

s 9(2)(b)(ii)

SUBMISSION ON MPI'S DRAFT DEFINITION AND STANDARD FOR MĀNUKA HONEY

TO: General Export Requirements for Bee Products Submission
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s 9(2)(b)(ii)

DATE: 13 June, 2017

ANIMAL PRODUCTS NOTICE: GENERAL EXPORT REQUIREMENTS FOR BEE PRODUCTS

1. Background

s 9(2)(a) wish to make the following submission in relation to the proposed animal products notice. We would like to provide comment on the science definition to authenticate New Zealand mānuka honey.

s 9(2)(a) is a limited partnership between s 9(2)(a) and s 9(2)(a). The company is based in Taupo, Turangi and Kerikeri while operating through much of the north island. The company has experience over a number of years harvesting high quality mānuka honey particularly from the central plateau region.

2. Support for development of scientific definition

s 9(2)(a) support the development of a robust, scientifically based definition for mānuka honey. We consider that a definition of this nature is essential if the industry is to reach anything close to its potential. Having said that we have some specific concerns about the proposed definition which we will set out below.

3. Timing

The honey industry is severely impacted by the time that is being taken to complete this definition. While we understand the need to get it "right" first time, the industry is suffering significantly due to

the uncertainty around the pending definition. We cannot stress sufficiently the need to conclude this exercise quickly.

4. Testing produces false negatives

We have had testing carried out on m nuka honey that we currently hold in inventory. In total some 84 tests were completed by s 9(2)(b)(ii) across a range of m nuka honey from current and past seasons. While most of the tests met the proposed definition, we were alarmed to note that 11.5% of the samples from past seasons did not meet the requirements. These samples were all high quality m nuka with high levels of methylglyoxal that had been collected from sites which consistently produce high quality manuka. These sites are remote and during the season contain limited nectar sources other than m nuka.

As it appears that these false negatives either result from issues with the definition or the testing protocols we request that MPI meet the cost of resampling.

5. Concern about other honey qualifying as manuka

While we observe high quality m nuka honey of known origin failing to meet the guideline we also have reservations at the other end of the scale where it appears the test is too liberal allowing poor quality multifloral blends to meet the definition for monofloral m nuka. This could undermine the credibility of m nuka honey and it appears that the hurdle rate either needs to be higher or another parameter considered.

6. Educating the market

The international market is clearly confused as to what is m nuka honey and what isn't. There are a range of standards and measures claiming to define the quality of m nuka honey. We are hopeful that the new definition will address this damaging situation. This will require the market to be educated about the new definition. Individual honey companies will be supporting this message but it is critical that the ministry lead this campaign. The ministry is the only body with the credibility to deliver this message.

7. Compliance

Producing a definition or standard is just one part of the solution. There equally needs to be a rigorous approach to enforcing the guideline.

8. Definition needs to apply globally

While we support the development of a definition for m nuka honey we are concerned that it will have little or no bearing on companies packing or marketing m nuka honey overseas. We are aware of New Zealand companies shipping bulk honey offshore to be packed and companies packing for overseas companies that then apply labels that are misleading or totally incorrect. If this situation is not addressed the definition will simply have increased compliance issues and costs for New Zealand companies. It will have failed to address the problem of mislabelled product getting to.

s 9(2)(a)

This situation may require a multifaceted approach. A prohibition on the export of m nuka honey in bulk form would prevent companies circumventing the definition. A further option is to apply to the Codex Alimentarius Commission for the m nuka honey definition to be an internationally recognised standard.

9. Conclusion

While we support the development of a definition for m nuka honey we retain significant concerns following testing carried out on our honey stocks. A significant number of samples that are known to be high quality honey are failing the test.

The focus of deliberations to date has been the science surrounding the definition. We suggest that there is significant effort required to educate the market and to ensure compliance and that this needs to be part of the strategy developed with the guidelines. We are concerned that companies packing or marketing offshore will avoid the effect of the definition. This loophole needs to be closed if the definition is to have value.

s 9(2)(a)

Released Under the Official Information Act 1982



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

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) [redacted], General Manager
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) [redacted]
Your contact details (such as phone number, address, and email):	s 9(2)(a) [redacted]

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

How long have you been involved in the apiculture industry:

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

2. 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

3. 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

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

Tauranga, BOP

5. 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

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

beekeepers (6-10)

processors (4-10)

packers (3-4)

other – please specify:

i. Retail shop sales consultants (3)

ii. Administration (3)

iii. HR & OSH (1)

iv. Management (4)

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?

3.2 – no additional cost as already operate under a RMP

3.3 – no additional cost

3.5.3 Harvest statement & tutin requirements – We already receive a harvest declaration from contract beekeepers for each delivery of supers to be extracted.

But for ourselves, we do not do this as we currently maintain very good records for honey harvesting which supports our annual harvest declaration for our own extracted honey.

We already record by way of a pallet form: the apiary site, number of boxes from each apiary site, the date harvested and then add the extraction code & number of drums, all of which is entered into our extraction records.

The implications of writing separate harvest declarations for every delivery of supers from our own beekeepers, would be increase time spent in documentation and be a duplicate of what we already record. This practice would not improve or increase our traceability in anyway but just create more papers to file & send to our export verifiers.

Although we agree with contract beekeepers providing these with each delivery, We consider this unnecessary and excessive for our own beekeepers and believe it would effectively double my time costs when raising an ED and filing yet more papers.

Part 4 – Proposed Requirements – Beekeeper – most of this proposal we are already complying with except for marking all supers.

Marking each super with an MPI or any other form of ID is excessive and unnecessary and will not add value to the product we export.

We already maintain traceability records and are looking to improve these using technology in the near future but will only be able to do this to the apiary. There is not system currently available that has the ability to trace to the honey super without adding astronomical costs of initial layout and maintenance for us and our beekeepers.

Please keep in mind we are firstly beekeepers and beekeepers are men of the land who just want to get the real job done – working beehives and ensuring their health and ability to produce honey. Then getting the honey off. We have already employed another fulltime person to maintain beekeeping records.

Hence to fulfil your proposal of tracing honey from apiary sites but also every super would add significant additional costs in time creating and maintaining records, governmental fees relating to audits and compliance. If the proposal is approved in its current form the costs of compliance especially would be astronomical and impractical and create a major trade barrier for the NZ honey industry as we simply could not (or possibly even would not be able) to comply.

Labelling of Mono & Multi floral Manuka – 2 years ago it cost us 10's of 1000's of dollars to change our labels to meet the last MPI Manuka Standard. The same will occur this time. The current cost of the new Manuka5 test is far too high and would increase our testing costs for manuka by 50%. This is far too much as we are already complying with UMFHA & tutin testing requirements.

In Summary: Although we understand the need to rein in the cowboys in the industry and increase assurance to our trading partners, we also see that Bureaucracy is one of the biggest threats to our industry and the proposals as they stand will add considerably more time, cost and stress to our business but will not add value to our products or way of life.

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 exporters 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.

GREX Clause 4.1 Pre-processing traceability requirements.

Firstly, ApiNZ have estimated a snap shot of the cost to industry to indelibly mark each honey super with a unique form of identification. This is based only on the commercial element of the industry involving 720,000 hives with all honey supers fitted with RFID tags (fibreglass nail with technology embedded).

- 3 supers per hive - RFID unit cost at not less than \$1.00 each = \$2,190,000
- Labour to install at say \$ 2.00 per super = \$4,320,000
- 600 scanners (at best 1 per 3 beekeeper team basis 400 hives per beekeeper) at say \$1000 each = \$600,000
- Technology collection and management – 1100 businesses at say \$2500 = \$2,750,000
- On-going replacements annually \$500,000
- Technology links to AFB or Industry database - \$300,000

*Increased compliance cost – additional staff, RMP and Compliance audits, AFB audits
There will be more costs, the roll out would be slow, and the uptake frustrating for beekeepers. We would expect an initial start-up cost to the industry of greater than*

\$10,000,000 as a minimum. There would likely be a time delay as technology stocks will not be at hand, non-compliance will be considerable and ongoing for a considerable period – what impact on the industry's ability to trade

Part 4.1 – Proposed Requirements re Traceability:

By and large 4.1 (a) of the proposal is excessive, prohibitive and unnecessary and will only create a major cost to beekeepers in stress, time, dollars and staff.

Marking each super with an MPI or any other form of ID is excessive and unnecessary and will not add value to the product we export.

We already maintain traceability records and are looking to improve these using technology in the near future but will only be able to do this to the apiary. There is not system currently available that has the ability to trace to the honey super without adding astronomical costs of initial layout and maintenance for us and our beekeepers.

Please keep in mind we are firstly beekeepers and beekeepers are men of the land who just want to get the real job done – working beehives and ensuring their health and ability to produce honey. Then getting the honey off. We have already employed another fulltime person to maintain beekeeping records.

Hence to fulfil your proposal of tracing honey from apiary sites but also every super would add significant additional costs in time creating and maintaining records, governmental fees relating to audits and compliance. If the proposal is approved in its current form the costs of compliance especially would be astronomical and impractical and create a major trade barrier for the NZ honey industry as we simply could not (or possibly even would not be able) to comply.

Part 4.2 Harvest statement– We already receive a harvest declaration from contract beekeepers for each delivery of supers to be extracted.

But for ourselves, we do an annual harvest declaration which is supported by very good extracting records which includes all information required on a Harvest pallet form which includes: the apiary site, number of boxes from each apiary site, the date harvested and once extracted our staff write the extraction code & number of drums, all of which is entered into our extraction records.

The implications of writing separate harvest declarations for every delivery of supers from our own beekeepers, would be increase time spent in documentation and be a duplicate of what we already record. This practice would not improve or increase our traceability in anyway but just create more papers to file & send to our export verifiers.

Although we agree with contract beekeepers providing these with each delivery, We consider this unnecessary and excessive for our own beekeepers and believe it would effectively double my time costs when raising an ED and filing yet more papers and also add considerable work for beekeepers having to record things twice.

Part 5 Labelling of Mono & Multi floral Manuka – changes to our labels are expected once the new Manuka Standard has been reviewed and adjusted once the issues with the current science for the definition of Manuka honey have been resolved.

Two years ago it cost us 10's of 1000's of dollars to change our labels to meet the last MPI Manuka Standard. The same will occur this time.

Part 6

The current cost of the new Manuka5 test is far too high and would increase our testing costs for manuka by ^{s 9(2)}_{(b)(ii)} This is far too high an increase for any business expense to be absorbed.

The costs of the new testing to verify whether a honey is Manuka or not will be an added cost to our business considering that the previous 'grading' tests will continue to be undertaken.

Regarding the Total cost to industry: We noted that the chemical marker and DNA tests are expensive and that the total added costs of testing honeys will be very significant for ourselves and industry as a whole. If it is done drum by drum – 8000 metric tonne = 24,000 drums all requiring verification.

For ^{s 9(2)(a)} we test each extraction batch as well as final product/retail batches so overall additional costs would be slightly less but still equate to a ^{s 9(2)(b)(ii)} increase of our current test costs. This is high and it is questionable that this extra testing will add any value to our business or honey. One thing for certain is the businesses that will win from additional testing requirements are the laboratories.

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)?

Other costs that will arise will be in regard to administration.

The beekeeper at the hive will need to be trained to use new technology – which by and large is not their natural skill base as they are usually men of the land who are focussed on doing the job of beekeeping. Mistakes made will involve additional administration time which directly reflects added cost.

Our business could not sustain more administration staff as we have already taken on 1.5 staff units over the last 18 months.

The laboratory testing of honey with the new manuka definitions will incur much greater cost. A point to consider is that the tests to determine any grading of Manuka honeys will still need to be done.

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:

s 9(2)(a) agree in principle with MPI's intention to ensure additional substances are not present in New Zealand honey.

I disagree because:

However, we disagree with any restrictive directives regarding beekeeping methodology.

There are many reasons why beekeepers would have honey supers on hives when the bees may also need feeding. e.g. one such example would be for managing swarm control by simply giving the bees some space in the hive to help prevent the development of any swarming impulse. Beekeepers could give many other examples equally important to the successful management of their hives.

Beekeepers are aware of the costs to themselves of their honey being rejected and know that 'suspect' honey could at any time be tested for sugar content.

We question where is the proof of the problem? It has been documented previously that problems with C4 sugars in honey has invariably been associated with high active Manuka honey, it is not evident in any other honey variety. There is science, that has been previously shared with MPI, of this correlation that prove the tests are indicating false positive results that are a phenomenon unrelated to any sugar feeding of hives.

We discourage any further compliance requirements such as documenting the circumstances when bees are fed with anything other than honey.

The proposed documentation, as suggested by MPI, will not enhance any purposeful outcomes and in practice would be virtually impossible to regulate. This would most likely prove to be a case where a compliance cost would achieve no added value. (See our comment question 7)

We recommend that clause 3.1 (2) be deleted from the GREX.

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

It is suggested that beekeepers declare in the Harvest Declaration that industry best practice has been adhered to.

Simple definitions of what constitutes industry best beekeeping practices can be outlined in the Guidance box at the end of **PART 3: 3.1**

An example is suggested as per below.

Guidance

To ensure that bee products intended for export are fit for their intended purpose, in relation to composition and representation, beekeepers must adhere to Industry best beekeeping practice which typically requires that:

- a) the beekeepers hive management practice ensures any supplementary feeding of the hives is performed in such a way as to minimise the risk that any honey harvested would contain anything other than naturally gathered nectar and pollen; and
- b) that a recycling policy of removing old brood comb out of the beehive is practiced with the purpose of minimising contamination of any varroacide or bee pathogen residues. This best beekeeping practice policy will develop stronger bee health rewarded with increased production; and
- c) that all varroa treatments are used as specifically recommended by the manufacturer; and
- d) that beekeepers must maintain the integrity of product traceability by employing a practice that ensures each stack of honey loaded onto the truck at harvest is clearly marked and identified to its originating apiary, with the date of harvest, during transit and storage through to process.

Any bee feeding method referred to in clause 3.1(1)(a) should be a recommendation to conform to industry best beekeeping practice that will achieve a harvest outcome of pure unadulterated 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:

§ 9(2)(a) agrees in principle with this proposal

I disagree because:

Disagrees with the approach being suggested as beekeeping has some complex and varied methods of operation within the hive. Best practice outcomes should be encouraged rather than having undefinable prescriptive beekeeping methods written in to the GREX which would be impossible to audit to compliance.

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

We suggest that it is most often the beekeeping practice that needs to improve. Please note the Guidance paragraph as suggested in the previous question.

Recommend PART 3: 3.1 (1) b) "honey is not harvested from honeycomb previously part of a brood nest" is totally deleted from the GREX.

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:

The purpose of traceability is to give confidence in the product. That is why New Zealand's RMP operators, who are professional in their operations already have verifiable record-keeping systems in place and are audited regularly. All operators are responsible for the integrity of traceability and that ultimately depends on the accuracy of all documentation.

Industry should not need to carry the burden of potentially non-compliant product stemming from premises operating under differing criteria that may potentially damage our overseas reputation.

All bee products compliant for export must be processed and remain within an RMP system.

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:

Beekeepers supplying bee products for export must be listed so they are known to both MPI and the RMP operator. It is important that contact details are available to both the operator and MPI so that relevant information may be confirmed.

However, it must be acknowledged that the cost of listing does create an economic barrier for beekeepers with small hive holdings which in turn encourages many to remain non-listed. In this regard, we question the need for subsequent annual renewals to cost the same as the initial registration.

As with such subscription type renewals it is always the non-compliant minority who endlessly soak up the administrative budget. It is suggested therefore to introduce an early payment incentive i.e. if renewal is paid by the due date, the annual renewal cost would be reduced to e.g. half i.e. \$86.25.

Industry would be more supportive of the listing system if **annual listing renewal costs** were not so prohibitive and were structured also to encourage compliance.

I disagree because:

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

The AFB PMP Apiweb system will need to be completely overhauled and upgraded as its functionality is archaic and outdated.

As part of this overhaul we recommend that the apiary registration system is designed to accommodate all the regulatory functions that MPI and Biosecurity may need to provide apiary registration and beekeeper information. This could also include, for example, locations of RMP premises, Honey houses and other storage facilities etc. as an enhanced tool not only for biosecurity purposes but also bee product traceability.

If legislation provided for this enhancement then the need for 'listing' beekeepers may in time become redundant as the Industry database provided all core information.

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:

Disagree with a system of indelibly marking and tracing each honey super with a unique marker as this will not work for us or the majority of beekeepers. We would find maintaining accurate and meaningful tracing records impossible which would lead to an unsatisfactory traceability outcome, and wasted time and money.

An achievable and more practical 'in-field' system of marking stacks of honey as harvested and loaded onto the truck at the apiary, which we already do, would also be more suitable and acceptable to industry.

We suggest that the same traceability outcome, will be successfully achieved with the added inclusion of a bullet point within the Guidance section found in PART 3 3.1 - Honey to be fit for purpose.

This bullet point could be written as a requirement pertaining to best industry practice to maintain bee product integrity as related to traceability.
Perhaps this could be written as;

- That beekeepers must maintain the integrity of product traceability by employing a practice that ensures each stack of honey loaded onto the truck at harvest is clearly marked and identified to its originating apiary along with the date of harvest, during both transit and storage through to process.

(Please also refer to the Guidelines as drafted in question 10.)

This does not preclude larger or any operations who may wish to manage their businesses using high levels of technologies, given they would have the scale and expertise to find value in the information for other apiary management functions.

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

We brand all our supers with our beekeeper registration number as given under the AFB PMP and suggest that this practice is recommended. This would provide at least some visual and practical traceability especially at the operator's premises where several beekeepers honey supers may be stored awaiting processing.

Industry would need a lead in time of possibly two to three years to become fully compliant.

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?

The costs associated with this both in dollar terms, time, stress and frustration would be onerous, excessive, unsustainable and intolerable. The proposal will not be acceptable by any means.

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:

Yes, all bee product harvested for export should be declared on a Harvest Declaration. Of paramount importance are the declarations of the date of harvest and location from where honey was harvested for compliance with the Tulin in Honey Standard, and also, the declaration of compliance to the AFB Pest Management Plan, an issue of growing importance.

I disagree because:

We keep very good harvest and extraction records and summarise this information on an annual harvest declaration which meets traceability requirements with all our support documentation & records. We therefore do not consider where a business produces and packs their own honey and are RMP registered and have records audited twice annually should need to complete a harvest declaration every time a truck arrives at the factory with honey supers. All this information is recorded on our harvest pallet forms and info from these is transferred to our extraction records.

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

When a business processes honey on behalf of another beekeeper, it is essential that they are provided with a Harvest Declaration for each shipment as this introduces the 'raw' bee product into their RMP system.

We also suggest that each pallet or stack of honey has a 'harvest record form' on it that records the beekeeper name, apiary number/site, number boxes, date harvested etc. which becomes a support document to the harvest declaration.

For ease of compliance regarding practicalities at delivery to an RMP premise, the original harvest declaration can be a paper version and signed on delivery to the premise. RMP operators may choose to use an electronic version but must also print and hold on file a paper version of the declaration signed by the beekeeper.

The beekeeper must keep a copy of his/her harvest declaration (duplicate copy). The RMP operator who now takes responsibility for the product within the RMP keeps the original copy.

It is only when the honey supers are processed (extracted), and only when the honey is in the bulk holding tank that the product becomes a 'Batch' (as defined in the GREX).

The Batch is recorded as a definite quantity of bee product that can now be identified as it progresses down the export chain, for example per pail, drum or palecon.

The operator must maintain a verifiable inventory control system to record all the process details by keeping extraction or processing records, stock and batch records to demonstrate traceability throughout their processing.

We call such records our 'Extracting Records' which are updated on a regular basis throughout the extracting season.

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:

The pre-processing costs of complying with the process that MPI are suggesting in the draft GREX will be extremely onerous for the beekeeper. Added focus of traceability on each individual honey super creates huge added compliance costs which will not deliver any value gain, as the process will not achieve any added benefit around traceability or product value. Please refer to our statement in question 7.

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:

I agree with transfer documentation for countries that require official assurance or where clients choose to request this type of documentation.

I disagree because:

Some countries it is not required and our clients do not require it. We also believe in the KISWP principle – ‘keep it simple wherever possible’ and minimise cost of time and unnecessary paper work. We are supposed to be living in a paperless society but we are constantly having to do more paper work to comply with things that do not add value to our product or our customers.

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:

Yes to a degree

I disagree because:

What does multifloral manuka mean? Is there a simpler, more meaningful term that could be adopted. Is this essentially a Manuka Blend?

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

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:

Yes in principle

I disagree because:

We could not relabel our honey as we use permanent adhesive labels.

I have concerns because:

Overseas countries do not accept over-labelled products so this is never an option
Cost of re-designing & printing labels is high, hence there needs to be a reasonable 'stock in trade' period of time for any changes to labels 12 months

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:

We agree in principle.

I disagree because:

We would need to know if the organisation being referred to with rights to the word Manuka is the UMFHA. If so this would very likely have an impact on us as licence holders, hence we could not totally agree until this has been clarified and impact assessed.

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:

Agree because the grading systems are how the value of the product is determined. The new definition should not change what is genuine manuka honey. The intention of the new definition is to strengthen the integrity of the product. So, in effect this should not impact on the current grading systems.

I disagree because:

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

The determination of where the line is drawn between mono & and manuka blends could potentially impact the price that is paid by the market.

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

Yes, and please see our separate submission on:
MINISTRY FOR PRIMARY INDUSTRIES (MPI'S) 2017 MĀNUKA HONEY SCIENCE DEFINITION
& STANDARD

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:

Yes but would suggest you also consider the sampling option noted below (but in a simplified form)

I disagree because:

We sample each honey pack after homogenisation by filling several small jars during the course of packing at several stages throughout the packing of each tank of honey – so first sample is taken about ¼ to 1/3 down the tank next about ½ to 2/3 down the tank, depending on the size of the batch, we may even take a third sample from the last quarter of the tank. For larger batches, we will test at least 2 samples from different parts of the tank, to ensure it has been homogenised well as test results will be similar.

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?

We initially test every second drum of an extraction to verify homogenisation. We then test every final product batch prior to labelling to ensure it meets the current standard for that honey as well as the tutin requirements.

Do you have any suggestions for minimising any impacts?

see above

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:

We consider the MPI lead in/transition time to be entirely impractical and not feasible adding significantly to cost in several areas. While we appreciate the desire that the changes apply to the coming season, this should not be 'at any cost'.

The standard period for amendments to the Australia New Zealand Food Standards Code is 12 months and at times this period is extended. A transition period of 12 months does not prohibit earlier uptake by industry should that prove commercially advantageous or commercially feasible. However, it does provide relief for those operators with extensive stock in hand and for smaller operators.

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:

6 months is not enough time to move stock in trade and will put considerable financial pressure on businesses in a very poor honey season year, to comply due to the high cost of print labels. This was prohibitive last time and would be the same now.

Also, as we use permanent adhesive on our labels. they cannot be removed and I anticipate many other companies do this as well. Nor can they be over-labelled especially for the export market. We need time to use up our older/current labels to minimise the cost of transition.

To expect any product destined for export to be 'over labelled' with new labels would create a major trade barrier as this would create suspicion of 'fake' or 'questionable' product by the receiving country (My understanding China and several other countries would not accept over labelled product).

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).

Please also see our separate submission on the Government mānuka honey science definition called MINISTRY FOR PRIMARY INDUSTRIES (MPI'S) 2017 MĀNUKA HONEY SCIENCE DEFINITION & STANDARD

If complications arise from any uncertainty regarding the soundness of the mānuka definitions then the notification of the GREX should be delayed until such time that both MPI and industry are confident with any strengthening amendments to the definitions that either industry or MPI may have suggested.

It is very important that the definitions are sound enough to satisfy all the original objectives which include such things as:

- Will the definitions protect consumers and producers from fraud? (*I do not believe they will stop counterfeit product such as found in China & India*)
- Will they also provide markets with confidence and assurances?
- Will they protect our reputation as a supplier of safe and authentic food?

In Summary: We agree with the principle of some of the changes in the GREX and appreciate MPI's work on attempting to keep trade doors open for the NZ Beekeeping industry by way of a Manuka Definition and Standard and the proposed General Requirements for Export of Bee Products.

Although we understand the need to rein in the 'cowboys' in the industry and increase assurance to our trading partners, we also are concerned that sometimes if Bureaucracy and compliance expectations are excessive, they can become a major threat to our business and industry. We believe that the proposals as they stand now could become that and that they will add considerably more cost in time, dollars and stress to our business but will not necessarily add value to our products.

The imposition of excessive and unnecessary costs needs to be considered at all times throughout the development of any standards, as well as negative impacts of trade disadvantages and trade barriers New Zealand Beekeepers and industry could face in particular with regard to their competing neighbours (Australia) and other countries where Manuka is now growing (China), who will not need to adhere to the same strict supply regimes. Nor do they have the huge costs to acquire and maintain apiary sites as these countries which adds to our overall production costs.

If compliance costs increase too much and beekeepers and packers are forced to recoup these costs by way of increased prices, this could well price NZ honey off the global market which effectively has the opposite effect to the purpose of the standards & GREX in the first place.

Also, excessive compliance costs could very well disadvantage NZ Manuka Honey producers on the global market because our future competitors will not have the same costs to comply with. Nor would Global competitors have the high costs of apiary site acquisition and holding that we in NZ have which adds to our overall production costs.

s 9(2)(a)

SUBMISSION BY s 9(2)(a)
Trading as s 9(2)(a)



on

MINISTRY FOR PRIMARY INDUSTRIES (MPI'S)

2017 MĀNUKA HONEY

SCIENCE DEFINITION & STANDARD

12 JUNE 2017

Released Under the Official Information Act 1982



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INTRODUCTION

s 9(2)(a) support a sound, scientifically backed definition of New Zealand Mānuka honey, that gives consumers confidence in the integrity and authenticity of the product.

Included in this submission are comments and recommendations as per the following:

- A. Manuka Honey definition
- B. Selection of Attributes: Pollen DNA test & Chemical Markers
- C. Mono & Multi Floral Manuka Honeys
- D. Other Issues
- E. Recommendations
- F. Potential Impact on International Reputation & Consumer Confidence

A. MANUKA HONEY DEFINITION

- We share MPI's stated objectives that "the science definition is essential to maintain New Zealand's premium position in overseas markets and for the continued growth of our export honey industry."
- We welcome the overall approach MPI has taken with the incorporation of chemical markers as part of the ID test.
- We are concerned about the use of Pollen DNA as a marker for Manuka Honey
- Mānuka honey is a very valuable market asset for New Zealand honey producers and it needs to be carefully protected. The definition of what Manuka is, needs to be very clear.
- GREX: Note - We have attached a separate submission document on the specific General Requirements for Export (GREX).

B. SELECTION OF ATTRIBUTES – CHEMICAL MARKERS AND POLLEN DNA

Pollen DNA Test

- s 9(2)(a) believe the test as currently defined is not fit for purpose as reports indicate that a significant proportion of high-grade mānuka honey, is not meeting the current DNA definition despite the fact that these samples show an abundance of the chemical markers characteristic of mānuka honey.
- We understand that MPI has advised that the application of a DNA pollen marker for honey testing is ground breaking, and we understand the test has no precedence as a marker for testing honey internationally. While we accept that new science is part of ongoing improvement, the science needs to be sound, have integrity, be accepted, and be defensible by the appropriate regulatory authorities in international markets.
- Problem: A sample requires only one or more grains of mānuka pollen to qualify as mānuka, regardless of any other pollen source identified and in any quantity. Tests with traditionally low levels of known and acknowledged mānuka characteristics or non mānuka honey passed the DNA pollen test
- We question the value of the DNA test and its necessity for an acceptable definition even in combination with the nominated chemical markers and propose that either additional chemical markers may provide an alternative and more cost-effective solution.

Chemical Markers

- s 9(2)(a) agree that the use of chemical markers provides an accurate, cost effective method and follows sound scientific principles to determine a manuka honey definition and standard.
- We question that all the current nominated markers (even when used in combination with the DNA test, assuming it can be successfully calibrated) will accurately confirm whether a sample is mānuka honey.
- However, we are concerned that the current proposed markers being new to consumers and scientists could take some time to become established and for the scientific publication & challenge process to conclude. There are already two established markers (leptosperin and methylglyoxal) within the industry and we recommend that these be added to the definition, potentially in place of the DNA test, especially if the DNA test method cannot be successfully adjusted. The dynamics of leptosperin are well understood and the compound is stable over the shelf life of the product. It is also already well established as a marker within the industry.
- With regard to the risk of potential adulteration – this applies equally to the new chemical markers proposed in the new definition as PLA can be purchased and added to honey. We understand that the government is putting in screens for the importation of the at-risk chemicals; the same could be done for DHA and MGO, if this is not already in place.
- The addition of methylglyoxal and leptosperin to the definition would have minimal impact to the timeframe of introducing the definitions; the accredited assays are already in place at many laboratories and frequently used as a part of grading systems, so are already measured.
- Due to a proportion of high grade manuka honeys failing to meet the PLA level for monofloral mānuka (400mg/kg), s 9(2)(b)(ii) recommendation is that methylglyoxal and leptosperin markers are added to the definition and that either the PLA or 4-HPA and DNA markers are removed from the definition.

C. MONO & MULTI FLORAL MANUKA

Multi floral mānuka

- s 9(2)(a) are also concerned that the criteria for defining product in this category may be too broad as it may provide opportunities for unethical blending.
- Many countries we export to are governed by the CODEX requirement that any monofloral honey should be 'wholly or mainly' from a defined floral source. The new standard needs to ensure that the CODEX can be applied to any honeys sent from NZ.
- There are examples being cited by industry of products meeting the proposed definition for multifloral mānuka that do not reasonably resemble mānuka honey from a sensory perspective. There is nothing in the definition that refers to any of the organoleptic values such as thixotropy, colour, flavour, aroma.
- We recommend the addition of leptosperin and methylglyoxal to the definition to significantly reduce this risk.
- We recommend the addition of leptosperin $\geq 65\text{mg/kg}$ to the definition for Multi-floral Manuka

Mono floral Manuka

- The CODEX requirement is that any monofloral honey should be 'wholly or mainly' from a defined floral source.
- We recommend the addition of methylglyoxal $\geq 100\text{mg/kg}$ be added to the definition for monofloral mānuka honey.
- There is nothing in the definition that refers to any of the organoleptic values such as thixotropy, colour, flavour and aroma. We acknowledge that these values can be subjective but suggest that at least two of these be adopted as part of the definition in particular: thixotropy and flavour.
- Reasons:
 - (a) We understand reports indicate a significant proportion of high-MGO honey samples have failed the DNA test. The addition of methylglyoxal as a marker would enable the incorporation of a cut off for exempting DNA testing while MPI is addressing this with the PCR technology. We propose that a statement be included such as '*Mānuka honey's passing all other monofloral criteria are exempt from DNA testing if the MG level is 500 mg/kg or greater*' unless the ongoing DNA refinements fully address this issue.
 - (b) The addition of methylglyoxal will support the transition from the 'interim labelling guide' to the new GREX much easier – the compound will be included in both versions.
 - (c) The dynamics of methylglyoxal are well understood and the compound is, in effect, stable over the shelf life of the product in that it does not decrease, and the industry is currently managing this.

D. OTHER ISSUES

Key to the success of the definition is maintaining consumer confidence and we propose other enhancements to the definition that will help maintain consumer confidence as follows:

- Aligning the standard with the framework of the Codex Alimentarius Honey Standard will add to its credibility and embrace a code that has been developed with common sense consumer expectation in mind – plus make it more acceptable to importing countries.
- A requirement for the product to meet the sensory requirements of the floral descriptor. While evidence of compliance to this requirement would not be required in order to obtain an export certificate, the exporter would, however, be required to justify their grading decision if challenged.
- The alignment of the CODEX would extend to Section 6.1.8, Country of Origin which states “where honey has been designated according to floral, plant source, or by the name of a geographical or topological region, then the name of the country where the honey has been produced shall be declared.”

E. SUMMARY & RECOMMENDATIONS

- In light of the concerns raised above, s 9(2)(a) believe the current definition as it stands has the potential to compromise consumer and international partner confidence in the integrity and authenticity of New Zealand Mānuka honey.
- Recommend MPI consider other chemical markers that will accurately differentiate mānuka honey from other honeys
- We recommend that if the DNA method cannot be successfully refined in the necessary timeframe, that it is not included in the definition.
- We urge MPI to continue to work with industry to implement a workable solution that delivers the best outcome for all concerned.
- We recommend establishing an agreed and combined industry and government process to achieve this, one that considers industry and MPI input to date; sets clear and agreed parameters for what we want to achieve, and resets the timetable to achieve a combined industry and government solution.
- We recommend MPI consider incorporating existing industry Manuka Honey markers in the new definition namely Leptosperin and Methylglyoxal.
- We recommend MPI consider incorporating at least 2 organoleptic values in the new definition i.e. thixotropy and flavour

F. POTENTIAL IMPACT ON INTERNATIONAL REPUTATION AND CONSUMER CONFIDENCE

- The current definition as it stands has serious potential implications for the reputation of the New Zealand honey industry and New Zealand Inc. and the trust of our international markets and consumers.
- The industry's concerns rest on the potential of the current science definition and markers inadvertently opening the door to legitimising opportunistic blending of multiple honey types to produce New Zealand Government specification mānuka honey, offshore.
- This also risks New Zealand mānuka honey being devalued and commoditised, undermining its acknowledged, premium position in global markets
- This is not supported in any way by the New Zealand apiculture industry and goes against the objectives industry and Government shares in ensuring overseas regulators have confidence in the assurances we give them about New Zealand mānuka honey and that consumers are confident they are getting product that is true to label.

SUBMISSION

From s 9(2)(a)

Organisation s 9(2)(a)

Date 13/06/2017

Contact s 9(2)(a)

Subject This document from the s 9(2)(a) responds to the call for submissions by the Ministry for Primary Industries (MPI) regarding its proposed definition and export requirements for Mānuka honey.

To General Export Requirements for Bee Products Submission
MPI Food Assurance Team
PO Box 2526
Wellington 6140
mānuka.honey@mpi.govt.nz

Key Message

- 1) MPI has not delivered a robust, science-based definition, of Mānuka Honey because the definition & standard as proposed encourages and facilitates opportunistic blending and/or supplementing blending by adding chemicals and/or protein to meet the proposed definition, which in effect increases the amount of honey that is then able to be defined and sold as Mānuka according to MPI specification
 - 2) The proposed definition & standard nominates chemical markers which are abundant and characteristic in multiple other native mono-floral honey types, so measure components from more than just Mānuka and thus places the NZ industry at risk in terms of integrity and potentially accusations of food fraud
 - 3) We contend that MPI has focusing only on the science to the exclusion of wider industry and economic strategic initiatives has led the definition to be out of touch with the Governments own productivity and growth programmes, including for example the s 9(2)(b)(ii)
- s 9(2)(a) has entered into with MPI as a co-investor. This project is based on financial modelling assuming market returns for

Manuka honey which is effectively graded and sold on a level playing field in market. Failure to take the opportunity to underpin these projects within the definition severely undermines these opportunities and investments by the Government and those it is in partnership with. s 9(2) see it as appropriate that MPI, although not managing grading systems, provide some basic guidelines e.g. that the grading is unique and specific to the monofloral honey, is measurable, and remains true for the stated shelf life of the product.

To the best of our knowledge no Economic Impact Assessment has been undertaken in respect of the proposed definition and standard.

The Request

s 9(2) strongly believes that the definition and standard as proposed should not be introduced until such time as the scientific concerns raised in this letter are addressed to the satisfaction of both MPI, the industry, and relevant overseas bodies.

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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

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) [REDACTED]
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) [REDACTED]
Your contact details (such as phone number, address, and email):	s 9(2)(a) [REDACTED]

General questions: getting to know you

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

- 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 – YES; under an RMP
- 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?

Taranaki

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 - 4

processors - 1

packers - 1

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?

The traceability from each super back to a site will add some cost to the operation, we do this manually today, but the process is not 100%. I would suggest a phase in period on that side of the traceability to allow time to implement an automated solution. So, section 4.1.1 is where some added costs will come in, but ultimately this will be of benefit.

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.

See Above; the rest we are doing already and should not be an issue.

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, I think the main additional costs will be in 4.1.1

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:

Yes, completely.

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:

Yes, completely.

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:

Yes, RMP process is a good one, and we are happy to operate in that environment.

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:

Yes, makes sense.

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:

Yes, we maintain records now, and this should be done.

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?

Added costs in staffing, and automation.

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:

Yes, not sure how this differs from our current harvest declarations.

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:

Yes, I would tend to agree.

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:

Yes, we do this now, not sure how that is changing.

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:

Yes, this is badly needed, but the testing needs to be right. If the DNA test can't be fixed, it needs to be discarded. We can't have active Manuka failing the Monofloral test, that would destroy the industry.

I disagree because:

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

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:

It won't be an issue for us, but we need 9 months minimum for phase in of new labeling.

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:

Possibly, but that is a good thing. WE need to get Manuka off the lables of the immitation product (Kanuka Honey), that is out in the market today.

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 agree, this is very important. The market understands MGO and UMF, and we need to continue to be able to grade our honey that way. This is CRITICAL.

I disagree because:

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

It will separate the real manuka from the other honey. Only Monofloral Manuka will carry real value going forward. The multifloral will suffer in the market, but that is only fair given the % of real Manuka in that honey.

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

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:

Yes, but we need to make sure the DNA test is not giving false negatives, this must be fixed. Sampling methods are ok.

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?

Some added costs, but manageable.

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:

We need 9 months for any labeling changes, and probably 3 months for other changes. ^ weeks is too short.

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:

Need 9 months not 6.

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).



Proposed General Export Requirements for Bee Products

For all exporters of bee products from New Zealand

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Your details

Your name and title:	s 9(2)(a) [Redacted]
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) [Redacted] [Redacted]
Your contact details (such as phone number, address, and email):	s 9(2)(a) [Redacted] [Redacted] [Redacted] [Redacted] [Redacted] [Redacted]

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?

Waikato / Taranaki / King Country

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 - 6
- processors - 2
- packers
- other – please specify – Admin, Marketing, Clerical - 3

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?

General Export Requirements for Bee products:
Part 4.1 Requirements relating to traceability

Supers

As an estimation § 9(2)(a) owns § 9(2)(b)(ii) Honey supers, these would need to be removed from circulation and marked in some fashion. (This would need to take place in the winter when hive management commitments are less so as not to affect the production of the hives) Possibly using a digital technology of some kind, this could equate to around \$5 per box including labour for installing. § 9(2)(b)(ii) with an ongoing cost of around § 9(2)(b)(ii) to repair broken boxes due to natural attrition, disease or non-functioning chips. (Bee hive parts must not be constructed of treated timber, to nail, staple or otherwise attach an RFID chip will speed the rotting process by allowing greater ingress of moisture into the timber)

Scanners

The purchase of scanners § 9(2)(b)(ii) requiring annual replacement and a yearly software subscription to manage the data § 9(2)(a)

Labour

And the biggest expense of all is Labour in the field. Scanning, recording analysing data, checking for accuracy, rescanning boxes that get missed and frequent audits/stocktakes because inventory systems are only as good as the data entered in to them (human error). This, we estimate for our business will require an extra full-time equivalent staff member at § 9(2)(b)(ii). (not just salary but all other expenses involved in employing staff, ACC, Uniform, PPE, Training, Etc).

Extraction Plant

This is the infield requirements satisfied but when one reads the GREX (Part 4.1c) ii) *the dates and volumes of honey harvested from supers (where beekeeper carried out the extraction)* one sees the need to install automation, weighing and scanning equipment in the extracting plant, this would cost around ^{s 9(2)(b)(ii)}

Health and Safety

There are also health and safety concerns with weighing individual honey supers as they can weigh up to 40kgs each and would need to be individually handled onto scales when full, at present in our plant we do not move full honey supers by hand, we take individual frames from the supers and place them on the extraction line. The installation of box lifters would remedy this but at a cost of around ^{s 9(2)(b)(iii)} to set up.

In summary, our estimates would place the direct costs to our business at:

Initial set-up = ^{s 9(2)(b)(iii)} (RFID chips, Scanners, Software licences, Staff member, labour, extraction plant upgrades).

Yearly upkeep = ^{s 9(2)(b)(iii)} (Repair/replace RFID chips, Staff member, Scanners, Software licences).

General Export Requirements for Bee products:

Part 6. Laboratory tests for Manuka Honey

^{s 9(2)(b)(ii)} produces honey from ^{s 9(2)(b)(ii)} hives annually, the average harvest is around ^{s 9(2)(b)(ii)} per hive

^{s 9(2)(b)(ii)}

For insurance purposes, all of the Manuka and Kanuka drums are tested, currently using the UMFHA test at Analytica Laboratories for ^{s 9(2)} \$^{s 9(2)}. This equates to about 3 quarters of our total honey production. Or in this case ^{s 9(2)} drums.

^{s 9(2)(b)(ii)}

The new tests are more expensive.

^{s 9(2)(b)(ii)}

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 them

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)?

To date, the cost to our business has been significant, attending meetings both locally and out of town (Hamilton to Wellington), testing (approximately \$⁹⁽²⁾_{(b)(ii)} and increasing) having to put other development plans on hold while we write this submission. These are all impacting on the profitability of our business.

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:

Feeding of sugar to bees is common practice in the beekeeping industry, however it is not totally necessary, as a company we made a decision to cease sugar feeding about 12 years ago. This means we remove all honey from our hives at the completion of the season and feed some of it back in a controlled manner over the Winter / Spring months. The removal of honey at the end of the season ensures that the colonies have a lower number of bees over the winter months, therefore requiring less food.

This activity ensures that there is absolutely no possibility of C4 sugar contamination in honey harvested from our hives.

Since starting honey feeding, we have maintained an above average yield per hive, below average winter colony loss and below average incidence of AFB cases. It can be done safely and effectively if one has the desire.

Another point to make with regards to feeding of sugar when honey boxes are present is the ability to add chemical components to sugar feeds to boost activity levels of honey.

We are personally aware of an attempt, several years ago, by a German company to register in New Zealand a product named "Manuka Booster" containing chemically synthesised DHA and MG. This product was marketed (in the National Beekeepers journal) to be added to a sugar feed and fed to bees during a honey flow in order to elevate the levels of these chemicals in the subsequently harvested honey. Fortunately, the application for registration was denied but the product would be simple to manufacture in ones own honey shed resulting in highly active honey without all the work.

Both DHA and MG (of note, 3-PLA, 2-MAP, 4-HPLA fall in this category also) are readily available to purchase via cosmetic industry bulk suppliers, this has been pointed out to MPI many times and if carried out correctly it is difficult to detect in honey. This adulteration of honey is a major concern to our trading partners, one needs only look at the Melamine addition to NZ Milk powder in China to see the seriousness of the situation. Death sentences were doled out by the Chinese government to those responsible for that food safety issue.

We have personally witnessed other beekeepers in January this year entering a Manuka production area with a truck equipped with a full sugar tank. Our bees in that same area were working well on a heavy Manuka flowering, so much so we were considering adding another honey super. Nearer the end of the day that same truck left the area with an empty sugar tank.

Our hives had an excess of honey and we couldn't understand the need for the other beekeeping company to be feeding theirs. It was either in the name of increasing the activity of the harvested honey or severe incompetence by the beekeepers involved

I disagree because:

The risks of honey feeding are well documented and can be devastating in practice if carried out carelessly. We intensively inspect every hive prior to removal of any honey in order to be certain that we do not harvest from AFB infected hives. If these inspections are not carried out by competent staff who are given enough time to be fastidious with their inspections the risk of spreading AFB is high.

Due to the density of hive sites in traditional beekeeping areas the spreading of AFB will not stop at one beekeepers own hives, it will very easily transfer from beekeeper to beekeeper.

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

A science programme is needed to identify and prevent adulteration of honey with synthetic chemicals. Testing for chemical markers in honey that are not readily available for purchase will identify adulterated honeys and those that are carrying out this process should be criminally liable.

The current test for C4 sugars is seriously lacking, although we have not fed sugar for 12 years our Manuka honey still shows a low level of C4 sugar (below the 7% level of detection). This is agreed by many scientists as being the problem with the way the test method works. It is not suited for honey that has a unique chemical make-up such as Manuka.

We are also concerned that laboratories are reporting results for C4 below the 7%. This, we understand is below the margin of area of the testing method and should be reported as a N/D due to the inability to accurately determine C4 levels lower than 7%. (the reason that the limit was set at 7% was due to this testing limitation).

We strongly believe that there needs to be further research into the C4 testing method to allow MPI and other regulators to draw a very distinct "line in the sand" to exporters about what is an acceptable level of contamination in Manuka 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:

I disagree because:

This suggestion is ridiculous, could someone from the MPI please define what a brood nest is and what makes a comb that has previously been present within the brood nest unsuitable for honey collection?

Is it when the wax comb is so old it's almost black, or three shades lighter, or three shades lighter than that? Will MPI provide a guidance document / flash cards – colour chart / mobile device app to assist us beekeepers in defining when a comb is too dark to be called a honey frame? (all stupid suggestions by the way) bearing in mind that it is impossible to tell what colour the wax is on the frame when it is full of honey and capped over.

As a matter of preference, a lot of commercial beekeepers do not use queen excluders on their hives, thus giving the queen access to all combs for the purpose of laying eggs. This would effectively define the entire hive as a brood nest and mean that no honey could be harvested from any part of that hive.

For hives with queen excluders fitted, when a queen annoyingly makes her way through into the “Honey Supers” as they often do this would also mean that no honey could be harvested from this hive.

It is quite common practice for those of us who know a thing or two about running successful commercial apiary businesses to lift brood combs into honey boxes in the late spring/early summer. This “lifted” brood hatches and the cells from where the bees emerge are cleaned out by the nurse bees and are then filled with honey. This action is carried out in order to suppress the hives natural desire to cast out reproductive swarms.

Over the spring months, feeding and swarm control are at the forefront of the beekeeper's mind, to get either of these things wrong will cost him a substantial amount of money and time. (If a hive is to swarm it essentially ceases to be productive for the remainder of the season).

I have attached a pictorial diagram (Appendix C Page 2) to help explain the issues that would be caused by a rule such as this.

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

Industry agreed control measures for varroacide residues in beehives consist of two basic techniques:

- Rotate out old comb (either by cleaning or by disposal)
- Ensure manufacturer's instructions are adhered to when using varroa treatments. Such as removal of treatments prior to the honey flow.

It is our submission that in order to enforce these above techniques MPI should include within the GREX a requirement for all product to comply with the residue limits. The requirement to provide a clear residue result to MPI when applying for an export cert would solve these issues.

There are maximum levels set for residues in food and any product in excess of these limits should be denied an export cert. This places the responsibility onto the beekeeper to ensure contamination issues are dealt with.

s 9(2)(b)(ii) treats varroa using Amitraz based strips at either end of the season and has managed to keep Amitraz levels well below the required limit. The maximum allowable Amitraz level is 0.1ppm and s 9(2)(b)(ii) average (over 195 drums this production year) was 0.022ppm. (a summary of drum testing for Amitraz is attached to provide evidence to this statement, Appendix B). We have many more years of data available that show the same low Amitraz levels.

From a beekeepers perspective it makes sense to keep your honey clean if you obtain a premium price for uncontaminated honey. Rendering some honey worthless would quickly get the message through to the few unskilled beekeepers who need to buck up their ideas; penalising them instead of penalising all of us because they have trouble reading and complying with the instructions on a varroa treatment packet.

We submit that as a **recommendation** MPI could advise the industry to rotate out all old comb either by disposal or cleaning over a certain time period, this would ensure that old comb with higher residue levels are being removed from hives and replaced with newer ones. This technique is in line with Worldwide industry "best practice" **but the emphasis at a regulator level needs to be on product testing and compliance.**

We would like to also bring the following to the attention of those reading this submission:

MPI already has residue monitoring abilities/powers, the **Animal Products Notice: Regulated Control Scheme – Monitoring of Specified Substances in Bee Products for Export** Dated Feb, 2017.

If this notice was strengthened in its surveillance powers it would give MPI the ability to provide assurance to our trading partners that there are acceptable levels of residues in our bee products.

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:

This is a simple measure to comply with.

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:

This is a simple measure to comply with.

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:

General Export Requirements for Bee products:

Part 4.1 Requirements relating to traceability

Part 4.1 (1) c) for each apiary site from which honey is harvested keep records of the following information:

- i) The global positioning system (GPS) location of the apiary site (apiary sites are required to be notified under the AFBPMP); and
This data is collected at present on Apiweb.
- ii) The dates and volumes of honey harvested from supers (where the beekeeper carried out the extraction); and
All beekeepers keep records of supers harvested, its impossible to tell the honey volume at the time of harvest but certainly number of supers is simple.
- iii) When, and how many, honey supers are put on or taken off each apiary site; and
Fine, these records are kept for hive management reasons anyway.
- iv) The honey supers (by individual identifier) at each apiary site at any time.
We submit that this information is too expensive and labour intensive to collect and we cannot understand the problem that this data will address.

Attached (Appendix C page 1) is a pictorial flow chart explaining how a typical batch is put together at s 9(2)(b)(ii) and making the following statement :

If the honey fails any of the tests, knowing the boxes (or frames) that were involved in making up the batch would not solve the issue. The box is not important, it is just a way of carrying frames to and from my hive.

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

Post production testing and satisfactory results being held at the time of export or sale locally would ensure that beekeepers are producing good quality honey.

Making it simple, beekeepers, extractors, packers, exporters must test honey, if it fails its worthless. Don't dictate how to run our hives simply because some cannot do the job properly, hit them in the pocket by rendering their honey unusable. They'll soon get the message.

Again we submit that **"The emphasis at a regulator level needs to be on product testing and compliance"**.

It is our submission that Part 4.1

- (1) a) **be amended to read:** *"indelibly mark each honey super with the beekeepers allocated identification code under the AFBPNP"*

- 1 c) iv) The honey supers (by individual identifier) at each apiary site at any time.
be deleted altogether

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?

Please see our costing estimate in section 7 above.

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 statements have long played a part in RMP operators businesses, an enhancement of these documents is fine provided the requirements are not significantly more onerous.

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:

There should be no change in costs with regards to Harvest Declarations.

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:

I agree so long as Internet Sales are treated as a separate case and each individual consignment (parcel which might be only 1 x 250gm jar) is not required to have its own one-off E Cert.

On the converse there needs to be a strict and enforced ruling that Internet Sales must not allow or enable honey from overseas to be sent into NZ, even if that honey is under the brand name of a NZ company. The bee diseases carried in honey produced overseas will kill our bees and our honey industry.

I disagree because:

Internet Sales needs to be treated differently to large pallet or container load consignments. It would be totally uneconomic and destructive to Internet Sales to insist that each individual parcel (which might be only 1 x 250gm jar) have its own unique one-off E Cert.

And I emphasise the point raised in the previous section that there needs to be a strict and enforced and monitored ruling that Internet Sales must not allow or enable honey from overseas to be sent into NZ, even if that honey is under the brand name of a NZ company. The bee diseases carried in honey produced overseas will kill our bees and our honey industry.

If Internet Sales are a concern then what about honey private individuals are sending to their friends and family? What about travellers leaving NZ and taking honey with them - often several 12 jar boxes at a time?

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

General Export Requirements for Bee products:

Part 1.1 Application

(1) To avoid doubt:

- b) export includes selling bee products to overseas buyers using the internet platform

Internet Sales

§ 9(2)(b)(ii) would support the introduction of export certificates specifically for Internet Sales provided the certificate was a generic certificate for an entire batch without departure date, transport details or destination details. In other words, batch-specific, but departure date generic and destination-generic.

An internet based exporter could simply include a copy of this generic export cert with a parcel, thus satisfying the requirements. Along the lines of FDA Prior Notification requirements for sending foods into USA.

To go through the same process for a parcel of 1 or 2 jars of honey as one would for a shipping container load would be ridiculous and would make the product incredibly expensive, not to mention the infrastructure MPI would need to be able to deal in a timely manner with the influx of export certificates generated from Internet Sales.

Internet Sales have been an important part of our business for the past 20 years. It is through a website like our website that people learn about manuka honey and decide to purchase this product, be it our brand or what they see in retail outlets in NZ and overseas.

All profits from Internet Sales remain in NZ and NZ Post benefits too.

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:

There needs to be a monitored and enforced standard identifying what is manuka honey so consumers can know and trust what they are purchasing really is manuka honey and so the consumer is not defrauded and misled.

Consumers purchase manuka honey believing and presuming honey labelled “manuka honey” has the all the attributes that are unique to manuka honey – these attributes are not found in the honey from other floral sources. Most consumers also presume and believe that honey labelled “manuka honey” is from NZ’s manuka bush.

A standard is needed to ensure that whatever is labelled “manuka honey” really is honey from the manuka bush (*Leptospermum scoparium*) growing in NZ.

The consumer is being misled and defrauded when honey that is not from the manuka bush (*Leptospermum scoparium*) growing in NZ is labelled “manuka honey”.

We regularly hear from confused and concerned consumers asking how they can identify genuine manuka honey.

One prospective customer in Australia rang us a few weeks ago. That person had heard about MPI’s efforts to identify manuka honey. That person emphasised the need to get the standard right otherwise NZ could lose the respect in the marketplace and would become regarded as a deceitful country just like some Asian markets – that person was an Asian lady herself and said she was ashamed to say that about Asian practices but that that is what is happening.

A customer's only measure of genuine Manuka Honey is the product label and to be brutally honest, some labels are full of lies.

The industry has shown a commitment/willingness to work with Government to establish a robust scientific definition, but there are outlying marketing companies who would be happy to see a loose definition to continue their less than honest practices, but by-and-large most companies wish to market honestly and ethically.

We support MPI's commitment to define manuka honey and we recognise MPI as the competent authority.

I disagree because:

However, we strongly believe the current definition as per the GREX is fraught with poor science and therefore does not carry out the function it was designed to do – ie. to identify manuka honey as being from the manuka plant *Leptospermum scoparium* from New Zealand.

Simply put, the definition model is too broad and inclusive.

The current definition is so broad that it would enable all the honey we produced in the 2016-2017 season to be classified as Manuka Honey in some way, shape, or form. We would never do this – that would be to mislead and deceive our customers.

The current MPI manuka definition could also rule out some of our most highly valued and purest Manuka Honey due to failures in the DNA marker test, a problem especially as the honey ages.

We subjected 11 samples of honey (manuka, kanuka, bush, and kanuka-bush blend) to testing at both ^{s 9(2)(b)(ii)} and ^{s 9(2)(b)(ii)} under MPI 5 attribute test criteria. (See appendix A page 1, 5 and page 6)

In summary:

- 11 samples (manuka, kanuka, bush, kanuka-bush blend)
- 17 tests – 4 tests at ^{s 9(2)(b)(ii)}; 13 tests at ^{s 9(2)(b)(ii)}
- 2 blending experiments prepared by ^{s 9(2)(b)(ii)}
- All three components of the second blending experiment were tested by both ^{s 9(2)(b)}
- Tested manuka honey produced from the same area in three different years (produced in January 2001, 2014, 2017)
- We are awaiting results for 3 more samples of kanuka, 1 bush and 3 blending experiments prepared and split by ^{s 9(2)(b)(ii)} and all parts tested by both ^{s 9(2)(b)(ii)}. However, the DNA portion of the testing is still on hold awaiting the “tweaks” prescribed by MPI scientists.

Conclusions from this testing:

- Kanuka honey is Monofloral Manuka Honey
- Bush honey is Multifloral Manuka Honey (according to ^{s 9(2)(b)(ii)})
- Kanuka-Bush blend is Monofloral Manuka Honey (1:1 blend ratio)
- Kanuka-Bush blend (1:2 ratio) narrowly failed but a little tweaking could result in a blend that passes MPI manuka criteria. Encouraged opportunistic blending.
- 16 year old Manuka Honey is not manuka (failed Pollen DNA) even though it has all the other manuka features including Leptosperin 873 and NPA 19.8.

- Pollen DNA seems to drop away as manuka honey ages. This is a big concern when currently packed product narrowly passes the Pollen DNA aspect of the MPI test at time of packing – what will this honey look like at the completion of its shelf life?
- Pollen DNA for our manuka, kanuka, bush honeys produced in January 2017 are all very similar (manuka = 25.91, kanuka = 28.65, bush = 27.45, kanuka-bush blend = 27.44 results obtained from Hill laboratories).
- The chemical 3-PLA is as abundant in our kanuka honey as it is in our manuka honey (See table page Appendix A, page 1)

The proposed MPI testing system enables, and encourages, a honey packer to blend honey to “The lowest common denominator” and achieve a result without using any genuine product. This in our books is pure fraud.

This is a massive problem.

A large honey buyer with a decent inventory of honey available to them could essentially ensure all honey would meet and exceed the required MPI standard. It's set too low and is too easy to achieve, also the markers used are simply not fit for purpose when it comes to defining manuka honey as being from the manuka plant *Leptospermum scoparium* growing in NZ are not unique to manuka.

This, in itself is a joke, can you imagine how the regulators in China, EU, etc. will feel, if we tell them we have discovered that all our honey is in fact manuka honey, especially when their scientists are fully aware of science that more accurately defines manuka honey? Not only will it destroy our industry's reputation and that of NZ Inc, but it will further erode the reputation of our regulators, MPI who are responsible for a lot of other primary production industries and the entire Official Assurance system.

By enabling other honeys (such as kanuka honey) to be called “manuka honey” the proposed MPI Manuka standard legitimises deception of the consumer who trusts and presumes honey labelled “manuka honey” has all the qualities that are unique to manuka honey.

By enabling other honeys (such as kanuka honey) to be called “manuka honey” the proposed MPI Manuka Standard breaches Codex Regulations, to which NZ is a signatory, because the floral source of the honey is not wholly or mainly manuka (*Leptospermum scoparium*).

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

Honey from the manuka plant (*Leptospermum scoparium*) has unique qualities not found in the honeys from other floral sources.

In 1997 AMHIG, which later became UMFHA, was set up as a result of a government-industry collaboration to identify and set standards around manuka honey. Honey was being sold under the name “manuka honey” but there was no indication as to whether or not the honey had the qualities unique to honey from the manuka plant *Leptospermum scoparium*. Hence the need for identification and standards.

Even though the collaboration involved government (Tradenz, now known as Trade & Enterprise) and industry there were some sectors of the honey industry who fiercely opposed the formation of this industry group.

Despite this opposition AMHIG (later renamed UMFHA) was formed and the name UMF was established as a standard to identify and measure manuka honey that has the attributes unique to honey from the manuka plant *Leptospermum scoparium*.

Five years ago the UMFHA undertook a major Manuka ID Project. This involved the forensic collection of samples of nectar directly from the flower and of honey in the hive throughout the whole of NZ.

NZ and overseas scientists were involved.

MPI was fully informed and right from the outset and planning stages, were invited to take part, they were fully briefed of the findings and outcomes.

The outcomes of the Manuka ID Project were the identification of several key chemical markers unique to honey from the manuka plant *Leptospermum scoparium*. The strongest and most stable marker being Leptosperin.

Last year (2016) the NZ and international scientists presented the findings at the Know Your Manuka Honey science symposium to which MPI had been invited.

We suggest the following steps be taken to address the issues we have raised in the section above:

- Remove Pollen DNA as a marker. The levels of Manuka Pollen DNA in fresh manuka, kanuka and bush honeys seem to be much the same so it doesn't really differentiate between these honeys. In addition, Pollen DNA seems to degrade as honey ages.
- Raise the minimum levels of the chemical markers 4-HPLA, 2-MBA, 2-MAP as these are currently far too low to identify honey that is wholly or mainly manuka honey.
- Remove the chemical 3-PLA as a marker. This chemical seems to be as abundant in our kanuka honey as it is in our manuka honey. This chemical does not seem to distinguish between kanuka and manuka honey.
- Include one or two other strong manuka markers such as Leptosperin and Lepteridine. Including these markers would greatly improve the accuracy of the definition.
- Ensure the chemical marker rating level cannot be used as a grading system. For example a honey cannot be called Manuka 40.4 because the 2-MBA level is 40.0. Using the marker rating would cause further consumer confusion.
- Set a maximum size of container (eg retail jars up to 1kg) and that the honey must be packed and labelled in NZ. If this is not done the honey will be further blended when packed overseas but will still be called manuka honey. There could be contamination problems with the overseas honey used in the blend and it is the reputation of all manuka and NZ Inc that would be affected. Honey exported in drums and large containers and in unlabelled jars should be called "honey" on the Export Certificate, not "manuka honey".
- Before setting the standard, we recommend that you collaborate with the UMFHA and the other manuka scientists, both NZ and international, to find a true standard that identifies manuka honey as being the honey from the manuka plant *Leptospermum scoparium*. These people have carried out an extensive and forensic 5 year Manuka ID Project.
- It would be very embarrassing to MPI and to NZ's reputation to get this wrong.

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:

The proposed definition does not satisfactorily identify manuka honey as being the honey from the manuka plant (*Leptospermum scoparium*)

I have concerns because:

The proposed definition does not satisfactorily identify manuka honey as being the honey from the manuka plant (*Leptospermum scoparium*)

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:

The word "manuka" should be used only for honey that comes from the flower of the manuka plant (*Leptospermum scoparium*) growing in NZ.

I disagree because:

The word "manuka" should be used only for honey that comes from the flower of the manuka plant (*Leptospermum scoparium*) growing in NZ.

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:

Soundly based grading systems must be retained. The consumer wants to know the quality of honey he is purchasing and expects to have the right to choose.

I disagree because:

If there is no grading system then honey will be blended to the lowest common denominator and under the proposed definition the final product could contain little or no genuine manuka honey.

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

The proposed manuka definition does not identify manuka honey as being honey that comes from the manuka plant (*Leptospermum scoparium*). So it will have no impact on current grading systems even those grading systems that lead the consumer to believe the honey is from the manuka plant when in fact the honey is from other floral sources.

The proposed definition enables other honeys from floral sources other than manuka, in particular from kanuka, to be called 'manuka honey'.

Honey from the manuka plant (*Leptospermum scoparium*) has unique qualities not found in the honeys from other floral sources.

A grading system needs to relate to these uniquely manuka properties.

The consumer wants to know the quality of honey he is purchasing and expects to have the right to choose.

The consumer purchases honey labelled "manuka honey" presuming that the honey he is purchasing has the all the attributes that are unique to manuka honey.

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

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

Consumer perception and confidence is critical.

The label is the only way a consumer can tell what is inside a jar of honey. The consumer trusts what the label says and presumes honey labelled "manuka honey" has the all the attributes that are unique to manuka honey.

By enabling other honeys (such as kanuka honey) to be called "manuka honey" the proposed MPI Manuka standard legitimises deception of the consumer.

By enabling other honeys (such as kanuka honey) to be called "manuka honey" the proposed MPI Manuka Standard breaches Codex Regulations, to which NZ is a signatory, because the floral source of the honey is not wholly or mainly manuka (*Leptospermum scoparium*).

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:

Standardisation of procedures and spelling out requirements with respect to Sampling and testing can only lead to more accurate reporting and less misunderstandings. This is a good thing.

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:

The proposed scientific definition does not accurately define Manuka Honey. This timeline is impossible to adhere to given the amount of work that is required to rectify the issues.

This proposed standard enables Kanuka, bush and all other New Zealand honey to be labelled "Manuka" Honey, the definition needs to be right to be released.

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:

The proposed scientific definition does not accurately define Manuka Honey. This timeline is impossible to adhere to given the amount of work that is required to rectify the issues.

Honey packed under the current MPI labelling guidelines should be able to stay in the market until it is sold or until its best before date, it met all requirements at time of packing.

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).

Test Results for Manuka, Kanuka and Bush Honey

- **Will our manuka honey pass MPI manuka criteria? Yes. It's Monofloral Manuka but the Pollen DNA reduces as the honey ages and is too close for comfort.**
- **Will our kanuka honey pass MPI manuka criteria? Yes. It's Monofloral Manuka**
- **Will our bush honey pass MPI manuka criteria? Yes. It's Multifloral Manuka**
- **Will 16 year old manuka honey pass MPI manuka criteria? No. Failed Pollen DNA**
- **Will a blend of bush honey and kanuka honey pass MPI manuka criteria? Yes. It's Monofloral Manuka**

MPI Manuka Criteria	UMF Criteria
s 9(2)(b)(ii)	s 9(2)(b)(ii)

Sample ID	4-HPLA <i>Min 1</i>	2-MBA <i>Min 1</i>	2-MAP <i>Min 1</i>	3-PLA <i>Min 400</i>	Pollen DNA <i>Max 36</i>	MG <i>min 83</i> NPA <i>min 5</i>	Leptosperin <i>Min 100</i>	MPI Floral Classification	Known Floral Type
Manuka (2013-14) B18959665 s 9(2)(b)(ii)	6.97	20.8	14.8	633	33.00	MG 668 NPA 17.6 <i>Lab 16-16506 02.05.2017</i>	936	Monofloral Manuka	Manuka
Manuka (2013-14) B18959664 s 9(2)(b)(ii)	6.65	20.6	14.4	622	33.93	MG 658 NPA 17.4 <i>Lab 16-16506 02.05.2017</i>	936	Monofloral Manuka	Manuka
Manuka * (2017) 17-M-3 (IB) s 9(2)(b)(ii)	10.6	40.4	13.4	908	27.60	MG 494 NPA 14.6 <i>Lab 17-06738 24.03.2017</i>	1490	Monofloral Manuka	Manuka
Manuka (2001) HWC (16 years old) s 9(2)(b)(ii)	10.3	48.6	5.97	844	ND	MG 814 NPA 19.8 <i>(In Nov 2016) Lab 16-14999 NPA 18.2 (In May2001)</i>	873	Not Manuka Failed Pollen DNA	Manuka
Manuka * (2017) 17-M-10 (SF) s 9(2)(b)(ii)	9.3	6.9	26	1140	25.91	MG 215 NPA 8.9 <i>Lab 17-06738 24.03.2017</i>	653	Monofloral Manuka	Manuka
Kanuka * (2017) 17-K-1 s 9(2)(b)(ii)	5.95	1.56	4.03	983	31.60	MG 13 NPA 1.6 <i>Lab 17-07878 03.04.2017</i>	27	Monofloral Manuka	Kanuka Refer ** Floral Types on page 2
Bush * (2017) 17-B-2 s 9(2)(b)(ii)	1.35	<0.8	1.17	248	29.97	MG 23 NPA 2.3 <i>Lab 17-07878 03.04.2017</i>	44		Bush Refer *** Floral Types on page 2
Bush * (2017) 17-B-3 s 9(2)(b)(ii)	1.26	<0.8	1.80	151	29.36	MG 25 NPA 2.4 <i>Lab 17-07878 03.04.2017</i>	65		Bush Refer *** Floral Types on page 2
Bush * (2017) 17-B-2 s 9(2)(b)(ii)	1.5	2.1	1.7	240	27.45	MG 31 NPA 2.7 <i>Hill Labs Ref 1786373 07.06.2017</i>	50	Multifloral Manuka	Bush Refer *** Floral Types on page 2
Kanuka-Bush Blend s 9(2)(b)(ii)	3.48	1.06	2.86	650	29.60	MG 50 NPA 3.7	96	Monofloral Manuka	Blend
Kanuka-Bush Blend s 9(2)(b)(ii)	3.4	1.6	2.3	560	27.44	MG 51 NPA 3.7	103	Monofloral Manuka	Blend

Stirring prior to Drumming Up:

Prior to drumming up the honey is stirred in the tank overnight (12 hours).

The stirrer has four paddles set at two different levels in the tank – two paddles are near the top and two are towards the bottom of the tank. The moving paddles create a vortex in the centre of the tank which drags the honey further down where it is circulated and is pushed back up the sides of the tank.

Sample Collection:

Split stream samples are taken as the honey is being drummed up. Each split stream sample is representative of 10 x 300kg drums of honey (3,000kg).

Samples:

* Samples marked * are split stream samples taken as the honey was being drummed up. Each split stream sample is representative of 10 x 300kg drums of honey (3,000kg).

Samples prefixed "17" are for honey produced in January 2017

Sample HWC is 16 years old, produced in January 2001. Stored at about 20°C for the past 16 years.

Sample 17-M-3 (produced January 2017), and samples B18959665 and B18959664 (produced January 2013 & 2014) are all produced from the same geographical area as is sample HWC (produced January 2001). All the manuka characteristics are very similar apart from the Pollen DNA which seems to reduce as the honey ages.

Samples B18959665 and B18959664 are packed honey currently available in the marketplace. The honey used for these two batches was produced in January 2013 and January 2014.

Purity of Honey:

These samples are all from hives that have not been fed sugar for the past 10 years.

Floral Types:

Floral types are the predominant plant flowering in an area in which the hives are located. We have had hives in these areas for over 40 years.

Our kanuka area and our manuka area are two geographically separate areas about 60km apart.

The exact location of each apiary is confidential information. All apiaries are registered and the exact location of each area is available to MPI upon request. We would be happy to take you, MPI, to each area to observe the plants growing in each area; and, if you came at flowering time in mid-January, to see the flowers and to see and taste the respective honeys.

**** Kanuka honey:**

The table titled "How do we know which plant/honey is manuka and which is kanuka?" page 3 lists the features which differentiate manuka from kanuka and which enable us to distinguish between these two plants and their honeys.

There is very little kanuka growing in our manuka area and there is very little manuka growing in our kanuka area. The small amount of manuka growing in the kanuka area would account for the low level of Leptosperin and other manuka markers present in the samples.

***** Bush honey:**

The bush honey is a mix of Kamahi, Rewarewa, Blackberry honeys taken off the hives just as the manuka in the area was starting to flower. The bush honey would also have a small amount of manuka honey, hence the low level of Leptosperin in the samples, as the manuka was just starting to flower.

There is also a small amount of manuka of a different sub-species to that of the main manuka growing in the area. This early-flowering manuka sub-species flowers at the same time as the bush further adding to the presence of manuka characteristics in the bush honey. But this presence of manuka in the bush honey is not enough to class the bush honey as manuka honey and comply with Codex criteria of wholly or mainly.

Manuka honey & Pollen:

We have had hives in our manuka area for over 40 years. Over this time we have observed that our hives become very pollen deficient when the bees are working the flowers on the manuka bushes.

Pollen is a protein essential for young healthy brood (young larvae). Beekeepers observe that when a hive is pollen deficient there is a significant reduction in the amount and quality of brood in the hive and a dwindling of the bee population. Pollen deficiency is observed by most beekeepers in the upper North Island while their bees are working manuka.

By contrast our hives do not become pollen deficient while working the flowers on the kanuka trees or while working the native bush and lackberry flowers. The hives remain strong and vibrant.

The pollen DNA test searches for the presence of manuka pollen. If hives become pollen deficient while working manuka then how can a pollen DNA test prove the honey produced from those hives is manuka honey?

The Pollen DNA results for our manuka, kanuka and bush honeys produced in 2017 are all very similar no matter whether it is tested at ^{s 9(2)(b)(ii)} See table below.

So how does Pollen DNA distinguish honey from the manuka plant from the honey from other floral sources?

Pollen DNA Test Results

Floral Type	Hill Laboratories	Analytica Laboratories
Manuka 17-M-10	25.91 Lab Ref 1774506, 17.05.2017	
Manuka 17-M-3		27.60 Lab ref 17-11656, 12.05.2017
Kanuka 17-K-1	28.65 Lab Ref 1786373, 07.06.2017	31.60 Lab Ref 17-09600, 10.05.2017
Bush 17-B-2	27.45 Lab Ref 1786373, 07.06.2017	29.97 Lab Ref 17-09600, 10.05.2017
Kanuka-Bush 1:1 Blend	27.44 Lab Ref 1783967, 31.05.2017	29.60 Lab Ref 17-12935, 29.05.2017

The only honey eliminated by Pollen DNA testing is the 16 year old manuka honey. Yet this honey still has Leptosperin 873 and MG 814 and NPA 19.8 which are in line with the levels of Leptosperin and Methyglyoxal in that produced from the same area in January 2017.

Pollen count testing as a means to identify manuka honey was discredited as being unreliable by the industry, by NZ researchers and by overseas researchers and regulators years ago. However, for decades a few in the NZ honey industry have pushed pollen as being a means to identifying manuka honey, even though beekeeper producers observe severe pollen deficiencies while their bees are working manuka bushes.

How do we know which plant/honey is Manuka and which is Kanuka?

Our kanuka area and our manuka area are two geographically separate areas about 60km apart. There is very little kanuka growing in our manuka area and there is very little manuka growing in our kanuka area. We have had hives in these two areas for over 40 years.

We would be happy to take you, MPI, to each area to observe the plants growing in each area; and, if you came at flowering time in mid-January, to see the flowers and to see and taste the respective honeys.

We have observed the following distinctive features which enable us to differentiate between these two plants and their honeys:

Distinctive characteristics	Manuka (<i>Leptospermum scoparium</i>)	Kanuka (<i>Kunzea ericoides</i>)
Seed pods	Hard woody seed capsules. Remain on plant for a year or more after flowering has finished.	Smaller pods. Fall off plant in late summer soon after flowering has finished.
Foliage	Pointed leaves. Prickly to touch. No aroma.	Softer to touch. When rubbed together will leave an oily feel on hands and a distinctive aroma.
Flowers	Larger. Singular.	Creamy colour. Clusters of flowers. Stamen extend beyond petals.
Size	Shrubby bush. Grows to about 4m	Tree. Grows to 7m or more.
Honey	Golden. Thick thixotropic. No aroma. Slower granulation	Lighter colour with green tinge. Distinctive aroma which can even be smelt outside the hives while the bees are working the kanuka flowers. Honey granulates very quickly in the combs.

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Three Blending Experiments – Tested at ^{s 9(2)(b)(ii)}

- **Would Kanuka Honey + Bush Honey = Monofloral Manuka Honey? Yes. It's Monofloral Manuka**

Blending experiment 1: 1 part kanuka honey + 1 part bush honey. Tested at ^{s 9(2)(b)(ii)}

Blending experiment 1: 1 part kanuka honey + 1 part bush honey

Original samples are the samples of kanuka honey and bush honey listed in the table on page 1 and described on page 2. Original samples split, blended and the blend split by ^{s 9(2)(b)(ii)} who then sent all three parts that make the split blend to ^{s 9(2)(b)(ii)}. Results for the components of the split tested by ^{s 9(2)(b)(ii)}. Test report date: 29th May 2017; Lab Ref 17-12935

Sample ID	4-HPLA Min 1	2-MBA Min 1	2-MAP Min 1	3-PLA Min 400	Pollen DNA Max 36	MPI Floral Classification	UMF Manuka Pass/Fail	Leptosperin Min 100	MG Min 83 NPA Min 5
Kanuka 17-K-1	6.03	1.57	4.53	1,030	31.13	Monofloral Manuka	Fail	144	MG 67 NPA 4.4
Bush 17-B-2	1.82	<0.8	1.65	269	28.96	Not manuka	Fail	43	MG 30 NPA 2.7
Composite experiment 1 part 17-K-1 + 1 part 17-B-2	3.48	1.06	2.86	650	29.60	Monofloral Manuka	Fail	96	MG 50 NPA 3.7

Blending Experiment 2: 1 part kanuka honey + 1 part bush honey. Tested at ^{s 9(2)(b)(ii)}

Blending experiment 2: 1 part kanuka honey + 1 part bush honey

Original samples are the samples of kanuka honey and bush honey listed in the table on page 1 and described on page 2. Original samples split, blended and the blend split by ^{s 9(2)(b)(ii)} who then sent all three parts that make the split blend to Hill Labs. Results for the components of the split tested by ^{s 9(2)(b)(ii)}. Test report dates: 31st May, 7th, 8th, 9th June 2017; Lab Refs 1783553, 1786373, 1783967, 1786428

Sample ID	4-HPLA Min 1	2-MBA Min 1	2-MAP Min 1	3-PLA Min 400	Pollen DNA Max 36	MPI Floral Classification	UMF Manuka Pass/Fail	Leptosperin Min 100	MG Min 83 NPA Min 5
Kanuka 17-K-1	5.1	1.8	4.6	910	28.65	Monofloral Manuka	Fail	176	MG 80 NPA 4.9
Bush 17-B-2	1.5	2.1	1.7	240	27.45	Multifloral Manuka	Fail	50	MG 31 NPA 2.7
Composite experiment 1 part 17-K-1 + 1 part 17-B-2	3.4	1.6	2.3	560	27.44	Monofloral Manuka	Fail	103	MG 51 NPA 3.7

Conclusion:

Under MPI Manuka Criteria the kanuka honey on its own is Monofloral Manuka
 Under MPI Manuka Criteria the bush honey on its own, when tested at Hill Labs, is Multifloral Manuka
 The sample of kanuka honey represents 10 drums of honey (3000kg)
 The sample of bush honey represents 10 drums of honey (3000kg)
 Under MPI Manuka Criteria this 1:1 blend Kanuka Honey with Bush Honey results in 6000kg Monofloral Manuka Honey.

Consumer Perception:

We would not market this blend nor the two components of the blend as Manuka Honey - that would be to defraud the consumer. The consumer buys honey labelled "manuka honey" believing and presuming it has all the qualities that are unique to manuka honey.

Blending Experiment 3: 1 part kanuka honey + 2 parts bush honey

Blending experiment 3: 1 part kanuka honey + 2 parts bush honey.

Tested by ^{s 9(2)(b)(ii)}

Original samples are the samples of kanuka honey and bush honey listed in the table on page 1 and described on page 2.

Original samples were split, blended and the blend split by ^{s 9(2)(b)(ii)}Test report date: 18th May 2017; Lab Ref 17-12068

Sample ID	4-HPLA <i>Min 1</i>	2-MBA <i>Min 1</i>	2-MAP <i>Min 1</i>	3-PLA <i>Min 400</i>	Pollen DNA <i>Max 36</i>	MPI Floral classification
Kanuka 17-K-1	4.94	1.55	4.48	986	30.05	Monofloral Manuka
Bush 17-B-2	1.34	<0.8	1.60	253	27.73	Fail
Composite Experiment 1 part 17-K-1 + 2 parts 17-B-2	2.92	0.89	2.95	553	28.83	Fail

Conclusion:

This particular composite ratio (1:2) failed to be manuka honey because the level of 2-MBA is 0.89 when it needed to be 1.0 to meet the MPI manuka standard.

Opportunistic Blending:

The MPI Manuka Criteria opens the way to opportunistic blending. A little tweaking of the above bush-kanuka blend, perhaps by reducing the bush to 1.5 parts, could result in a Monofloral Manuka Honey.

To sell a bush-kanuka blend as "manuka honey" would be to defraud the consumer.

The consumer buys honey labelled "manuka honey" believing and presuming it has all the qualities that are unique to manuka honey.

Results for the same batch of Kanuka Honey and on the same batch of Bush Honey tested Four times
Tested at both s 9(2)(b)(ii) May & June 2017

Sample	4-HPLA Min 1	2-MBA Min 1	2-MAP Min 1	3-PLA Min 400	Pollen DNA Max 36	MPI Manuka Pass/Fail	UMF Manuka Pass/Fail	Leptosperin Min 100	MG Min 83	NPA Min 5
Kanuka 17-K-1 s 9(2)(b)(ii)	5.95	1.56	4.03	983	31.60	Pass Monofloral Manuka	Fail	27	13	1.6
Kanuka 17-K-1 s 9(2)(b)(ii)	4.94	1.55	4.48	986	30.05	Pass Monofloral Manuka				
Kanuka Split* s 9(2)(b)(ii)	6.03	1.57	4.53	1030	31.13	Pass Monofloral Manuka	Fail	144	67	4.4
Kanuka Split* s 9(2)(b)(ii)	5.1	1.8	4.6	910	28.65	Pass Monofloral Manuka	Fail	176	80	4.9
Bush 17-B-2 s 9(2)(b)(ii)	1.35	<0.8	1.17	248	29.97	Fail	Fail	44	23	2.3
Bush 17-B-2 s 9(2)(b)(ii)	1.34	<0.8	1.60	253	27.73	Fail				
Bush Split* s 9(2)(b)(ii)	1.82	<0.8	1.65	269	28.96	Fail	Fail	43	30	2.7
Bush Split* s 9(2)(b)(ii)	1.5	2.1	1.7	240	27.45	Pass Multifloral Manuka	Fail	50	31	2.8

Note:

Kanuka Split* and Bush Split*. These are samples split by s 9(2)(b)(ii) who retained one sample of each split for testing in their laboratory and who sent the other sample of each split to s 9(2)(b)(ii) for testing.

Conclusion:

Under MPI Manuka Criteria this batch of kanuka honey is Monofloral Manuka Honey.

Under MPI Manuka Criteria this batch of bush honey, when tested at s 9(2)(b)(ii) is Multifloral Manuka Honey.

Consumer Perception:

To label either of these honeys as manuka honey would be to deceive the consumer who trusts and presumes that honey labelled "manuka honey" has all the qualities that research has shown are unique to manuka honey.

To label either of these honeys "manuka honey" would be to breach Codex criteria of wholly or mainly because the manuka content is only a tiny dash (hence the low presence of the manuka markers) and is not the main floral source.

In Summary:

We subjected 11 samples of honey (manuka, kanuka, bush and kanuka-bush blend) to testing at both s 9(2)(b)(ii) and at Analytica Laboratories under the MPI 5 attribute test criteria:

- 11 samples (manuka, kanuka, bush, kanuka-bush blend)
- 17 tests – 4 tests by Hill Laboratories; 13 tests by s 9(2)(b)(ii)
- 2 blending experiments prepared by s 9(2)(b)(ii)
- All three components of the second blending experiment were tested by both s 9(2)(b)(ii)
- We are awaiting results for 3 more samples of kanuka honey, 1 bush honey and 3 blending experiments prepared and split by Analytica Laboratories and all parts tested by both s 9(2)(b)(ii)

Conclusions from this testing:

- Kanuka honey, containing a dash of manuka honey, is Monofloral Manuka Honey
- Bush honey, containing a dash of manuka honey, is Multifloral Manuka Honey (according to Hill Laboratories)
- Kanuka-Bush 1:1 blend is Monofloral Manuka Honey (1:1 blend ratio)
- Kanuka-Bush blend (1:2 ratio) narrowly failed but a little tweaking could result in a blend that passes MPI manuka criteria. This encourages opportunistic blending.
- 16 year old Manuka Honey is not manuka (failed pollen DNA) even though it has all the other manuka features including Leptosperin 873 and NPA 19.8
- Pollen DNA seems to drop away as manuka honey ages. This is a big concern when currently packed product narrowly passes the Pollen DNA aspect of the MPI test at time of packing – what will this honey look like at the completion of its shelf life?
- Pollen DNA for our manuka, kanuka and bush honeys produced in January 2017 are all very similar. Pollen DNA test results from Hill Laboratories manuka = 25.91; kanuka = 28.65; bush = 27.45; kanuka-bush 1:1 blend = 27.44. How does Pollen DNA differentiate between these honeys of different floral sources?
- The chemical 3-PLA is as abundant in our kanuka honey as it is in our manuka honey (see table page 1)

The proposed MPI testing system enables and encourages a honey packer to blend honey to the lowest common denominator and achieve a result without using any genuine product.

By enabling other honeys (such as kanuka honey containing a dash of manuka honey) to be called “manuka honey” the proposed MPI Manuka Standard legitimises deception of the consumer who trusts and presumes that honey labelled “manuka honey” has all the qualities that are unique to manuka honey.

By enabling other honeys (such as kanuka honey containing a dash of manuka honey) to be called “manuka honey” the proposed MPI Manuka Standard breaches Codex Regulations, to which NZ is a signatory, because the floral source of the honey is not wholly or mainly manuka (*Leptospermum scoparium*).

Suggestions to address the issues raised:

1. Remove Pollen DNA as a marker. The levels of Manuka Pollen DNA in fresh manuka, kanuka and bush honeys seem to be much the same so it doesn't really differentiate between these honeys. In addition, Pollen DNA seems to degrade as the honey ages.
2. Raise the minimum levels of the chemical markers 4-HPLA, 2-MBA, 2-MAP as these are currently far too low to identify honey that is wholly or mainly manuka honey
3. Remove the chemical 3-PLA as a marker. This chemical seems to be as abundant in kanuka honey as it is in manuka honey, so why include this chemical as a manuka marker?
4. Include one or two other strong manuka markers such as Leptosperin and Lepteridine. Including these markers would greatly improve the accuracy of the definition.
5. Ensure that a chemical marker rating level cannot be used as a grading system. For example: A honey cannot be called “Manuka 936” because it has a Leptosperin level of 936; or “Manuka 40.4” because the 2-MBA level is 40.4. To have the level of a chemical marker as a grading system would increase consumer confusion.
6. Set a maximum size of container (eg retail jars up to 1kg) and that the honey must be packed and labelled in NZ. If this is not done the honey will be further blended when packed overseas but would still be called manuka honey. Drums, pails, unlabelled jars of honey should not be exported with an Export Certificate endorsing the honey as being manuka honey – the Export Certificate should say it is “honey”.
7. Before setting a standard collaborate with UMFHA and other manuka-specialist scientists, both NZ and international, to find a true standard. These people have carried out an extensive 5 year Manuka ID Project.
8. It would be very embarrassing to MPI and NZ's reputation to get this wrong.

Generated By:

s 9(2)(b)(ii)

Filtered By:

Show: All accounts

Date of Supply equals LAST 12 MONTHS

Sorted By:

Account Name: Account Name - Sorted ascending

Drum Number: Drum Number - Sorted ascending

Account Name:	Amitraz	Excellent	Good	OK
s 9(2)(b)(ii) (195 records)	4.3	0.01	0.05	0.1
Drum Number: - (2 records)	0	0.01	0.05	0.1
Drum Number: 00175816 (1 record)	0.042	0.01	0.05	0.1
Drum Number: 00175817 (1 record)	0.042	0.01	0.05	0.1
Drum Number: 00175818 (1 record)	0.042	0.01	0.05	0.1
Drum Number: 00175819 (1 record)	0.042	0.01	0.05	0.1
Drum Number: 00175820 (1 record)	0.042	0.01	0.05	0.1
Drum Number: 00175821 (1 record)	0.042	0.01	0.05	0.1
Drum Number: 00175822 (1 record)	0.043	0.01	0.05	0.1
Drum Number: 00175823 (1 record)	0.043	0.01	0.05	0.1
Drum Number: 00175824 (1 record)	0.043	0.01	0.05	0.1
Drum Number: 00175825 (1 record)	0.043	0.01	0.05	0.1
Drum Number: 00175826 (1 record)	0.043	0.01	0.05	0.1
Drum Number: 00175827 (1 record)	0.036	0.01	0.05	0.1
Drum Number: 00175828 (1 record)	0.036	0.01	0.05	0.1
Drum Number: 00175829 (1 record)				

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Drum Number: 00175830 (1 record)	0.036	0.01	0.05	0.1
Drum Number: 00175831 (1 record)	0.036	0.01	0.05	0.1
Drum Number: 00175832 (1 record)	0.036	0.01	0.05	0.1
Drum Number: 00175833 (1 record)	0.043	0.01	0.05	0.1
Drum Number: 00175834 (1 record)	0.043	0.01	0.05	0.1
Drum Number: 00175835 (1 record)	0.043	0.01	0.05	0.1
Drum Number: 00175836 (1 record)	0.043	0.01	0.05	0.1
Drum Number: 00175837 (1 record)	0.043	0.01	0.05	0.1
Drum Number: 00175838 (1 record)	0.043	0.01	0.05	0.1
Drum Number: 00175839 (1 record)	0.043	0.01	0.05	0.1
Drum Number: 00175840 (1 record)	0.024	0.01	0.05	0.1
Drum Number: 00175841 (1 record)	0.024	0.01	0.05	0.1
Drum Number: 00175842 (1 record)	0.024	0.01	0.05	0.1
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Drum Number: 00175846 (1 record)	0.024	0.01	0.05	0.1
Drum Number: 00175847 (1 record)	0.024	0.01	0.05	0.1
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Drum Number: 00175849 (1 record)	0.024	0.01	0.05	0.1
Drum Number: 00175850 (1 record)	0.019	0.01	0.05	0.1
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Drum Number: 00175852 (1 record)	0.019	0.01	0.05	0.1

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Drum Number: 00175876 (1 record)				

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	0.05	0.01	0.05	0.1

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Drum Number: 00177206 (1 record)	0.015	0.01	0.05	0.1
Drum Number: 00177207 (1 record)	0.015	0.01	0.05	0.1
Grand Totals (195 records)	4.3	0.01	0.05	0.1

s 9(2)(b)(ii)

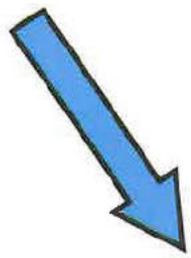
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Brood Comb?????? How do we tell??????

Has this comb
been in a brood
nest?



Or this one?



What about
here?



How about this
one?



How about now?
Getting darker....



I'm not sure,
maybe?



It's hard to tell
isn't it?



This one?

The GREX is too subjective, I suggest a recommendation that all brood comb is rotated / cleaned / discarded within 5—10 years of first being used on the hive.

s 9(2)(b)(ii)

s 9(2)(b)(ii)

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Tracing my boxes? Will it make my honey safer?

s 9(2)(b)(ii)

Today I harvested 144 supers of honey frames (144 x 9 frames = 1296 frames) from 70 hives, I placed them on 4 pallets on my truck. I took 7 frames from some hives, 14 frames from others and so on. There were 180 boxes on the yard to be harvested but only enough full honey frames to make 144 full boxes, I sorted the heavy frames from the light ones, the light ones were either left on the hives or taken off as empties.

I placed these 4 pallets of supers into my extracting room, extracted the honey from the frames contained within the boxes. The frames are fed through the machines and wont necessarily end up back in the same boxes that they came out of, some frames will be sent out for cleaning, some destroyed, others sorted for hive spitting. I may also sort the frames into differing floral types during extraction. The yield was approximately 3000kgs.

s 9(2)(b)(ii)



s 9(2)(b)(ii)

s 9(2)(b)(ii)

s 9(2)(b)(ii)

s 9(2)(b)(ii)

When it came time to extract my honey I selected 4 pallets of honey to extract. (This constitutes a days worth of extracting and would usually make up a batch), I extract the 4 pallets from the first site I worked. The record keeping continues throughout the products movement about my premises, as per current RMP requirements.

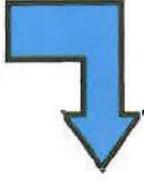
This honey is contained within a single tank in my extracting plant. Using the mechanical stirrers fitted to my tank I mixed the honey for a day, then I filled my drums. I took split stream samples during the filling process which are representative of this entire batch. It is at this stage any testing, be it for contamination or for floral attributes is carried out, I cannot pinpoint which drop of honey came from which honey super. The vital information is not which 1296 frames contained within the 144 boxes have made up this batch of honey; but that the honey is subjected to a suite of testing to ensure it is safe to consume and therefore meets export requirements. If the honey fails any of the tests, knowing the boxes (or frames) that were involved in making up the batch would not solve the issue. The box is not important, it is just a way of carrying frames to and from my hive.

s 9(2)(b)(ii)

s 9(2)(b)(ii)



At the completion of my day I tied my truck down and returned to my Honey House. I stored my pallets of honey away to await extraction. The arrival and storage location of these pallets is recorded and is fully traceable.



s 9(2)(b)(ii)



I labelled the pallets with the date, apiary name and number of boxes (see photo below), in this case I even included a floral descriptor for my reference. During the course of the day I visited several Apiaries but I always kept honey boxes from each apiary separate from the other apiaries. This is my longstanding practice.



NZ Beekeeping Incorporated
Submission to MPI consultation
On Manuka honey definition and Proposed General
Export Requirements for Bee Products

Introduction

1 MPI is consulting on two distinct but related regulatory proposals in respect of honey exports: a “science [sic] definition to authenticate New Zealand mānuka honey and a related proposal to extend existing – and introduce new – general export requirements for all exported bee products.”¹ This submission follows that structure and is in three parts:-

- **Part 1** is an introductory section covering NZ Beekeeping, some general comments about this process, and sets out the wider context within which all these proposals, we consider, must be placed;
- **Part 2** is our response to the consultation on the proposed definition and test for mono- and multi-floral manuka honeys; and
- **Part 3** is our response to the proposed General Export Requirements for Bee Products (GREX) rules, other than the definition and test covered in part 2. And finally:
- **Appendix 1** summarises our responses and recommendations.

¹ <http://www.mpi.govt.nz/news-and-resources/consultations/proposed-general-export-requirements-for-bee-products/>

PART 1: NZ Beekeeping Incorporated, general comments & context

2 NZ Beekeeping Inc and its members have profound concerns about both these proposals. We consider the proposed definition of manuka honey to be scientifically misconceived, and we consider the proposed GREX rules to be, unjustified, disproportionate and unnecessarily onerous in regulatory terms. Our concerns extend to the process by which these proposals are being advanced as well as the substance.

3 As well as these concerns, NZ Beekeeping Inc and its members consider the government's wider policies on bees, bee health and biosecurity, and the honey and bee products industry lacks a proper appreciation of the strategic context, and any coherent sense of direction. This submission tackles the Government's specific proposals; it also sets out what we consider to be missing ingredient in all this work: a proper grasp of what the bee industry is, what it does, and how it should be supported, managed, and protected.

NZ Beekeeping Incorporated

4 NZ Beekeeping is an incorporated society representing well-established beekeeping operations throughout New Zealand. Our membership is primarily drawn from family-operated beekeeping businesses from small to large. Members share a commitment to excellence in practical beekeeping and the aim of protecting New Zealand's bee health and sustaining bees in the New Zealand environment. Our members have an abundance of practical beekeeping experience and deep industry knowledge. Together, we account for tens of thousands of hives; more than two thirds of our members have RMPs or are listed on Beekeeper Listing. We play an active role in the life of the industry at every level. As well as successful practical and commercial experience, our membership also embodies many years of active and responsible involvement in the professional life of the industry: indeed, we include three quarters of the Life Members nominated by the former National Beekeepers' Association. Fully a third of our members have held responsible National positions in the Industry over a number of years.

The context matters

5 MPI's consultation document rightly refers to the New Zealand's bee industry as a significant contributor to the primary sector, pure honey exports of \$314m in the year to June 2016, and pollination services valued at an estimated \$5 billion annually. The consultation describes significant growth in both the number of registered

beekeepers and the number of hives (although the honey crop has been largely stable for the last four years – a feature we suspect reflects over-stocking). The fact that 65 per cent of beekeepers have five or fewer hives (essentially hobbyists with little interest in exporting) means there is a significant role for honey aggregation at the producer end of the supply chain, and a very high relative compliance cost for smaller beekeepers in relation to many of MPI's proposals.

6 The wider truth is that the bee industry plays a role in the New Zealand environment and in the New Zealand economy that extends beyond these mere figures; indeed, we argue that the health of the bee population, and the viability of the beekeeping industry is together a profoundly strategic asset for New Zealand.

7 Our argument is that without viable, thriving and numerous bee populations, our environment, our pastoral and our horticultural supply chains and many other natural and economic assets would be undermined, in many cases fatally. Thus, the bee industry needs to be considered and managed from both the narrow perspective of its own economic health and contribution, but also the wider contribution it makes to a significant portion of New Zealand's national wealth and well-being. There are no viable wild bee populations left in New Zealand (Stewart Island and the Chathams may be exceptions, not relevant to this argument); farmed bees are very significant contributors to the pollination that underpins much of our economy and natural environment.

8 Our further argument is that the only way to provide for a thriving bee population is through a successful, secure and well-managed beekeeping industry. Other downstream elements of the honey supply chain add legitimate economic value, but only beekeepers keep bees, providing the wider strategic asset with the associated positive environmental and biological externalities described above.

What should government aim to achieve?

9 A thriving bee-keeping and honey industry for New Zealand requires a clear overarching regulatory framework. NZ Beekeeping and its members are concerned that Government's approach has been reactive, ad hoc, and concentrated on frankly second order issues (like meeting apparent labelling requirements in export markets in a reactive manner), rather than on laying the foundations for a thriving and sustainable industry for the future.

10 We argue that the government should work with beekeepers and the honey industry to identify, set out and pursue a clear strategy, which must have three essential components:-

- **an unequivocal commitment to the strongest possible biosecurity regime for bees.** A biosecurity incursion is the pre-eminent risk facing the industry. While AFB is not a recent incursion, the experience with AFB and varroa mite is one of costly, time consuming adaptation and constant management intervention. Incursions are cumulative: each new disease adds to the economic, management as well as the apicultural burden facing the industry and its bees. Some incursions would potentially be immediately catastrophic. The first and most important thing Government can do for New Zealand's bees is to keep them safe. Imports of honey and bee products must be banned, and steps put in place to enforce such a ban. Given that bees are vital to so much of the economy this biosecurity effort is a legitimate charge on general taxation, as it is clearly a public good;
- **An acceptable consumer safety and labeling regime.** The current consultation on the science-based definition of manuka honey may fit into this part of a framework, if it were better managed. However (as we argue below) it is flawed in both process and outcome. NZ Beekeeping and its members submit that New Zealand should have a general regime for honey labeling, covering all markets including the home market. Such a regime should provide straightforward and robust rules to cover labeling for:-
 - o country of origin, with a relevant process for traceability and recall, if necessary
 - o honey type (manuka, other floral types, etc, according to a classification and grading regime covering all honeys).
 - o Details of the processor
 - o Nutrition
- **a brand management regime.** This is important; it may well extend beyond MPI (and the issues addressed by this consultation), to embrace a wider partnership across government and industry. If New Zealand's honeys are to achieve their full potential in world markets, then a nationally consistent framework for IP protection and enforcement, and allowing for brand development in different markets should be established and supported. Crucially, this must extend beyond manuka honey to encompass the full range of New Zealand honey varietals, as well as the wider "New Zealand" identity. Such a regime needs to also take account of the fact that honey is a product in a competitive market, where price will be a discriminating factor.

Note on the structure of the proposal

We consider the proposed definition of manuka honey and the draft GREX are such different issues that they should be handled through separate regulatory instruments, and separate processes.

We particularly note that not all honey exported is manuka honey, and the draft GREX affects many more businesses in the wider honey and bee products industry than the manuka definition.

Part 2: The Science-based criteria for manuka honey

11 The MPI consultation asks for comments on the science definition (we think that means test) for manuka honey. However, the questions contained in the consultation paper largely assume that the proposed test regime is a given. We do not accept that. New Zealand Beekeeping and its members argue that this proposed test is flawed in scope, in practice, and in process.

12 Further, we argue that the process flaws are such that we consider the consultation process itself to be invalid, and we argue and will continue to press for it to be re-run on a different basis. These concerns are set out in more detail below. We have set out these concerns in detail although the consultation document only asks one substantive question on this important issue, whether we have “any comments on the summary science report?” [Q24 of the Discussion Paper 2017/11, April 2017, at p 24].

Process

13 MPI is consulting on a proposed science based [sic] means of identifying manuka honey from New Zealand, either as a monofloral product or a multifloral product (as defined). We are told this test was developed through a laboratory and statistical process, *de novo*, without a subsequent field-testing and validation process. Although not a direct response to the MPI consultation we note that the industry really needs a rapid and simple process where honey can be tested against whatever manuka definition emerges, on site at the point of extraction. We are aware that work on such technology is under way, and we urge MPI to keep options open to allow for what may (we hope) be rapid developments. Such technology would, we expect, also obviate the expense of training large numbers of field staff in sampling techniques for laboratory assay.

Recent developments

14 Meanwhile, of course, the initial test proposal has been subject to challenge, leading to an extension of the consultation period, a suspension of testing, and (it seems) at least the prospect of some modification of the test protocol. MPI should draw the important lesson from this process: that analyses like this must be tested in ‘real’ conditions, must command industry and market confidence, and of course (like all science) be regarded as provisional, open to challenge and to improvement. NZ Beekeeping will continue to argue for these principles, and for a clear commitment to technical equivalence: that MPI will accept that other tests and other definitions

may emerge which are as good or better than whatever is decided, and should be accepted as such.

15 Our first comment on the definition is that we should not have started just commenting on the scientific summary. The department eventually released the underlying laboratory data, after an unnecessary delay and an incomprehensible set of excuses. This delay has damaged confidence. NZ Beekeeping considered the refusal to release the material in time to inform industry submissions on the very test the material underpins was abusive, and suggested predetermination of the outcome. The recent release, the suspension of testing, and the emergence of apparent moves to modify aspects of the test regime, mean further care and consultation will be needed. Even if there is no predetermination, the Ministry should surely want its regulatory approach to be beyond reproach. If the government's objective is to underpin New Zealand's global reputation, then a testing regime that commands industry confidence is, we argue, essential. At present, MPI fails this test. For confidence reasons alone, we recommend and urge that a fresh consultation be held.

16 Furthermore, this test should be one that can be provided by any competent laboratory. However, it appears that the process is to be confined to approved providers through the Recognised Laboratory Programme [Part 4.6 of the Discussion Paper]. This might be acceptable if the testing regime was uncontroversial, transparent and well tested in practice, and the only issue was one of laboratory competence. However, none of these prior conditions is met, and the result is a de facto market segmentation in the market for laboratory services, which is likely to breach the spirit if not the letter of competition laws. MPI should not be creating or granting de facto monopoly rights in such a controversial area without the public concurrence of the relevant authorities. The small number of laboratories in this field in New Zealand means MPI has in practice exercised a degree of patronage which is inappropriate in these circumstances, damaging the reputations of all concerned.

Choice of statistical model

17 Much of the proposal under consideration is the result of the application of a single statistical model to the data set MPI has developed. In response to questioning at a recent public meeting, MPI agreed that this choice of model affected the result (as one might expect), and confirmed that a different model would have yielded a "slightly different" result in testing terms, and thus affected the resulting test definition. We recommend MPI should undertake and publish a sensitivity analysis to demonstrate just how "slight" these possible differences might have been.

Anomalous results in the field

18 MPI's science-based definition is, it seems, developed in a laboratory setting, from a set of honey samples that may, or may not be representative, or even relevant. The failure to make the underlying data available here has meant beekeepers and their scientific advisers were unable to verify, or to challenge the sampling structure, and as a result they have unfortunately come to disbelieve each claim made about this process.

19 However, what beekeepers were able to quickly demonstrate is that there is at least one serious, persistent anomaly: very high-grade manuka honeys (known to be such by virtue of other data) are persistently failing the pollen DNA test within the MPI standard, and so being classified as not manuka. These honeys have passed the other four parts of the test, related to chemical markers, and lower-grade manuka honeys (including some marginal ones (see below on blending) have been successfully identified as either mono- or multi-floral manuka honey. MPI has denied this is possible; yet, there is clearly enough evidence that this phenomenon is so that the only reasonable solution was to delay implementation of this "science-based" test until this anomaly in particular has been investigated and resolved.

20 We welcome the recent extension to the consultation deadline and the recently-announced (7 June 2017) acknowledgement that some modification to the testing regime may be needed (at the very least) to tackle this issue. We continue to argue for a thorough programme of field-testing for any modified measurement protocol, to identify any further anomalies, and to build industry, operator, and laboratory skills and confidence.

21 The DNA pollen test also has a short fall because of the uncertainty of measurement. The acceptance criteria is a Cq value of < 36. The limit of quantification is about $35.8 \pm 5\%$. Therefore, the range of variation 95 % of the time would be from 34.2 cycles to 37.8 cycles. Again, retested samples within this range would have a 50% chance of a pass or fail 95 % of the time. Evidence from over 1500 samples tested to date shows a high proportion of high-grade Manuka honeys is either failing the DNA test or is between 34.2 and 36 cycles. The DNA test is simply being pushed to its limits of quantification.

22 We consider that these issues must be comprehensively addressed, taking full account of existing scientific work already published and in train (without using the competent laboratory argument addressed above to eliminate inconvenient results, or appear to do so). Fundamentally, any further or continuing uncertainty over the accuracy of the test would become known to importers and to consumers and the consequential reputational

damage, especially in foreign markets, is likely to be profound, with legitimate confusion about the status of any New Zealand honey once it becomes clear that the very best manuka honey may well be found among those labeled “not manuka”. As well as confusion, the opportunities for fraud this will create are very large indeed. MPI must get this right and must take the time needed to do so.

Anomalous blending results

23 MPI’s testing model involves measuring four chemical markers, and manuka pollen DNA as a marker. honeys are required to show all five markers at or above minimum levels to qualify as multi-floral manuka, with higher levels to qualify as monofloral. So far, so good.

24 However, nature knows little of MPI, and New Zealand’s hardworking bees collect the nectar and pollen they can. Honey will reflect the flowers available around the hive, almost always a mixture of species. The result is that many honeys will contain a mixture of manuka-derived nectar and pollen, and other flower types. What has become clear is that this fact, combined with the framework MPI has developed, will allow honeys to be blended so as to qualify as manuka honey (including monofloral honey) under this test, when the original unblended honeys may each have failed to qualify or been multi-floral at best. The underlying concept is likely to be simple: the MPI test will require defined levels of chemical markers and pollen DNA, which means a defined quantity of these measured markers per kilogram of honey – a level which can be reached by simply adding inferior honeys until the required level is reached.

25 For example (using real data):

EXAMPLE 1

200kg of a multi-floral Manuka honey can be mixed with 2,000kg of Kanuka honey to give 2,200kg of mono-floral Manuka honey.

Honey Type	2-MAP (mg/kg)	2-MBA (mg/kg)	4-HPLA (mg/kg)	3-PLA (mg/kg)	(Cq)	Weight (kg)
Multi-floral Manuka	9	10	10	50	26.03	200
Kanuka	0.25	0.25	0.25	500	35.06	2,000
Composite	1.0	1.1	1.1	459	34.24	2,200
Requirements	≥1.0	≥1.0	≥1.0	≥400	≤36.0	0
Pass as mono-floral Manuka ?	Yes	Yes	Yes	Yes	Yes	

Where the Composite = $[\text{concentration of marker}_{(\text{multi-floral})} * \text{weight}_{(\text{multi-floral})}] + [\text{concentration of marker}_{(\text{kanuka})} * \text{weight}_{(\text{kanuka})}] / \text{total weight}_{(\text{multi-floral} + \text{kanuka})}$

And a second example, again using real data, from samples provided to the MPI manuka Honey Science Programme and classification based on MPI identification criteria:

EXAMPLE 2

The sample: Willow honeydew/pasture – an area that occasionally collects good active Manuka, but in the sampling season only willow honeydew/pasture honey. Additional evidence was that the honey did not require pricking, samples did not form a thixotropic gel, taste was not recognised as manuka, nor the honey colour. Bees have been kept in the area for many years.

MPI Collected	Original Honey Type	2-MAP (mg/kg)	2-MBA (mg/kg)	4-HPLA (mg/kg)	3-PLA (mg/kg)	(Cq)	Classification based on criteria
Sample 1	Willowdew/Pasture	1.9	7.1	2.4	170	29.83	Multiflora manuka
Sample 2	Manuka / Kanuka	16	9.2	4.9	590	24.10	Monofloral manuka

26 We are confident that MPI did not intend this outcome. But we are disappointed to have heard in consultation meetings that MPI scientists simply deny that this outcome is possible. Plainly it is, and as with the pollen DNA anomaly described above, the model must be tested and refined with real data if it is to be effective and to command confidence in foreign markets. It may be amusing to think that MPI can use regulation to turn the water of non-manuka honey into the wine of manuka honey, but this pleasantry fades quickly in the face of the market and reputational consequences. Once importing countries learn (as they surely will) that the New Zealand government has adopted a test that allows manuka honey to be “created” from inferior inputs, the damage will be serious and hard to remedy. Official denial will not work: importers and consumers’ confidence will be shaken, and our markets will not easily recover.

Other tests and the case for equivalence

27 Our final substantive point is that this research is not the first to be done to look at a reliable definition of manuka honey. This earlier work, published subject to proper, independent peer review, is dismissed in five bullet points in the discussion paper, each point asserting an unproven flaw in the industry’s science.

28 This is quite unacceptable. Firstly, MPI's paper describes the industry's research as 'definitions for manuka honey' [4.5 on page 20 of the discussion paper]. Of course (as the same section notes in the very next paragraph) the relevant definition is in *Codex*. What is at issue here is the testing of honey against that definition – the problem is one of measurement *not* definition.

29 Notably, the Unique Manuka Factor Honey Association (UMFHA) has, over the last 5 years, funded research to identify chemical markers of mono-floral Manuka honey. That research, and the published research of other New Zealand and international scientists has conclusively shown that many chemicals can be used to reliably characterise mono-floral Manuka honey. The same research has also looked at the effect of aging on the chemical properties of manuka honeys, which appear to be significant. MPI's testing was limited to 67 days, we understand, an omission which may mean some significant age –related changes have just been overlooked.

30 Two of these chemicals, Leptosperin and Lepteridine have been shown, in peer reviewed scientific journals, to classify Manuka honey from other floral-type honeys. Their uniqueness, stability and difficulty to synthesise in economic quantities as potential adulterants mean they are good candidates to act as markers to classify mono-floral and multi-floral Manuka honey.

31 For reasons not supported by any published evidence, MPI has discounted their use. The research suggests that Leptosperin and Lepteridine have a significant advantage over three of the four MPI chemical markers in that they are present in Manuka honeys at concentration ten to more than a thousand-fold higher than MPI's three chemicals markers. This higher concentration makes them easier and more accurately able to be measured.

32 Setting an acceptance level as low as 1.0 mg/kg for any chemical means that it is more affordable (and so economically worthwhile) to adulterate honey. For example, to adulterate a 300kg drum of honey with 1.0 mg/kg, will only require 0.3 g of the chemical. Whereas, for a chemical such as leptosperin (which is expensive to produce), at 100 mg/kg would require 30g per drum. If export market confidence is a core objective of this exercise, we argue that MPI should use markers that are hard to use for adulteration or passing off. This is not the case here.

33 All science is provisional. Just as we consider MPI's science should be subject to continuing, searching scrutiny and independent peer review through academic journals as well as industry consultation, we entirely accept that industry-funded science should be likewise tested. But this process should – if it is to be good science

– be done in the open. As a first step, MPI should publish its critique of other tests in detail, and not just rely on assertions.

34 And – perhaps most importantly – MPI should accept that, over time, further research will identify other tests for specific honeys and the GREX rules should allow for test with equivalent effect to be identified, accepted and applied.

35 The Ministry should also consider – and make clear – how it would react if a major export market imposed an alternative test on New Zealand honey labeling. The Ministry should also consider how it would react if Australian authorities – including State and Territory authorities - chose to impose tests for Australian-produced manuka honey which led to substantially different results (and required New Zealand to accept those results). It seems to us that an open mind, and a commitment to keeping the testing regime under constant review in partnership with the industry is essential. We see no sign of such an approach.

Grading

36 The draft GREX does not tackle grading (an issue most relevant to manuka honey, and so we have included our comments in this Part of our response). This is an important omission, as the claims implied or made explicit in grading systems are a central feature of manuka honey marketing. This includes therapeutic claims that are often controversial. A government-supported framework, embracing all New Zealand honeys, would provide the industry with a strong framework to tackle fraud, passing off, and adulteration in major markets. It would be a big job, but one which (like proper labeling) would underpin the industry's ability to grow from a secure foundation. We recommend that government should look to support a single industry-wide grading system which can be used to inform consumers, market products, and build confidence.

Part 3: Response to other aspects of the draft GREX

37 The rest of this submission looks at the other proposed rule making in the draft GREX. As will be seen, we have significant concerns. However, before turning to those concerns in detail, NZ Beekeeping and its members have a crucial threshold concern: the case for new rules on all exports, as set out, seems so weak as to undermine the validity of the whole process.

The case for new rules affecting all honey exports

38 The MPI Consultation Paper 2017/11 (April 2017) at page 8 (Section 4.1) explains that

“MPI has formulated a package of export requirements which are proposed to be included in the GREX to ensure that MPI’s objectives are met, and concerns raised by trading partners are addressed. These are:

- (a) general requirements outlining the responsibilities of players within the honey export chain;*
- (b) requirements relating to production, processing and preparation;*
- (c) requirements relating to traceability;*
- (d) labeling of monofloral and multifloral mānuka honey;*
- (e) laboratory tests for mānuka honey;*
- (f) record-keeping requirements; and*
- (g) transitional provisions.*

MPI considers that the specific rules regarding the export of bee products should be set out in one place wherever possible to make it easier for those supplying bee products for export to access the requirements.

For that reason, the draft GREX:

- **incorporates some existing domestic requirements:** *exporters of bee products must already meet these requirements in order for their product to be eligible for export;*

- **extends some requirements** that currently only apply to exporters to countries requiring official assurances, and applies them to exporters to all countries; and
- **proposes some new requirements:** MPI proposes to introduce these new requirements to address the concerns identified by trading partners and ensure the industry is brought onto a more sustainable footing to enable future growth. [End of quote].

39 This statement says there are two reasons: meeting the requirements of importing countries, and meeting “MPI’s objectives”. The latter seem to be only the consolidation of rules in one place – commendably tidy-minded but scarcely a justification for extending market specific rules to cover all exports. If this is the only basis for the proposed regulation, it is a remarkably poor one, leaving the burden of justification to that related to importing country requirements.

Importing country requirements

40 The requirements of importing countries seem to be a matter of assertion: MPI have declined to release details of importing countries concerns and thus their changed requirements (even when these are published by the country concerned). Certainly the (wholly transparent) rules of the EU do not require either the traceability or the other production controls suggested here. No other evidence has been provided that importing countries in general require or are likely to require this sort of regulation. It seems to us that it is incumbent on MPI to spell out the case for such an expensive, and intrusive extension of production oversight in materially stronger terms than has occurred so far.

41 There are of course already some countries where Overseas Market Access Requirements (OMARs) have been established reflecting conditions that are imposed by agreement between the governments of both the importing country and the exporting country. This covers whatever issues the parties wish to pursue. None of this requires a GREX of the sort proposed, and there is no evidence that the OMAR system has failed.

42 Overall, the proposed GREX rules appear unnecessary to maintain or to develop trade with overseas countries. Overseas markets will each have their requirements and generally set their requirements for imported products independent of foreign government involvement, as we would here. In general, we cannot see how an exercise that started as an effort to define ‘manuka’ honey should, on such flimsy arguments, have become a case for the regulation of all bee product exports.

43 NZ Beekeeping are also concerned that, when asked at one public meeting about the details, and nature of importing country requirements, MPI officials appear to imply that only one importing country was at issue, leaving extremely unhelpful speculation to unfold: rumour –based policy is very bad policy, and we argue that this particular issue should be clarified at the earliest opportunity. Separately, in response to an OIA request (OIA17-276), the department then clarified by way of workshop presentation notes;

“Overseas regulators, including the United Kingdom and China have been clear they have significant concerns about mānuka honey in market. They are expecting these to be addressed by the New Zealand Government. They appreciate this has required significant research, and they have been willing to wait for this to be completed.”

This is an unexpected comment, as the UK is not – until BREXIT – able to set its own import controls of the sort that would be addressed by the draft GREX; these are a matter for the EU. Furthermore, the Ministry has been unable to provide a consistent explanation of these concerns – the exact nature of the concerns (and any remedies requested) remains unhelpfully opaque. The Ministry said (OIA 17-276):

“Over a number of years key trading partners have raised concerns about the authenticity of New Zealand mānuka honey, and about gaps in traceability across the bee product supply chain. Concerns have also been raised by consumers and by media in international markets”

Clearly if the issue is with only one or two importing countries, then a refinement of the OMAR system in relation to that market or markets would be the most appropriate response. We consider the Government should follow the OMAR route, rather than the global GREX route being pursued.

Our Conclusion on the case for new General Export Requirements for Bee Products

44 NZ Beekeeping and its members submit that the case for new GREX rules for bee products has not been adequately established. MPI should either withdraw the proposal, or re-consult on the basis of a case for regulation that reflects the comprehensive, expensive and disruptive nature of the proposed rules, as we explain below.

Honey to be fit for purpose: banning honey from previous brood combs

45 NZ Beekeeping can only share the general objective that honey should be fit for purpose, and free of additives or harmful residue levels. However, the accompanying specific proposal that honey only be harvested from “supers that do not contain honeycomb that was previously part of a brood nest” is unworkable and fundamentally uneconomic.

46 The argument seems to be that brood combs may have traces of Apivar, leading to residues of Amitraz in honey. No evidence is provided that this is a phenomenon which has had any effect on market access for New Zealand honey – and it must be remembered that these are export, not biosecurity rules.

47 In reality bees shift honey around in the hive and in practice beekeepers often shift brood frames around throughout the season, as it is a very strong control for swarming and so a very normal practice. The result is that most comb would have had brood raised in them at some point. These facts do not mean that honey from honey supers will be contaminated.

48 If beekeepers had had to destroy these brood combs the cost in the first year would probably be millions of dollars. Bees would have to put a lot of effort into building beeswax to build up new combs that would significantly lower the honey production. It takes approximately 8kg of honey to produce 1kg beeswax and each box would have approximately 1kg of wax in it. So we estimate New Zealand’s honey production would fall 25 per cent in the first year. This is a disproportionate cost by any measure, especially when we have no evidence that the prospect of honey entering the supply chain with varroacide residue is anything other than a theoretical risk. We would like to know how many retail packs have contaminants from varroa treatment above the legal limit been found? Without this evidence there can be no justification at all for putting controls over brood combs, and this requirement must be withdrawn.

49 We submit that end-point testing under the existing Regulated Control Scheme is the most appropriate means of ensuring that varroacide residue in honey is at or below acceptable levels. Fundamentally, the varroa control regime exists for animal (bee) health reasons, not human health reasons. The responsibility of beekeepers under the ACVM regulations (including approval and enforcement) relates to proper use of varroacides as veterinary medicines, not to food safety.

50 We also consider that it is questionable whether MPI has the authority to impose this requirement, and a number of other requirements in this draft Notice. The Notice requires exporters to operate under a risk management measure or to sell to processors operating under a RMP. This seems at variance with the provisions of Animal Products Act 1999 Section 13 (3) (a) & (b) together with Section 15 that exempts primary producers from RMP requirements, except where human health issues are engaged. It would be helpful if MPI clarified the powers they were seeking to use in this draft Notice.

Feeding hives with sugar syrup

51 The proposed prohibition on feeding hives during the harvest season is also problematic. It is normal practice for bees to be fed sugar syrup as a feed during times when nectar is not readily available. It is necessary to feed bees prior to a honey flow and very hard to judge when conditions are such that bees can exist solely on fresh nectar rather than stored honey or sugar syrup. There may be times when beekeepers misjudge the start of the flow. However, NZ Beekeeping does not support the feeding of sugar syrup whilst the flow is sufficient to maintain the colony. We do have to feed beehives in kiwifruit orchards when there is a honey flow on, to increase pollination. If beekeepers are not allowed to sugar feed in kiwifruit orchards, the pollination effect will be dramatically decreased. Feeding to ensure hive survival is of course accepted practice, as the consultation acknowledges.

Honey to be fit for purpose: Free of AFB

52 The draft GREX requires that at the time of harvest hives are free from clinical signs of AFB. (Part 3: 3.1 (1) c). This maybe good practice from the point of view of disease prevention and control. But the issue here is export market access. We have sought through the OIA any information that establishes that honey (bee products) from AFB infected hives pose a risk to human health, and MPI has helpfully confirmed in response that AFB is not a threat to human health. We therefore proceed on the basis that AFB is a threat to bees, not to humans.

53 This leads to a fundamental point: the Animal Products Act makes clear that human health concerns are the only basis upon which RMP requirements may be imposed on primary producers (Section 13 (3) (a) and (b), and Section 15). The draft GREX extends the requirement to operate under a risk-based measure or through an operator with a RMP to all exports. We consider lies at odds with the structure and intent of the legislation, which is to manage animal and human health issues separately, subject to an override for actual human health issues – issues which do not appear to exist here.

54 The draft GREX Part 4: 4.2 (2) j) provides a requirement for a 'declaration that hives were free from clinical signs of AFB as per the latest inspection carried out by an authorised person pursuant to the AFB PMP'. The reference to "authorised persons" is defined within the AFB PMP, and we are concerned that there is a limited number of authorised persons, and concerns about their ability to deliver the large number of inspections required hive-by-hive, on time and to the right standard on any realistic set of assumptions about their ability to deliver in coordination with beekeepers working through the peak of the honey production. The cost is potentially significant, and disproportionate. Over one thousand authorised persons would be required each day during the peak of the honey removal season (impossible to provide). In most cases they would manage 2-3 sites per day, with wage, travel and accommodation costs. This requirement should be withdrawn.

55 Beekeepers should indeed comply with AFB PMP to control endemic disease, but not for export certification. Because drug feeding is illegal there are no drug residues that are associated with products we have produced. This means we see no case for the proposed rule on clinical signs of AFB. Fundamentally, tackling AFB is a biosecurity issue, not an export market access issue. We submit the two objectives should be kept distinct (as the legislation suggests) unless importing countries actually seek the sort of assurances proposed, in which case the OMAR route would be the most appropriate.

The AFB PMP is not a market access tool

56 The AFB PMP is an industry-managed plan to eradicate AFB from NZ beehives. Beekeepers and the Management Agency for the AFB PMP (Apiculture NZ Inc.) both have responsibilities under the respective Biosecurity Act 1993 and the Biosecurity Orders in Council. There is no provision for any of the information collected for use as part of the PMP to be used for official assurance in export markets, or for any other purpose than the control and elimination of AFB.

57 This is an important point: The PMP means we have a registration system of beekeepers, and a registered location of beehives (if they have been located more than 30 days). It is of concern that MPI embarked on a process to propose changes to export rules for bee products in a way that has highlighted the lack of any formal arrangements for further use or re-use of the information that is provided by beekeepers for the purpose of disease control. The Privacy Commissioner's Principles 10 and 11 would appear to be applicable, and to mean that this information cannot simply be re-purposed after collection by AFB PMP, and this consultation does not itself justify such re-purposing of the information. It is important to note that market access is not a relevant reason in the Privacy Commissioner's Code to use information other than for the purpose for which it was obtained, without consent.

Traceability and the listing of beekeepers

58 The draft GREX contains proposals to significantly extend the current market specific listing requirements to encompass all exporting beekeepers. This information will be made public (raising further privacy concerns) and subject to an ability for the Director-General to de-list beekeepers in certain circumstances.

59 This requirement is said (p15 of the Discussion Paper 2017/11 April 2017) to be necessary to: -

- Improve communication with beekeepers (which seems ironic, given beekeepers' frustration with MPI's inability to listen),
- Meet unspecified importing country requirements;
- Facilitate product recall
- Detect and prevent crime committed by beekeepers (a role we had thought to be the responsibility of the Police)

60 These reasons are frankly incoherent and incredible. The explanatory statements suggest that this will allow bee products to be traced "back to the hive". This simply cannot be true: bee products are homogenised, blended, packed and shipped in bulk, and processed in such a way that the fruit of any hive (or any producer other than the very largest) cannot be distinguished after processing and packing. Honey batches are the existing and natural unit of traceability and recall – a feature which cannot and should not be changed.

61 The assertion that the proposed rules on traceability "facilitates an effective recall" is especially misleading, given that consumer confidence is always at issue in food safety. An assertion which cannot ever be true can only ever be damaging.

62 The suggestion that this meets foreign government requirements leads to the question whether information about individual beekeepers will be provided to importing governments, creating privacy issues of real consequence for beekeepers looking to travel, and to market their products. Similarly the publication of a list of registered beekeepers is likely to give rise to privacy issues that will, if anything, facilitate crime rather than prevent it.

63 Finally, the proposal to allow the Director-General to de-list beekeepers in some circumstances is oppressive. Any such sanction should be the prerogative of the courts, subject to a notification and appeal process, and to parliamentary approval. De-listing would deprive a beekeeper of his or her livelihood in some cases, a step

which common-law jurisdictions have always regarded as especially oppressive. We urge that this provision be withdrawn, and any such proposal be made the subject of primary legislation.

64 Of concern too has been the statement from MPI in response to requests under the OIA about the basis on which this proposal would operate. MPI told us that “Criminal records are a matter of public record. There is no need for MPI to have access to Ministry of Justice records. If MPI requires further information in relation to a conviction, this information is obtained through the Courts” [OIA 280 – 6 June 2017]. This is plainly not true: criminal records are not a matter of public record in New Zealand, and we are concerned that a serious attempt to get to the bottom of this proposal was met with response which was either flippant, ignorant or actually misleading. It was certainly just untrue. At the kindest interpretation, this suggests a lack of thought – and research of the most basic kind – on an important part of this proposal. It should be withdrawn.

65 Overall, this is just bad policy. If the objective is to be able to trace honey in the supply chain, then it is honey not honey producers that should be monitored. It is fundamentally sloppy thinking to imagine that honey, bees and beekeepers can be linked through a processing system that will of necessity both aggregate and blend products with the obvious – and desirable – objective of producing homogeneity in the final product.

66 We urge this proposal be withdrawn.

Traceability of supers - back to the hive

67 The draft GREX provides for a proposal that beekeepers mark, and keep detailed record of the location of each super.

68 This will be expensive, time consuming, and an extraordinarily pointless effort. This would only make sense if the record created were then able to follow the honey into supply chain (impossible), and if supers rather than frames were the basic unit of production. Supers are a container for frames. As noted above in reference to brood comb, comb will be moved around the hive for legitimate (indeed essential) purposes. The content of each super will then change. Furthermore, bees will themselves move honey around the hive, so the super is at no level and in no way a relevant unit of accountability. In normal extracting process several hundred boxes of honey are stirred together to make one batch, and there is no way the resulting product can be traced back to an individual box any more.

69 This proposal should be withdrawn.

Transient Hives

70 As part of this proposal, “MPI proposes the following additional record keeping requirements for beekeepers.” [Discussion Paper 2017/11, April 2017, at Page 17] The second bullet point says

“Beekeepers must have a system for recording every site where a honey super has been on a hive for each season. This is different from the current requirements under the AFB PMP which only requires hives to be registered if they are in a place for 30 days or more.”

71 This will create enormous problems in pollination, and indeed all short term apiaries, including dump sites. For kiwifruit alone, there will be over 100,000 hives placed annually into orchards for pollination. If 10 hives were placed in each location, that would be an additional 10,000 sites that would require their position to be recorded sites which may not be pre-planned due to weather conditions and access issues. Site recording is not currently required as they are there for less than 30 days.

72 These proposals should be withdrawn.

Conclusion – traceability

73 Let there be no mistake: NZ Beekeeping support commercially sensible tracing and recall arrangement. Beekeepers already have a traceability procedure that relates to a batch of honey processed. In most instances processing is on a continuous process and produces homogenised batches of material from a number of different locations. The ‘batch’ once created can be traced both forward and backward through the production process. There is no evidence that this system is inadequate, apart from public statements from MPI. These proposals are neither commercially nor practically sensible, nor even feasible. MPI should commit to working with the beekeeping and wider honey industry on a tracing and recall process that would work if needed, would be feasible to operate in practice, and would underpin legitimate market access and consumer protection concerns in export markets.

Labeling

74 The labeling proposals in the draft GREX are covered in NZ Beekeeping’s earlier comments on the proposed “science” [sic] – based definition of manuka honey.

75 In addition to those comments, which we reiterate here, we regret that MPI has not looked to develop a labeling framework which will enable all of New Zealand’s rich palette of floral honeys to be

consistently identified and appropriately supported in markets around the world. European countries have developed complex, but consistent ways of labeling wines, for example, which provide a consistent and comparable basis for consumers to compare and contrast diverse flavours and a range of qualities. It should not be beyond us to do the same for our honeys. One aspect of such a framework should be to consider rules for container sizes carrying floral honey labels, and restrictions on the export of unlabeled honey. This is an important issue for further work.

Documentation

76 The proposed GREX would require beekeepers who are also extractors, packers of honey are (and currently not required to complete Harvest Declarations, instead, they may keep equivalent records) to switch to a harvest declaration regime. We think this is wrong: equivalent records are viewed each time an RMP audit is carried out. This should not be changed. Our sense is that most processors are doing equivalent records correctly and we consider these to be more effective than Harvest Declarations. This proposal looks to tidy up administrative arrangements rather than solve a practical problem. It is misguided.

Trademarks – adverse rights and foreign marks

77 The draft GREX says the proposed new rules “may” affect rights, including registered trademarks using the word manuka.

78 However, the GREX fails to deal with adverse rights, and foreign marks. Trademark owners will be able to prevent others using similar marks, and oppose the registration of new marks which are similar to their existing rights. This means the owner of a mark with the word manuka may be prevented by these rules from making use of the mark to sell honey in New Zealand, but he/she will nonetheless be able to use the mark to stop others entering the market with compliant product. There is nothing to stop someone with no connection to New Zealand or to the honey industry from acquiring trademarks purporting to cover New Zealand honey names, and acting to either prevent legitimate marketing, or allowing marketing of the relevant honeys in return for a ‘ransom’ payment. Trademarks convey these adverse rights, which will be unaffected by these proposals.

79 And of course, the real issue is trademarks granted in export markets, which will be wholly unaffected by the proposed new rules and the proposed definition of manuka honey (if adopted). Exporters will want holders of relevant foreign marks to agree to licence those marks on reasonable terms. They will also want foreign IP authorities to take account of New Zealand rules, like the definition of manuka honey – something the Government should commit to supporting in

any case. And finally, government will want to ensure that New Zealand exporters do not face accusations of bad faith or passing off if their honeys, previously labeled as manuka, are deprived of that label as a result of the application of the proposed new definition. Transitional provisions need to focus on export markets, not local production. There is no sign that Government yet recognises this important fact.

80 On labeling overall, we consider the proposals to be both flawed and impractical, and so we continue to argue they should be withdrawn, and revised to take account of the science issues we have raised, as well as the practical and market-facing challenges we have identified and set out in this submission.

Transitional provisions

81 We are concerned that some of the proposed transitional provisions for existing honey stocks are significantly shorter than we consider they need to be, given the multi-year nature of the honey industry. Some larger operators will be carrying over 100 tonnes of honey, some of which may be stored for up to two years, and which would now not meet Harvest Declaration requirements, or any other changed regulations.

82 This stockholding reflects the fact that some plants flower every 2nd or 3rd year and in some years will not yield at all because of adverse weather conditions. Consequently stock must be maintained to supply the market place on a continuing basis.

83 We urge that existing stocks of honey be 'grandfathered' through a revision of the transitional provisions.

June 13, 2017

APPENDIX 1: Summary of conclusions and recommendations

Paragraphs 9 & 10:

A thriving bee-keeping and honey industry for New Zealand requires a clear overarching regulatory framework. We argue that the government should work with beekeepers and the honey industry to identify, set out and pursue a clear strategy.

Box on page 5:

We consider the proposed definition of manuka honey and the draft GREX are such different issues that they should be handled through separate regulatory instruments, and separate processes. We particularly note that not all honey exported is manuka honey, and the draft GREX affects many more businesses in the wider honey and bee products industry than the manuka definition.

Paragraph 13

The beekeeping and honey industry needs a rapid and simple process where honey can be tested against whatever manuka definition emerges, on site at the point of extraction. We urge MPI to keep options open for new technologies to be adopted.

Paragraph 14

Proposed scientific analyses to test manuka and other honeys must be tested in 'real' conditions before adoption, must command industry and market confidence, and of course (like all science) be regarded as provisional, open to challenge and to improvement.

Paragraph 17

Much of the proposal under consideration is the result of the application of a single statistical model to the data set MPI has developed. We recommend MPI should undertake and publish a sensitivity analysis to show the effect of alternative statistical models on the resulting test.

Paragraphs 33 & 34

All science is provisional. Just as we consider MPI's science should be subject to continuing, searching independent peer review scrutiny, industry-funded science should be likewise tested. As a first step, MPI should publish its critique of other tests in detail, rather than just asserting that other science is flawed. MPI should accept that, over

time, further research will identify other tests for specific honeys and the GREX rules should allow for tests with equivalent effect to be identified, accepted and applied.

Paragraph 35

The Ministry should also consider – and make clear – how it would react if a major export market imposed an alternative test on New Zealand honey labeling

Paragraph 36

We recommend that government should look to support a single industry-wide grading system that can be used to inform consumers, market products, and build confidence.

Paragraph 44

The case for new GREX rules for bee products has not been adequately established. MPI should either withdraw the proposal, or re-consult on the basis of a case for regulation that reflects the comprehensive, expensive and disruptive nature of the proposed rules.

Paragraph 45

The proposal that honey only be harvested from “supers that do not contain honeycomb that was previously part of a brood nest” is unworkable and fundamentally uneconomic. It should be withdrawn.

Paragraph 50

The draft GREX Notice requires exporters to operate under a risk management measure or to sell to processors operating under a RMP. This seems at variance with the provisions of Animal Products Act 1999. It would be helpful if MPI clarified the powers they were seeking to use in this draft Notice

Paragraph 51

The proposed prohibition on feeding hives during the harvest season is also problematic. It should only prevent the feeding of sugar syrup whilst the flow is sufficient to maintain the colony. Feeding hives when required for pollination should be allowed.

Paragraph 55

We see no case for the proposed rule on clinical signs of AFB. Fundamentally, tackling AFB is a biosecurity issue, not an export market access issue. The two objectives should be kept distinct (as the

legislation suggests) unless importing countries actually seek assurances, in which case OMARs route would appropriate.

Paragraphs 65 & 66

Traceability and listing of beekeepers: If the objective is to be able to trace honey in the supply chain, then it is honey not honey producers that should be monitored. We urge this proposal be withdrawn.

Paragraph 69

Traceability of supers: In a normal extracting process boxes of honey are stirred together to make one batch, and there is no way the resulting product can be traced back to an individual box. This proposal should be withdrawn.

Paragraph 72

Transient hives: This proposal should be withdrawn.

Paragraph 75

MPI should develop a labeling framework that would enable all of New Zealand's floral honeys to be consistently identified and appropriately supported in markets around the world.

Paragraph 76

Harvest declarations and equivalent records: This proposal looks to tidy up administrative arrangements rather than solve a practical problem. It is misguided and these proposed changes should be withdrawn.

Paragraph 80

On labeling overall, we consider the proposals to be both flawed and impractical, and so we continue to argue they should be withdrawn, and revised to take account of the science issues we have raised, as well as the practical and market-facing challenges we have identified and set out in this submission.

Paragraph 83

We urge that existing stocks of honey be 'grandfathered' through a revision of the transitional provisions.

June 13, 2017

From: s 9(2)(a) .com>
Sent: Tuesday, 13 June 2017 4:11 p.m.
To: Manuka Honey
Subject: Manuka Submission - s 9(2)(b)(ii) IS AGAINST THE CURRENT APPROACH TAKEN BY MPI

Follow Up Flag: Follow up
Flag Status: Flagged

Dear MPI Manuka Team;

Thank you for the opportunity to comment on your current regulation proposals.

s 9(2)(b)(ii) is a supplier of bulk and packaged honey to both NZ companies as well as international importers. Our primary focus is Manuka Honey and our most popular and ordered grades are either low grade Manuka (MGO30+) and NPA5+ (MGO83+). We also have demand for NPA10+ (MGO261+) and NPA15+ (MGO514+). We have limited demand for NPA20+ (MGO829+) but do have inquiries from time to time.

Our company depends on the honey business as its main source of income. We basically buy, sell and pack. Our role is to find good quality honey that meets the requirements of the client and the importing countries OMARS at a price that is competitive and allows a margin for all parties.

The problem I see with your proposed testing includes the following:

- 1) They seem to produce inaccurate results
- 2) They are very expensive (I have to retest honey to make sure the honey is as it was described and these costs are either going to eat into my profits or cause me no choice but to increase my price making Manuka from NZ more expensive than it already is!)
- 3) The "Mono" and "Multi" definitions create a lot of confusion among the industry and in my opinion will be a disaster for the consumer
- 4) Adopting these new testing requirements based on the results and feedback I have seen as a full time honey dealer tells me we are in for a frightening ride
- 5) Personally I believe you are weakening the entire industry and handing on a plate opportunities to competing countries by enforcing testing that is neither accurate, concise or logical AND is not required by any other country as an international standard to measure against
- 6) Australia Manuka is setting itself up to take NZ Manuka head on without all the red tape MPI is creating for NZ beekeepers and those involved in Apiculture. Based on this we will potentially be priced out of the market with all these additional costs and confusing definitions (Australia as you well know calls anything from the Leptospermum genus "Manuka"!!)
- 7) The market is confused. I have already seen deals slow down significantly since all these new potential rules came in and I saw my profitability drop. I believe this will continue to worsen if you adopt these new tests as law. From my understanding clients see Multi Manuka as an inferior product whereas Mono as the standard. Problem is these tests bring false positive results for Multi based primarily around your DNA testing
- 8) I am not a UMF member but firmly believe their Leptosperin system is far more accurate and cost effective in determining the real activity value of manuka honey. I have never on any testing I have done found Leptosperin to be a surprising number. It always seem to correlate logically to the other COA numbers and to me represents a consistent test that is reliable
- 9) I have read a disturbing article how blenders and packing houses (particularly large packing houses / blenders with multiple hoppers) can "create" mono Manuka by blending Kanuka or other honey's to

Manuka to manipulate the results. If there is even a small element of true or probability of this being possible then MPI is basically supporting the concept of Food Fraud which goes entirely against the role of what MPI is supposed to be doing for the Apicultural industry

10) Any testing regime MPI enforces should be affordable first and foremost; accurate, reliable, time efficient and LOGICAL (NPA15+ and 20+ should NEVER return Multi Manuka results for example)

I respect a number of personnel in MPI and feel like MPI has provided me an overall good service over the years however I have to strongly voice that your decision in respect to this testing regime could seriously put at jeopardy the viability of many small businesses in the honey business.

My conclusion is you must acknowledge that your science is not robust enough for an industry who offers over a billion dollars to the NZ economy. Apiculture will provide tremendous growth to NZ as a whole if regulated sensibly and in line with our competitors. We would be foolish to enforce over reaching testing that quite clearly puts NZ Apiculture on the back foot with potential competitors while really providing no clear advantages to the consumer. You are attempting to enforce an overly priced testing regime that generally is viewed by the industry as a whole as something that will hurt it not enhance it. No sitting government should implement regulations that set out to damage an industry when there is no outside international pressure to do so. The blenders in the UK and Europe will have no such testing regime to adhere too nor any strict labelling laws that you will impose on NZ suppliers and packers. You are basically forcing bulk sales to increase, fraud to potentially prosper further and added value packing in NZ to diminish. You have refused to engage comprehensively with the UMF association who has almost every big name Manuka brand under their umbrella. All of which value the research and testing methods they have spent the time and money to discover.

We all understand your intentions were to bring a comprehensive testing regime to the table that would be ground breaking. The problem is the only thing it is potentially breaking is the backs of those in the apiculture industry who will see prices fall or expenses surge (or likely both!).

Don't pass regulation that you know in your heart is not right or fair. Forgiving a mistake is much easier that forgiving a mistake, then a lie and then an inquiry into why the former 2 got passed into law the first time!!

We wish to work positively and with full cooperation with MPI. We are obliged to follow the laws governing our country and hope government and the Apiculture industry can overcome its differences in the instance to work towards a solution agreeable by all those involved.

s 9(2)(a)

[Not relevant to request]

From: s 9(2)(a) [redacted].co.nz>
Sent: Tuesday, 13 June 2017 4:14 p.m.
To: Manuka Honey
Cc: s 9(2)(a) [redacted]@hotmail.com
Subject: Submission "Proposed General Export Requirements for Bee Products"
Attachments: Beekeeping sub v0.09 1300 13 June 2017.docx

Follow Up Flag: Follow up
Flag Status: Flagged

MPI Food Assurance Team
PO Box 2526
Wellington 6140

13th June 2017

To Whom it may concern,

RE: Proposed General Export Requirements for Bee Products

We trade under a Limited Company; being s 9(2)(b)(ii) [redacted]

The Company employees 5 permanent staff and operates an RMP being s 9(2)(b)(ii) [redacted] we manage 1700 honey producing hives and 500 nucleus hives for queen rearing.

We do not gather, process, pack or market Manuka Honey. Our concern is part 2 of the GREX referring to RMP & hive management requirement.

We are very concerned with the proposed changes to our operating systems under the proposed GREX, and consider MPI have not provided sufficient evidence to show that the current system is failing or inadequate. Resulting in the need to achieve a better outcome than what we have been able to achieve these past eleven years of the RMP process we are required to work under.

We fully support the Submission as proposed by the NZ Beekeeping Incorporate group, to which we are a members of.

Thank you for your consideration.

s 9(2)(a) [redacted]

[redacted]

[redacted]