

Senate Rural and Regional Affairs and Transport References Committee

Questions on Notice – Tuesday, 15 April 2014 Murray Bridge, SA

Inquiry into the future of beekeeping and pollination service industries in Australia

Question Number	Page No's.	Witness	Question asked by	Answered
1	2-3	SAAA	Senator Xenophon	15/4/2014
2	9	SAAA	Senator Xenophon	
1	17-18	Mr Leigh Duffield	Senator Xenophon	
1	28	AHBIC	Senator Xenophon	16/4/2014
1	43	Beechworth Honey	Senator Whish-Wilson	
1	54	Mr Trevor Monson	Senator Xenophon	24/4/2014
1	57	Dr Doug Somerville	Senator Xenophon	14/5/2014
2	58	Dr Doug Somerville	Senator Xenophon	14/5/2014
3	58-59	Dr Doug Somerville	Senator Xenophon	14/5/2014
4	60-61	Dr Doug Somerville	Senator Xenophon	14/5/2014

**SENATE RURAL AND REGIONAL AFFAIRS AND TRANSPORT
REFERENCES COMMITTEE**

**Inquiry into the future of beekeeping and pollination service industries in
Australia**

Public Hearing Tuesday, 15 April 2014

Murray Bridge

Questions Taken on Notice – South Australian Apiarists' Association

1. HANSARD, PG 2-3

Senator XENOPHON: Have you given us a copy of the memorandum of understanding?

Mr Hooper: We have not included that.

Senator XENOPHON: Can you provide us with a copy of that?

Mr Hooper: Yes.

Senator XENOPHON: When was that entered into?

Mr Roberts: It was about 23 years ago.

Mr Hooper: The most recent one.

Senator XENOPHON: Could you give us any previous ones as well, and any correspondence you have had with SA Water about your frustration in dealing with them?

Mr Hooper: Yes.

2. HANSARD, PG 9

Senator XENOPHON: Is defining Australian honey as a prescribed good part of the standard or an additional standard that you are looking for?

Mr Hooper: We are looking at it as an addition to the standard.

Senator XENOPHON: What would you want in addition to what is in 2.8.2?

Mr Hooper: Can I leave that?

Senator XENOPHON: Yes. I am very happy for you to take that on notice. It is not a trick question. Your evidence has been very valuable and I want to see what you are looking for with that. If you could take that on notice.

Memorandum of Understanding

SA Water and the South Australian Apiarist Association

Partnership in Land Management

Memorandum of Understanding – SA Water and South Australian Apiarist Association

1 Background

SA Water recognises the economic importance of the apiary industry for the production of honey and other bee products and for pollination services to high value horticultural crops.

The South Australian Apiarist Association recognises SA Water's essential role of providing water and wastewater treatment to the state. It supports SA Water's commitment to providing safe drinking water and the multiple barrier approach to catchment management.

The multi barrier approach acknowledges that "no single barrier is effective against all conceivable sources of contamination, is effective 100 per cent of the time or constantly functions at maximum efficiency" and that "prevention of contamination provides greater surety than removal of contaminants by treatment, so the most effective barrier is protection of source waters to the maximum degree practical" (Australian Drinking Water Guidelines)

The South Australian Apiarist Association further acknowledges the importance of large areas of native vegetation within SA Water's land for the health of its bees and to the success of its industry.

2 Purpose of this Document

- 2.1 Develop long-term cooperation management agreement between SA Water and the South Australian Apiarist Association for supporting the Apiary industry in relation to the use of SA Water reserves.
- 2.2 Promote a framework for responsible apiary management practices on SA Water reserves.
- 2.3 Provide for a review of this arrangement after five years based on progress of the agreement and improved understanding based on research and management experiences.

3 Outcomes of the Memorandum of Understanding

- 3.1 The South Australian Apiarist Association has developed a framework for responsible apiary management practices. SA Water and the South Australian Apiarist Association will work together to promote this framework.

Memorandum of Understanding
SA Water and South Australian Apiarist Association

- 3.2 SA Water has beekeeping guidelines for its bee keeping license holders. The South Australian Apiarist Association will contribute to the periodic reviews of these guidelines.
- 3.3 SA Water and the South Australian Apiarist Association will work together to promote the beekeeping guidelines and, where applicable, the South Australian Apiarist Association will support SA Water on matters of bee keeping on SA Water reserves.
- 3.4 SA Water and the South Australian Apiarist Association will maintain dialogue on the management of bee keeping within SA Water reserves.
- 3.5 SA Water and the South Australian Apiarist Association will seek to develop a practical means of controlling feral honeybees in SA Water reserves.
- 3.6 Both Parties will ensure apiary management practices are cooperative and compatible with SA Water Land and Fire Management Plans.

Memorandum of Understanding
SA Water and South Australian Apiarist Association

Memorandum of Understanding made the day of 2010

BETWEEN:

SA Water

and

South Australian Apiary Association Inc.

SIGNED

Anne Howe
CHIEF EXECUTIVE, SA WATER

SIGNED

Mr Barry Pobke
PRESIDENT OF THE SOUTH AUSTRALAIN APIARY ASSOCIATION INC.

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Murray Bridge

Questions Taken on Notice – Mr Leigh Duffield

1. HANSARD, PG 17-18

Senator XENOPHON: I think this will have to be on notice. This is in relation to your evidence about the national park and how an apiarist has been paying \$375 a year or thereabouts for the last 20 years and cannot get access to that park. Can you or any of your colleagues provide the committee with more information in relation to that?

Mr Duffield: We can get a copy of the book, the receipts—

Senator XENOPHON: And any correspondence as to why they refused access. It just seems extraordinary.

TAX INVOICE



Government of South Australia

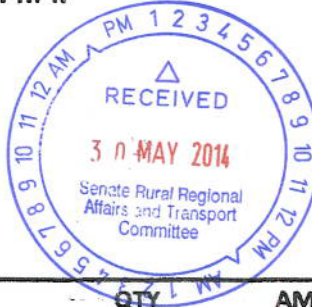
Internet: www.environment.sa.gov.au
Account Enquiries: (W) 08 8204 9263 (F) 08 8115 1256
9am-5pm ACST Mon-Fri

Department of Environment,
Water and Natural Resources

ABN : 36 702 093 234

GPO BOX 1047

Adelaide SA 5001



Customer ID
Invoice ID
Date of Issue

1 Mar 2014

DATE	PRODUCT CODE	DESCRIPTION	QTY	AMOUNT EXCL GST	GST AMOUNT	AMOUNT INCL GST
01 Mar 14	PNA252	BEEKEEPING LICENCE	1	375.00	0.00	375.00
CL LICENCE:BL000120 Crown Land Licence HD WARRENBEN H 131500 S 131 FOR PERIOD: 01-Mar-2014 TO 28-Feb-2015 * PAYMENT FOR THIS ACCOUNT WILL RENEW EACH AGREEMENT ON THE ORIGINAL TERMS & CONDITIONS AMENDED FOR SUBSEQUENT REGULATORY & GST CHANGES For Enquiries Contact (08) 8821 2588						

JAMES . PARK .

TOTAL GST
INVOICE TOTAL

\$0.00
\$375.00

Pd.

PAYMENT METHODS



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Credit Card by Phone
Phone: 1300 550 908



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Telephone & Internet Banking – BPAY
Call your bank, credit union or building society to make this payment from your cheque, savings or credit card account.

Please quote the following
reference number
Phone Ref No: 1495 0495 6534 87

Please reference the
following
BSB: 065-777
Account No: 14921850

Please send Cheque and
Payment Slip (bottom)
To: GPO BOX 1047
Adelaide SA 5001

These sites were transferred from Allon Heath.
upon his retirement in 2000 and we have paid
the lease consistently since then and the Park Rangers
have not allowed access to these sites.
Since we have held this licence we have paid
\$5625.00 (15 x \$375) to maintain this licence.

⑤ Innes Park - B2000120 (1,2,3,4,5)
Hd. Wannan.

Inv. 00080658 1/3/2000
29/2/00. Pd 26/4/00 \$375.
1/3/00 — 1/3/2000.

Inv. 90504005630 - 1/3/01
1/3/01 - 1/3/02 375.00 + 37.50^{GS}
= 412.50
Pd 24/6/01.

Inv. LEAO 205 7924 1/3/02
1.3.2002 - 28.2.2003 375. + 37.50
Pd - 11/2/03 412.50

Inv. LEAO 3082969. 1/3/03
1.3.03 - 28.2.04 375 + 37.50
Pd. 4/6/03 412.50

Inv. LEAO 4104863. 1/3/04
29/2/04 - 28/2/05 375.00 + 37.50
Pd 8/6/04 = 412.50

Inv. LEAO 5120031 1/3/05.
1/3/05 - 28/2/06 375.00 + 37.50
Pd 8/4/05 \$412.50

Snues Park

Invoice TAB 06131778. 1/3/06

1/3/06 - 28/2/07.

Pd. 10/3/06 - NO GST. 375.00

Inv TAB 0714629

1/3/07.

1/3/07 - 28/2/08.

Pd. 2/1/3/07 - 375.00

Inv. TAB 08150013

3/3/08

-Pd. 5/4/08 - 28/2/08 - 28/2/09

375.00

Inv. TAB 09156834 -

1/3/09

Pd. 3/6/09 - 1/3/09 - 28/2/10 - 375.00

Inv TAB 10164274 1/3/10

Pd. 20/3/10 - 1/3/10 - 28/2/11 (5x75) 375.00

Pd. 20/3/11 -

375.00

for 1/3/11 - 28/2/12.

Inv. TAB 12177918. 1/3/12

375.00

Pd. 2/5/12 - 29/2/12 - 28/2/13 (5x75)

Inv. TAB. 13184710. 1/3/13

375.00

Pd. 10/3/13. (1/3/13 - 28/2/14) (5x75)

Inv. TAB. 14191428. 1/3/14

375.00

Pd. 26/3/14. for 1/3/14 - 28/2/15) 5x75

**SENATE RURAL AND REGIONAL AFFAIRS AND TRANSPORT
REFERENCES COMMITTEE**

**Inquiry into the future of beekeeping and pollination service industries in
Australia**

Public Hearing Tuesday, 15 April 2014

Murray Bridge

Questions Taken on Notice – Australian Honey Bee Industry Council

1. HANSARD, PG 28

Senator XENOPHON: Going to the issue of misleading labelling and quality: it is not very hard to check to see whether there are pesticides in imported honey, is it? What are the tests that your association does in relation to that?

Mr Zadow: We have sent away for an assessment of the products that have come in, including checking for adulteration, C4 sugars. We are also checking for other bacteria and everything else in it.

Senator XENOPHON: Can you give us the results of those tests. I am not sure if they are in your report.

Mr Zadow: We can send them through to you.

Senator XENOPHON: That would be very useful, including the brands et cetera—

Mr Zadow: We can give you photos of the labels and everything, if you want.

Senator XENOPHON: That might be very useful, because it goes to this whole issue of food labelling that Senator Sterle has referred to. The other issue is the Asian honey bee incursion back in 2007 in Cairns. How would you describe—and you are covered by parliamentary privilege—the response of the department back then to the Asian honey bee incursion?

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Questions Taken on Notice – Australian Honey Bee Industry Council

Answer:

In an email of 21.2.14 the following information was supplied by the German laboratory re Hi Honey:-

"The results of the 13C analysis as well as honey-foreign oligosaccharides show clearly a massive adulteration by corn syrup (C4 sugars). 8.9% of oligosaccharides are in the range of almost pure commonly available starch-based sugar syrups. Also the d13C values of around -11 permil. Of individual sugar fractions are clear evidences of foreign sugars from C4 plants (around -9 to -12 permil.). Hence, I would like to conclude that nearly 100% of the "honey sample" is syrup"

We did ask the German laboratory to try to culture out the fungi identified in the Hi Honey but they could not.



Nutritional Information

Servings per package: 66
Serving size: 15g

	Qty Per Serve	Qty per 100g
Energy	210kj	1401kj
Protein	0.1g	0.3g
Fat, Total	0g	0g
- Trans Fat	0g	0g
- Saturated	0g	0g
Carbohydrate	12.3g	82.1g
Natural Sugar	12.3g	82.1g
Sodium	2mg	14mg

Not a significant source of saturated fat, cholesterol, dietary fibre, Vitamin A, Vitamin C, Calcium and Iron.
* Percent Daily Values are based on a 2,000 calorie diet.
98% honey, 2% glucose
(added to prevent crystallization)

Bera Foods

2/156-162 Barry Road

Campbellfield, Vic. 3061 Australia

Ph: (613) 9357 6465

Fax: (613) 9357 5446

Produced from the east and southeast
Anatolians plant cover and rich
mountain pasture.
Production date and expiry date on cap.



Keep in dry and cool place.
Product of Turkey

1 Kg





NUTRITION FACTS

Size : 100 g l +

Servings Per Container About: 21g

Amount Per Serving

Calories 68.04 cal

% Daily Value

Total Fat	0 g	0%
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Sodium	0 mg	0%
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Total Carbohydrate	17.01 g	5.67%
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Protein	0 g	0%
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Percent Daily Values (DV) are
based on a 2000 calorie diet



Produced from the east and southeast
Anatolians plant cover and rich mountain pasture.
Production date and expiry date on cap.





Basfoods (Aust) Pty Ltd
423 Victoria Street,
Brunswick, Victoria 3056
Australia

Tel: +61 3 9381 1444

Fax: +61 3 9381 1799

www.basfoods.com.au
enquiries@basfoods.com.au

Keep in dry and cool place.

Product of Turkey



Client:

Honey DownUnder Pty Ltd.

Our reference no.	:			
Product	:	Honey		
Sample description / Batch	:	19 Victoria Honey		
Sample received on / transported by	:	09.04.2013 via Parcel service	Seal	: none
Sample temp. when received / stored	:	RT	Sampling	: Client
Packaging / Quantity	:	Plastic container / approx. 160 g	Start / End of analysis	: 16.04.2013 / 18.04.2013

ANALYSIS REQUESTED: Determination of honey-foreign oligosaccharides by LC-ELSD (NHB) (11270030)

Parameter	Result	Unit	Method
Foreign oligosaccharides	6.35	%	LC-ELSD (a)
n.a.: not analyzed; n.d.: not detected < 0.01 %; Reported value represents foreign oligosaccharides with a degree of polymerization > 4 SPECIFICATIONS OF PURE HONEY: foreign oligosaccharides: n.d.			
(a) : accredited method. (na) : not accredited method. This document may only be reproduced in full. The results given herein apply to the submitted sample only.			

Interpretation:

Honey-foreign oligosaccharides were detected in the investigated honey sample. Therefore, the sample does not meet the requirements for pure honey (Council Directive 2001/110/EC from 20/12/2001). The presence of honey-foreign oligosaccharides indicates an addition of starch-based sugar syrup.

The detected value exceeds the range of calibration and, thus, can only be used for qualitative confirmation of presence of foreign oligosaccharides.

Dr. Florian Rommerskirchen
Responsible Scientist, Chemist

Client:

Honey DownUnder Pty Ltd.

Our reference no.	:			
Product	:	Honey		
Sample description / Batch	:	19 Victoria Honey		
Sample received on / transported by	:	09.04.2013 via Parcel service	Seal	: none
Sample temp. when received / stored	:	RT	Sampling	: Client
Packaging / Quantity	:	Plastic container / approx. 160 g	Start / End of analysis	: 12.04.2013 / 15.04.2013

ANALYSIS REQUESTED: C13 Isotope Analysis (EA-CRDS) C4 Sugar in Honey (11012950)

Parameter	Result	Unit	Method
Protein (P)	n.a.	d13C(‰)	PM DE01_143 (a) ¹
Honey (H)	-11.6	d13C(‰)	PM DE01_143 (a) ¹
Difference (P - H)	n.a.	d13C(‰)	PM DE01_143 (a) ¹
C4-sugar	n.a.	%	PM DE01_143 (a) ¹
n.a.: not analyzed; n.d.: not detected; d13C value in permil. vs. V-PDB standard SPECIFICATIONS C4 < 7 %: the sample is not adulterated with C4 sugars; C4 >= 7 %: the sample is adulterated with C4 sugars			
(a) : accredited method. (na) : not accredited method. (1) AOAC 998.12 mod. This document may only be reproduced in full. The results given herein apply to the submitted sample only.			

Interpretation:

The result does indicate an addition of sugar issued from C4 plants (according to AOAC method 998.12; Journal of AOAC International 1995, revision March 1999, chapter 44, p. 27-30).
 Regarding the examined parameter the sample does not correspond to the legal regulations.
 (2001/110/EC dated Dec. 20th, 2001; Article 1 connected with Annex II)

Dr. Florian Rommerskirchen
Responsible Scientist, Chemist

Client:

Honey DownUnder Pty Ltd.

Our reference no.	:		
Product	:	Honey	
Sample description / Batch	:	Sample 1 - Hi Honey	
Sample received on / transported by	:	12.02.2014 via Parcel service	Seal : none
Sample temp. when received / stored	:	RT	Sampling : Client
Packaging / Quantity	:	Plastic container / ca.200g	Start / End of analysis : 14.02.2014 / 17.02.2014

ANALYSIS REQUESTED: 13C Isotope Analysis by EA/LC (C4/C3-Sugars) (11011581)

Parameter	Result	Unit	Method
Protein	-26.90	d13C(‰)	PM DE01_026 (a) ¹
Honey	-11.30	d13C(‰)	PM DE01_026 (a) ¹
Fructose (F)	-12.55	d13C(‰)	PM DE01_094 (a) ²
Glucose (G)	-10.70	d13C(‰)	PM DE01_094 (a) ²
Disaccharides	-10.71	d13C(‰)	PM DE01_094 (a) ²
Trisaccharides	-11.48	d13C(‰)	PM DE01_094 (a) ²
Oligosaccharides	-11.76	d13C(‰)	PM DE01_094 (a) ²
Delta d13C (F-G)	-1.85	d13C(‰)	PM DE01_094 (a) ²
Delta d13C (max.)	-16.20	d13C(‰)	PM DE01_094 (a) ²
C4 Sugar Content	90.70	%	PM DE01_026 (a) ¹
F/G Ratio	0.64		PM DE01_094 (a) ²
Portion of Disaccharides	25.86	%	PM DE01_094 (a) ³
Portion of Trisaccharides	7.46	%	PM DE01_094 (a) ³
Portion of Oligosaccharides	15.61	%	PM DE01_094 (a) ³
LC-IRMS is not an official method for F/G ratio; n.a.: not analyzed; n.d.: not detected < 0.7 %; d13C value in permil. vs. V-PDB standard SPECIFICATIONS OF PURE HONEY: Delta d13C (F - G): not more than +/- 1 ‰ Delta d13C (max.) of individual d13C values: not more than +/- 2.1 ‰ C4 sugar content: < 7 %; portion of oligosaccharides: n.d.			
(a) : accredited under terms of DIN EN ISO/IEC 17025. (na) : not accredited method. (1) AOAC 998.12 (2) Apidologie 39/5 (2008) 574-587 (3) Apidologie 39/5 (2008) 574-587; % related to total sugars. This document may only be reproduced in full. The results given herein apply to the submitted sample only.			

Interpretation:

Foreign sugars were detected in the investigated sample. Hence, the sample does not meet the requirements for pure honey (Council Directive 2001/110/EC from 20/12/2001).

Dr. Florian Rommerskirchen
Responsible Scientist, Chemist

Client:

Honey DownUnder Pty Ltd.

Our reference no.	:		
Product	:	Honey	
Sample description / Batch	:	Sample 1 - Hi Honey	
Sample received on / transported by	:	12.02.2014 via Parcel service	Seal : none
Sample temp. when received / stored	:	RT	Sampling : Client
Packaging / Quantity	:	Plastic container / ca.200g	Start / End of analysis : 15.02.2014 / 17.02.2014

ANALYSIS REQUESTED: Determination of honey-foreign oligosaccharides by LC-ELSD (11016060)

Parameter	Result	Unit	Method
Foreign oligosaccharides	8.40	%	LC-ELSD (a)
n.a.: not analyzed; n.d.: not detected < 0.01 %; Reported value represents foreign oligosaccharides with a degree of polymerization > 4 SPECIFICATIONS OF PURE HONEY: foreign oligosaccharides: n.d.			
(a) : accredited under terms of DIN EN ISO/IEC 17025. (na) : not accredited method. This document may only be reproduced in full. The results given herein apply to the submitted sample only.			

Interpretation:

Honey-foreign oligosaccharides were detected in the investigated honey sample. Therefore, the sample does not meet the requirements for pure honey (Council Directive 2001/110/EC from 20/12/2001). The presence of honey-foreign oligosaccharides indicates an addition of starch-based sugar syrup.

The detected value exceeds the range of calibration and, thus, can only be used for qualitative confirmation of presence of oligosaccharides.

Dr. Florian Rommerskirchen
Responsible Scientist, Chemist

Client:

Honey DownUnder Pty Ltd.

Our reference no.	:		
Product	:	Honey	
Sample description / Batch	:	Sample 1 - Hi Honey	
Sample received on / transported by	:	12.02.2014 via Parcel service	Seal : none
Sample temp. when received / stored	:	RT	Sampling : Client
Packaging / Quantity	:	Plastic container / ca.200g	Start / End of analysis : 12.02.2014 / 14.02.2014

ANALYSIS REQUESTED: Detection of thermoresistant enzymes (11270010)

Parameter	Result	Unit	Method
Diastase activity	n.d.	DZ	PM DE01_090 (a) ¹
Diastase activity (after heat treatment)	n.d.	DZ	PM DE01_090 mod. (na) ²
n.d. - not detected < limit of quantification (LOQ) 0.1 DZ Heat treatment: 100 degrees Celsius, 30 min.			
(a) : accredited under terms of DIN EN ISO/IEC 17025. (na) : not accredited method. (1) Inhouse procedure (2) Inhouse procedure This document may only be reproduced in full. The results given herein apply to the submitted sample only.			

Interpretation:

No thermoresistant enzymes were detected in the investigated sample. However, it should be checked whether the sample fulfils the legal requirements according to the Honey directive 2001/110/EC dated Dec. 20th, 2001; Article 1 in connection with Annex II regarding Diastase activity (in case of honeys with low natural enzyme content a minimum value of 3 is required).

The sample shows no diastase activity, therefore the parameter thermoresistant enzymes could not be determined adequately.

Christof Kunert
Responsible Scientist

Client:

Honey DownUnder Pty Ltd.

Our reference no.	:		
Product	:	Honey	
Sample description / Batch	:	Sample 1 - Hi Honey	
Sample received on / transported by	:	12.02.2014 via Parcel service	Seal : none
Sample temp. when received / stored	:	RT	Sampling : Client
Packaging / Quantity	:	Plastic container / ca.200g	Start / End of analysis : 17.02.2014 / 17.02.2014

ANALYSIS REQUESTED: Determination of beta-/gamma-amylase activities by enzyme test (11014550)

Parameter	Result	Unit	Method
beta/gamma amylase activity	n.d.	units/kg	PM DE01_115 (a) ¹
n.a.: not analyzed; n.d.: not detected < 1 units/kg honey reference value: < 5 units/kg honey			
(a) : accredited under terms of DIN EN ISO/IEC 17025. (na) : not accredited method. (1) Inhouse procedure This document may only be reproduced in full. The results given herein apply to the submitted sample only.			

Interpretation:

The sample meets the specifications of pure honey. The activity of the foreign enzymes beta/gamma amylases lies within the naturally occurring range. The sample meets the requirements of the Council Directive 2001/110/EC from 20/12/2001.

Dr. Florian Rommerskirchen
Responsible Scientist, Chemist

Client:

Honey DownUnder Pty Ltd.

Our reference no.	:	
Product	:	Honey
Sample description / Batch	:	Sample 1 - Hi Honey
Sample received on / transported by	:	12.02.2014 via Parcel service
Sample temp. when received / stored	:	RT
Packaging / Quantity	:	Plastic container / ca.200g
Seal	:	none
Sampling	:	Client
Start / End of analysis	:	14.02.2014 / 17.02.2014

ANALYSIS REQUESTED: Foreign enzyme activity by enzyme test (11014110)

Parameter	Result	Unit	Method
β -fructofuranosidase activity	n.d.	units/kg	PM DE01_102 (a) ¹
n.a.: not analyzed; n.d.: not detected < 20 units/ kg Honey			
(a) : accredited under terms of DIN EN ISO/IEC 17025. (na) : not accredited method. (1) Inhouse procedure This document may only be reproduced in full. The results given herein apply to the submitted sample only.			

Interpretation:

The sample meets the specifications of pure honey. The activity of the foreign enzyme beta-fructofuranosidase was not detected. The sample meets the requirements of the Council Directive 2001/110/EC from 20/12/2001.

Dr. Florian Rommerskirchen
Responsible Scientist, Chemist

Client:

Honey DownUnder Pty Ltd.

Our reference no.	:		
Product	:	Honey	
Sample description / Batch	:	Sample 1 - Hi Honey	
Sample received on / transported by	:	12.02.2014 via Parcel service	Seal : none
Sample temp. when received / stored	:	RT	Sampling : Client
Packaging / Quantity	:	Plastic container / ca.200g	Start / End of analysis : 12.02.2014 / 19.02.2014

ANALYSIS REQUESTED: Pollen - botanical and geographical origin (11012941)

Parameter	Description	Result	Method
Yeast content - estimated	increased (>500,000/10g)		PM DE01_040 (a)
Starch content_acc. to pollen content	n.a.		PM DE01_037 (a) ¹
Colour	light amber		PM DE01_108 (a) ²
Consistency	liquid		PM DE01_108 (a) ²
Odour	not typical for honey		PM DE01_108 (a) ²
Taste	n.a.		PM DE01_108 (a) ²
Honeydew elements	crystalline matter, elements of fungus, spores		PM DE01_108 (a) ²
Other sediment	vegetable fibres		PM DE01_108 (a) ²
Electr. conductivity		0.11 mS/cm	PM DE01_042 (a) ³

T=Type, n.d.= not detected, n.d.(Starch)=<1%, n.a.=not analysed

(a) : accredited under terms of DIN EN ISO/IEC 17025. (na) : not accredited method. (1) Inhouse procedure

(2) Inhouse procedure (3) Inhouse procedure

This document may only be reproduced in full. The results given herein apply to the submitted sample only.

Interpretation:

The above mentioned sample does not contain any pollen grains making a quantification of the main pollen and a determination of the botanical and geographical origin impossible. In the microscopic picture a lot of fungi could be identified. We strongly recommend analysing this sample for microbiology.

Katja Bohm

Responsible Scientist, Certified Food Chemist

**SENATE RURAL AND REGIONAL AFFAIRS AND TRANSPORT
REFERENCES COMMITTEE**

**Inquiry into the future of beekeeping and pollination service industries in
Australia**

Public Hearing Tuesday, 15 April 2014

Murray Bridge

Questions Taken on Notice – Beechworth Honey

1. HANSARD, PG 43

Senator WHISH-WILSON: The \$60,000 was the figure you apply just to phytosanitary issues. Has there been an estimate done on what is the total dollar amount spent on the industry full stop for things like research assistance?

Mrs Goldsworthy: Yes. I have not got the figures all in one place, but between us we could probably work that out.

Senator WHISH-WILSON: If you could take that on notice, that would be fantastic.

**SENATE RURAL AND REGIONAL AFFAIRS AND TRANSPORT
REFERENCES COMMITTEE**

**Inquiry into the future of beekeeping and pollination service industries in
Australia**

Public Hearing Tuesday, 15 April 2014

Murray Bridge

Questions Taken on Notice – Mr Trevor Monson

1. HANSARD, PG 54

Senator XENOPHON: On notice, or perhaps the committee itself can dig this up, can you let us know about the centres of research excellence for bees? They exist in Thailand and where else?

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Trevor Monson: There are many research centres that specialize in bees around the world. I have personally seen a number in the USA, Thailand and China.

In USA I believe there are eight centres, of which I've visited four:

1. UC at Davis, Sacramento
2. Beltsville, Maryland
3. Tucson, Texas
4. Florida University

Thailand has research happening at their major universities. I've personally met with local and overseas researchers at the Chiang Mai University and seen some of the work they do, both with honey bees and native bees. Australia's prominent bee researcher, Ben Oldroyd from the West Sydney Agricultural University has done a lot of research in collaboration with Thailand's universities as well. Thailand also has bee research happening at other universities, such as at Chiang Rai.

In China our ACACA delegation visited the following specialized beekeeping and bee research centres:

1. Bee Research Institute, Chinese Academy of Agricultural Sciences in Beijing, (BRI CAAS)
2. Bee Research Institute's Factory in Nankou

3. Beijing Apicultural Management Centre at the Beijing Apicultural Company
4. Zhejiang University which is famous for its queen breeding and honeybee science lab – it being one of 7 or 8 universities specializing in honeybee related research in China.

In conclusion, it seems that other countries give a much higher priority to beekeeping than we do here in Australia. Not only were we impressed with the research happening in China, but we were blown away with the structure of the industry, right from the government down to the beekeeper.

Dr Doug Somerville's concluding comments from his report of the ACACA trip to China:

"The academic and scientific support by the Chinese government for beekeeping was nothing short of extremely impressive. The standard of the bee stock and beekeeping management practices was excellent."

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1. HANSARD, PG 57

Dr Somerville: No. That was the problem, inasmuch as there was just a lack of referenced material available. I understand that there was actually a thesis written in Indonesia that was supposed to be converted into English as part of that committee. We waited the whole duration, the life, of that committee for that to be done, and it was never done.

Senator XENOPHON: Can you tell us which Indonesian report it was? Can you let us know on notice?

Dr Somerville: I could ask. But that was just being mentioned at the committee—that this particular thesis was supposed to exist and we never saw a copy. We asked for a copy, because I am sure that if you gave it to a 17-year-old they could probably put it in a computer program and convert it for you back to English.

2. HANSARD, PG 58

Senator RUSTON: That would be an argument for just about every cross-jurisdictional report that has ever been written by any Senate inquiry, or any government inquiry, about how you translate that back to the ground. As we said before, it would be a very sad indictment if this were 'third strike and you're out'—the third Senate inquiry into this particular industry and we do not come up with any outcome. But, digressing slightly to what you just said, you thought that, of the 25 recommendations that came out of the previous report, many of them had actually been implemented; it is just that the industry does not know that they have been implemented. That is certainly contrary to the advice and the evidence that we heard earlier.

Dr Somerville: Well, not all of them; some of them.

ACTING CHAIR: Can you give us a specific example of one that has been implemented?

Dr Somerville: I do not have them in front of me, but—

Senator XENOPHON: Can you take that on notice?

ACTING CHAIR: Nothing stands out, anyway.

Dr Somerville: Yes, I can.

3. HANSARD, PG 58-59

Senator RUSTON: It would be interesting. If you can provide us with evidence that there is some substantial component or even any of them that have been satisfactorily prosecuted, then we change the recommendation of this committee from, 'We need to prosecute these issues,' to, 'We need to communicate the fact that they have been prosecuted.' It is a completely different story.

Dr Somerville: Yes. There is one I was involved in writing the report for that was completed about the time the Senate inquiry was done. It was a document on how beekeepers behave in the environment. I can provide that detail.

Senator XENOPHON: If you could take it on notice more generally, that would be useful.

Dr Somerville: Yes.

4. HANSARD, PG 60-61

Senator XENOPHON: One more thing: we heard evidence earlier in the day that some honey is produced—particularly in China, as I understand it, when their production is low—where more than 10 or 20 per cent of what the bees are feeding on is from a sugar syrup rather than under the 2.8.2 standard. Is that the sort of testing you are talking about as well?

Dr Somerville: Yes. But you have to differentiate. AQIS are more concerned about biosecurity risk. Testing for microbes in honey is neither here nor there as far as stuff working its way around the planet is concerned. What we are worried about is the integrity of the Australian product, and that comes down to chemical contamination of that particular product or the fact that it is not even honey. It is about use of language in relation to how that government department handles that particular product.

Senator XENOPHON: Could you on notice—from my point of view this is very important—

Dr Somerville: You have given me lots of homework.

CHAIR: He is good at that.

Dr Somerville: Is he? Okay.

Senator RUSTON: You get off lightly!

Senator XENOPHON: You don't have to, but I would be grateful if you could.

Dr Somerville: It is all right!

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Answer to question 1:

Document was not available.

Answer to question 2, 3 and 4:

More Than Honey: the future of the Australian
honey bee and pollination industries

**Report of the inquiry into the future development of the
Australian honey bee industry. House of Representatives,
Standing Committee on Primary Industries and Resources,
May 2008. List of recommendations:**

Current and future prospects

- 1) The Committee recommends that the Australian Government provide the necessary leadership, funding and organisational resources to establish and run Pollination Australia.**

Pollination Australia never got off the ground. An alliance between industries reliant on honey bee pollination, driven by the Almond Board and the Australian Honey Bee Industry Council (AHBIC) made moves in this direction, but there was never a formal structure. They attracted a \$25,000 grant from a cosmetic company but no government funds. The Pollination

R&D committee was established under Rural Industries Research and Development Corporation (RIRDC) at about the same time. This committee is in the process of amalgamating with the Honey Bee Research and Development (R&D) committee to save on administrative costs under RIRDC.

Bees in Agriculture

- 2) The Committee recommends that the Australian Government fund research and training in the provision of paid pollination services as part of its contribution to Pollination Australia.**

The business plan developed for Pollination Australia also identified a mechanism and governance structure for the Pollination R&D Program that is jointly funded by RIRDC and Horticulture Australia Limited (HAL). The Program has invested approximately \$1.6 million in research, development and extension activities consistent with the priorities of the Pollination Five-Year R&D Plan 2009-2014.

- 3) The Committee recommends that the Australian Government fund research into alternative pollinators as part of its contribution to Pollination Australia.**

This relates to the development of native bee species for use in commercial pollination. There are between 1,500 and 2,000 native bee species within Australia, providing a vast pool of potential pollinators. Unfortunately there is very little basic information on this subject and there are no specific funding bodies which are targeting this area of science.

The Pasture Seeds Program of RIRDC have funded and published a research report about alternative pollinators (Native Australian Bees as Potential

Pollinators of Lucerne). There have also been attempts historically to import and establish leaf-cutter bees, with limited success.

4) The Committee recommends that the Australian Government alter labelling requirements for agricultural chemicals to reflect their impact on honey bees and other pollinating insects.

A workshop on Pesticides and the Health of Insect Pollinators was hosted by Australian Pesticides and Veterinary Medicines Authority (APVMA) in July 2013 in Canberra. The 19 participants were mainly Federal government department representatives with responsibilities to insect pollinators and chemical registrations in Australia. Each had different responsibilities, for example.- consideration of chemical test data requirements, risk assessment methodology and label statements. Discussion on a recently completed report on the issue of agricultural chemical labelling as it refers to honey bees was also tabled and discussed.

Neonicotinoids and other insecticides – research and stewardship symposium was hosted by Plant Health Australia (PHA) in Canberra on the 9th April 2014. There were approximately 80+ participants, including representatives from chemical companies, apiarists' associations, government officials and seed or grower organisations.

A project funded by RIRDC through the pollination program, in conjunction with the Victorian Government, published a report about the impact on honey bees of agricultural chemicals from information on labels. The title: Honeybee Pesticide Poisoning - A risk management tool for Australian farmers and beekeepers.

Resource security

5) The Committee recommends that the Australian Government, in conjunction with State and Territory governments, establish guidelines for beekeeper access to public lands and leasehold lands, including national parks, with a view to securing the floral

resources of the Australian honey bee industry and pollination dependent industries.

This project was completed in December 2007 with the publication of “National Best Management Practice for Beekeeping in the Australian Environment” guidelines. This project was conducted by NSW DPI staff via funding from Department of Agriculture Fisheries and Forestry – Canberra (DAFF). The guidelines are available on the New South Wales Department of Primary Industries (NSW DPI) and AHBIC web sites.

Related to this recommendation, RIRDC expects to invest in a research project in 2014, through the Pollination Program, to address the following research priority: ‘Evaluate which types of public lands have management objectives compatible with access by managed honey bees and those that do not have such objectives’.

6) The Committee recommends that the Australian Government provide incentives for the planting and conservation of melliferous flora under Commonwealth funded revegetation projects and carbon credit schemes.

RIRDC funded and published, through the Honey bee Program, the following very popular book that identifies herbs, shrubs and trees that provide nectar and pollen attractive to honey bees, by climate zone and rural and urban landscapes: ‘Bee Friendly: A planting guide for European honey bees and Australian native pollinators.’

7) The Committee recommends that the Australian Government fund research into the impact of fire management on the Australian honey bee industry with a view to establishing honey bee industry friendly fire management practices.

This is an issue for State government agencies managing government lands. To my knowledge there has been no activity associated with this recommendation.

Biosecurity

8) The committee recommends that the Australian Government maintain and enhance the National Sentinel Hive Program with a view to ensuring that:

- ☑ all major ports are covered by sentinel and bait hives;**
- ☑ all beekeepers are brought under the program, with priority given to those operating in the vicinity of port facilities;**
- ☑ arrangements are made for an effective program of pre- border security; and**
- ☑ government provides funding adequate to achieving the above objectives.**

On 4 November 2008, the Minister for Agriculture, Fisheries and Forestry, the Hon. Tony Burke MP, announced that, consistent with Recommendation 8 of the committee's report, the government will provide \$300,000 over the next two years to continue the National Sentinel Hive Program. This money was provided from the Commonwealth Department of Agriculture to Animal Health Australia (AHA) who were coordinators of the project at the time.

In January 2012 the management of the National Sentinel Hive Program was transferred from AHA to Plant Health Australia (PHA). Along with this transfer, the remaining commonwealth funding for this project was transferred to PHA for continuation (approximately \$150,000). This funding actually lasted until June 2013, not the two years originally envisaged (i.e. no one did anything in the years previous, so the money just sat there). This followed the transfer in responsibility for bees at a national level from Animal Biosecurity to Plant Biosecurity. Upon the transfer to PHA, the name of the surveillance program was changed to the National Bee Pest Surveillance Program to reflect a transition to a more broadly based surveillance program for bee pests and pest bees.

Historically, the surveillance program was funded entirely by the Commonwealth government. PHA worked with the Department of Agriculture, HAL and the AHBIC to make this program a cost shared initiative from July 2013. From this date, HAL and AHBIC each contribute \$75,000 per annum, with the Department of Agriculture contributing \$60,000 per annum.

PHA have made numerous improvements to the National Bee Pest Surveillance Program (NBPSP), by increasing the frequency of testing at high risk ports, adding additional high risk ports, including a range of other surveillance techniques to be conducted. The NBPSP is now one of the world's leading and coordinated bee surveillance programs.

Projects funded by RIRDC associated with this recommendation include: Risk assessment of ports for bee pests and pest bees; BeeForce: Improving high risk surveillance; BeeForce: developing the regional model.

9) The committee recommends that the Minister for Agriculture, Fisheries and Forestry request that the Australian Pesticides and Veterinary Medicines Authority fast track the pre-registration of pesticides and other chemicals necessary to combat a Varroa incursion.

PHA has taken over the management and renewal of registered chemicals for this purpose from the Federal Department of Agriculture. Bayvarol, Apistan and ApiGuard are all registered for emergency use. For the past 18 months PHA have worked with Department of Agriculture and BASF to register Mite Away quick strips. This application will soon be submitted to APVMA.

10) The committee recommends that the Australian Government improve the nation's incursion response capacity by providing for:

- ❑ **Better education of those charged with border protection;**
- ❑ **Improved diagnostic capacity for pests and diseases;**
- ❑ **The establishment of national diagnostic protocols;**
- ❑ **The establishment of a national integrated pest and disease management protocol; and**
- ❑ **The establishment of a comprehensive biosecurity research program for the honey bee and pollination dependent industries.**

The Varroa Continuity Strategy was created as a result of the 2008 inquiry. PHA are the principal agency to promote, co-ordinate, implement and report on the progress of the strategy. Funding of \$75,000 for this role was provided by the Federal Government from 2011 until 2013.

PHA formed the Varroa Continuity Strategy Management Committee (VCSMC) in October of 2011 and its membership consisted of honey bee scientists, government representatives, R&D agencies and industry representatives from the honey bee industry and pollination-reliant industries. The VCSMC (and project) was finalised in June 2013. Many major reports were produced as part of this project, and some projects are still continuing with industry and R&D agency funding.

Related to this recommendation, investment has been made through RIRDC and HAL in the following publications and resources: The Industry Biosecurity Plan for Honey Bee Industry (outlines key threats to the industry, risk mitigation plans, identification and categorisation of exotic pests and contingency plans and is available from PHA); Biosecurity manual for honey bee industry – reducing the risk of exotic and established pests affecting honey bees; Biosecurity online training module that provides advice on keeping honey bees healthy using industry best practice; A Honey bee biosecurity threats brochure that describes established and exotic pests of honey bees in Australia.

11) The Committee recommends that the Minister for Agriculture, Fisheries and Forestry establish a new honey bee quarantine facility as a matter of urgency, this facility to be commissioned prior to the closure of the current facility at Eastern Creek, and that:

☑ This facility is integrated into a national honey bee and pollination research centre;

☑ This facility have a containment laboratory for research on honey bee genomics and biotechnology;

☑ The Minister for Agriculture, Fisheries and Forestry enter into immediate negotiations with his New South Wales counterpart to establish the new honey bee quarantine facility at the Elizabeth Macarthur Agricultural Institute, Camden, or some other suitable location.

The existing bee quarantine facility at Eastern Creek in Sydney will be closed by August 2015. The beekeeping industry were told that the new bee facility will be built at Melbourne. There was no choice, either Melbourne or nothing, even though the Melbourne site will be technically very difficult for the beekeeping industry to use. There was no consideration for a facility to be built at the Elizabeth Macarthur Agricultural Institute (EMAI) in Sydney.

There was no activity as a result of the 2008 inquiry to build a national bee research and diagnostic facility for bees.

12) The Committee recommends that the Minister for Agriculture, Fisheries and Forestry direct Biosecurity Australia to complete the import risk analysis for drone semen by the end of 2008.

A Draft generic import risk analysis for honey bee semen, technical issues paper was produced in August 2002 by Biosecurity Australia. Due to the length of time since this report was completed, there is apparently a need to update this risk analysis.

Related to this, RIRDC has invested in a project to develop a test of 'Africanization' of imported semen in honey bees, which is due for completion in 2016. If successful, the test could be part of biosecurity measures to allow beekeepers to import semen more safely from countries where 'killer bees' exist. There are numerous countries where African bees do not exist from where semen could be imported.

13) The Committee recommends that the Australian Government, in conjunction with State and Territory governments, establish and fund a national endemic bee pest and diseases control program.

A RIRDC funded meeting was conducted in Canberra in March 2013 between industry and government agencies titled 'American foulbrood Future Management Workshop'. From this workshop it was agreed that a collective or national biosecurity approach be adopted for exotic preparedness and endemic diseases of honey bees. A strategy was produced with several action items. The Federal government provided a \$67,000 grant to AHBIC to facilitate the process and progress some of these action items, including increasing the levy on honey produced to fund future activities in this area. Also, in parallel with this activity PHA funded by RIRDC, are developing the national biosecurity program and code of practice.

14) The Committee recommends that the Australian Government, in conjunction with State and Territory governments, establish bee biosecurity regions based on natural boundaries, being:

- ☐ **Eastern Australia, including New South Wales, Victoria, Queensland, Australian Capital Territory and South Australia;**
- ☐ **Tasmania;**
- ☐ **Western Australia;**
- ☐ **Northern Territory; and**
- ☐ **Kangaroo Island.**

This is a decision each state will make depending on the pathogen or pest to be controlled. This scenario already exists.

15) The Committee recommends that the Australian Government, in conjunction with State and Territory governments, establish a national system of registration for beekeepers, bee hives and apiary sites.

There is no beekeeping registration system in the ACT and the system in Tasmania is currently voluntary. All other states have a compulsory registration system. To my knowledge no state government DPI records or registrars apiary sites. This may have happened over 100 years ago in NSW, but due to the regular movement of apiaries in the course of beekeepers carrying out their business of commercial beekeeping, the central recording of bee hives is not feasible. If there was an attempt to do this, the cost of beekeeper registration would be astronomically high.

Apiary sites are leased by state governments to beekeepers for the placement of bee hives on government managed land. There may or may not be a requirement of the conditions of the use of those sites to report to the authorities when the sites are being occupied.

16) The Committee recommends that the Australian Government commit \$50 million per annum in pursuit of biosecurity measures and research in support of the Australian honey bee industry and pollination dependent industries.

There have been various financial commitments by the Federal Government, over time, to specific biosecurity and research programs but not the exact amount stated in the 2008 inquiry report. RIRDC and HAL play a key role in managing industry and government money for beekeeping biosecurity and research outcomes. The current program budget for R&D through RIRDC on honey bee related areas is \$807,000.

Economic and trade issues

17) The Committee recommends that the Australian Government request the Australian Competition and Consumer Commission to investigate pricing practices for honey within the honey bee industry and the retail sector.

Not sure what this recommendation is alluding to but it is believed that the Australian Competition and Consumer Commission (ACCC) has not conducted any investigation.

18) The Committee recommends that the Australian Government request the Productivity Commission investigate the long term viability of the Australian honey bee industry in respect of industry organisation, marketing structures and the financial viability of producers and packers.

Again, it is believed that nothing has happened with this recommendation.

19) The Committee recommends that the Department of Immigration and Citizenship look at the skilled migration program with a view to further refining opportunities for the honey bee industry and the emerging pollination industry.

Skilled workers available to work in Australia have been a major constraint to beekeeping businesses in recent years. The 457 visa scheme has tightened up requirements, requiring high level English reading and writing skills which are not necessarily demonstrated by skilled international beekeepers.

20) The committee recommends that the Australian Government develop product standards for honey and other bee products with regard to food standards and chemical contamination in

line with those in force in the European Union, and that all imported honey products are tested against this standard.

Only 5% of imported honey is tested, even though chemical contamination of honey on the world trading stage is a major issue. AHBIC have in place a honey quality residue committee that is likely to be working on this space.

Contaminates that should be routinely tested for with all imports include: Chloramphenicol, Nitrofurans, Oxytetracycline, Sulfonamides, Streptomycin, Macrolides, Phenol, C4 Sugars, Paradichlorobenze, and Amitraz.

21) The Committee recommends that the Australian Government develop labelling standards to more accurately reflect the place of origin and composition of honey and honey bee products.

There has been no action on this recommendation even though there is a definite need to protect Australian produced honey and honey bee products.

22) The Committee recommends that the Australian Government pursue the development of a uniform international standard for the testing and labelling of honey bee products and the removal of all tariffs on honey bee products.

This is never likely to happen as each country will have their own priorities. Unfortunately, Australian honey was left out of the free trade agreement between South Korean and Australia.

23) The Committee recommends that the Australian Government, in consultation with industry, reduce inspection charges, if possible, for queen and packaged bees.

Inspection charges are set by the state DPI's. In NSW this has been \$130/hour since at least 2008. There may be different charges in each state. For example, it is believed that Tasmania charges \$100 and Western Australia approx. \$250.

The document processing and administration fees are charged by Australian Quarantine and Inspection Service (AQIS). In March 2009 they were \$48 per unit price, in April 2014 they were \$70.50.

Research, extension and training

24) The Committee recommends that the Australian Government establish a national centre for honey bee and pollination industry research, training and extension, funded as per Recommendation 16.

An attempt to establish a Honey bee and Pollination Cooperative Research Centre was made in 2012. Unfortunately, there were insufficient funds and support to allow this proposal to progress.

25) The Committee recommends that the Australian Government alter research funding arrangements to allow for:

- ☐ **voluntary contributions to research funding to be matched by government funding; and**
- ☐ **a levy on pollination services to be allowed under law.**

Voluntary contributions can be accepted by RIRDC to add to their pool of R&D funds but the issue is the gross undervaluation of the Australian honey bee industry. The Federal government matches R&D expenditure up to 0.5% of the Gross Domestic Product (GDP) of the honey bee industry. The current Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) valuation for the honey bee industry is \$76 million. This figure should be a combination of the value of production of both honey production and pollination services, plus any other bee related products. The figure provided by ABARES seems to substantially undervalue the beekeeping industry and, as such, effectively restricts the amount of funds that are available for R&D.

There has been no attempt to change the laws surrounding levies to include services delivered such as pollination fees, even though the beekeeping industry has supported and encouraged this as a strategy to increase the R&D activity in this area.