

-----Original Message-----

From: s 9(2)(a) [REDACTED].co.nz]

Sent: Tuesday, 16 May 2017 11:06 a.m.

To: Martyn Dunne <Martyn.Dunne@mpi.govt.nz>

Subject: Manuka Standards

Hi Martyn.

Firstly, s 9(2)(a) [REDACTED] are supportive of the work MPI has done around manuka standards and your management of the process. Its an industry that been slow to bring itself together and into the professional era but the formation of ApiNZ and a robust set of standards are positive steps toward achieving the governments industry growth target.

In one of the meetings ( which I attended by phone due to Christchurch airport being closed) I raised the point about the evolution or plant breeding improvement in Manuka could mean in the future large productivity gains

could possibly be made with plantations of sterile or female plants. This would allow the plant to flower the entire summer meaning much larger honey yields.

This could mean highly pure Manuka Honey but produced from sterile or female plant therefore containing no of very little pollen..The correspondence below gives you a brief insight into what I'm referring to.

In our meeting you mentioned you'd look into this and consider how the standards could accommodate this is the future. We have to make strategic decisions in a direction of our breeding program in light of the new standards requiring a pollen test so we are interested in you feedback..

Its fundamental to the point that Nectar and Pollen are two different things produced by the plant and in some cases not related.

Look forward to your reply

Regards s 9(2)(a)

On 24/04/17, 1:30 PM, "s 9(2)(a)" <[REDACTED].com> wrote:

>FYI

>s 9(2)(a)

>

>s 9(2)(a)

>

>s 9(2)(a)

[REDACTED]

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>s 9(2)(a) s 9(2)(a)

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>-----Original Message-----

>From: s 9(2)(a) <[REDACTED].co.nz>

>Sent: Saturday, April 22, 2017 7:53 PM

>To: s 9(2)(a) <[REDACTED].com>

>Subject: RE: s 9(2)(a)

>

>Hi s 9(2)(a)

>

>I suspect that at least some m?nuka triploids buck the sterility trend  
>as I have had abundant germination from seed collected off the triploid  
>cultivar L. scoparium 'Martinii'. From memory much of the pollen is

>fertile (capable of germination and with stainable cytoplasm).

>

>Many years ago, I have crossed different *Leptospermum* species and also

>found a new triploid from open pollinated tetraploid material.

>

>Over the last few years, I have generated numerous tetraploids, but not

>of m?nuka - but it should certainly be do-able following my techniques.

>I am a chromosome expert and also have ready access to a flow cytometer

>which helps.

>

>Good plan to use local provenance material, better adapted to local

>growing conditions. I do wonder if the high DHA found in the coloured

>cultivars is a result of the pink Northland var. *incanum* influence or

>actually the South Island red flowered *L. scoparium* 'Nicholsii' parent

>that came from Canterbury.

>

>s 9(2)(a)

>

>-----Original Message-----

>From: s 9(2)(a) .com]

>Sent: Friday, 21 April 2017 12:12 a.m.

>To: s 9(2)(a)

>Subject: RE: s 9(2)(a) form - Polyploid *Leptospermums*

>

>Thanks s 9(2)(a)

>Thanks for replying to my query. Yes, I have read your papers on

>manuka, and have met several of the people that you have worked with,

>and many of the people involved in manuka research -e.g. s 9(2)(a)

>Wasn't able to find your thesis though! As mentioned in the earlier

>email, I'm working with s 9(2)(a) trying to develop manuka

>varieties suitable (primarily) for honey production on the south

>island. We have been working on the project for a couple of years, and

>have several hundred selections collected from all over NZ and

>Tasmania. We are mostly planning to use local provenances selected for

>higher DHA, plus other characters such as high flower densities and so

>on. As an adjunct to the main project, we are looking at some other aspects such as triploids.

>

>I've seen one of these supposed triploid lines at Hamilton (in

>greenhouse at s 9(2)(b)(ii) and it seemed to have lots of flowers open,

>and large nectar volumes. I suspect that this is because it is sterile,

>and the signal to lose the petals and stop nectar production doesn't

>occur due to lack of fertilisation. So this may be a good strategy for

>getting high nectar volumes. However, if these plants don't produce

>pollen, then the idea probably isn't worth pursuing, as the new

>definition of manuka honey relies on there being pollen present. So I

>am wondering if you know whether the triploid plants are sterile (or

>mostly sterile), and whether this is due to lack of pollen, or due to

>some other mechanism - presumably lack of pairing of chromosomes.

>Another question that you probably won't be able to answer, is whether

>you know of any data on the success of crossing tetraploids with

>diploids, and the amount of triploid seed produced compared with other

>ploidy. And another is whether you know of anyone who has tried

>creating tetraploids in *Leptospermum*, and what techniques they used.

>I've had a play around in other species using colchicine, but I am

>wondering if anyone has had success with trifluralin, which is probably

>a less toxic chemical to work with.

>Anyway, that's probably enough questions for one email.

>I'm over in NZ pretty regularly, so if you would like to meet in person

>some time to have a discussion about manuka, that would be great.

>§ 9(2)  
(a)

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>§ 9(2)(a)

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>§ 9(2)(a)

[REDACTED]

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>§ 9(2)(a)

>

>

>-----Original Message-----

>From: § 9(2)(a) .co.nz]

>Sent: Thursday, April 20, 2017 5:18 PM

>To: § 9(2)(a) .com

>Subject: RE: § 9(2)(a) form - Polyploid Leptospermums

>

>Hi § 9(2)  
(a)

>

>§ 9(2)(a)

[REDACTED]

>

>I pretty much wrote the book on m?nuka cultivars! A thesis anyway...

>

>You probably know that there are currently only three known triploid  
>Leptospermum scoparium cultivars - L. 'Martinii', and the lesser known  
>(for NZ) L. 'Lambethii' (an Australian equivalent to L. 'Martinii') and  
>L. 'Helene Strybing' which originated at Golden Gate Park, San Francisco.

>

>There is also one tetraploid m?nuka - L. 'Keatleyii'.

>

>Cheers

>

>§ 9(2)(a)

>

>-----Original Message-----

>From: § 9(2)(a) .com [mailto:§ 9(2)(a) .com]

>Sent: Thursday, 20 April 2017 5:54 p.m.

>To: § 9(2)(a)

>Subject: s 9(2)(a) form - Polyploid Leptospermums

>

>Sender: s 9(2)(a)

>Organisation: s 9(2)(a)

>Email address: s 9(2)(a).com

>Location: Tasmania

>

>Comments / Question :

>Hi s 9(2)(a)

>I am working on manuka for s 9(2)(a), which is based in

>s 9(2)(a) I would like to ask you some questions about triploids.

>Would you be able to give me your email address as I can't do it with

>300 characters!

>Thanks

>s 9(2)(a)

>

>

>

s 9(2)(a)

Released Under the Official Information Act 1982

[Not relevant to request]

**From:** s 9(2)(a) co.nz>  
**Sent:** Tuesday, 23 May 2017 8:15 p.m.  
**To:** Manuka Honey  
**Cc:** s 9(2)(a)  
**Subject:** Re: MPI M?nuka Honey Science Programme Update 23 May 2017

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Thank you for the latest update. I've long believed all the standards and testing of Honey is flawed unless there is a recognised sampling method.. Can I respectfully suggest that the team handling this track down s 9(2)(a) within MPI Wellington and ask them to explain how the ISTA approved seed sample standards work and how sampling to these standards and testing at certified labs ensures industry consistent and reliable test results industry can rely on.

Regards s 9(2)(a)

[Not relevant to request]

[Not relevant to request]

**From:** s 9(2)(a) co.nz>  
**Sent:** Wednesday, 17 May 2017 10:22 a.m.  
**To:** Manuka Honey  
**Subject:** Feedback on the proposed new standards

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Following a brief email exchange with s 9(2)(a) asked that I submit one of the ideas in that exchange as formal feedback as part of the consultation process. It was related to an issue around retesting of Manuka honey samples and having the results changing due to the uncertainty of measurement (the results will always change upon retesting). The relevant excerpt from the exchange is as follows:

"...we don't want to plant the seed of an idea that (customers) may be able to get samples that narrowly failed the criteria retested until they get the result they're after. This "testing into spec" is something we are always nervous about."

Kind regards,

s 9(2)(a)

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# Proposed General Export Requirements for Bee Products

For all exporters of bee products from New Zealand

## SUBMISSION FORM

### Consultation document 2017

The Ministry for Primary Industries (MPI) proposes to consolidate, clarify, and introduce export requirements for all bee products intended for export.

You are invited to have your say on the proposed changes, which are explained in the discussion document and specified in the draft Animal Products Notice: General Export Requirement for Bee Products notice.

Consultation closes on **23 May 2017**.

### How to have your say

Have your say by answering the questions in the discussion document, or commenting on any part of the proposals outlined in the draft Animal Products Notice: General Export Requirements for Bee Products. This submission form provides a template for you to enter your answers to the questions in the discussion document and email your submission back to MPI.

Please include the following information in your submission:

- ☐ the title of the discussion document 'Proposed General Export Requirements for Bee Products';
- ☐ your name and title;
- ☐ your organisation's name (if you are submitting on behalf of an organisation), and whether your submission represents the whole organisation or a section of it; and
- ☐ your contact details (such as phone number, address, and email).

MPI encourages you to make your submission electronically if possible. Please email your submission to: [manuka.honey@mpi.govt.nz](mailto:manuka.honey@mpi.govt.nz)

If you wish to make your submission in writing, these should be posted to the following address:

General Export Requirements for Bee Products Submission  
MPI Food Assurance Team  
PO Box 2526  
Wellington 6140

The following points may be of assistance in preparing comments:



- ☐ where possible, comments should be specific to a particular section in the document. All major sections are numbered and these numbers should be used to link comments to the document;
- ☐ where possible, reasons and/or data to support comments should be provided;
- ☐ the use of examples to illustrate particular points is encouraged; and
- ☐ as a number of copies may be made of your comments, please use a legible font and quality print, or make sure hand-written comments are clear in black or blue ink.

## Submissions are public information

Everyone has the right to request information held by government organisations, known as “official information”. Under the Official Information Act 1982, information is to be made available to requesters unless there are good or conclusive grounds under the Official Information Act for withholding it.

If you are submitting on this discussion document, you may wish to indicate any grounds for withholding information contained in your submission. Reasons for withholding information could include that information is commercially sensitive, or that the submitters wish personal information such as names or contact details to be withheld. MPI will consider such grounds when deciding whether or not to release information.

Any decision to withhold information requested under the Official Information Act 1982 may be reviewed by the Ombudsman.

For more information please visit <http://www.ombudsman.parliament.nz/resources-and-publications/guides/official-information-legislation-guides>

## Your details

Your name and title:	s 9(2)(a)
Your organisation's name (if you are submitting on behalf of an organisation), and whether your submission represents the whole organisation or a section of it:	s 9(2)(a)
Your contact details (such as phone number, address, and email):	s 9(2)(a)

## General questions: getting to know you

1. What part of the supply chain do you operate in:

- ☐ beekeeper
- ☐ extractor
- ☐ processor
- ☐ packer
- ☒ exporter
- ☒ retailer of bee products
- ☐ other – please specify

2. How long have you been involved in the apiculture industry:

- ☐ 0-5 years
- ☐ 5-10 years
- ☒ 10 + years
- ☐ not applicable

3. Do you operate under:

- ☒ an RMP under the Animal Products Act 1999
- ☐ the Food Act 2014 (Food Control Plan or National Programme)
- ☒ the Food Hygiene Regulations
- ☐ none of these
- ☐ not applicable

4. If you are a beekeeper, how many hives do you currently have:

- ☐ 0 – 5
- ☐ 6 – 50
- ☐ 51 – 500
- ☐ 501 – 1000
- ☐ 1001 to 3000
- ☐ More than 3000

5. What region of New Zealand do you operate in?

Canterbury

6. If you export bee products please tell us a little about your business. How many people do you currently employ?

☐ 0

☐ 1 – 5

☐ 6 – 19

☒ 20 or more

What are the roles of your employees and how many are:

☐ beekeepers

☐ processors

☐ packers

☒ other – please specify (Operations staff (5): labelling jars and consolidating orders; Sales staff (2); managing domestic and international sales, Office and management staff (5), Technical staff (1): operator of RMP

### **Impact of compliance costs for beekeepers, processors and exporters**

7. Table 4.1.1 of the Discussion Document provides a summary of the estimated costs of the proposals. What do you think the overall impact of the new proposals will be on your business?

It is the position of the submitter that the new proposals will have an abjectly unjust and negative financial effect on its business

Indications are that approximately 20% of known monofloral Manuka honey returns a false negative result using the proposed MPI identification methods. In particular, known high grade monofloral Manuka honey samples are failing the proposed DNA test.

The reasons for the presentation of false negative test results using the MPI method are not well understood and sufficient time has not yet elapsed in order to let research investigating this to be completed.

The validation for the above statement is the test results presented by Analytica Laboratories at the UMFHA SGM in Hamilton on 5/5/2017. The samples tested had previously been tested using the UMFHA defined method, including levels of leptosperin. The submitter is aware that leptosperin has been discounted by MPI as a suitable marker as levels can become unstable over time. The sole holder of this data backing this position is MPI. Published science states that it is useful as a marker nevertheless. Even if it is unstable, it does not occur in the nectar (and honey) of non-Manuka species. Given this, the presence of leptosperin confirms a sample as monofloral Manuka.

In addition to being prone to producing false negative results for the DNA test, the proposed test regime can be used opportunistically to produce monofloral Manuka results for samples taken from unrelated species. An example of this is:

Kanuka 3PLA – 500mg/kg DNA <36 Cq pass 900kg	+	Multifloral Manuka 3PLA – 100mg/kg DNA <36 Cq pass 200kg	=	'Monofloral Manuka' 3PLA >400mg/kg DNA <36 Cq pass 1100kg
-------------------------------------------------------	---	-------------------------------------------------------------------	---	--------------------------------------------------------------------

The market value of the submitters stock on hand is predicated on the ability to export this product as monofloral Manuka honey with a high UMF quality grade.

If the proposed GREX were to be implemented, the submitter will face large financial losses as a result of the product downgrade that is not substantiated in sound science. For example, UMF® 15+ tested honey has a market value of \$85/kg. If this product is downgraded to a non-Manuka honey (with a market value of \$12/kg), a loss of 86% will be incurred. For this product line alone, the submitter's company would lose § 9(2)(b)(ii). In the case of UMF® 20+ tested honey, the company stands to lose § 9(2)(b)(ii).

In both of the above cases, the products in question contain significant levels of the UMFHA marker, leptosperin.

#### Trademark

The submitter owns the trademark § 9(2)(b)(ii) for use in relation to bee products and honey. Registration has been granted in many international markets (KR, TW, HK & SG) in addition to New Zealand.

This intellectual property surrounding this trademark and its associated branding has been developed at a cost of § 9(2)(b)(ii) and § 9 years work.

All products produced and marketed under the § 9(2)(a) are legally labelled and represented in its target markets. No mention of Manuka as a compositional component is made in any product other than Manuka Honey.

The submitter seeks assurance that its intellectual property will remain intact after the implementation of a Manuka definition.

8. In order to estimate the total cost to industry of the proposals contained in the draft GREX, it would be useful for MPI to understand how many beekeepers, operators and exports of bee products will be affected by the proposals. Please specify which of the proposals listed in the table at 4.1.1 will affect you and how.

Clauses 5.1 – 5.3: This allows for the misrepresentation of monofloral Manuka due to the reliance on identification techniques that are not fit for purpose. This will affect us by misidentifying a large portion of stock as non-Manuka

Clause 5.4: We will not be able to export high grade, high value Manuka honey with certification (or without after the transition period)

9. Do you foresee any other costs that will arise from the proposals contained in the draft GREX which are not contained in the table at 4.1.1? If so, how significant do you think these will be (e.g. administration costs such as time to fill in forms, and time to learn about the new requirements)?

### No additional substances to be present in New Zealand honey

10. To ensure additional substances are not present in New Zealand honey, MPI proposes to prohibit the feeding of bees when honey supers are present on hives for the purpose of collecting honey, with an exception if it is necessary for the survival of the bees. Do you agree or disagree with this proposal?

☒ I agree because:

No objections held

☐ I disagree because:

Please suggest any alternatives to this approach that would ensure additional sugars and synthetic chemicals are not present in the honey:

11. To prevent the contamination of honey with varroacide residues, MPI proposes honey is only harvested from honey supers that do not contain honeycomb previously part of a brood nest. Do you agree or disagree with this proposal?

☒ I agree because:

No objections held

☐ I disagree because:

Please suggest any alternatives to this approach that would ensure varroacide residues are not present in the honey.

### Processors of bee products to operate under a risk based measure

12. MPI proposes that processors of bee products for export under the Food Hygiene Regulations must move to a risk-based measure (either an RMP under the Animal Products Act 1999, or Food Control Plan or National Programme under the Food Act 2014). Do you agree or disagree with this proposal?

☒ I agree because:

No objections held

☐ I disagree because:

Please suggest any alternatives to this approach that would provide MPI with oversight of these processors:

## Bee products to be sourced from listed beekeepers

13. MPI proposes to extend listing requirements to all beekeepers providing bee products for export. Do you agree or disagree?

☒ I agree because:

No objections held

☐ I disagree because:

Can you think of any alternatives to this approach that would address this gap in the traceability chain?

## Pre-processing traceability requirements

14. MPI proposes beekeepers keep additional records. Do you agree or disagree with this proposal?

☒ I agree because:

No objections held

☐ I disagree because:

Can you think of any alternatives to this approach that would address gaps in the traceability chain?

15. The costs for businesses associated with implementing the proposed traceability requirements are likely to vary depending on their existing systems and processes. What impact do you think these proposals are likely to have on your business?

### Traceability from beekeepers to operators – harvest declarations

16. MPI proposes to introduce harvest statement requirements to all beekeepers providing bee products for export. Do you agree or disagree?

☒ I agree because:

No objections held

☐ I disagree because:

Can you think of any alternatives to this approach that ensure full traceability through the bee product supply chain?



17. MPI considers, for most businesses, the costs associated with these proposals are unlikely to be onerous. Do you agree or disagree and why?

☐ I agree because:

☐ I disagree because:

### Traceability between operators – transfer documentation in AP E-Cert and reconciliation

18. MPI proposes to introduce transfer documentation requirements to all bee products intended for export. Do you agree or disagree?

☒ I agree because:

No objections held

☐ I disagree because:

Can you think of any alternatives to this approach that ensure full traceability through the bee product supply chain?

## Labelling of monofloral and multifloral mānuka honey

19. MPI proposes to implement the mānuka honey definition for export using the GREX. Do you agree or disagree?

☐ I agree because:

☒ I disagree because:

The proposed definition will misidentify our highest export value product.

Can you think of any alternatives to this approach that ensures mānuka honey is true to label?

Revisit the application of knowledge gathered from the science project. Remove pollen DNA analysis from the suite of requirements.

Use leptosperin in conjunction with other specific markers such as 2'-MAP.

20. MPI considers there are likely to be options available to businesses to support compliance with the proposed definition (e.g. relabelling, changes to blending practices etc.). Do you agree with this assessment or do you have concerns about ability of some businesses to comply?

☐ I agree because:

☒ I disagree because:

Blending practices have been shown to be able to generate monofloral Manuka honey from multifloral sources. Blending high grade, high value Manuka honey with lower grade ones might result in a product which passes the DNA test; however, doing so will greatly devalue the product in the marketplace.

The proposed GREX does not leave us any options to support compliance of our most valuable honey with the standard.

☐ I have concerns because:

21. MPI's proposal may have an impact on existing rights associated with using the word "mānuka" on labels, including registered trademarks. Do you agree with MPI's assessment of the impact on existing rights?

☐ I agree because:

☒ I disagree because:

No specific guidance is given to the options to continue to use the trademarks, ie more detail is required in 5.3(3)a-b

The submitter owns the trademark s 9(2)(b)(ii) for use in relation to bee products and honey. Registration has been granted in many international markets (KR, TW, HK & SG) in addition to New Zealand.

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All products produced and marketed under the s 9(2)(b)(ii) are legally labelled and represented in its target markets. No mention of Manuka as a compositional component is made in any product other than Manuka Honey.

The submitter seeks assurance that its intellectual property will remain intact after the implementation of a Manuka definition.

22. MPI does not propose to make changes to the current use of grading systems. Do you agree or disagree with this position?

☒ I agree because:

They are outside the scope of food safety and market access.

☐ I disagree because:

23. What do you think the impact of the mānuka honey definition will be on the current use of grading systems?

24. Do you have any comments on the summary science report?

The summary science report is comprehensive however it did not consider honey tested after long storage in drums. This practice is industry standard and a key to ensuring that the honey attains its highest value.

Investigation of the hypothesis that this storage degrades pollen DNA needs testing.

25. Do you have any further comments regarding the definition of mānuka honey?

### Laboratory Tests

26. Do you support the proposed requirements for sampling and testing mānuka honey set out in Part 6 of the draft GREX?

☐ I agree because:

☒ I disagree because:

The testing of DNA from pollen leads to erroneous results of the identity of the sample

27. The costs associated with these proposals are likely to vary depending on the size and volume of samples being tested. What impact do you consider these proposals will have on your business?

The costs to our company will be large. Even with a substantial discount, we face a testing cost of s 9(2)(b)(ii) to apply the proposed tests to our existing stock.

Do you have any suggestions for minimising any impacts?

## Transitional provisions

28. MPI proposes a lead in time of **six weeks** between when the GREX is notified and when it comes into effect. Do you agree or disagree with this proposal?

☐ I agree because:

☒ I disagree and propose an alternative timeframe:

It is too little time to export with an official assurance, the currently legally labelled stock on hand. We propose a timeframe of at least 6 months.

29. MPI proposes stock in trade provisions for honey exported between the date of commencement until six months after the date of commencement. Do you agree or disagree with this proposal?

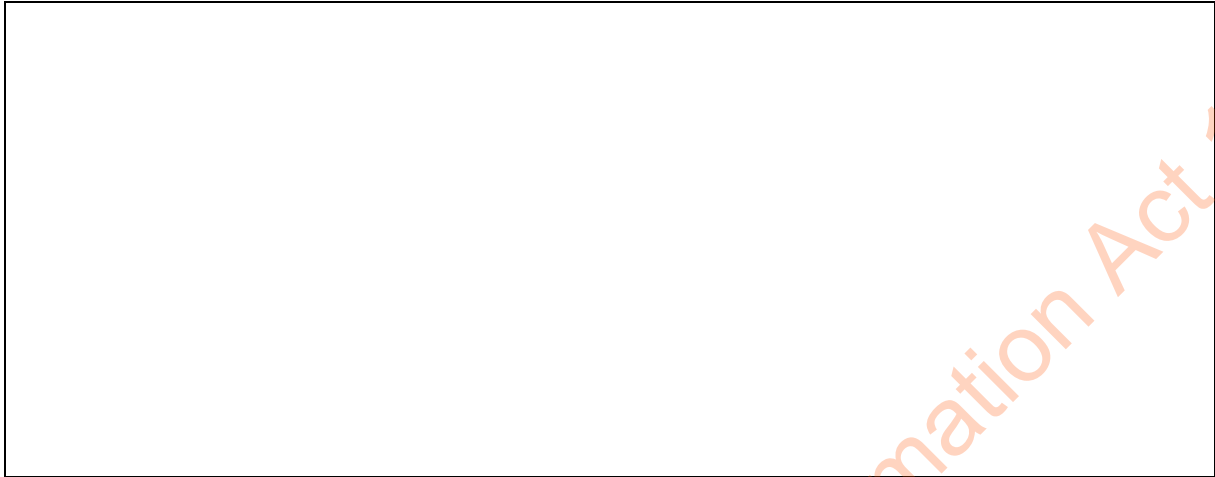
☐ I agree because:

☒ I disagree because:

It is too little time to export the stock in hand of product to markets that do not require an official assurance.

### **Any other feedback**

30. Are there any other parts of this discussion document or the draft GREX that you would like to provide feedback on? (Please indicate which part of the discussion document or draft GREX you are providing feedback on).



Hi I had a chat with this beekeeper and answered his query.

He would like to give some feedback in regards solving the problems on Manuka honey tampering overseas – his solution was to have all the honey packed in New Zealand so we no longer send drums which are easily able to be mixed with other overseas (non-manuka) honey.

No further action is required by you but I wanted to ensure his message was passed on to the correct team.

Kind regards,

s 9(2)(a)

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s 9(2)(a)

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Wellington 6140



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- ☒ where possible, reasons and/or data to support comments should be provided;
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- ☒ as a number of copies may be made of your comments, please use a legible font and quality print, or make sure hand-written comments are clear in black or blue ink.

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If you are submitting on this discussion document, you may wish to indicate any grounds for withholding information contained in your submission. Reasons for withholding information could include that information is commercially sensitive, or that the submitters wish personal information such as names or contact details to be withheld. MPI will consider such grounds when deciding whether or not to release information.

Any decision to withhold information requested under the Official Information Act 1982 may be reviewed by the Ombudsman.

For more information please visit <http://www.ombudsman.parliament.nz/resources-and-publications/guides/official-information-legislation-guides>

## Your details

Your name and title:	s 9(2)(a)
Your organisation's name (if you are submitting on behalf of an organisation), and whether your submission represents the whole organisation or a section of it:	n.a.
Your contact details (such as phone number, address, and email):	s 9(2)(a)

## General questions: getting to know you

1. What part of the supply chain do you operate in:

- ☐ beekeeper
- ☐ extractor
- ☐ processor
- ☐ packer
- ☐ exporter
- ☐ retailer of bee products
- ☒ other – please specify

Currently inactive, but was a co-founder of Manuka Health, exiting late 2015.

2. How long have you been involved in the apiculture industry:

- ☐ 0-5 years
- ☐ 5-10 years
- ☒ 10 + years
- ☐ not applicable

3. Do you operate under:

- ☐ an RMP under the Animal Products Act 1999
- ☐ the Food Act 2014 (Food Control Plan or National Programme)
- ☐ the Food Hygiene Regulations
- ☐ none of these
- ☒ not applicable

4. If you are a beekeeper, how many hives do you currently have:

- ☐ 0 – 5
- ☐ 6 – 50
- ☐ 51 – 500
- ☐ 501 – 1000
- ☐ 1001 to 3000
- ☐ More than 3000

5. What region of New Zealand do you operate in?

6. If you export bee products please tell us a little about your business. How many people do you currently employ?

- ☐ 0  
☐ 1 – 5  
☐ 6 – 19  
☐ 20 or more

What are the roles of your employees and how many are:

- ☐ beekeepers  
☐ processors  
☐ packers  
☐ other – please specify

### Impact of compliance costs for beekeepers, processors and exporters

7. Table 4.1.1 of the Discussion Document provides a summary of the estimated costs of the proposals. What do you think the overall impact of the new proposals will be on your business?

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8. In order to estimate the total cost to industry of the proposals contained in the draft GREX, it would be useful for MPI to understand how many beekeepers, operators and exports of bee products will be affected by the proposals. Please specify which of the proposals listed in the table at 4.1.1 will affect you and how.

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9. Do you foresee any other costs that will arise from the proposals contained in the draft GREX which are not contained in the table at 4.1.1? If so, how significant do you think these will be (e.g. administration costs such as time to fill in forms, and time to learn about the new requirements)?

### No additional substances to be present in New Zealand honey

10. To ensure additional substances are not present in New Zealand honey, MPI proposes to prohibit the feeding of bees when honey supers are present on hives for the purpose of collecting honey, with an exception if it is necessary for the survival of the bees. Do you agree or disagree with this proposal?

☒ I agree because:

C4 Sugars are identifiable and perceived in overseas markets as adulteration and/or honey contamination. This is a market reputation issue whether or not border control in the particular overseas market inspects for this or not. In addition, the GREX should include C4 testing (with a refined/modified test if current international testing is leading to false positives).

☐ I disagree because:

Please suggest any alternatives to this approach that would ensure additional sugars and synthetic chemicals are not present in the honey:

11. To prevent the contamination of honey with varroacide residues, MPI proposes honey is only harvested from honey supers that do not contain honeycomb previously part of a brood nest. Do you agree or disagree with this proposal?

☒ I agree because:

Claims that the bees clean comb to “surgery level” are unproven (and probably nonsense). In addition, AFB and other spores are more likely to be in the broodbox and difficult to detect.

☐ I disagree because:

Please suggest any alternatives to this approach that would ensure varroacide residues are not present in the honey.

## Processors of bee products to operate under a risk based measure

12. MPI proposes that processors of bee products for export under the Food Hygiene Regulations must move to a risk-based measure (either an RMP under the Animal Products Act 1999, or Food Control Plan or National Programme under the Food Act 2014). Do you agree or disagree with this proposal?

☒ I agree because:

Common sense. Aids market reputation

☐ I disagree because:

Please suggest any alternatives to this approach that would provide MPI with oversight of these processors:

## Bee products to be sourced from listed beekeepers

13. MPI proposes to extend listing requirements to all beekeepers providing bee products for export. Do you agree or disagree?

☒ I agree because:

Common sense. It is not possible to regulate to best practice without knowing who you are regulating or where the product is from. An issue of market reputation in one market where export assurances have not been given can easily escalate to a perception of an issue in another market where export assurances have been given, undermining the credibility of the Manuka honey industry and NZ foods generally.

☐ I disagree because:

Can you think of any alternatives to this approach that would address this gap in the traceability chain?

## Pre-processing traceability requirements

14. MPI proposes beekeepers keep additional records. Do you agree or disagree with this proposal?

☒ I agree because:

The only issue is what level of additional records is required for MPI to regulate appropriately. Does record keeping "to the super", as opposed to hive or apiary, as proposed, provide better regulation or just more regulation? MPI has not justified it needs "to the super" record keeping.

☐ I disagree because:

Can you think of any alternatives to this approach that would address gaps in the traceability chain?

Traceability to the apiary is a "must have". I query whether traceability to the super or to the hive is necessary and may lead to considerable cost increase.

15. The costs for businesses associated with implementing the proposed traceability requirements are likely to vary depending on their existing systems and processes. What impact do you think these proposals are likely to have on your business?

### Traceability from beekeepers to operators – harvest declarations

16. MPI proposes to introduce harvest statement requirements to all beekeepers providing bee products for export. Do you agree or disagree?

☒ I agree because:

Common sense. It is noted that 4.2.2(c) uses the word "any". "Any" includes "none". "None" should be excluded, ie one number has to be provided. Also, 4.2.2(j) is inconsistent with 3.1.1(c). 4.2.2(j) is sufficient regulatory oversight.

☐ I disagree because:

Can you think of any alternatives to this approach that ensure full traceability through the bee product supply chain?

17. MPI considers, for most businesses, the costs associated with these proposals are unlikely to be onerous. Do you agree or disagree and why?

☒ I agree because:

For the most part they mimic other food products, and other food products can be exported successfully. I query whether "to the super" is more detail than what other food suppliers have to record.

☐ I disagree because:

### Traceability between operators – transfer documentation in AP E-Cert and reconciliation

18. MPI proposes to introduce transfer documentation requirements to all bee products intended for export. Do you agree or disagree?

☒ I agree because:

Common sense

☐ I disagree because:

Can you think of any alternatives to this approach that ensure full traceability through the bee product supply chain?



## Labelling of monofloral and multifloral mānuka honey

19. MPI proposes to implement the mānuka honey definition for export using the GREX. Do you agree or disagree?

☒ I agree because:

Widespread abuse of the current system is highly likely to be occurring. Not only does this impact on the genuine Manuka honey industry but can also impact on other NZ food exporters. It may have some short term adverse impact on total export honey sales given the reduced amount of genuine Manuka available for sale, but long term the industry will be much better positioned.

☐ I disagree because:

Can you think of any alternatives to this approach that ensures mānuka honey is true to label?

No, science backed regulation is essential. Voluntary code of compliances do not work, at least in this industry. This was previously attempted by "industry" in the early part of this decade.

20. MPI considers there are likely to be options available to businesses to support compliance with the proposed definition (e.g. relabelling, changes to blending practices etc.). Do you agree with this assessment or do you have concerns about ability of some businesses to comply?

☒ I agree because:

Some businesses that predominantly practice blending of bush honey with possible Manuka (most likely Kanuka) and calling it Manuka (let alone Active Manuka) will have a problem. But isn't that the point?

☐ I disagree because:

☐ I have concerns because:

21. MPI's proposal may have an impact on existing rights associated with using the word "mānuka" on labels, including registered trademarks. Do you agree with MPI's assessment of the impact on existing rights?

☐ I agree because:

☐ I disagree because:

22. MPI does not propose to make changes to the current use of grading systems. Do you agree or disagree with this position?

☐ I agree because:

☒ I disagree because:

I see no reason why provisions of the "interim-labelling-guide-manuka-honey" document especially clauses 20-22 aren't enshrined in this legislation.

23. What do you think the impact of the mānuka honey definition will be on the current use of grading systems?

**Methylglyoxal grading systems:** These have lab test evidence backing the ingredient grading claim. These were never originally intended to, and should not be used to, define what is or isn't Manuka honey.

**Peroxide and Non Peroxide Activity grading systems:** These are therapeutic claims and should be disallowed when product is sold as a food as there is no evidence supporting their "activity" when ingested.

**Pollen count grading systems:** These should not be used to make a claim about Manuka concentration as microscopy can't distinguish between Manuka and Kanuka pollen, ie there is no evidence to back the Manuka pollen count claim and should not be allowed.

24. Do you have any comments on the summary science report?

It appears well researched and thorough. Industry could have benefited from it a decade ago to "stop the cheats" which was a focus of the Manuka Rules campaign sometime ago.

25. Do you have any further comments regarding the definition of mānuka honey?

Well done! There still appears to be potential for unlabelled retail packs or drums to be exported as “honey” with no Manuka test or claim and end up in overseas retail markets with a retail label slapped on at/before point of sale as, say, “Active 10+ Manuka honey from NZ”. This bypasses MPI jurisdictional limits. NZ will be adversely impacted by this as it will still be a “product of NZ”.

It is likely that significant quantities of “Manuka” honey retail packs will be shown by MPI Science to not actually be Manuka at all. This may materially impact the volume of product sent overseas and/or the price point achieved with such product with either non Manuka labelling or Manuka blend labelling. However, compliant Manuka product may receive an upwards price point adjustment.

It is a pity that the NZ retail consumer of honey doesn't receive the benefit of your work.

## Laboratory Tests

26. Do you support the proposed requirements for sampling and testing mānuka honey set out in Part 6 of the draft GREX?

☒ I agree because:

The requirements follow the Science. I think it would assist the industry if a C4 test (improved as necessary to avoid occurrence of false positives) was part of the requirements.

☐ I disagree because:

27. The costs associated with these proposals are likely to vary depending on the size and volume of samples being tested. What impact do you consider these proposals will have on your business?

Do you have any suggestions for minimising any impacts?

## Transitional provisions

28. MPI proposes a lead in time of **six weeks** between when the GREX is notified and when it comes into effect. Do you agree or disagree with this proposal?

☐ I agree because:

☐ I disagree and propose an alternative timeframe:

29. MPI proposes stock in trade provisions for honey exported between the date of commencement until six months after the date of commencement. Do you agree or disagree with this proposal?

☐ I agree because:

☐ I disagree because:

## Any other feedback

30. Are there any other parts of this discussion document or the draft GREX that you would like to provide feedback on? (Please indicate which part of the discussion document or draft GREX you are providing feedback on).

I believe the Science and GREX for Manuka are a great leap forward but long overdue. MPI needs to be more proactive and develop similar regulations at an appropriate time for alternative honeys that show signs of developing into major export as mono-florals or multi-florals. The level of abuse of Manuka honey that went unpunished for many years should not be allowed to repeat for other varietals.



# Proposed General Export Requirements for Bee Products

For all exporters of bee products from New Zealand

## SUBMISSION FORM

Electronic Delivery by 23 May 2017 to [mānuka.honey@mpi.govt.nz](mailto:mānuka.honey@mpi.govt.nz)

### Submitter Details

Your name and title:	s 9(2)(a)
Your organisation's name (if you are submitting on behalf of an organisation), and whether your submission represents the whole organisation or a section of it:	s 9(2)(a)
Your contact details (such as phone number, address, and email):	s 9(2)(a)

### General Information

1. What part of the supply chain do you operate in:

- ☐ beekeeper
- ☐ extractor
- ☐ processor
- ☐ packer
- ☒ exporter
- ☒ retailer of bee products
- ☐ other – please specify

s 9(2)(a) has developed the s 9(2)(b)(ii) brand of ultra-premium mānuka honey targeting the health conscious Asian consumer and catering to the gifting tradition, particularly in China. We operate across the entire supply chain, working with trusted partners in beekeeping, extraction, processing, packing and retailing (both in NZ and

*internationally to USA, China and Hong Kong). Additionally, we own land that is managed for mānuka production.*

2. How long have you been involved in the apiculture industry:

- ☒ 0-5 years
- ☐ 5-10 years
- ☐ 10 + years
- ☐ not applicable

3. Do you operate under:

- ☐ an RMP under the Animal Products Act 1999
- ☒ the Food Act 2014 (Food Control Plan or National Programme)
- ☐ the Food Hygiene Regulations
- ☐ none of these
- ☐ not applicable

4. If you are a beekeeper, how many hives do you currently have:

*n/a*

5. What region of New Zealand do you operate in?

*s 9(2)(a) corporate headquarters are located in Hamilton. The company purchases Mānuka honey from beekeepers, with a particular focus on product from the Central Plateau region of the North Island. The company also owns properties in this area that are used to produce high quality mānuka honey.*

6. If you export bee products please tell us a little about your business. How many people do you currently employ?

- ☐ 0
- ☐ 1 – 5
- ☒ 6 – 19
- ☐ 20 or more

What are the roles of your employees and how many are:

- ☐ beekeepers
- ☐ processors
- ☐ packers
- ☐ other – please specify

Company employees and contract staff fulfil sales and marketing roles in both NZ and China, and provide procurement, inventory control, quality assurance, operations, logistics and resource management expertise.

## Impact of compliance costs for beekeepers, processors and exporters

7. Table 4.1.1 of the Discussion Document provides a summary of the estimated costs of the proposals. What do you think the overall impact of the new proposals will be on your business?

### Costs:

The proposals will involve additional costs to the company. These costs will be in addition to the tests we currently undertake with the s 9(2)(b)(ii) which in our view not only grade the honey on UMF scale, but also validate it as Mānuka. So we will need to continue both testing regimes which is inefficient.

Additionally there has already been a wave of extra testing costs to determine the position relative to the Proposed new GREX, from which we can make an informed submission. This has been in the order of magnitude of s 9(2)(b)(ii) one off.

### Overall Impact of Proposals:

Overall, the intent of this MPI initiative is considered to be positive for the industry. Specifically:

- The objectives of the draft GREX are supported (section 2.1.1, p3)
- The approach outlined in the draft GREX will support the objectives
- Tightening the regulatory framework around traceability and food safety is supported
- Minimising the ability of operators to exploit the current loopholes is supported

However, we vehemently oppose the methodology of science testing that underpins the Mānuka Definition, as this has not shown to be robust and will do nothing to protect the high added value the industry currently enjoys.

We also believe the proposed requirements will drive bulk honey to offshore packing and labelling facilities that will undermine the industry value in NZ.

8. In order to estimate the total cost to industry of the proposals contained in the draft GREX, it would be useful for MPI to understand how many beekeepers, operators and exports of bee products will be affected by the proposals. Please specify which of the proposals listed in the table at 4.1.1 will affect you and how.

All of the proposals will affect our business, either directly or indirectly.

s 9(2)(a) already manages and tests to the highest of standards due to our focus on the highly regulated Chinese market and ultra-premium consumer segment. We support lifting the overall performance of the sector in relation to traceability, record keeping and risk management planning.

9. Do you foresee any other costs that will arise from the proposals contained in the draft GREX which are not contained in the table at 4.1.1? If so, how significant do you think these will be (e.g. administration costs such as time to fill in forms, and time to learn about the new requirements)?



There are several additional costs that need to be considered:

*1. Write-downs of product value*

In our view, there is a significant one-off cost associated with the transitional provisions of the draft GREX. MPI have recognised there is a cost of finished goods in storage associated with specific markets that as of 1 July will no longer comply. These products will require, at minimum, a significant re-work cost, and potentially are subject to a full write-down of value if there is no other outlet.

*2. Rejection of product*

The unknown effect of market rejection of product that is received during that grace period. The commercial implications of market response.

*3. Grace period – bulk product inventory*

Currently there are millions of dollars worth of bulk product inventory that has been extracted before the cut-off date and may reside in the system for up to 3 years. The applicability of the draft GREX in this regard is ambiguous. Existing inventory can be tested for its authenticity against the mānuka definition but it will not be able to comply with the criteria around production reporting and traceability. What happens to this inventory?

To the extent that the GREX is introduced, we seek a delayed introduction of the requirements by a minimum of 6 months.

## **No additional substances to be present in New Zealand honey**

10. To ensure additional substances are not present in New Zealand honey, MPI proposes to prohibit the feeding of bees when honey supers are present on hives for the purpose of collecting honey, with an exception if it is necessary for the survival of the bees. Do you agree or disagree with this proposal?

☒ I agree because:

Overall, the measures to increase the level of confidence that there are no additional substance or contaminants in NZ honey is supported. Requiring good practice by the bee keeper is a small first step to ensure honey has access to market. However, this issue is complex, and there are regulatory matters that need to be addressed by MPI as a matter of urgency. These are set out below:

*1. C4 Sugar Test*

As an exporter, s 9(2)(b)(ii) does not want to purchase honey that has elevated C4 sugar levels as this is not acceptable under the Codex nor certain OMARs. However, experience has eroded our confidence in its adequacy as a measure of honey adulteration. Currently, there is little confidence in the measure of C4 sugars in mānuka honey, despite its wide application and adoption by international agencies. The industry urgently needs scientifically credible and reliable measures that establish adulteration.

As one example, drums of our own mānuka bulk inventory have undergone a 50% growth in C4 sugars, taking the honey from compliance to non-compliance in 8 months whilst being stored in a sealed drum in an ambient temperature warehouse. This is a major issue for our business and the industry as a whole. It is unacceptable to have a spurious test driving the value of the business.

## 2. Bee Survival and Health and the Issue of Property Rights

Sugar feeding may be a symptom of the lack of clearly defined property rights in relation to the mānuka resource. Like many land owners we have experienced 'boundary riding' hive placement whereby hives are placed on bare pasture or forestry against a fence line delineating regenerating mānuka. This is outright theft in an unregulated environment, and has no doubt triggered some of the numerous reported acts of vandalism against hives. Additionally, the resulting over-saturation of the resource and competition for nectar reduces hive health, and is perhaps a factor in sugar feeding even during nectar flow. Allowing exceptions for sugar feeding for the survival of bees might perpetuate this situation as it fails to address the carrying capacity of mānuka-covered land and the owners' rights to the value of the nectar. The industry needs clearly defined and defended property rights.

☐ I disagree because:

Please suggest any alternatives to this approach that would ensure additional sugars and synthetic chemicals are not present in the honey:

As outlined above, s 9(2)(b)(ii) requests MPI engage in a process to review, evaluate and, if necessary, develop new tests to support purity of honey.

11. To prevent the contamination of honey with varroacide residues, MPI proposes honey is only harvested from honey supers that do not contain honeycomb previously part of a brood nest. Do you agree or disagree with this proposal?

☒ I agree because:

This is supported as a sensible approach to reduce the risk of contamination of honey.

☐ I disagree because:

Please suggest any alternatives to this approach that would ensure varroacide residues are not present in the honey.

## Processors of bee products to operate under a risk based measure

12. MPI proposes that processors of bee products for export under the Food Hygiene Regulations must move to a risk-based measure (either an RMP under the Animal Products Act 1999, or Food Control Plan or National Programme under the Food Act 2014). Do you agree or disagree with this proposal?

☒ I agree because:

s 9(2)(b)(ii) does not believe it is in the best interests of an export based food industry to have alternative systems running in parallel. Therefore, the initiative to bring all processors up to a standard reflecting appropriate risk-based measures is supported.

However, the company strongly advocates that the criteria should apply to ALL bee products, regardless of whether they are exported or not. This is a critical point. Bee products should be treated as a food source, and subject to the same requirements regardless of whether they are at the local farmers' market or on the shelf in Shanghai. This is because the so-called 'domestic' product ends up passing through the grey channels to international consumers. This is a major concern as it is through this loop hole that domestic product currently gets into the export supply chain. This effectively undermines the whole objective of the draft GREX.

From a food safety and traceability perspective and from a food operation facilities perspective there should be no differentiation in the requirement to comply with the requirements. New Zealand consumers deserve to have the same confidence in relation to quality and authenticity as people living in another country.

If it is based on providing lower compliance costs for domestic products, or to somehow distinguish between export and domestic products, this is an unsatisfactory reason.

MPI should seek to apply the same suite of measures to the entire industry.

☐ I disagree because:

Please suggest any alternatives to this approach that would provide MPI with oversight of these processors:

## Bee products to be sourced from listed beekeepers

13. MPI proposes to extend listing requirements to all beekeepers providing bee products for export. Do you agree or disagree?

☒ I agree because:

s 9(2)(b)(ii) agrees that the listing requirements should be extended to all beekeepers exporting bee products to any country, whether or not they are currently countries requiring official assurances.

We further submit that all beekeepers should be regulated and listed even if they supply the domestic market. Essentially, every argument that is made for food safety, adulteration and traceability in the supply chain for an export market is equally important for consumers in the domestic market. There is no valid reason to void these protections for local consumers. Disease, product contamination recalls, regulatory oversight and communication all require a national approach encompassing every bee keeper. It is absolutely the case that product supplied for domestic consumption by NZ bee keepers will end up overseas through the grey channels. There will be no distinction in the Asian consumers' mind around the quality and authenticity of this product. If there is any issue arising with 'domestic honey' it will inevitably adversely affect the reputation of New Zealand's 'export honey'.

While it is noted that the GREX relates only to export products, an assurance is sought from MPI that it will act without delay to use whatever mechanism is necessary to mesh the requirements relating to beekeepers to ensure a coherent and consistent national framework.

☐ I disagree because:

Can you think of any alternatives to this approach that would address this gap in the traceability chain?

## Pre-processing traceability requirements

14. MPI proposes beekeepers keep additional records. Do you agree or disagree with this proposal?

☐ I agree because:

☐ I disagree because:

Can you think of any alternatives to this approach that would address gaps in the traceability chain?

15. The costs for businesses associated with implementing the proposed traceability requirements are likely to vary depending on their existing systems and processes. What impact do you think these proposals are likely to have on your business?

§ 9(2)(a) is very interested in traceability and endeavours to collect information to support its products in the market.

A standard template might be useful to enable easy comparison across products and producers.

It is desirable that any traceability data is transparent and available at low transaction cost.

Verification and enforcement is very important to the ongoing credibility of the regime and confidence of all parties. We seek further information around how MPI intends to audit and report compliance.

### Traceability from beekeepers to operators – harvest declarations

16. MPI proposes to introduce harvest statement requirements to all beekeepers providing bee products for export. Do you agree or disagree?

☒ I agree because:

Harvest declarations are an important part of export traceability.

☐ I disagree because:

Can you think of any alternatives to this approach that ensure full traceability through the bee product supply chain?

17. MPI considers, for most businesses, the costs associated with these proposals are unlikely to be onerous. Do you agree or disagree and why?

☐ I agree because:

☐ I disagree because:

## Traceability between operators – transfer documentation in AP E-Cert and reconciliation

18. MPI proposes to introduce transfer documentation requirements to all bee products intended for export. Do you agree or disagree?

☒ I agree because:

Traceability of export products is supported.

Traceability of all products is required.

The system should apply equally to all.

☐ I disagree because:

Can you think of any alternatives to this approach that ensure full traceability through the bee product supply chain?

## Labelling of monofloral and multifloral mānuka honey

19. MPI proposes to implement the mānuka honey definition for export using the GREX. Do you agree or disagree?

☐ I agree because:

☒ I disagree because:

1) Generally, agree with the approach to:

- a. Become first in world to have a legally enforceable definition for mānuka
- b. Ensure that a definition is based on science and testing
- c. Monitoring and enforcement of regulations

2) General Statement:

We do not support the DNA marker to be part of the portfolio of tests, as we cannot see sensible outcomes of this test. What is extremely concerning is that MPI so strongly advocate for us to believe the science and testing is robust, when clearly it is not.

We believe MPI should immediately include Leptosperin in the definition tests, and remove DNA. This will ensure an outcome of mānuka categorisation consistent with current industry practice, and can of course be subjected to review and modification should ongoing research show there are better alternatives.

3) Summary of our definition assessment tests:

- a. Having tested our own bulk inventory comprising:
  - i. 11 batches of finished goods spanning UMF 6+ product through to UMF 20+; and,
  - ii. 46 drums of bulk inventory spanning UMF 2+ through to UMF 24.5+
- b. We have encountered surprising results regarding the failure of the DNA test parameter, particularly for honey >UMF 12+.
- c. We know to achieve >12+ mānuka honey, we must have hives placed in a densely covered and substantially significant proportion of mānuka trees.
- d. As such it is inconceivable that this honey would not be classified as mānuka.
- e. Our results for bulk honey have shown that for honey with UMF values of:
  - i. <UMF 5+ = 5 drums tested, 1 Multifloral, 4 non-Mānuka based on DNA and 2-MBA.
  - ii. Between UMF 9+ to 11+, = 16 drums tested. 10 Monofloral, 3 Multifloral, and 3 non-Mānuka based on DNA test alone.
  - iii. Between UMF 12+ and 15+, = 11 Drums. 8 were Monofloral, zero Multifloral, and 3 non-Mānuka based on DNA failure alone.
  - iv. >UMF15+, = 14 drums tested. 5 Monofloral, zero Multifloral, and 9 non-Mānuka based on DNA failure alone.
- f. To allay our concerns of test method inconsistencies between s 9(2)(b)(ii) and s 9(2)(b)(ii), we retested 7 samples >UMF 15+ that all had failed at s 9(2)(b)(ii).
  - i. Results of these at s 9(2) saw 2 pass, and 5 fail on DNA alone. This confirms our concerns of the testing method for >12+ providing spurious results, but has the additional concern of varying result between laboratories.
- g. We believe there is enough evidence from our own tests, combined with similar trends discussed by s 9(2)(b)(ii) that the DNA marker test method cannot be considered robust as it does not provide a true record of the significance of mānuka in legitimate mānuka honey, particularly above UMF12+.
- h. For finished goods, our results were equally disappointing:
  - i. For UMF 6 through 10+ we tested 5 batches. 1 would be considered non-Mānuka (on DNA fail), 3 Multifloral and 1

Monofloral. This will have a considerable cost impost for us as it has been manufactured for China to be dispatched in late June/July.

- ii. For UMF 12+ through 20+ of 6 batches tested, 3 are Monofloral and 3 are non-Mānuka failing on DNA alone. Again, the cost impost to our business would be intolerable.
- i. We are willing to supply actual data should MPI wish to investigate our results further.

4) s 9(2)(b)(ii) work and Leptosperin:

As a mānuka industry, we have been working for some time to provide a science backed quality mark to provide surety to consumers that the mānuka honey is true to label. The testing and compliance requirements to utilise UMF on label has two objectives, being to ensure the product is in fact mānuka and secondly to validate the grading scale for any particular batch.

In regard the mānuka categorisation, this is primarily done by ensuring the honey has > 100mg/Kg of Leptosperin, a unique and stable marker. MPI has outright dismissed the use of this marker based on some of their own science which casts doubt on its stability. In the context of shelf life this compound has been shown to be stable, and has been well accepted in the industry. It is perplexing that the MPI scientists dismissed this marker in their portfolio of mānuka markers, and will not publish their data on Leptosperin stability trials for industry peer review. We believe Leptosperin has a far more robust test outcome than the spurious DNA test method.

We advocate for the inclusion of Leptosperin in the science based definition, requiring > 100 mg/KG to be classified as mānuka.

5) Ability to manipulate the existing definition

- a. Combining 3 drums of kanuka rich in the 4 chemical markers, and a drum of high pollen Multifloral Mānuka will enable the preparation of 4 drums of Monofloral Mānuka. Increasing the quantity of mānuka in the market through these means cannot be considered acceptable practice.

6) Costs to s 9(2)(a) should the proposed definition and grace period be enforced.

- a. Product manufactured exclusively for China, that will no longer be suitable for this market will result in a significant business loss. We have estimated stock repacking, market diversion and stock write-offs amounts to circa. s 9(2)(b)(ii) .
- b. Inventory purchased according to UMF scaling value, that is no longer considered mānuka would need to be blended down to something lesser. Exact numbers not accessible until we understand the full implication of blending for DNA, but it is estimated that this may result in a s 9(2)(b)(ii) downgrade of stock.



7) C4 Issues

As discussed in section 10 above, the industry is compromised by the existence of false results in the testing of c4 sugars for high UMF honey. It appears there is something that is not well understood influencing the C4 test results for >UMF10+, which is accentuated the higher the UMF. There are several theories again relating to the influence of enzymatic reactions of the DHA to MGO conversion, and the influence of small pollen counts. This is costing our industry millions of dollars a year with very little positive outlook of resolution in the regulatory environment. It is somewhat similar to the trend we are seeing with the DNA marker test variations.

With priority, and as part of the current review of mānuka honey regulations, we would like to see MPI deal with the C4 testing issue.

Can you think of any alternatives to this approach that ensures mānuka honey is true to label?

We urge MPI to delete the DNA marker from the definition of mānuka honey. Alternatively, withdraw the draft GREX until a scientifically robust definition that has received industry endorsement has been development.

We request that MPI include Leptosperin as alternative marker to distinguish between kanuka and mānuka.

We further emphasise the urgent need for an MPI strategy to sort out the C4 compliance and/or testing regimes for mānuka honey.

20. MPI considers there are likely to be options available to businesses to support compliance with the proposed definition (e.g. relabelling, changes to blending practices etc.). Do you agree with this assessment or do you have concerns about ability of some businesses to comply?

☐ I agree because:

☐ I disagree because:

☒ I have concerns because:

Re-labelling for some products is possible, but if the test results are not consistent for >UMF15+ honey and in many instances cannot be classified as mānuka, then there are much wider implications than relabelling.

MPI's proposed new definition will in fact provide a greater incentive to blend non mānuka varieties to yield quantities of mānuka at low grade. This will do nothing more than pull

down mānuka to a commodity grade. This will undermine the Government's efforts to increase the value of the sector, and is repugnant to our company's efforts to add value to a premium, niche-marketed, unique New Zealand food product.

21. MPI's proposal may have an impact on existing rights associated with using the word "mānuka" on labels, including registered trademarks. Do you agree with MPI's assessment of the impact on existing rights?

☐ I agree because:

☐ I disagree because:

22. MPI does not propose to make changes to the current use of grading systems. Do you agree or disagree with this position?

☐ I agree because:

☒ I disagree because:

MPI wants to leave the grading system to the industry.

This will mean that there will continue to be alternative industry grading systems set up in competition with each other and based on existing or new criteria, which will be confusing to the consumer.

This is not consistent with the objectives sought to be achieved by the Government more generally (not just the GREX).

For any grading system to have market credibility and confidence there needs to be

- Scientific basis
- Criteria that reflect attributes desired in the market
- Independent verification
- Transparency
- Universal application

It is considered that for a unique to NZ product there should be a single trustworthy grading system available to everyone in the industry and backed by an appropriate regulatory framework.

23. What do you think the impact of the mānuka honey definition will be on the current use of grading systems?

There is the potential to mislead consumers that the chemical markers used in the MPI definition will be linked to “purity of mānuka”, which aside from being rubbish, will have an effect of further confusing the consumer.

24. Do you have any comments on the summary science report?

In the interests of open and robust scientific integrity the results of the science should be available to other scientists, rather than just a sanitised summary. The science is far from resolved and it is appropriate that a collaborative and open approach be adopted.

25. Do you have any further comments regarding the definition of mānuka honey?

## Laboratory Tests

26. Do you support the proposed requirements for sampling and testing mānuka honey set out in Part 6 of the draft GREX?

☐ I agree because:

☒ I disagree because:

Delete the DNA test for the reasons set out above.

27. The costs associated with these proposals are likely to vary depending on the size and volume of samples being tested. What impact do you consider these proposals will have on your business?

### *Cost of Testing*

Our estimate is that additional testing will cost circa. s 9(2)(b)(ii) per annum, equating to an increase on COGS of 1-1.5%.

On the assumption the testing science is reconsidered such that our high UMF honey does not fail on DNA, then we would consider this cost to be acceptable to our ongoing business.

Do you have any suggestions for minimising any impacts?

## Transitional provisions

28. MPI proposes a lead in time of **six weeks** between when the GREX is notified and when it comes into effect. Do you agree or disagree with this proposal?

☐ I agree because:

☐ I disagree and propose an alternative timeframe:

29. MPI proposes stock in trade provisions for honey exported between the date of commencement until six months after the date of commencement. Do you agree or disagree with this proposal?

☐ I agree because:

☒ I disagree because:

Should our current testing results stand, then we have a big issue with finished goods. These have been specifically manufactured for our China market. We do not have alternative markets for this product.

On the whole we would need to destroy this product should the regulations be enforced on 1 July.

We need MPI to ensure China take the goods at any time in the upcoming 12 months following enactment.

It would not be nearly as big issue for us if the DNA test errors are dealt with, and the high end UMF honey is considered to be mānuka, as we know it to be.

## Any other feedback

30. Are there any other parts of this discussion document or the draft GREX that you would like to provide feedback on? (Please indicate which part of the discussion document or draft GREX you are providing feedback on).

Tariff code 0409 Honey

We would like to see mānuka Honey have its own export tariff sub-code, such that the industry can make assessment of actual quantities being export.

Also, it would be advantageous to somehow capture the value/quantity being exported through grey channels. Not sure this is practically possible.

## Submission to the new General Export Requirements for Bee Products.

I am writing as the day to day s 9(2)(a) is listed for export to the EU, so these proposed new export requirements will be affecting its operation.

In general, I support the new requirements. There are two changes that I cannot agree with.

I. 3.1 Honey to be fit for purpose

(1) Beekeepers must ensure that:

b) honey is not harvested from honeycomb previously part of a brood nest

It is a very integral part of s 9(2)(a) beekeeping management to use brood combs in the honey supers. This has a positive effect on the management of the beehives and the production of the hives. These combs had been in the brood nest prior varroa and the use of miticides. So, they have never been exposed to any miticides.

The only way I could accept this new requirement would be if the wording was changed to:

**Honey is not harvested from honeycomb that has been in contact with miticides.**

I assume the new requirement is aiming at this issue. It would be more sensible for MPI to test the miticide residues in beeswax. Most old brood combs in this country are rendered into wax and converted to foundation which will be used in honey combs. In a lot of other countries this "old" wax is used for candle production and does not re-enter a beehive.

II. 4.1 Pre-processing traceability requirements

In short the proposal is to uniquely identify every honey super and record when and where these supers were put on hives, when harvested and extracted.

This sounds very easy on paper, but at a rough estimate the purchase and installation of a system to meet this requirement and to last for many year, would cost us about \$ 20 000. This is a lot of money for a small operator. The biggest problem is that I fail to see how this system would improve our existing one, which does not cost us a cent, apart from a few bits of chalk every year.

In my beekeeping diary, I record how many honey supers are put in an apiary, but this is for our benefit so I can work out the logistics for harvesting the supers. In regards to the traceability of honey it does not matter which supers went in which apiaries. The important part is when the suppers are harvested, because then some of them will contain honey (so we hope). For these supers with honey I will record the apiary they were harvested from. There will be supers that will not contain honey, these go straight to the storage shed, so why even bother recording them? They made no money for me, I don't want to know any more about them.

I fail to see why there should be a traceability record for a unique super. They go into an apiary, like I said there are two pathways for a super after that. Either they will be taken off empty and go back into storage. So, there cannot be anything (honey or non-food-grade substance) in this super that should be traced.

If the super contains honey it will be recorded and extracted. Following the super is empty and there is no substance in it that should be traced to the next apiary this super will be used in.

For s 9(2)(b)(ii) I run a simple traceability system that my verifier is happy with. It is recorded when, where and how many supers are harvested from an apiary. The **unique identifier of the apiary** is written on the supers with chalk. This way the supers of one apiary are easily identified and kept in one group until they are extracted. It is recorded into which drums this group of supers is extracted. In the end, it is the **apiary** we are tracing to, not a single beehive, so the supers in this group should not have to be uniquely identified.

You might want to argue that eventually you want to trace to a single beehive and that is why every super should be uniquely identified. This also does not make any practical sense as one super might hold 20 kg of honey, but one drum holds 330 kg of honey. MPI will never change the beekeeping industry to that extent that the honey of one single beehive must be extracted into a separate drum. This would be very uneconomical. Following one drum of honey will always contain honey from at least 4-5 hives or at least 15 supers. So why should we bother to uniquely identify the supers, if it can't stay unique in a honey drum?

Obviously, the only system to fulfil your requirements of traceability for unique supers would require a tag or barcode system. These tags or barcodes would somehow have to be attached to or recessed into a super. Most honey supers in this country are regularly dipped into hot paraffin wax for durability. This would surely destroy any tagging chip.

Also in a practical environment like a honey extracting shed you want to be able to glance at a stack of supers and know where they have been harvested, so you can ensure to extract the correct group of supers together. A small or recessed tag is not a lot of use in this case, so you still would have to use chalk and mark the supers with their **unique identifier of the apiary**.

As a conclusion I cannot agree with the proposed changes in Part 4.1 (1) a),b),c)iii),iv)

s 9(2)(a)

[REDACTED]

I have attached a page of your template that might be useful for you when evaluation my submission

## General questions: getting to know you

1. What part of the supply chain do you operate in:
  - ☒ beekeeper
  - ☒ extractor
  - ☐ processor
  - ☐ packer
  - ☐ exporter
  - ☐ retailer of bee products
  - ☐ other – please specify
2. How long have you been involved in the apiculture industry:
  - ☐ 0-5 years
  - ☐ 5-10 years
  - ☒ 10 + years
  - ☐ not applicable
3. Do you operate under:
  - ☒ an RMP under the Animal Products Act 1999
  - ☐ the Food Act 2014 (Food Control Plan or National Programme)
  - ☐ the Food Hygiene Regulations
  - ☐ none of these
  - ☐ not applicable
4. If you are a beekeeper, how many hives do you currently have:
  - ☐ 0 – 5
  - ☐ 6 – 50
  - ☐ 51 – 500
  - ☒ 501 – 1000
  - ☐ 1001 to 3000
  - ☐ More than 3000
5. What region of New Zealand do you operate in?



Southland

6. If you export bee products please tell us a little about your business. How many people do you currently employ?

☐ 0

☐ 1 – 5

☐ 6 – 19

☐ 20 or more

What are the roles of your employees and how many are:

☐ beekeepers

☐ processors

☐ packers

☐ other – please specify

**From:** s 9(2)(b)(ii) .co.nz>  
**Sent:** Tuesday, 23 May 2017 8:23 a.m.  
**To:** Manuka Honey  
**Subject:** RE: Mānuka honey  
**Attachments:** 17-09262-[R00].pdf; 17-09262-[R01].pdf; 17-09262-[R02].pdf

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Hi,

I'm mainly looking at 17-09262-2 in the results attached,

- Manawatu-Wanganui
- Harvested 26.02.14.
- Ambient, fluctuates with the seasons and temperatures of the Waikato.
- Drum core sample.
- Honey is heated to 35 degrees during extraction then gradually decreases to ambient warehouse temp naturally.
- No homogenisation process, extracted straight from honey super to drum.

Also Sample ID 17-09262-5 has had the exact same extraction treatment, storage temperature and was harvested from the same site but is from 2016 (2 seasons later) and has better results.

s 9(2)(b)(ii)

# Certificate of Analysis

s 9(2)(b)(ii)

Lab Reference: 17-09262  
 Submitted by:  
 Date Received: 13/04/2017  
 Date Completed: 26/04/2017  
 Order Number: GOLD  
 Reference:

## Report Comments

Samples were received by s 9(2)(b)(ii) in acceptable condition unless otherwise noted on this report.

ND = Not Detected, therefore the Cq value is greater than 36.00

## Results Summary

### Manuka Markers in Honey

Laboratory ID	Sample ID	4-Hydroxyphenyllactic acid 4-HPLA	2-Methoxybenzoic acid 2-MBA	2-Methoxyacetophenone 2-MAP	3-Phenyllactic acid
Units Reporting Limit		mg/kg 0.8	mg/kg 0.8	mg/kg 0.8	mg/kg 20
17-09262-1	CBP 298-13	9.69	5.44	18.3	848
17-09262-2	BCS 90-14	9.26	8.96	21.0	1,160
17-09262-3	J. STEELE 8-15	7.19	6.71	17.3	622
17-09262-4	CBP 160-15	9.19	8.01	23.9	879
17-09262-5	BCS 142-16	7.36	8.22	27.5	923
17-09262-6	CBP 235-16	1.75	1.31	3.62	147
17-09262-7	CBP 244-16	7.17	11.3	25.8	821
17-09262-8	CBP 282-16	3.56	2.71	6.52	405
17-09262-9	CBP 283-16	3.93	3.20	7.15	347
17-09262-10	CBP 302-16	3.86	1.45	5.26	357
17-09262-11	CBP 328-16	1.58	1.96	2.26	225
17-09262-12	CBP 301-16	5.47	2.12	7.39	495
17-09262-13	CBP 145/17	6.79	3.55	13.1	860
17-09262-14	CBP 183/17	3.81	2.11	4.24	464

Manuka Markers in Honey Approver:

s 9(2)(b)(ii)

## Method Summary

### Manuka Markers

Solvent extraction, LC-MS/MS analysis.

s 9(2)(b)(ii) has interim approval from the New Zealand Ministry of Primary Industries to conduct this analysis under the Recognised Laboratory Programme (RLP).

# Certificate of Analysis

s 9(2)(b)(ii)

Lab Reference: 17-09262  
 Submitted by:  
 Date Received: 13/04/2017  
 Date Completed:  
 Order Number: GOLD  
 Reference:

## Report Comments

Samples were received by s 9(2)(b)(ii) in acceptable condition unless otherwise noted on this report.

ND = Not Detected, therefore the Cq value is greater than 36.00

## Results Summary

### Manuka Pollen DNA

Laboratory ID	Sample ID	Manuka Pollen DNA
Units Reporting Limit		Cq
17-09262-1	CBP 298-13	[ND]
17-09262-2	BCS 90-14	[ND]
17-09262-3	J. STEELE 8-15	29.45
17-09262-4	CBP 160-15	29.73
17-09262-5	BCS 142-16	30.51
17-09262-6	CBP 235-16	32.32
17-09262-7	CBP 244-16	31.08
17-09262-8	CBP 282-16	32.20
17-09262-9	CBP 283-16	30.69
17-09262-10	CBP 302-16	34.96
17-09262-11	CBP 328-16	29.54
17-09262-12	CBP 301-16	33.18
17-09262-13	CBP 145/17	28.62
17-09262-14	CBP 183/17	28.22

Manuka Pollen DNA Approver:

s 9(2)(b)(ii)

## Method Summary

### Manuka Pollen DNA

Samples were analysed as received by the Laboratory for Manuka Pollen DNA by pollen DNA extraction followed by qPCR.

The DNA component of the MPI Manuka Honey Definition requires a Cq value of less than 36 to qualify for either a monofloral or multifloral Manuka honey.

# Certificate of Analysis

s 9(2)(b)(ii)

Lab Reference: 17-09262  
 Submitted by:  
 Date Received: 13/04/2017  
 Date Completed:  
 Order Number: GOLD  
 Reference:

## Report Comments

Samples were received by s 9(2)(b)(ii) in acceptable condition unless otherwise noted on this report.

## Results Summary

### 3in1 Honey Analysis

Laboratory ID	Sample ID	Dihydroxyacetone DHA	Methylglyoxal MG	Non-peroxide Activity NPA*	Hydroxymethylfurfural HMF
		mg/kg 10	mg/kg 4	%w/v phenol eq. 0.8	mg/kg 1
17-09262-1	CBP 298-13	825	609	16.6	33
17-09262-2	BCS 90-14	1,450	855	20.4	16
17-09262-3	J. STEELE 8-15	885	320	11.3	17
17-09262-4	CBP 160-15	1,110	485	14.5	11
17-09262-5	BCS 142-16	1,690	421	13.3	9
17-09262-6	CBP 235-16	288	91	5.3	8
17-09262-7	CBP 244-16	1,340	503	14.8	11
17-09262-8	CBP 282-16	665	178	7.9	11
17-09262-9	CBP 283-16	796	221	9.0	11
17-09262-10	CBP 302-16	591	174	7.8	9
17-09262-11	CBP 328-16	205	68	4.4	5
17-09262-12	CBP 301-16	783	248	9.7	10
17-09262-13	CBP 145/17	1,570	198	8.4	4

### 3in1 Honey Analysis Approver:

s 9(2)(b)(ii)

## Method Summary

3in1

Determination of Dihydroxyacetone (DHA), Methylglyoxal (MG) and Hydroxymethylfurfural (HMF) by aqueous extraction, derivatisation, and UPLC analysis.



## Method Summary

### NPA

Non-Peroxide Activity (NPA) values are not directly measured by the laboratory, but are calculated from the measured methylglyoxal concentration in the honey according to the requirements of the client. The calculation is based on published data<sup>(†)</sup> comparing the NPA and methylglyoxal concentration measured in a range of honey samples. These calculated values are not accredited by IANZ and do not imply that the honey is or is not manuka honey. NPA values less than 5 are an estimate based on extrapolation of the relationship between methylglyoxal and NPA

*(†) Isolation by HPLC and characterisation of the bioactive fraction of New Zealand manuka (Leptospermum scoparium) honey. C. J. Adams, et al. Carbohydrate Research 343 (2008) 651-659. And, Corrigendum to "Isolation by HPLC and characterization of the bioactive fraction of New Zealand manuka (Leptospermum scoparium) honey" [Carbohydr. Res. 343 (2008) 651]. Carbohydrate Research 344 (2009) 2609. C. J. Adams, et al.*

Released Under the Official Information Act 1982

## Proposed General Requirements for Bee Products.

s 9(2)(a)

### Submission- Part 4- Requirements relating to traceability.

4.1 – (a).

I agree with marking each honey super with a unique identifier, such as painted/branded Registration number. Not agreeable if such marking requires the use of specialised electronic tools and software such as barcodes and scanners. These will add significant cost to establish and maintain for small operators.

(b).

*To record each apiary from which a honey super has previously come from.* This is not a pragmatic or cheap option. It shows that MPI wants beekeepers to barcode and scan honey supers. Again, not suitable for small operators like ourselves as it can add the burden of undue costs involved.

What is the purpose of tracing the origins of honey supers? What will this information tell us?

How long does the history need to be kept?

The proposal shows no link between hive and honey supers.

The beekeeper can easily move frames between boxes, and there is no way of tracing these. There is no link between frames and box. What happens when a box is replaced (rot, broken, general up grade)? Do the frames get put in a new box with new identifier?

(c)

(ii) - Not **Pre-processing**- Is **Processing** - started removing honey from frames.

*To record volumes* could be difficult when drums/IBC tanks are not fully filled – means that a measure of part drums/ibc will be required. This can add significant time when extracting especially when extracting honey from small sites. Prefer to do 'run' of boxes from particular sites so that storage

drums/ibc can be managed more effectively. Total amount of extracted honey still recorded over number of sites still giving good traceability.

Will also require extractor operators to empty holding tanks after each apiary- noticed the '*where beekeeper carried out extraction....*' Does this mean extractor operators don't need to comply? Why?

Targeting small beekeeper operators?

Also, volumes. Kilogram or Liter?

(iii)

The harvest declaration shows how many boxes removed.

*Boxes placed on hives-* Issues arises when moving empty/part filled honey boxes during honey flow. Not uncommon to remove empty/partially full boxes between sites so that honey boxes are used effectively. Taking these to other better performing sites. Or when beekeeper swap part filled/empty frames for full ones in order to fill boxes ready for extracting.

Will require the beekeeper to unduly record and manage the movement of each box – Again too high a degree of traceability requiring added cost and expertise.

(iv)

Yet again shows a desire for MPI towards beekeepers following an electronic scanning approach.

Statement.

I feel strongly against the use of any form of electronic scanning method. For us, it will add significant cost in purchasing, learning and maintaining specialised tools. It also requires the beekeeper to spend more time following and marking individual honey supers and less time beekeeping. For a small beekeeping business such as ourselves, this can add a significant burden which we would much rather avoid.

If these forms of traceability must be enforced, please consider providing options beyond electronic monitoring which could better suit the many smaller operators like ourselves who do not produce Manuka honey.