractometric ¹	g water/100 g honey
10	Antioxidant activity	Spectrophotometric ⁴	μmol Trolox/100 g honey

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