



Certificate of Analysis

Client:	Midlands Apiaries Limited	Lab No:	2404630	HGPV1
Contact:	Claudine McCormick C/- Midlands Apiaries Limited PO Box 65 Ashburton 7740	Date Received:	21-Jul-2020	
		Date Reported:	27-Jul-2020	
		Quote No:	70096	
		Order No:		
		Client Reference:	Starman/ Ecotrade	
		Submitted By:	Claudine McCormick	

Sample Type: Honey

Sample Name:	180720B2				
Lab Number:	2404630.1				
C4 Sugar Analysis					
$\delta^{13}\text{C}$ Honey (Whole)	%	-25.7	-	-	-
$\delta^{13}\text{C}$ Honey (Protein)	%	-26.7	-	-	-
Difference (Whole - Protein)	%	1.0	-	-	-
C-4 Sugar Content	%	6.1	-	-	-
Microbiological Analysis					
Aerobic Count 35°C	cfu / g	150	-	-	-
Yeasts & Moulds	cfu / g	< 10	-	-	-

Analyst's Comments

Sample 1 Comment:

C-4 Sugar Content:

As reported in AOAC method 998.12, pure honey (free of corn or cane sugars) with an exception of a few unusual varieties, yields a C-4 Sugar Content value of less than or equal to 7%. Some unusual varieties may slightly exceed this value, but will have a $\delta^{13}\text{C}$ for honey which is in the normal range (more negative than -24.0‰).

Sample 1 Comment:

C-4 Sugar Screen Results: Between 5.6% and 7.1%

Some risk of failing AOAC method.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Laboratories, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Honey

Test	Method Description	Default Detection Limit	Sample No
C-4 Sugars Analysis (Screen Method)	This method is for screening purposes and should not be used for export certification. Methodology was performed in using a modified version of the AOAC method 998.12. All isotope ratios are reported as 'per mil' i.e. parts per thousand (‰), relative to the international standard for Carbon, VPDB.	-	1
Aerobic Count 35°C	Automated MPN count on TEMPO AC, Incubated at 35°C for 22-28 hours. bioMérieux, TEMPO.	10 cfu / g	1
Yeasts & Moulds	Automated MPN count on TEMPO YM, Incubated at 25°C for 72-76 hours. bioMérieux, TEMPO.	10 cfu / g	1



These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Dates of testing are available on request. Please contact the laboratory for more information.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

This certificate of analysis must not be reproduced, except in full, without the written consent of the signatory.

A handwritten signature in blue ink, appearing to read 'Helen McGowan', with a long horizontal flourish extending to the right.

Helen McGowan BSc (Tech)
Operations Support - Food & Bioanalytical