

Die Ouwerf Boerdery_230920

Requested by: Herman Redelinghuys

Sample list: Rooibos_230919

Scope: Honey sample for PA's and TA's

Method: The samples were analysed by LC-MS/MS on a Waters ESI Xevo coupled to a Waters UPLC. More info on the method can be supplied on request.

Results: All results are expressed in mg/kg (ppm).

Client reference	Senecionine-N-oxide	Senecionine	Retrorsine-N-oxide + Usaramine-N-Oxide	Retrorsine + Usaramine	Seneciphylline-N-oxide + Spatioidine-N-Oxide	Seneciphylline + Spatioidine	Senecivirnin-N-oxide	Senecivirnine + Integerrimine	Integerrimine-N-oxide	Senkirkin	Total PA's	Total TA's
Heuning sample				0,016				0,007			0,023	ND

Additional PA's detected and quantified relative to a known standard (mg/kg):

Client reference	Lycopsamine+Indicine	Lycopsamine-N-Oxide	Intermedine	Intermedine-N-Oxide	Heliotrine	Heliotrine-N-Oxide	Laciocarpine	Laciocarpine-N-Oxide	Europine	Europine-N-Oxide	Echimidine	Echimidine-N-Oxide	Total PA's
Heuning sample													ND

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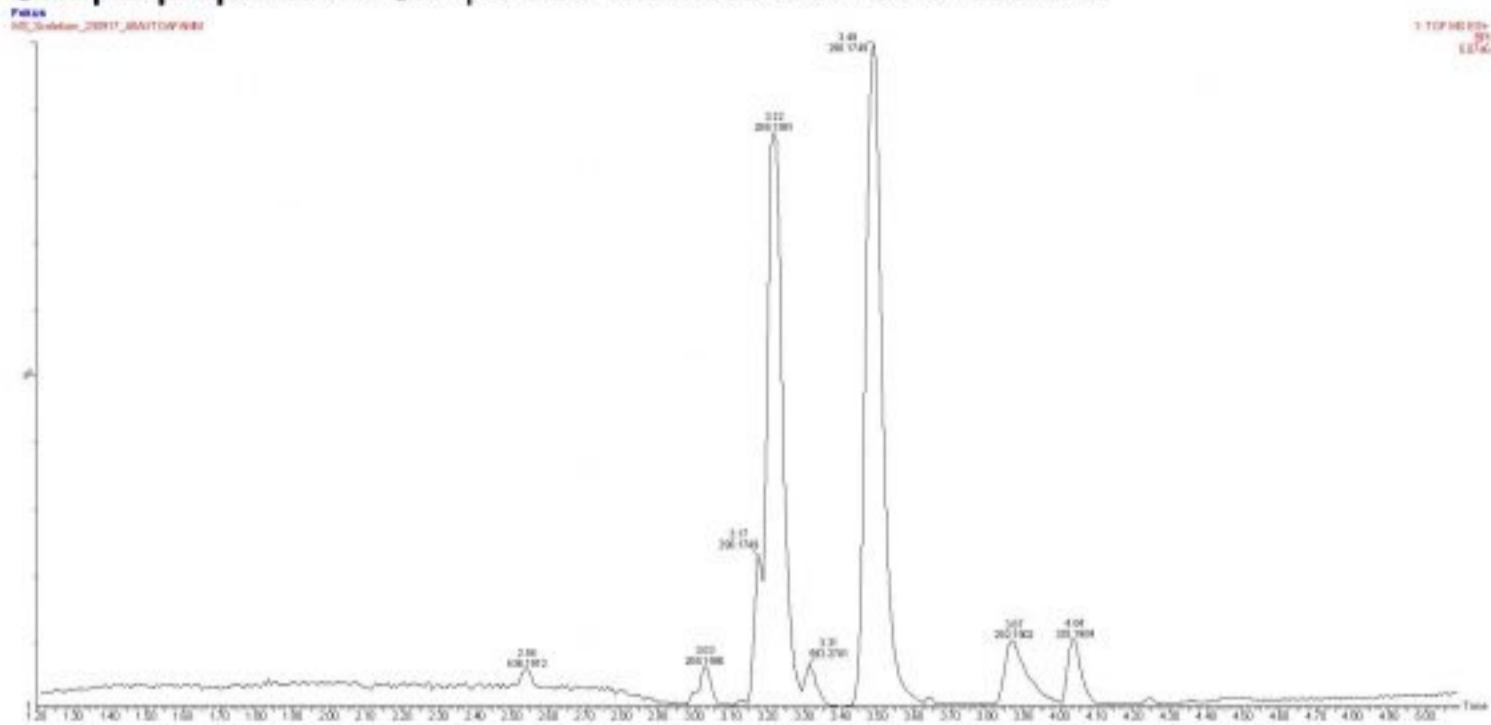
Requested by: Herman Redelinghuys, Die Ouwerf

Report No: HR_Sceletium_230918

Method:

Instrument: Waters Cyclic Select coupled to a Waters UPLC., ESI probe, ESI Positive, Cone Voltage 15 V

Sample preparation: Sample was extracted with 100% methanol



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Requested: **Herman Redelinghuys, Die Ouwerf**

Report No: HR_DieOuwerf_2306

Instrument: Waters Acquity UPLC + ELSD

Column: Waters Acquity BEH Amide 2.1 x 100mm, 1.7 μ m

Samples:

Sample #	Name
2023_1	Karoo Honey

Method:

0.5 g of each sample was accurately weighed out into 50ml centrifuge tubes. 30ml water was added to dissolve the sample, followed by the addition of 20 ml acetonitrile. Thereafter, two separate dilutions were made, a ten-fold and a fifty-fold dilution using 50% acetonitrile. The diluted samples were transferred into glass vials and analyzed by UPLC-ELSD as described above. An injection volume of 5 μ l was used with a column temperature of 50°C.

MS Unit

JC Smuts building., Private Bag X1, Matieland, 7602, South Africa

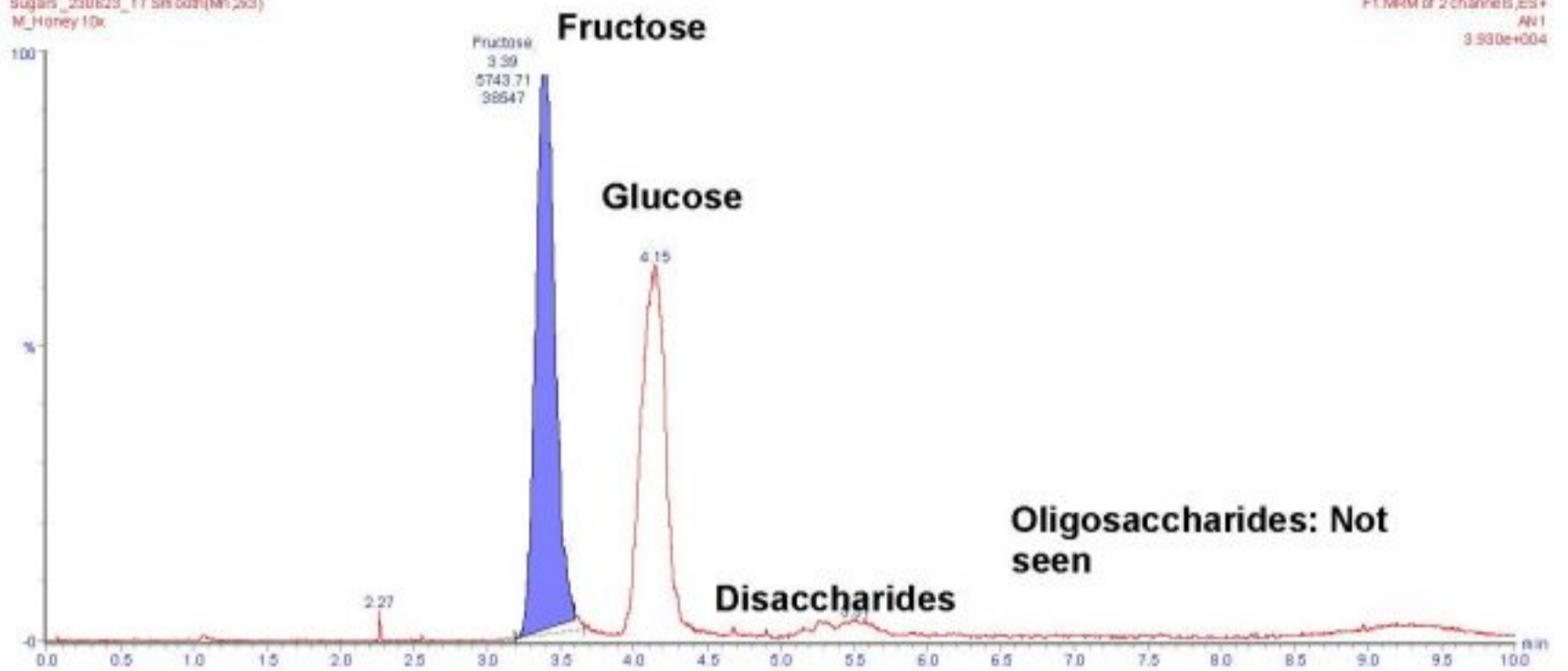
Tel: +27 21 808 5825 Fax: +27 21 808 5863 lcms@sun.ac.za www.sun.ac.za/caf

Results

	Fructose	Glucose	Sucrose	Maltose	Red Sug	F/G	HMF
	% g/100g	% g/100g	% g/100g	% g/100g	% g/100g		mg/Kg
Karoo Honey	38.5	30.1	0.5	0.7	69.8	1.3	13.04

Sugars_230623_17 Sm.c03(Mn.2x3)
M_Honey 10x

Ft.MRM of 2 channels_ES+
AN1
3.930e+004



Conclusion:

The reducing sugar concentrations in the sample are within specification and the fructose/glucose ratio is acceptable (<1.5). The HMF concentration in the honey is also within specification (<40 mg/Kg). No longer-chain oligosaccharides are seen.

Quantify Sample Summary Report

Printed Wed Sep 20 11:03:53 2023

Sample Name: MS_Sceletium_230917_n38AUTOAFAMM Sample ID:

#	Name	Trace	RT	Conc. Mg/kg	%m/m
1	1 Mesembrine	290	3.51	92.787	0.009
2	2 Mesembrenone	288	3.22	79.346	0.008
3	3 Mesembranol	292	3.27	0.189	0.000
4	4 Epi-mesembranol	292	4.14	9.921	0.001
5	5 Sceletium A4 isomer 1	325	4.12	8.922	0.001
6	6 Mesembrenol	290	3.27	18.29	0.002
7	7 Sceletium A4 isomer 2	325	4.26	0.304	0.000
8	8 Delta 7- mesembrenone	288	3.02	3.878	0.000
9	9 Dihydrojoubertamine	262	4.69	0.89	0.000
10	10 O-Demethylmesembrine	276	3.76	3.035	0.000
11	11 O-Demethylmesembrenone	274	3.26	1.073	0.000
				Total	0.022

Conclusion

Alkaloids are quantified relative to a mesembrine standard.

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TD417

Certificate Of Analysis

Company: Die Ouwerf Boerdery
Address: 17 Belladonna
Weigevonden Estate
Stellenbosch
7600

Service Request Number: PW-2023-41080
Date of Certificate: 27-October-2023
Date Completed: 27-October-2023
Date of Sampling: Not supplied
Date of Receipt at Lab: 06-October-2023

Contact: Marietjie Stander

Sample Identification:		Sceletium Powder					
Sample Number:	PW-23-136112	Sampling Time:	N/A	Sample Condition:	Chilled	Remark:	
Microbiological Parameters	Method	Unit	Limit	Result	Analysis Date		
E. coli (MF)	M10	cfu's/g		Not Detected	2023-10-09		
Heterotrophic Plate Count	M11	cfu's/g		>10000	2023-10-13		
Mould*	M104	cfu's/g		Not Detected	2023-10-13		
Salmonella*	Outsourced	per 25g		Absent	2023-10-20		
Total Coliforms	M10	cfu's/g		>2000	2023-10-13		
Yeast*	M104	cfu's/g		Not Detected	2023-10-13		
Physical / Aesthetic Parameters	Method	Unit	Limit	Result	Analysis Date		
Moisture Content*	Calc	%		6.19	2023-10-17		
Chemistry (Micro) Parameters	Method	Unit	Limit	Result	Analysis Date		
Arsenic as As	M16	mg/kg		<0.005	2023-10-16		
Cadmium as Cd	M16	mg/kg		<0.001	2023-10-16		
Lead as Pb	M16	mg/kg		<0.003	2023-10-16		
Mercury as Hg	M16	mg/kg		<0.001	2023-10-16		

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Certificate Of Analysis

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Address:	17 Belladonna	Date of Certificate:	27-October-2023
	Welgevonden Estate	Date Completed:	27-October-2023
	Stellenbosch	Date of Sampling:	Not supplied
	7600	Date of Receipt at Lab:	06-October-2023
Contact:	Marietjie Stander		

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