From: s 9(2)(a)
Subject: Proposed general access requirements - Traceability solution
Date: 9 May 2017 at 7:28:22 PM NZST
To: Manuka Honey <manuka.honey@mpi.govt.nz>

Hi,
I attended the conference that was recently held in Hamilton and felt it was an appropriate time to shed some light on a GS1 compliant land to jar traceability system we are looking to launch in August. This has been in the works since 2010 when I got frustrated that no one was working on a solution to all the inefficiencies and vulnerabilities the honey industry was facing way back then. We have been working with key players in the industry to develop the best possible system that all stake holders could utilise. Just a few of s 9(2)(b)(ii) features which cover the traceability requirements within the new guidelines include:

- Full Apiweb integration. We will also be putting in a tender for the new Apiweb system as it has already been integrated in to our hive management module.
- GS1 compliant traceability down to frame level. We have been working with s 9(2)(b)(ii) to produce NFC/RFID tagged frames if MPI makes this a requirement. We currently trace down to individual box level
- Proximity alerts. This will identify hives located near sites where AFB has been identified for more efficient disease management. It will also identify hives placed near boundary lines to identify

regularly offenders and give councils the data they need to create bylaws to prevent this type of "theft" from neighbouring properties.

- Individual box identification. This will be done via NFC tags (with corresponding GTIN numbers) attached to ALL boxes to trace brood boxes and honey supers.
- Digital harvest declarations
- Full integration with labs. Test results will be uploaded directly from labs to the inventory management system to prevent data manipulation
- Ecert integration and RMP reporting. This will streamline the verification process
- Jar authentication and anti-counterfeiting. This includes NFC tags and GS1 compliant 2D data matrix codes that can be applied to each jar. These also allow consumers to access batch specific information on the jars provenance which is automatically generated from information held in the system about that product and it's journey through the supply chain.

s 9(2)(b)(ii) [redacted]

By creating a fully connected supply chain, ApiTrak can "ring fence" the industry to prevent (or at least identify) stolen or adulterated product from entering the supply chain, drastically improve product data transfer and safe guard New Zealand honey from counterfeiting while allow even the smallest producers to engage with their customers and tell their story in ways never before possible.

The system has received massive support already and we have been approached by AsureQuality and NZTE to look at adapting the system for use in the Kiwifruit and Wine industries. Our intention is to become a world leader in food traceability and give New Zealand primary industries the "edge" we need to remain competitive overseas.

s 9(2)(b)(ii) [redacted]

Best regards,

s 9(2)(a) [redacted]

s 9(2)(a) [redacted]

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;
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- ☐ as a number of copies may be made of your comments, please use a legible font and quality print, or make sure hand-written comments are clear in black or blue ink.

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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) Production 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) The submission represents the whole organisation
Your contact details (such as phone number, address, and email):	s 9(2)(a)

General questions: getting to know you

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

   ☐ beekeeper

   ☐ extractor

   ☐ processor

   ☒ packer

   ☐ exporter

   ☐ retailer of bee products

   ☐ other – please specify

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

   ☒ 0-5 years

   ☐ 5-10 years

   ☐ 10 + years

   ☐ not applicable

3. Do you operate under:

   ☒ an RMP under the Animal Products Act 1999

   ☐ the Food Act 2014 (Food Control Plan or National Programme)

   ☐ the Food Hygiene Regulations

   ☐ none of these

   ☐ not applicable

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

   ☐ 0 – 5

   ☐ 6 – 50

   ☐ 51 – 500

   ☐ 501 – 1000

   ☐ 1001 to 3000

   ☐ More than 3000

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

Warkworth, Auckland, Northland

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

☐ 0

☐ 1 – 5

☒ 6 – 19

☐ 20 or more

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

☐ beekeepers

☐ processors

☒ packers

☐ other – please specify

Impact of compliance costs for beekeepers, processors and exporters

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

No impact because we are operate under an RMP under the Animal Products Act 1999.

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.

No Impact.

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)?

N/A

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:

We have exported honey.

☐ I disagree because:

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

Declaration

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:

Ensure honey is pure and authentic

☐ I disagree because:

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

N/A

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:

All process should be under RMP ensure bee products in high quality.

☐ I disagree because:

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

N/A

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:

☐ I disagree because:

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

N/A

Pre-processing traceability requirements

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

☐ I agree because:

☐ I disagree because:

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

N/A

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?

N/A

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:

It will make sure honey pure and high quality.

☐ I disagree because:

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

N/A

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:

Just declare on E.D

☐ 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:

Control should be completely at all stage of processing for all bee products to ensure products integrity hols up.

☐ I disagree because:

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

N/A

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:

We need authenticity.

☐ I disagree because:

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

N/A

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:

But we suggest that the proposed definition only apply to new season honey.

☐ 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:

But we hope that if the honey came from native bush which contains Manuka tree, we can label it as "Native Bush Honey", and also label "contains Manuka, rewarewa and Tawari Honey" in small words.

☐ 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:

Customers already familiar with.

☐ I disagree because:

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

Customers will be more confused.

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

N/A

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

We hope MPI can review the proposed Manuka definition carefully, especially Manuka DNA to make it practicable. Experiments from Laboratory shows MG in honey is affecting the ability of the MPI DNA test to Measure the DNA in sample, whether that is Manuka DNA or general plant.

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:

But only apply to new season honey.

☐ 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?

It will make Manuka honey packing far more difficult and cost more for processing and testing.

Do you have any suggestions for minimising any impacts?

N/A

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:

6 months

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

☐ I agree because:

☒ I disagree because:

We hope that proposed Manuka honey definition only apply to the honey from next new season.

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).

RE: Review Proposed Manuka honey definition We support MPI to make regulations on Manuka honey exporting to keep and improve the reputation of New Zealand products. But we take a sceptical attitude to Proposed Manuka honey Definition, especially Manuka DNA. We ask MPI to review it. Following example is why we doubt: We bought some high grade Manuka honey from Northland beekeeper in November 2014, which MG between 646-712mg/kg, NPA between17.2-18.2. We sent same honey samples to laboratory to test on 20 April and 02 May, 2017 and results do surprise us: 4 chemical marks are very high, 3-PA between 1210-1426mg/kg,

2-MAP between 9.5-17.7mg/kg, 2-MBA between 14.5-17.5mg/kg, 4-HPA between 5.3-7.4mg/kg. But Manuka DNA fail, all the samples Manuka Cq >36.00, with the classification goes to Non- Manuka honey.

We still have a certain amount of the honey in stock. It means that if proposed Manuka honey definition effected, the value of this lot honey will drop and we will potentially lose a big amount(more than one hundred thousand dollars) in value with doing nothing wrong.

So could you explain why the test results for chemistry all indicate that the honey contains a substantial amount of Manuka nectar, but the MPI DNA test indicates that there is insufficient Manuka pollen in the honey, Or why the honey is a non-Manuka honey in light of the very strong chemistry results?

We have discussed with the Laboratory for above question. The laboratory has just completed some in-house experiments, which shows that MG in honey is affecting the ability of the MPI DNA test to measure the DNA in the samples, whether that is Manuka DNA or general plant.

So we ask MPI to review The Proposed Manuka Honey Definition, especially Manuka DNA and make The Proposed Manuka Honey Definition practicable. And we also suggest that The Proposed Manuka Honey Definition only apply for the honey from new season.

Ministry for Primary Industries
Manatū Ahu Matua

Proposed General Export Requirements for Bee Products

For all exporters of bee products from New Zealand

SUBMISSION FORM

Consultation document 2017

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Your details

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

General questions: getting to know you

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

☒ beekeeper

☒ extractor

☐ processor

☐ packer

☒ exporter

☐ retailer of bee products

☐ other – please specify

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

☐ 0-5 years

☐ 5-10 years

☒ 10 + years

☐ not applicable

3. Do you operate under:

☒ an RMP under the Animal Products Act 1999

☐ the Food Act 2014 (Food Control Plan or National Programme)

☐ the Food Hygiene Regulations

☐ none of these

☐ not applicable

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

☐ 0 – 5

☐ 6 – 50

☐ 51 – 500

☐ 501 – 1000

☒ 1001 to 3000

☐ More than 3000

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

Canterbury

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

☐ 0

☒ 1 – 5

☐ 6 – 19

☐ 20 or more

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

☒ beekeepers

☐ processors

☐ packers

☐ other – please specify

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?

See below

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.

As the honey we produce is already compliant to all export markets, the main parts that will affect our business are the traceability and the additional cost of testing for the new Manuka standard. To implement a tracking system will not only involve a large cost, will be time consuming trying to develop a software system that meets the requirements and is also unachievable in the short time frame specified.

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

No additional substances to be present in New Zealand honey

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

☒ I agree because:

This is already industry best practice and any dilution of honey with sugar only devalues the product.

☐ 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:

☒ I disagree because:

Varroacide residues are most likely coming from hives being treated at the wrong time and strips being in the hive during a honey flow which is not industry best practice. When bees are on a honey flow, nectar is deposited into the brood box(s) amongst the brood in any empty cells and is then dehydrated and lifted up into the honey supers. If contamination was coming from brood comb then eliminating honeycomb previously part of a brood nest in honey boxes will not eliminate this residue as a lot of the nectar is deposited, stored and dehydrated in the brood nest. I do agree that any honey super containing brood should not be extracted.

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:

☐ 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:

We are already compliant with this and agree as this would make more honey available for export.

☐ 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:

Strongly disagree with the proposed changes and requirement for honey supers to all be marked individually. I understand what is trying to be achieved however there is no merit in tracing the outside of a box when the contents are easily mixed up. Frames are often moved between boxes during the extraction process due to boxes containing 8, 9 or 10 frames and the multi box extractors in commercial plants having a varying number of baskets thus making the traceability of the box inaccurate and obsolete.

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

The current requirement should not leave any gaps in the chain if people are following the current rules for export to all markets. We are required to record the number of boxes harvested from each apiary, the date of harvest and all apiary locations must be registered with the AFBPMP. The batch code on the harvest declaration should link with the batch number on the drum.

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 upfront cost to implement these changes would be huge. The current requirement is easily done manually by counting the boxes and writing this in a diary, the new requirement would mean implementing a barcode or RFID type electronic software system. We have over 15,000 boxes that would need individually identifying and from quick searches online I have found limited track and trace technology specific to beekeeping. The logistics of finding, designing and implementing a software system by the 1st of August is impossible.

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:

I am already compliant with this and agree as this would make more honey available for export.

☐ I disagree because:

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

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

☒ I agree because:

☒ I disagree because:

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

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

☒ I agree because:

I am already compliant with this and agree that this should be a requirement.

☐ 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:

From the test results we have received, most of the honey that we previously identified as Manuka still complies with the new standard for Monofloral Manuka.

☐ I disagree because:

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

I do not believe that DHA and MGO can be used to identify the purity of a Manuka sample. At the Apiculture Conference 2016, Analytica Labs made a presentation on nectar sampling of Manuka flowers for the purpose of assessing the level of DHA. They had found that the DHA levels varied greatly throughout NZ but were especially high in the Northern part of the North Island, therefore I understand why MPI has not used this to determine Monofloral Manuka.

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

☐ I agree because:

☐ I disagree because:

☐ I have concerns because:

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

☒ I agree because:

☐ I disagree because:

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

☒ I agree because:

These are already recognised in the market and are established brands.

☐ I disagree because:

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

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

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:

This is achievable.

☐ 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?

There will be additional testing cost of which there is already many but this gives the product credibility in the marketplace.

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:

Test results are currently very slow with only Hills being accredited. The traceability changes would need a minimum 12 month lead in time to implement.

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:

It gives already labelled stock a chance to be used without having to relabel.

☐ I disagree because:

Any other feedback

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

I strongly oppose the individual box identification but if MPI are hell-bent on making this a requirement, the industry needs a reasonable time frame to implement this. The short time frame currently specified does not give third party suppliers a chance to develop a system that is specific to individual operator's needs.

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☐ as a number of copies may be made of your comments, please use a legible font and quality print, or make sure hand-written comments are clear in black or blue ink.

Submissions are public information

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

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

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

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

Your details

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

General questions: getting to know you

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

   ☐ beekeeper yes

   ☐ extractor yes

   ☐ 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 yes

   ☐ not applicable

3. Do you operate under:

   ☐ an RMP under the Animal Products Act 1999 yes

   ☐ 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 yes

   ☐ More than 3000

5 What region of New Zealand do you operate in?

Wanagnui

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 yes

   ☐ 20 or more

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

   ☐ beekeepers yes

   ☐ processors

   ☐ packers

   ☐ other – please specify

Impact of compliance costs for beekeepers, processors and exporters

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

Thosands of $$ and man hours that we don't have time for as we are beekeeper and don't like paper work we like being out side in the sun enjoy the bee

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.

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

No additional substances to be present in New Zealand honey

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

☐ I agree because:

☐ I disagree because:

It is very hard to do one day they are dieing and the next they are on a honey flow
This last year we norally stop feeding in novmeber we did our last feed a the 29/12/2016
And we still lost hive feeding and not feeding is like sitting on a knife edge

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

Control the weather MPI think it can control everything else

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:

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:

☐ 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:

☐ 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 I think there need to be more records keeping on when and where thing are put on the hive and when hives are feed In wrtten form not a barcode or tag on every box I record when we visit a site where we have bees and added boxes When we pull the honey we tag the stack of boxes we have pull with the site name and date of harvest I can trace back to the site where I pull the honey from and when the last time we feed but to write everthing down would need some standing behind me written every down

☐ I disagree because:

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

The honest beekeeper fill out all the form right
But any one can bull shit the information by saying it comes from this site by it came from another they forgot to reigter
And who to know

IF MPI Came up with the the the program and all we had to do was buy the hard ware
Then every one is on the same level and you are not going to have 100s of diffent model to check

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?

Thosands of $$$$$ and time
I wonder how many hours would it to tag or label 10000 or more honey, boxes ,lids ,floor amd then to record it every time you go to work the hives

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:

☐ I disagree because:

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

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

☐ I agree because:

☐ I disagree because:

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

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

☐ I agree because:

☐ I disagree because:

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

Labelling of monofloral and multifloral mānuka honey

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

☐ I agree because:

☐ I disagree because:

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:

☐ I disagree because:

☐ I have concerns because:

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

☐ I agree because:

☐ I disagree because:

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

☐ I agree because:

☐ I disagree because:

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

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

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

Laboratory Tests

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

☐ I agree because:

☐ I disagree because:

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:

I disagreed that some of this can not be put in place in six week not even before the the next honey season any thing to with the numbering of honey boxes or hives it take a couple of year after having two bad season in roll some of my honey boxes have not seen daylight for three year (have not taken out of the storeage room

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

☐ I agree because:

☐ I disagree because:

Any other feedback

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

[Not relevant to request]

From: s 9(2)(a) .com>
Sent: Monday, 8 May 2017 3:21 p.m.
To: Manuka Honey
Subject: Enquiry regards to exporting previously bought Manuka honey

Dear Manuka Team in MPI

I am writing this email to you to ask about future exports with honey bought previously in the past.

According to the GREX (out for consultation), it states that operators will need harvest declarations with the following details (*under section 4.2 Traceability from beekeepers to operators - Harvest Dec (2) p.g 16*) are needed when its intended use is for export.

What ways would there be if we already have past honey declarations from bee keepers which would not fit to the GREX standard when it gets approved?

This will also link its effect towards *section 4.4 Reconciliation of traceability documents, p.g 17*, because we would not be having the connection between the harvest dec and the raised transfer documents via the unique reference number(since we don't have the ref. number), what other ways would there be for us to raise the ED for export?

I think it would be helpful for both MPI and all operators if MPI differentiates all documents and processes required for exporting by stating a date for honey produced and manufactured before and after 20 June 2017 in the upcoming GREX.

Warm Regards

s 9(2)(a)

s 9(2)(a)

s 9(2)(a)
New Zealand Manuka Honey manufacturer & Exporter

s 9(2)(a)

[Not relevant to request]

From: s 9(2)(a) .com>
Sent: Thursday, 11 May 2017 9:44 p.m.
To: Manuka Honey
Subject: RE: s 9(2)(a) -> Manuka Honey Authenticity
Attachments: 20170403_honey-profiling_flyer_09-15.pdf; 20170403_HoneyProfiling1.0_SpecSheet.pdf; 20170403_Webinar Honey-Profiling_16_9.pdf

Dear MPI Manuka Honey Team,

Thanks for your e-mail. On the attachment, you will find 3 files

- Honey Profiling Flyer -> 2 pager summary of the solution
- Honey Profiling SpecSheet -> 1 pager spec details
- Honey Profiling recorded webinar -> a recently recorded webinar by our market/product managers about "Detecting adulterations, frauds & quality issues by NMR-based Honey-Profiling"

After you review the attached, we can schedule a conference call with our market/product managers to answer your questions

Please let me know if this suits you.

Best regards, s 9(2)(a)

s 9(2)(a)

s 9(2)(a)

s 9(2)(a)

From: Manuka Honey [mailto:Manuka.Honey@mpi.govt.nz]
Sent: Mittwoch, 10. Mai 2017 23:38
To: s 9(2)(a)
Subject: RE: s 9(2)(a) -> Manuka Honey Authenticity

Hello s 9(2)(a)

Thank you for sharing the work your business carries out to identify authentic product.

As you noted, MPI has developed a robust and sophisticated scientific definition to authenticate New Zealand mānuka honey. This is currently being consulted on with industry and the New Zealand public. To be able to consider your system as an alternative in this consultation process please provide an outline of how it could ensure that mānuka honey is true to label.

Kind regards,

MPI Manuka Honey Team

From: s 9(2)(a) .com]
Sent: Thursday, 4 May 2017 3:01 a.m.
To: Manuka Honey <Manuka.Honey@mpi.govt.nz>
Subject: s 9(2)(a) -> Manuka Honey Authenticity

Dear Sir / Madam,

I saw the article about authenticate whether or not a particular honey is New Zealand mānuka honey on Foodauthenticity.co.uk

> "The New Zealand Ministry for Primary Industries (MPI) has developed a robust and sophisticated scientific definition that can be used to authenticate whether or not a part cular honey is New Zealand mānuka honey."

s 9(2)(a) offers a very targeted solution for this purpose on its s 9(2)(b)(ii) platform; and developed a honey screening module using NMR technology (currently other modules for Wine and Juice are also available)

Using s 9(2)(b)(ii) you can identify fraud and authenticity of the honey samples in a fast, simple and cost-efficient way.

Details about s 9(2)(a) solution can be found on the below links.

a) s 9(2)(a) Honey Profiling

b) Interview s 9(2)(a) Analyzing Honey using NMR Technology

I am happy to help further if you have questions

Best regards, s 9(2)

s 9(2)(a)

Is it really pure honey?
Detecting adulterations, frauds & quality issues by NMR-based Honey-Profiling

s 9(2)(b)(ii)

s 9(2)(b)(ii) Webinar, April 4th, 2017

High Demand, Limited Supply

The current situation is ripe for fraud

s 9(2)(b)(ii)

High demand:
Increasing demand for honey worldwide, especially in emerging BRIC* countries. Demand in industrialized countries is on high level. Interest in pure honey from proven geographical & botanical origins is on the rise.

Limited supply:
Due to varroa mite and other bee diseases the bee colonies had been significantly reduced during the recent years – now leading to only limited supply of high quality blossom honey and honey dew on the world market.

Incentive for frauds:
This shortage situation creates an environment for fraud. Governmental control institutions** estimate that 1 in 5 pack-ages of honey on the market is a commercial fraud - either in regard to adulteration (addition of sugar syrup) or wrong declaration of geographical or botanical origin. In the first case the honey packers save costs since sugar syrup is much cheaper and in the second case they can get a higher price for a more preferred geographical & botanical origin.

*BRIC:= Brazil, Russia, India, China

** Europ. Commission Study 2015

High Demand, Limited Supply

The challenges of fraud detection

s 9(2)(b)(ii)

- **Honey blends**

  The majority of honey on the market is actually a blend of honey from different sources. Therefore honey packers face the challenge to a proper ingoing QC of their purchased honey.

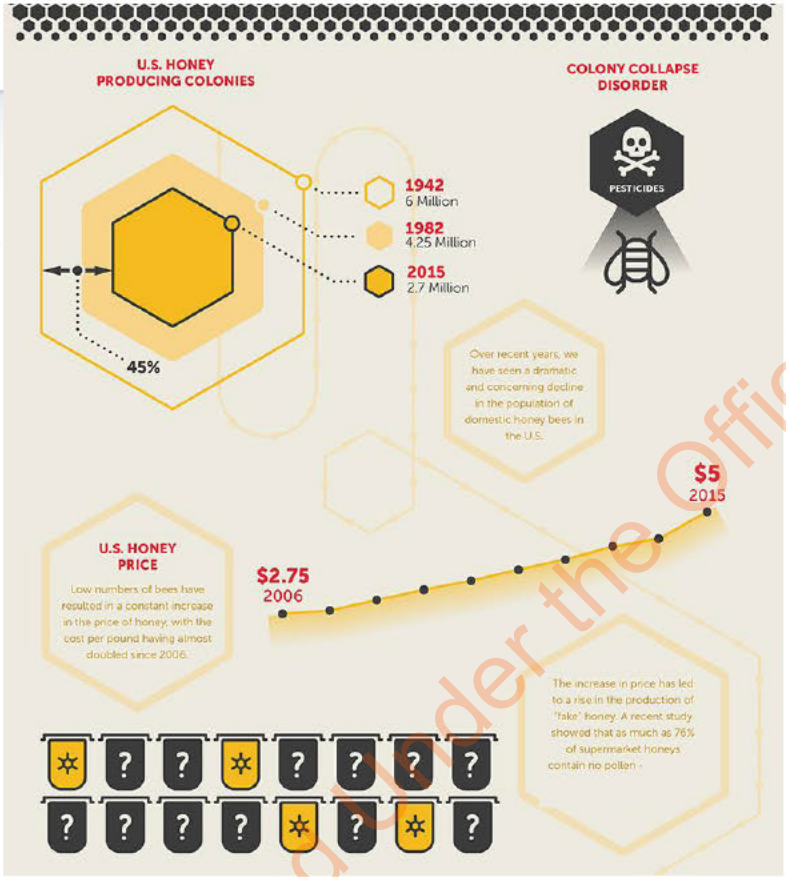
- **Honey in the US**

  Honey sold in the United States is in most cases pollen-free, which means conventional methods are unable to test the botanical and geographical origin of these products.

- **Time**

  Conventional analytics are a combination of different analytical techniques which overall can take days to perform.

Example: Honey situation in the US



- Bee populations decreased by 55% during the past 70 years
- Honey price doubled in last decade
- 76% of super market honey does not contain pollen, today

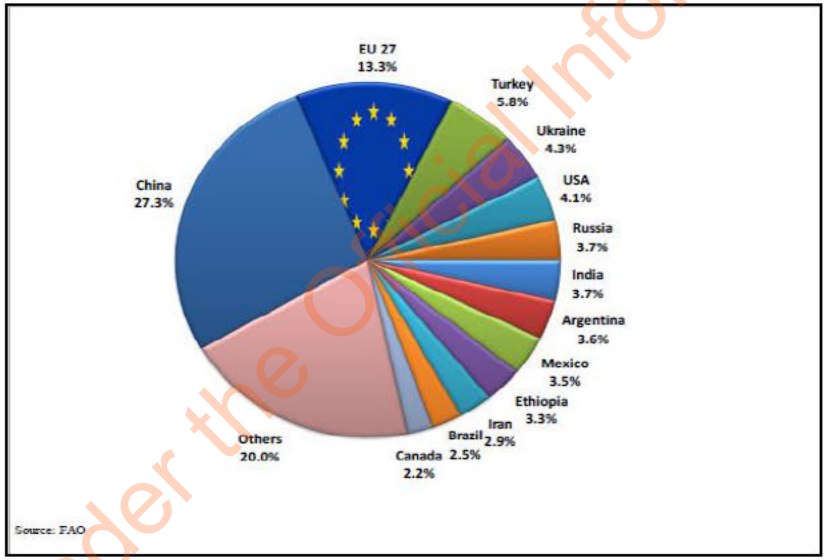
Main honey producers & main honey consumers

Top 10 producing countries & top 10 importing countries

s 9(2)(b)(ii)

Top 10 producers

1) China
2) EU
3) Turkey
4) Ukraine
5) USA
6) Russia
7) India
8) Argentina
9) Mexico
10) Ethiopia



Largest honey producers: Source: FAO STAT 2015

Top 10 importers

1) USA
2) Germany
3) Japan
4) UK
5) France
6) Belgium
7) Spain
8) Indonesia
9) Italy
10) Saudi Arabia

Honey-Profiling by NMR

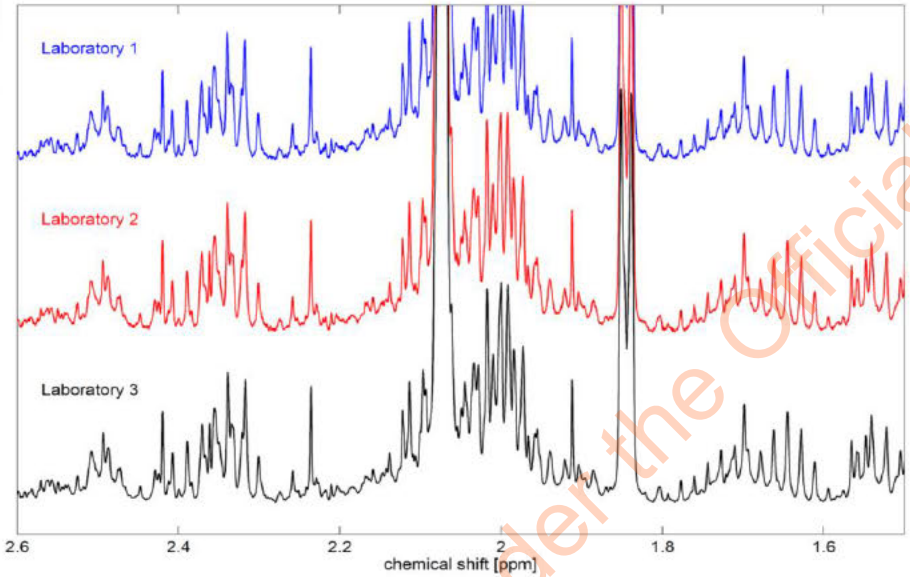
The solution to authenticity and quality control

s 9(2)(b)(ii)

Analytical challenges	Honey-Profiling delivers the following benefits:
Adulteration ←	• Sugar syrup additions • Addition of unknown compounds
Authenticity ←	• Botanical origin • Geographical origin • Type of honey
Quality ←	• concentration of sugars • concentration of organic acids • concentration of amino acids (e.g. proline) • concentration of fermentation products (e.g. ethanol, HMF)

The spectral fingerprint of honey

s 9(2)(b)(ii)



1H-NMR spectra of the same sample prepared and measured in different laboratories

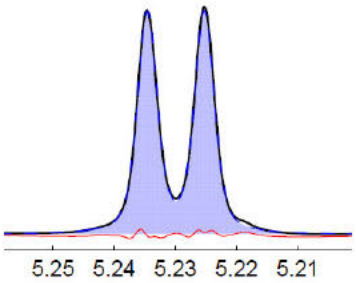
- Same sample analyzed in **different laboratories** gives **identical spectra**
- The methodology generates **spectral fingerprint** unique to each sample

Holistic approach for quality and authenticity analysis

s 9(2)(b)(ii)

Quantitative analysis

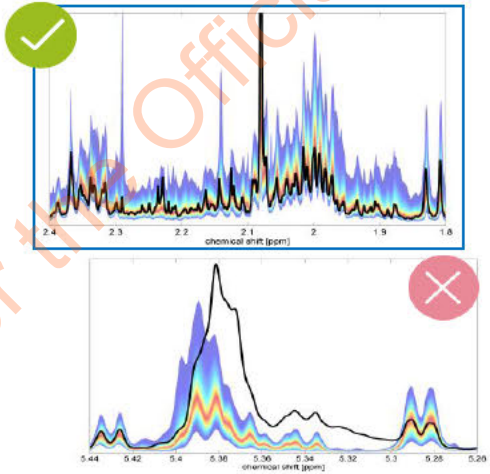
- Targeted Analysis
- Direct and absolute quantification



Example for glucose

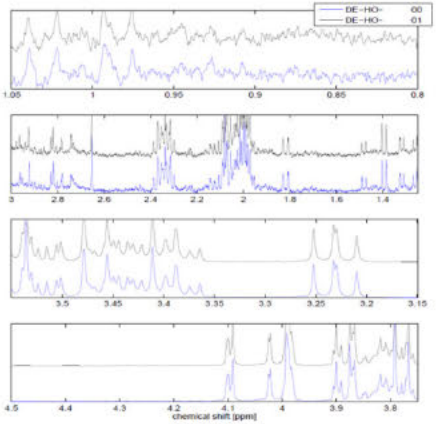
Statistical analysis

- Non-Targeted Analysis
- Relies on a database of reference honey samples



Identity analysis

- Non-Targeted Analysis
- No need for a database



Quantitative analysis

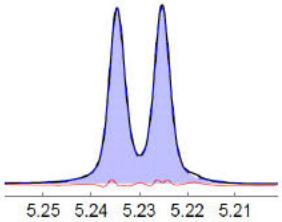
Quantification of numerous parameters of honey

s 9(2)(b)(ii)

Sugars:

Compound	Value	Unit	LOQ	Official Reference min	Official Reference max	Flag	Honey-Profiling™ NMR Distribution
glucose + fructose	55.4	g/100g	20.0	45.0	-	●	48.1 — 73.9
fructose / glucose	1.45	-	-	-	-	○	1.02 — 1.64
fructose	32.8	g/100g	10.0	-	-	○	26.1 — 39.6
glucose	22.6	g/100g	10.0	-	-	○	19.1 — 35.1
sucrose	3.3	g/100g	0.5	-	5.0	●	<0.5 — 7.8
turanose	2.9	g/100g	0.2	-	-	○	1.1 — 2.9
maltose	5.0	g/100g	0.5	-	-	○	0.8 — 12.5
melezitose	3.0	g/100g	1.0	-	-	○	<1.0 — 12.3
maltotriose	1.2	g/100g	1.0	-	-	○	<1.0 — 3.7
gentiobiose	<LOQ	g/100g	0.3	-	-	○	<0.3 g/100g in reference dataset
raffinose	1.6	g/100g	0.1	-	-	○	<0.1 — 2.7
mannose	<LOQ	g/100g	0.05	-	-	○	<0.05 — 0.24

- For each compound, the distribution of **reference values** are given



Example for glucose

Quantitative analysis

Quantification of numerous parameters of honey

s 9(2)(b)(ii)

Degradation Parameters / Fermentation Products:

Compound	Value	Unit	LOQ	Official Reference min	Official Reference max	Flag	Honey-Profiling™ NMR Distribution
2,3-butanediol	<LOQ	mg/kg	20	-	-	○	<20 … 581
5-hydroxymethylfurfural	6	mg/kg	5	-	40	●	<5 … 71
acetic acid	68	mg/kg	10	-	-	○	18 … 286
acetoin	<LOQ	mg/kg	20	-	-	○	<20 … 80
ethanol	<LOQ	mg/kg	5	-	-	○	<5 … 1103
lactic acid	51	mg/kg	10	-	-	○	<10 … 750
formic acid	151	mg/kg	5	-	-	○	10 … 571
fumaric acid	27	mg/kg	5	-	-	○	<5 … 133
pyruvic acid	21	mg/kg	10	-	-	○	<10 … 43
succinic acid	269	mg/kg	5	-	-	○	24 … 617

- For each compound, the distribution of **reference values** are given
- Automatic compliance check with regulatory values (e.g. HMF)

Quantitative analysis

Quantification of numerous parameters of honey

s 9(2)(b)(ii)

Amino Acids:

Compound	Value	Unit	LOQ	Official Reference min	Official Reference max	Flag	Honey-Profiling™ NMR Distribution
alanine	<LOQ	mg/kg	5	-	-	○	<5 106
aspartic acid	<LOQ	mg/kg	150	-	-	○	<150 318
glutamine	<LOQ	mg/kg	200	-	-	○	<200 260
leucine	<LOQ	mg/kg	40	-	-	○	<40 76
proline	432	mg/kg	200	-	-	○	336 1093
valine	<LOQ	mg/kg	10	-	-	○	<10 38
tyrosine	<LOQ	mg/kg	50	-	-	○	<50 172
phenylalanine	<LOQ	mg/kg	100	-	-	○	<100 497

- For each compound, the distribution of **reference values** are given

Quantitative analysis

Quantification of numerous parameters of honey

s 9(2)(b)(ii)

Markers:

Compound	Value	Unit	LOQ	Official Reference min	Official Reference max	Flag	Honey-Profiling™ NMR Distribution
3-phenyllactic acid	<LOQ	mg/kg	300	-	-	○	<300 mg/kg in reference dataset
dihydroxyacetone	<LOQ	mg/kg	20	-	-	○	<20 … 32
kynurenic acid	<LOQ	mg/kg	60	-	-	○	<60 … 230
methylglyoxal	<LOQ	mg/kg	30	-	-	○	<30 mg/kg in reference dataset
shikimic acid	1314	mg/kg	80	-	-	○	<80 … 1641

Acids:

Compound	Value	Unit	LOQ	Official Reference min	Official Reference max	Flag	Honey-Profiling™ NMR Distribution
citric acid	905	mg/kg	50	-	-	○	<50 … 1050
malic acid	<LOQ	mg/kg	100	-	-	○	<100 … 1774
quinic acid	<LOQ	mg/kg	300	-	-	○	<300 … 4629

- For each compound, the distribution of **reference values** are given

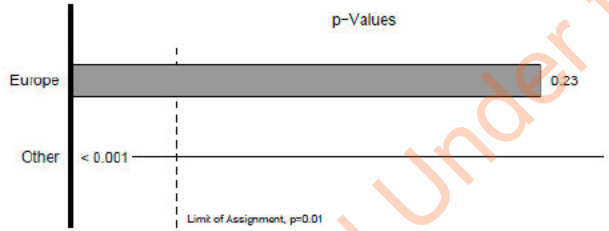
Statistical analyses

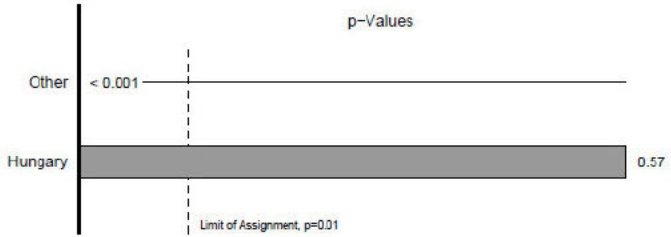
Verification of geographical origin of honey

s 9(2)(b)(ii)

Type of Analysis	Analysis ID	Result	Status
Classification Analysis			
Variety Acacia	HO-1006-01/242	In-Model	●
Origin Europe	HO-1021-01/242	In-Model	●
Origin Hungary	HO-1011-01/242	In-Model	●
Targeted Analysis			
Quantification	HO-Q/230	–	●
Comparison with NMR Reference Database	HO-QC/211	–	●
Non-Targeted Verification Analysis			
Indications for Addition of Syrup/Sugar	HO-2000-01/204	No	●
Univariate Verification	HO-2011-01/249	In-Model	●
Multivariate Verification	HO-2011-01/249	In-Model	●

Example of an acacia honey from Hungary





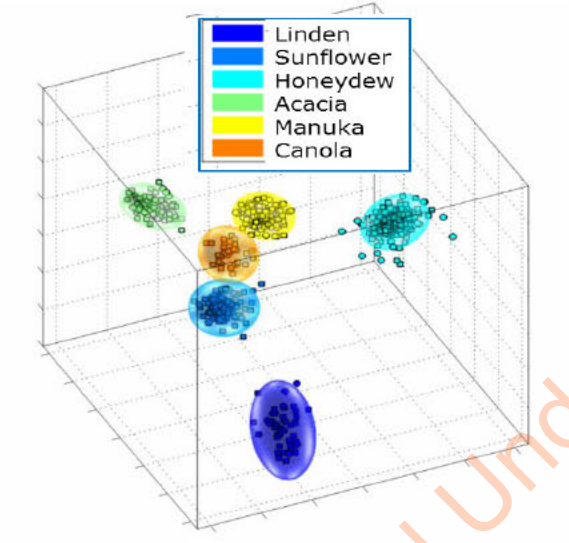
- Applicable to the analysis of honeys from which pollen has been filtered!
- Analysis difficult to counterfeit
- Fast analysis which is not requiring a specialist

Statistical analyses

Verification of botanical origin of honey

s 9(2)(b)(ii)

Verification of **product labeling** consistency for Botanical origin



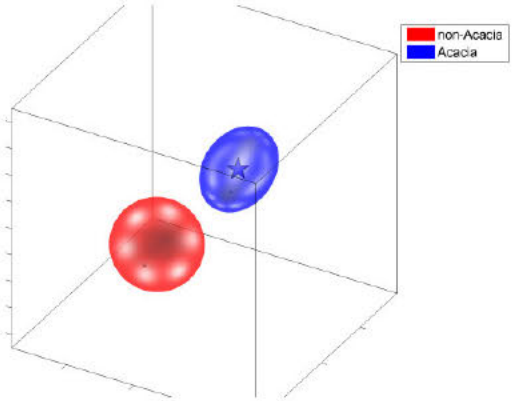
Type of Analysis	Analysis ID	Result	Status
Classification Analysis			
Variety Acacia	HO-1006-01/242	In-Model	●
Origin Europe	HO-1021-01/242	In-Model	●
Origin Hungary	HO-1011-01/242	In-Model	●
Targeted Analysis			
Quantification	HO-Q/230	–	●
Comparison with NMR Reference Database	HO-QC/211	–	●
Non-Targeted Verification Analysis			
Indications for Addition of Syrup/Sugar	HO-2000-01/204	No	●
Univariate Verification	HO-2011-01/249	In-Model	●
Multivariate Verification	HO-2011-01/249	In-Model	●

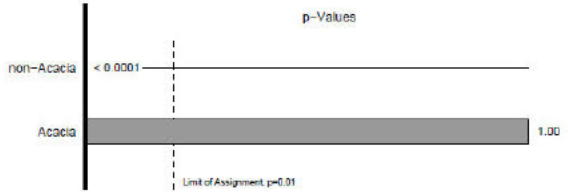
Example of an acacia honey from Hungary

Model: Variety Acacia

(Analysis-ID: HO-1006-01/242)

Result: Declared botanical variety *Acacia/Robinia* is consistent with classification result.





Statistical analyses

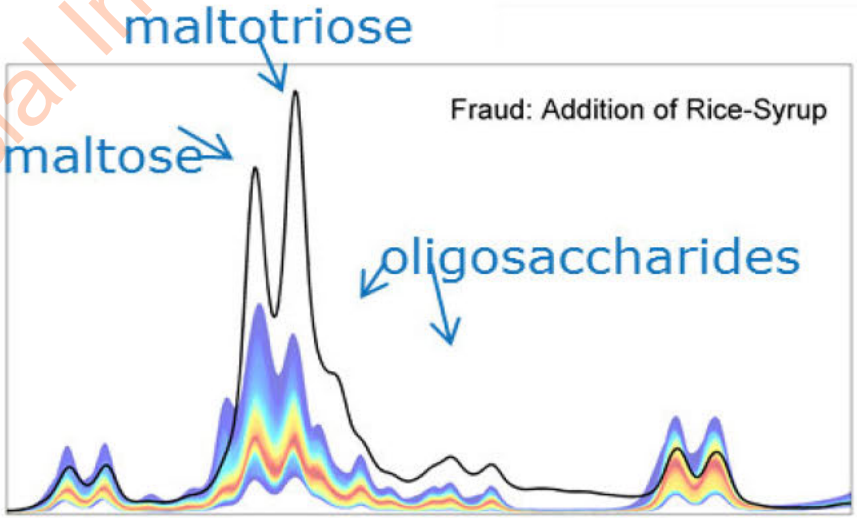
Detection of the adulteration of sugar syrups addition

s 9(2)(b)(ii)

Type of Analysis	Analysis ID	Result	Status
Targeted Analysis			
Quantification	HO-Q/230	–	
Comparison with NMR Reference Database	HO-QC/211	–	
Non-Targeted Verification Analysis			
Indications for Addition of Syrup/Sugar	HO-2000-01/204	Yes	
Univariate Verification	HO-2019-01/242	Off-Model	
Multivariate Verification	HO-2019-01/242	In-Model	

Statistical evaluation of the sugar profile by comparison to reference profiles

Evaluation of marker compounds for adulteration

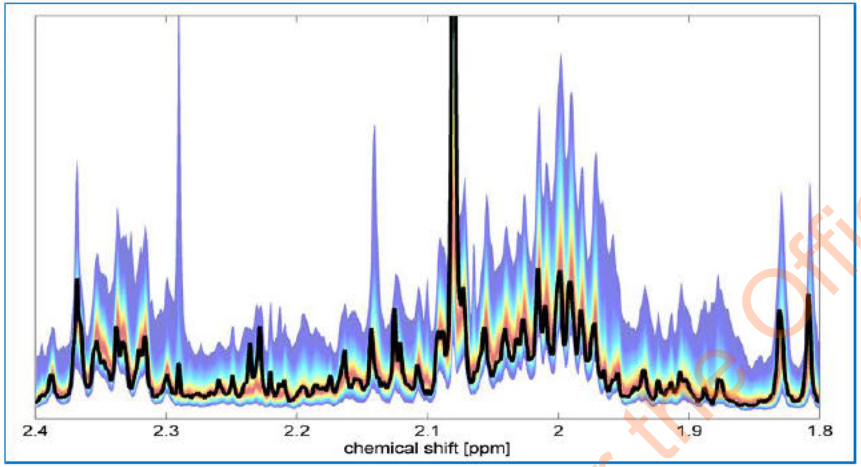


Example of an adulterated honey, by addition of rice syrup

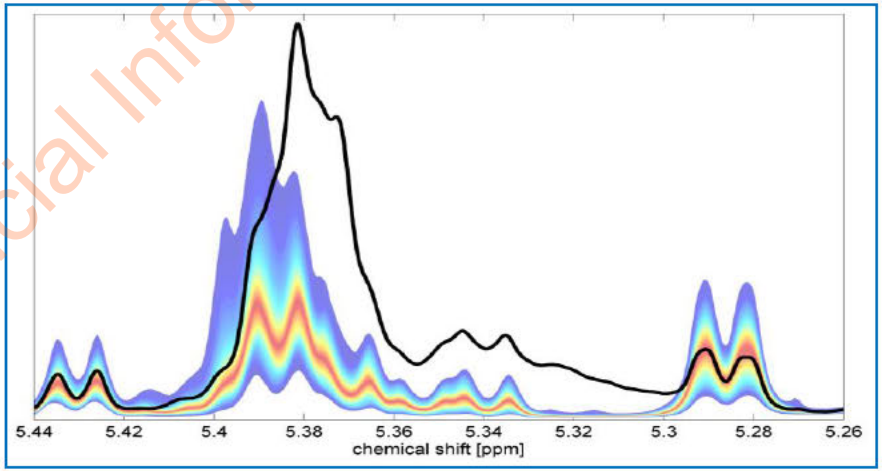
Statistical analyses

Verification of the compliance to reference honeys

s 9(2)(b)(ii)



Example of a compliant honey



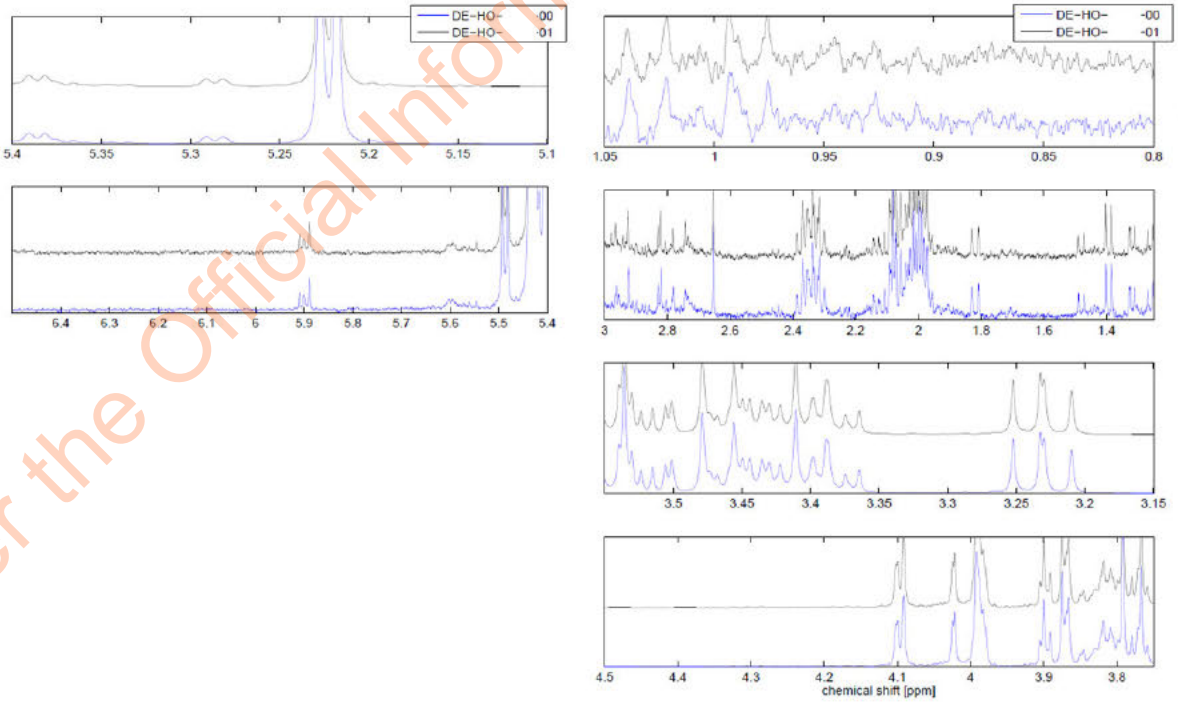
Example of a non-compliant honey

Statistical evaluation of the entire NMR profile by comparison to reference profiles

Identity analysis

s 9(2)(b)(ii)

- Verify if two honey samples are identical
- no need for a reference database
- can be done with any type of honey from any origin
- **Automated** feature selection and comparison
- Applications:
  - quality control
  - control of raw material upon receipt of the goods



Identity analysis

s 9(2)(b)(ii)

Parameter for Identity-Test	Result	Reference	Flag
Number of selected features	113		-
Average relative deviation [%]	2.2	max 4.0	
95%-quantile of deviations [%]	9.0	max 12.5	
Deviations less than 5% [%]	87	min 75	
Correlation Index	0.98	min 0.85	
Overall Result	**Identical**		

Honey-Profiling method

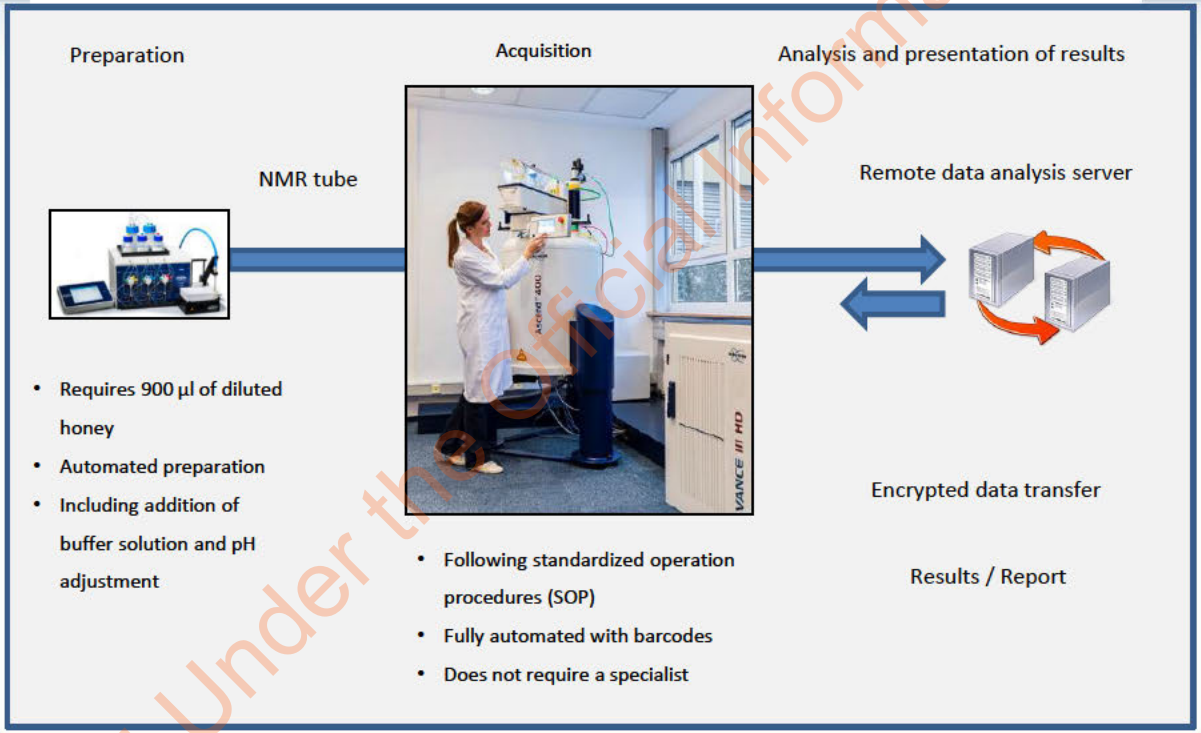
s 9(2)(b)(ii)

s 9(2)(b)(ii)

- Method developed in collaboration with experts in the field of honey.
- The method is continuously further developed
- The current version of the data analysis relies on a Database of less than 4000 honey samples
- In the meantime, the Database reached 10000 reference honey samples
- s 9(2)(b)(ii)

Workflow

s 9(2)(b)(ii)



Full analysis realized in 20 minutes

The FoodScreener™ portfolio

One platform, several applications

s 9(2)(b)(ii)

On the same platform, other types of food and beverages can be analyzed:

- with s 9(2)(b)(ii) application modules:

ISO 17025

- with own developed methods:

Customer can develop its own methods

Honey-Profiling™
Module

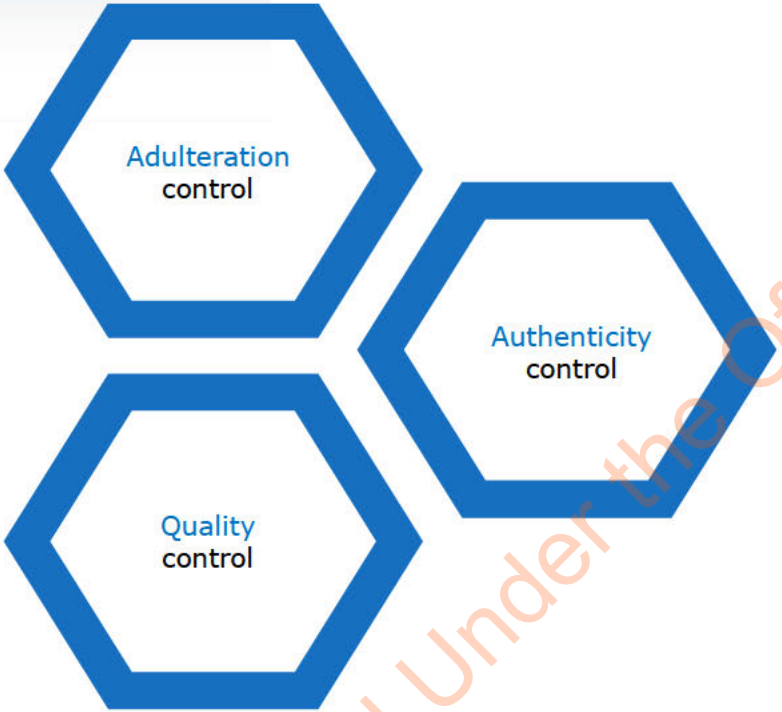
Wine-Profiling™
Module

SGF-Profiling™
Module

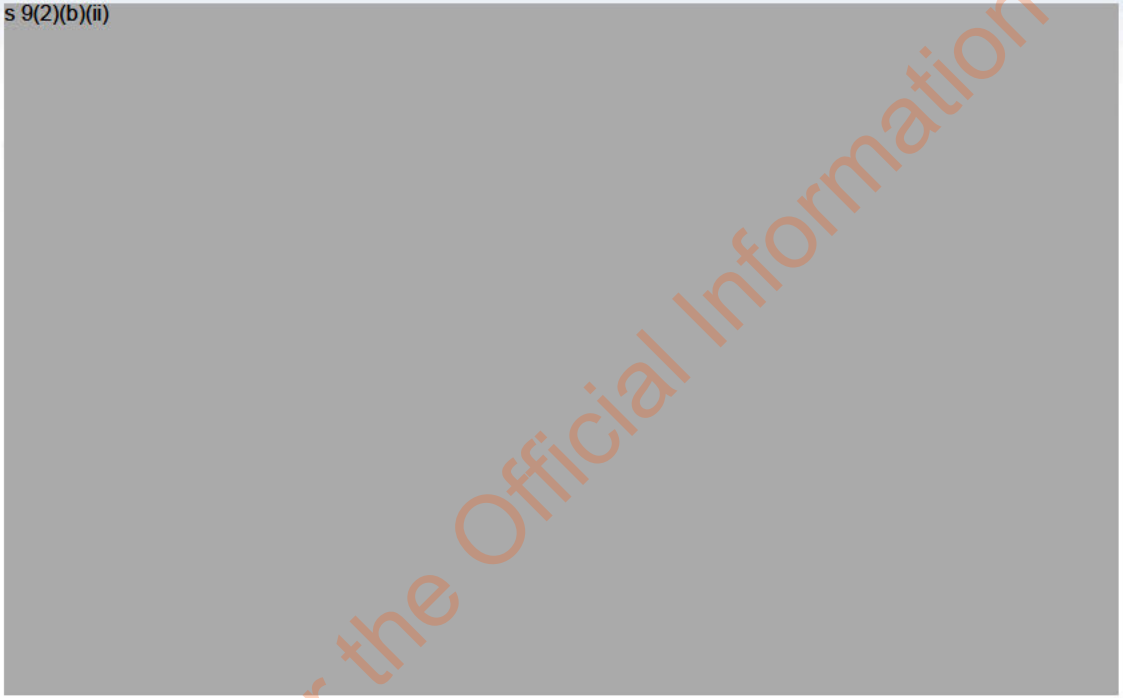
The FoodScreener™ Platform
Standardized 400MHz platform optimized for screening applications of food and beverages

Honey-Profiling by NMR
Summary

s 9(2)(b)(ii)



- Proves authenticity of geographical & botanical origin
  - even in pollen-filtered honeys
- Detects sugar adulteration quickly & easily
  - even C3 sugar additions
- Delivers adulteration control, authenticity control & quality control in one method resulting in significant cost reduction
- Fully automated system
  – no expert knowledge necessary
- Takes about 20min/sample versus several days for the conventional methods.



s 9(2)(b)(ii)

Q&A

Any questions?

Please type any questions you may have for our speakers in the Q&A panel and click Send.

How did we do?

When you exit the webinar, please fill out our evaluation survey to let us know. We appreciate your feedback.

Thank you!

Specifications

FoodScreener™ Honey Profiling - Release 1.0

Targeted Analysis/Quantification

Sugars
fructose, glucose, sucrose, turanose, maltose, melezitose, maltotriose, gentiobiose, raffinose, mannose

Acids
citric Acid, malic acid, quinic acid

Markers
3-phenyllactic acid, dihydroxyacetone, kynurenic acid, methylglyoxal, shikimic acid

Amino Acids
alanine, aspartic acid, glutamine, leucine, proline, valine, tyrosine, phenylalanine

Additional Parameters
2,3-butanediol, 5-hydroxymethylfurfural, acetic acid, acetoin, ethanol, lactic acid, formic acid, fumaric acid, pyruvic acid, succinic acid

Obtained concentrations are compared to European reference limits (if available) and to the most appropriate class of the reference database of Honey-Profiling™ on basis of specified geographical origin and/or botanical variety of the sample (available classes are listed in section "Non-Targeted Verification Models").

Classification Analysis

Geographical Origin

Argentina	Bulgaria/Romania	Chile	China	Cuba
Hungary	Mexico	Thailand	Ukraine	Vietnam

Botanical Variety

Acacia/Robinia	Linden Tree	Manuka

Classification Models are used to confirm consistency with specified geographical origin and/or botanical variety of the sample.

Verification Analysis

Dedicated Analysis for the detection of an addition of syrup/sugar

Non-Targeted Verification Models
Blossom (general), Honeydew, Blossom (Origin America Central/Southern), Blossom (Origin Asia Eastern), Blossom (Origin Europe), Blossom (Origin Mexico), Blossom (Origin Thailand), Blossom (Origin Ukraine), Manuka

Most appropriate verification model is selected on basis of specified geographical origin and/or botanical variety of the sample.

Honey Quality & Authenticity

● FoodScreener™ - Honey Profiling Module

A new generation of honey analysis has arrived

The proven concept of the FoodScreener platform is now extended in order to establish an NMR-based screening method for honey samples covering aspects related to authenticity, quality control and quantification. By combining targeted (quantification) and non-targeted (statistics for classification and verification) approaches, it is possible to address even more previously unsolved questions.

Features:

- Quality control by targeted analysis of a multitude of relevant parameters like sugars, organic and amino acids
- Detection of frauds like addition of different types of syrup or other sugar solutions including unexpected and even unknown frauds
- Authenticity control by validation of variety and geographical origin
- Cost efficient push button measurement, analysis and reporting

s 9(2)(b)(ii)

Analyzing food in a new dimension

The FoodScreener is a standardized platform developed by s 9(2) for food analysis based on 400 MHz Nuclear Magnetic Resonance (NMR) spectroscopy. The principle relies on the acquisition of the spectroscopic fingerprint specific for each individual sample. Sample type-specific and fully automated push-button methods like SGF-Profiling™ for fruit juice or Wine Profiling™ already provide reliable targeted and non-targeted multi-marker analyses with reduced cost per sample. The overall method allows the non-NMR expert to determine quality and authenticity from matrix specific reports.

Identification and Quantification

Quantification of relevant compounds is state-of-the-art in current food quality control. Due to its physical principle, NMR enables the simultaneous identification and quantification of a large number of compounds in one single measurement needing only one calibration standard.

Honey Profiling allows identification and quantification of more than 30 parameters like HMF, acetic acid acetoin, alanine, citric acid, ethanol, formic acid, fructose, glucose, glutamine, lactic acid, leucine, malic acid, maltose, melezitose, phenylalanine, proline, quinic acid, shikimic acid, succinic acid, sucrose, tyrosine, and valine.

The list of quantified compounds will be continuously updated and retrospective identification and quantification is possible without the need for re-measurement also valid for statistical analysis. An extensive validation program is part of the Honey Profiling solution which has been built under stringent validation conditions including participation in ringtests.

Statistical Analysis

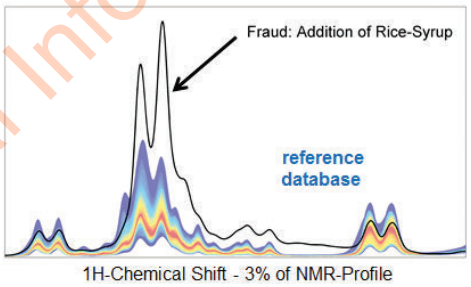
Statistical Modelling is based on a reference database containing thousands of reference samples with worldwide coverage and is supported by QSI and s 9(2)(b)(ii) This supports the control of authenticity in terms of geographical origin and variety.

Targeted Analysis / Quantification

Compound	Value	Unit	LOQ	Official Reference min	Official Reference max	Flag	Honey-Profiling™ NMR Distribution
glucose + fructose	71.4	g/100g	20.0	60.0	-	●	61.5 81.2
fructose / glucose	1.56	-	-	-	-	○	0.89 1.58
fructose	43.6	g/100g	10.0	-	-	○	31.8 45.5
glucose	27.9	g/100g	10.0	-	-	○	25.6 39.7
sucrose	0.7	g/100g	0.5	-	10.0	●	<0.5 1.4
turanose	1.5	g/100g	0.2	-	-	○	0.3 2.5
maltose	1.8	g/100g	0.5	-	-	○	<0.5 2.6

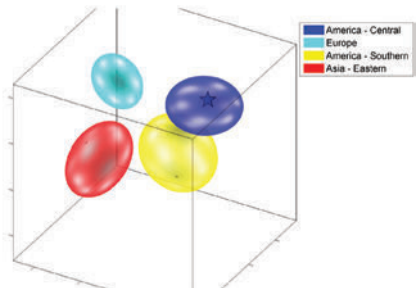
Excerpt of a quantification result table of a oney sample. The table containing the results of quantification also includes a visualization of the comparison against the distribution taken from the reference database for each compound. This enables direct detection of atypical concentrations.

Sample Verification



Verification models are used for the non-targeted analysis by comparing the whole NMR-Profile of a specific sample with the corresponding group of reference spectra (database). All spectral data points are taken into account irrespective of whether the signals are caused by previously identified molecules or not.

Sample Classification



The origin plays an important role in the analysis of authenticity of honey samples. The figure shows the validation of the geographical origin of a polyfloral honey from Central America.

s 9(2)(b)(ii)

s 9(2)(b)(ii)

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

General questions: getting to know you

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

   ☐ beekeeper x

   ☐ extractor

   ☐ processor x

   ☐ packer

   ☐ exporter x

   ☐ 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 x

   ☐ not applicable

3. Do you operate under:

   ☐ an RMP under the Animal Products Act 1999 x

   ☐ 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 x

   ☐ More than 3000

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

Waikato

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

   ☐ 0

   ☐ 1 – 5 x

   ☐ 6 – 19

   ☐ 20 or more

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

   ☐ beekeepers x

   ☐ processors x

   ☐ packers

   ☐ other – please specify Adminsitration/Management x

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?

We paid the new BK rego as advised but that proved to be unnecessary as we already operate under an RMP!! Not happy about that, poor comunication from MPI or our fault?? Testing costs will increase by $190 a drum. Typically we will test s 9(2)(a) pa so total testing increase of s 9(2)(a) . This will be an annual cost All labels will have to be redesigned and re p inted. Current stock (circa s 9(2)(a) will be wasted). New design costs and re printing probably the s we have to replace and s 9(2)(a) for graphic design. This will be a one off cost. Traceability as per MPI expectation (granular honey box) will be a nightmare. Tracking and related software from s 9(2)(b)(ii) at between s 9(2)(b)(ii) . We mange using a simple Excel system and big whiteboard at the moment. This works well for us a honey at apiary and or individual farm site level.

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.

Our whole operation will be impacted. Approx 60% of our harvest is manuka so all of the export requirements will impact. Traceability rules will impact the whole business.

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)?

We can do all the admin stuff given there is adequate training (workshops) as long as MPI adjusts the traceability requirement to a more macro level. Most sensible would be to require ability to trace to the farm, we do this already so no additional work. Our suggestion is that you manage/observe that and see how well meets the requirements of MPI or our international customers. Apairy site it too granular as it is impossible to keep honey separate through the various stages of transport and extraction.

The period of transition is too short. We are a small exporter and have recently packed s 9(2) tonnes of 100mg+ and 300mg+ manuka. It will take us at least 12 months to sell this product so the January 31st deadline is unrealistic. Our current wholesale manuka stock value is s 9(2)(a) we hope to have sold s 9(2) of this by the deadline. At the moment we are unsure of what we will do with the remainder but could face significant issues if the transitional deadline is not extended. Our suggestion is making that date 31st July 2018.

We understand and support the new requirements and can absorb the majority of transitional costs.

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:

Honey needs to be 100% pure so we 100% agree.

☐ I disagree because:

Please suggest any alternatives to this approach that would ensure additional sugars and synthetic chemicals are not present in the honey: None

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:

We don't want any contamination in the comb transferred to harvested honey for pragmatic commercial reasons. Our main buyers test for residue and we would lose them if we offered honey for sale that was contaminated.

BUT in the spring when we pack the hive down to one brood box (there are two brood boxes over winter) invariably some brood is left above the queen excluder which hatches and become part of a one box working colony ready to go to manuka fields.

If we send two box brood hives to manuka the bees pack the second (top box under the queen excluder) with honey and brood which is impossible to separate and unless there is a big nectar flow, leave the honey boxes above empty. Bees are pretty smart critters!! In these situations bee keepers will be tempted to take live brood and honey to extraction and the honey then ends up with high cfu counts which is a serious problem and again, the buyer will test for these and they will stop buying our honey.

The second box now becomes a honey box with sometimes frames that have contained brood.

It is unusual for the colony to fill these old brood cells with honey as we keep adding honey supers to give space for the honey flow. If bees have a choice between an old brood cell and a nice clean honey cell they go for the latter, especially if that box is a "wet".

When taking honey off in the field it is easy to identify brood cells that contain honey and these frames are left on the hive for the bees. We use escape boards and place an empty box on top of the brood box to gives the bees enough space and that is where we place any brood frames where old cells have been filled with honey. If we miss these frames in the field they are easy to identify at extraction (we do all of our own extraction and take great care at this stage of the process) and we separate then.

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

We are not sure if this is an issue? Are we currently seeing honey being packed and/or exported containing varroacide residues?

The commercial reality is that if we have residues, cfu's or varroacides in our honey, buyers will reject our product. We work really hard to ensure this does not happen using a range of bee keeping practices, including those described above.

We don't want to do any more testing ourselves but if that is the only way to give assurance then we would have to consider that option. BUT we don't want to be trying to find a solution for a problem that does not really exist. We are100% sure it is not an issue for us.

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, everyone would be subject to the same regulatory environment. Otherwise there is no ability to give assurance that someone is gaining an advantage by finding some way around the regulatory farmework we work within.

☐ 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:

Should be for everyone, not just for export. At the moment a small bee keeper producing for a farmers market could wreck the industry.

☐ I disagree because:

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

There should be one uniform standard for the sale of honey, whether local or overseas. How else can we guarantee the integrity of the industry?

A NZ farmers market consumer should enjoy the same rights as someone buying our honey in any overseas country. At the moment some NZ buyers are treated as second class consumers.

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:

Crazy proposal written by someone who has no idea of how things work out in the field.

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

We manage at a farm level. So all of our drum honey can be traced back to an individual farm location. We are unsure why anyone would require anything more detailed than this?

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?

We have explored options for enhancing traceability and have not pursued because our current Excel, honey book and whiteboard system works really well. Current harvest declaration and eCert systems function well and give a wealth of information that can, if required, be audited to provide detailed trace information. In addition all manuka honey is tracked from the farm to final sale, a necessary exercise to ensure visibility for the farmer and the payment of land access fees or profit share.

Below is an extract from an email detailing potential costs of introducing a detailed computer based hive mangement tool:

Hi s 9(2)(a)

Thank you for taking the time to have a discussion on s 9(2)(b)(ii) with me yesterday.

As discussed, below would be our costs (excl gst) if you chose s 9(2)(b)(ii) as your ERP system.

s 9(2)(b)(ii)

s 9(2)(b)(ii)

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:

Absolutely. We were surprised to discover this was not already a compliance requirement.

☐ I disagree because:

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

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

☐ I agree because:

☐ I disagree because:

The cost would be excessive, either through the need to purchase new software see qu. 15 management systems (plus the associated hardware) and then the staff time required to operate. MPI checking costs would also likely increase.

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:

This makes sense, good.

☐ 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:

We agree but not sure about how this differentiation will work in practice?? Better to have had a black and white separation, honey either is in or out. It is either manuka or not.

☐ 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:

☐ I disagree because:

☐ I have concerns because:

Some will try and find ways around the new rules so MPI will have to be firm in managing compliance. We are not sure yet how it is all going to work.

Our view is that there should have been one category only, manuka. Anything else should have been bush honey. We don't differentiate between clover and multi floral clover. We call the later wildflower; similarly label Rewarewa for what it is and the rest is called bush etc. Having two categories of manuka is going to confuse the market and give too much flexibility for folk to slide around the rules via a range of labelling and marketing tricks. Some of these are already being employed and we will see a range of new efforts in the future when/if the current proposal becomes mandatory.

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:

Individual pots should be correctly labeled based on contents following MPI definition. This should not impinge on company names etc.

☐ 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:

Would be good to sort for NZ inc but a dogs breakfast unfortunately!!

☐ I disagree because:

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

Who knows. We think that there will be a price premium for a combination of high MG and mono manuka. The market will take time to adjust so hopefully MPI are going to run an extensive local and international PR campaign that will explain what is happening and why this is good for the consumer. Such a neutral campaign is necessary to protect the interests of consumers and the NZ manuka honey industry.

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

Not a scientist so have to trust the processes, results and conclusions that have been drawn. We don't understand the scale implications and whether a higher number means better honey or lower DNA is the best and what the price premiums might be consequent to any particular combination of results.

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:

It is a really expensive test regime, see qu 7.

☐ I disag ee 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?

This is a problem and will reduce our proft as not a cost that can easily be passed on. We can't sell or process without test data so at the moment can't see how we might mitigate these costs.

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:

This is a problem because no one is buying. You have created a problem that will see (already happened) beekeepers going bust. Extending the time period won't help because that train is already flying down the tracks so better to get it over and done with and hope there is not too much debr s!!

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 proposa ?

☐ I agree because:

Stock in trade needs to be able to be sold until end July 2018 … at least. 31st January 2018 is simply impractical. In the medium term pushing out 6 months will have little or no impact on the market but will significantly assist the industry … and especially us as a small beekeeper working hard to build a viable export business.

☐ I disagree because:

Any other feedback

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

We liked the workshop, we needed more time to discuss. It was good having MPI officials present, doing things “kanohi te kanohi” works, as does building a partnering relationship with the people you are serving.

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

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Your details

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

General questions: getting to know you

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

   ☒ beekeeper

   ☒ extractor

   ☐ processor

   ☐ packer

   ☒ exporter

   ☒ retailer of bee products

   ☐ other – please specify

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

   ☒ 0-5 years

   ☐ 5-10 years

   ☐ 10 + years

   ☐ not applicable

3. Do you operate under:

   ☒ an RMP under the Animal Products Act 1999

   ☐ the Food Act 2014 (Food Control Plan or National Programme)

   ☐ the Food Hygiene Regulations

   ☐ none of these

   ☐ not applicable

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

   ☐ 0 – 5

   ☐ 6 – 50

   ☐ 51 – 500

   ☐ 501 – 1000

   ☒ 1001 to 3000

   ☐ More than 3000

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

Taranaki/Gisborne/Northland

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 5

☒ processors 6

☐ packers

☐ other – please specify

Impact of compliance costs for beekeepers, processors and exporters

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

Testing costs, Low end honeys may reduce in value.

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.

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

No additional substances to be present in New Zealand honey

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

☒ I agree because:

I agree we don't want any watering down of the high grade honey but we have to comply with C4 sugar tests anyway so there is no way we can feed anytime close to a honey flow.

☐ I disagree because:

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

We as beekeepers need to manage our hives in such a way as no sugar syrup goes into honey eg, do a bush crop before putting into the manuka.

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:

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

This will be hard to manage as beekeepers tend to lift frames on a regular basis to give the queen more room to lay etc but I think a way to manage this is beekeepers will have to be careful when they use Varroa strips and not when collecting honey, we should also test for residues.

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:

I thought this was already a requirement?

☐ 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:

We need to monitor beekeepers operations and practices so we know we are being supplied good product into our RMP facilities.

☐ I disagree because:

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

Pre-processing traceability requirements

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

☒ I agree because:

The current HD system is out of date and not specific and audited enough for export products.

☐ I disagree because:

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

RFID system to trace honey supers to apiary sites. There is

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

Traceability from beekeepers to operators – harvest declarations

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

☐ I agree because:

☐ I disagree because:

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

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

☐ I agree because:

☐ I disagree because:

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

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

☐ I agree because:

☐ I disagree because:

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

Labelling of monofloral and multifloral mānuka honey

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

☐ I agree because:

☒ I disagree because:

The DNA tests are not reliable enough.

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

Need to use Leptosperen as the chemical marker as it co-relates to MGO and NPA tests. Contrary to MPI's thoughts on Leptosperen stability it is stable enough for this application.

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

☐ I agree because:

Some businesses will have to change their blending practices as they currently blend to NPA levels.

☐ 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:

We need to protect this honey and name. MPI urgently needs to include overseas companies use of the Manuka name.

☐ 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:

This is what the consumer buys on.

☐ I disagree because:

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

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

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

This is a step in the right direction be needs a lot more protection around the name Manuka. If I was to bottle some local wine and call it French champagne I would end up with a lawsuit so why do we let overseas companies blend out our Manuka and call it NZ Manuka?

Laboratory Tests

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

☐ I agree because:

☐ I disagree because:

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:

We need to urgently resolve this issue as the industry has stalled and a lot of beekeepers are desperate financially.

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

☐ I agree because:

☐ I disagree because:

Any other feedback

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

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

General questions: getting to know you

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

   ☐beekeeper

   ☐extractor

   ☐processor

   ☐packer

   ☐exporter

   ☐retailer of bee products

   x other – please specify LANDOWNER

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

   ☐0-5 years

   x 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

   x 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

   x More than 3000 - We have 3000 hives (external beekeepers hives)

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

   East Coast of the North Island

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

x☐0

☐1 – 5

☐6 – 19

☐20 or more

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

☐beekeepers

☐processors

☐packers

☐other – please specify

Impact of compliance costs for beekeepers, processors and exporters

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

The new 4 plus 1 laboratory test is an additional cost that will be bo ne by the landowner/beekeeper, in addition to the 3 plus 1 test currently.

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.

The new laboratory tests for manuka honey and the traceability requirements. Using ApiTrack will cost $2100 per annum

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)?

Apitrack will cost $2100 per annum. Full traceability software programme from the land to export.

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:

This increases C4 sugar in the honey. Not a good practice for long periods of time as the bees will be suceptible to disease

☐I disagree because:

N/A

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

Can feed bees alternatives such as sea-weed extract, protein patties, leave honey in the hive. Sugar should be a last resort

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 agree do not want to have brood in the honey and the chemicals from varroa will also be in the honey

☐I disagree because:

N/A

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

No comment

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:

Strongly agree. They are processing food and should comply just like most other primary sector based industries.

☐I disagree because:

N/A

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

WHY DON'T BEEKEEPERS COMPLY WITH A FOOD CONTROL PLAN, ETC. THEY HIDE BEHIND THE EXTRACTION PROCESSORS RMP

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:

I agree. If there is a gap in MPI's oversight of the supply chain of bee products for export, this needs to be closed. All beekeepers who are intending to have their honey exported should be on the beekeepers list.

☐I disagree because:

N/A

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:

Strongly agree. The record-keeping I have seen are sub standard and leaves a lot of room for manipulations of yield and quality data. This directly correlates to the wholesale value. Landowners have been ripped off by beekeepers. Tighten up reporting back to the apiary site. MPI should undertake spot check audits on extraction processing plants to determine whether beekeepers are complying. What does MPI do with the information and data? If a landowner suspects a beekeeper is manipulating the paper work, what is our recourse? When the hives leave our property its difficult to ensure the integrity of the honey as there is a lot of trust placed on the beekeeper to be honest. Landowners are not familiar with the process. On behalf of our 18 landblocks I track the honey through to the extraction processing facility and reconcile the harvest declaration with the documents at the processing plant. The system needs to record the following:

- Total hives
- Total number of apiary sites and hives per apiary site
- Date hives placed on the land
- Date hives harvested
- Where hives are stored, prior to extraction. Sometimes hives could sit in a warehouse for a month or two waiting for extraction
- Date honey extracted
- Volume (kg's) of honey extracted – There should be some reconciliation with the harvest declaration. Can the extraction processing facility weigh the supers before and after extraction. Every drop of honey should be accounted for.

☐I disagree because:

N/A

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

ApiTrack is a software based system that we will be using. As landowners we will be purchasing our own hives for next season. ApiTrack is a tarceability software system from the land to the market.

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?

There will be a cost associated with implementing ApiTrack ($2100 per annum). Believe important to have a traceability system to provide authenticity of product back to source.

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:

Strongly agree. How dow e ensure the integrity of the honey when it leaves the land (source) through to the drum. There needs to visibility acroos the supply chain from the land to the drums to reconcile the harvest declaration with the documents at the extraction processing plant. The system needs to record the following:

- Total hives
- Total number of apiary sites and hives per apiary site
- Date hives placed on the land
- Date hives harvested
- Where hives are stored, prior to extraction. Sometimes hives could sit in a warehouse for a month or two waiting for extraction
- Date honey extracted
- Volume (kg's) of honey extracted – There should be some reconciliation with the

harvest declaration. Can the extraction processing facility weigh the supers before and after extraction. Every drop of honey should be accounted for. Without traceability you cannot give authenticity of the product to source, which is what the consumer is asking.

☐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:

Not onerous, lines up with other industries. The record keeping, tarceability needs to improve as we are dealing with a premium product. The consumer demands it so we have to deliver it.

☐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:

We should make no distinction between countries that require official assurances and those that don't. Any honey that is to be exported should comply. I note that this currently happens anyway BUT time to clean it up and be consistent. Transfer documentation between operators a must.

☐I disagree because:

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

Labelling of monofloral and multifloral mānuka honey

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

☐I agree because:

I agree that there should be a definition for manuka honey (Leptospermum scoparium). Actually there should be a definition for all honey that is exported eg clover. GREX should be used as the basis for this based on traceability to the source.

☐I disagree because:

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

It is noted in the discussion document that Leptosperin was present in other honey so was discounted. Recent tests to the new standard suggests that 3-PLA is also present in kanuka honey. Based on this and if this is proven to be correct, Leptosperin should be used as one of the chemical markers

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 agree as other industries utilise business support services.

☐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:

No as the grading system is not affected by the change, however the cost to include monofloral will incur a cost on the labels.

☐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:

The grading system needs to be reviewed especially as it relates to pollen and total peroxide or total activity. This is definitely misleading as total peroxide and total activity is found in all honey. Pollen is pollen and only relates to country of origin. Methyglyoxal is a content claim that can be proven. If exporters comply with GREX, the labelling requirements and the manuka honey definition then they comply. The industry needs to sort out the grading NOT MPI.

☐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 manuka honey definition should be beneficial. You could end up with a UMF 15+ that meets the monofloral definition that gets paid a higher price than a UMF 15+ multifloal.

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

The science on the chemical (nectar) markers needs to be consistent. Yo cannot discount leptosperin as it is found in other honey when 3-PLA will also include kanuka. The definition relates to leptospermum scoparium NOT kunzea ericoides.

If pollen is out of scope then why as we using pollen in terms of DNA as a test. As per the Science repport summary….*pollen is an attribute used to identify numerous honey types around the world.* Based on the UMF Association completing testing using the new standard approximately 20% of our high quality manuka (UMF 18+) has failed the DNA test. This is a major concern and the method used needs to be reviewed or DNA scrapped. If you discount 20% of the high quality manuka honey, MPI will be responsible for wiping $10m of the wholesale and $40m of the retail value from the manuka honey industry. This will be cause alone for legal challenges.

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

MPI scientists and the Industry scientists need to sit down and sort out the science and get this sorted, now that we have a document that can be discussed.

Laboratory Tests

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

☐I agree because:

I agree. The taking of the sample is all important and may have a major impact on the result

☐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?

Testing every drum is costly. If the honey can be tested from the VAT prior to putting the honey in the drum (at extraction) that would be best. However, not all beekeepers and extractors do this.

Do you have any suggestions for minimising any impacts?

As above, if the sample can be taken from the vat prior to being placed in the drums then you will only have one test and not say 10 (drums) to be tested.

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:

Timeframe too tight. At present it takes 11 days to get our honey tested as there is only one laboratory that can do all the tests. There are some issues as potentially 20% of the high quality honey could fail the DNA. If the DNA methodology is not changed or the reason why high grade manuka is failing is not determined then we have a major problem. The potential to also include kanuka honey that will qualify which is not leptospermum scoparium is also a concern.

☐I disagree and propose an alternative timeframe:

The timeframe should be extended to 12 weeks to allow the questions raised above and also allow the industry to review their review of the complete science should

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:

Refer to comments above

☐I disagree because:

Any other feedback

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

No

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

General questions: getting to know you

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

   ✓ beekeeper

   ☐ extractor

   ☐ processor

   ☐ packer

   ☐ exporter

   ☐ retailer of bee products

   ☐ other – please specify

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

   ☐ 0-5 years

   ☐ 5-10 years

   ✓ 10 + years

   ☐ not applicable

3. Do you operate under:

   ☐ an RMP under the Animal Products Act 1999

   ☐ the Food Act 2014 (Food Control Plan or National Programme)

   ☐ the Food Hygiene Regulations

   ☐ none of these

   ✓ not applicable

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

   ☐ 0 – 5

   ☐ 6 – 50

   ☐ 51 – 500

   ☐ 501 – 1000

   ✓ 1001 to 3000

   ☐ More than 3000

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

Tasman – Nelson and Golden Bay

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:

6 beekeepers

☐ processors

☐ packers

☐ other – please specify

Impact of compliance costs for beekeepers, processors and exporters

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

1. There will be an additional cost per sample test ($180 per sample)av s per annum = s 9(2)
2. An additional cost for registering on beekeepers list $160 per annum
3. Additional cost of giving each super a unique code and tracking. The cost will be implementation of a bar code system est. $10000, appoint person to monitor and track $50000 per annum.

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.

Listed beekeeper
Traceability requirements

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

No additional substances to be present in New Zealand honey

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

I agree because:

We don't want honey adulterated by having sucrose contained in it

☐ I disagree because:

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

The only way to avid this is to take care with feeding sugar syrup. This varies from year to year depending on weather and the onset of the honey flow. Colonies are developing strongly with big numbers and need to be fed if they are not to starve, but this must end when honey flow starts. Only way to manage this is monitoring bee hives. Scales on beehives would be a useful tool.

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:

Honey is sometimes harvested from the brood nest when the bees become honey bound often on a honeydew flow. This honey is removed to make space for frames so that the bees don't become honeybound. We also use Apivar is spring and remove it prior to placement of supers therefore no varroacide is present during the honey flow, so should have no effect, and we have been led to believe Apivar has little residual effect.

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

No varroacide treatment to remain on hives at the commencement of the honey flow.

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:

☐ 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:

I agree with a register but not the cost. Beekeepers should pay a one off fee for registering and their name remain on the list unless they want to be removed or MPI wish to remove them. I am strongly against an annual of fee of approx. $170....feels like a tax...what are we paying for ?

☐ 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:

The existing system works well. Traceability is to a site level which has a GPS reference. All sites are registered with the AFB PMS programme and have a unique number. We must have one system. There is no advantage having traceability to a super level unless it is to trace stolen supers. When harvesting supers are grouped in batches. These batches are usually 1 to 2 sites in the same area having similar honey. They are then harvested the honey mixed together and drummed. Drums are then bottled. A bottle of honey can be traced to a drum. A drum could be traced back therefore to a batch (group of supers harvested from one of more sites) which can be traced back to a one or more sites. It would would be of no advantage to trace a super, as you would never be able to trace a bottle back to a super. The current system works, and offers traceability , this is sufficient stick with it.

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

Current system (with harvest declaration) works well. No need for change.

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?

Huge cost increase, and monitoring....but again for what ? No reason to trace to super level...a nonsense.

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:

We are currently using this system, it is simple, efficient, and offers traceability.

☐ I disagree because:

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

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

☐ I agree because:

I disagree because:

Traceability to super level would be costly, and would achieve nothing. Annual registration fees are unnecessary and should be scrapped. Once of registration should be acceptable...keep it simple. Why do you want beekeepers to register every year....that will be costly as it needs to be administered. If I register as an exporter I will remain one until I leave the industry at which time I will deregister.

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:

Currently system used

☐ 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:

We need a robust definition. There does appear to be variability in the testing. The 3 phenyllactic acid test has shown variation between tests of the same sample by 40 to 60 mg/kg. This will plave a monfloral honey into a multifloral honey. To compensate for this variation the test for monofloral manuka should compensate for this range by having a lower limit. Ie 360 mg/kg. On the other end a level of 20 mg/kg is possibly too low. It would be good to also have a leptosperin test to further support manuka classification.

☐ I disagree because:

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

Why not introduce leptosperin to provide greater confidence.

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

☐ I agree because:

☐ I disagree because:

☐ I have concerns because:

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

☐ I agree because:

☐ I disagree because:

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

I agree because:

The important issue is the definition of what is manuka honey. The grading system can work within that definition.

☐ I disagree because:

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

They will complement each other. Step 1 determine whether honey is monoflaral or multifloral or other. Step 2 grade honey based on MGO/DHA ratio.

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

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

I think it is good to have reached this point. The discussion meetings and submissions will allow fine tuning to be done. It is important beekeepers are listened to on issues such as tracebility to super level being removed as this will create largescale discontentment. MPI and beekeepers are on the same side and need to work together not in a confrontational matter to get the correct solution on all issues. Well done on your hard work..it is appreciated.

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:

Testing is crucial to determine the type of honey, and widely practised in this industry.

☐ 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?

Will increase. But other tests such as pollen will drop out . It is necessary due to the value of the product.

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:

Once a decision is made we must move forward.

☐ I disagree and propose an alternative timeframe:

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

☐ I agree because:

☐ I disagree because:

Any other feedback

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

s 9(2)(b)(ii)

ANALYSIS REPORT

Client:	s 9(2)(b)(ii)	**Lab No:**	1760645 RLPPv2
Contact:		**Date Received:**	19-Apr-2017
		Date Reported:	11-May-2017 **(Amended)**
		Quote No:	
		Order No:	1
		Client Reference:	s 9(2)(b)(ii)
		Submitted By:	

Sample Type: Honey

Sample Name:		TAK 4	TAK 5	TAK 5A	TAK 6	TAK 6A
Lab Number:		1760645.1	1760645.2	1760645.3	1760645 4	1760645.5
3-Phenyllactic acid	mg/kg	442	327	301	348	342
2'-Methoxyacetophenone	mg/kg	9 0	5.1	4.8	6 0	5.6
2-Methoxybenzoic Acid	mg/kg	10.6	7.7	8.3	7.4	7.8
4-Hydroxyphenyllactic acid	mg/kg	6.3	5.7	5.5	5.4	5.3
MPI Manuka Honey Classification		Monofloral Manuka Honey	Multifloral Manuka Honey	Multifloral Manuka Honey	Multifloral Manuka Honey	Multifloral Manuka Honey
Manuka Cq	Cq	24.37 #1	26.34 #1	26.67 #1	27.09 #1	27.38 #1
Manuka DNA	pg/µL	3.318 #1	0.9334 #1	0.7544 #1	0.5770 #1	0.4780 #1

Sample Name:		TAK 6B	NEL 1	MAT 1	MAT 1A	MAT 2
Lab Number:		1760645.6	1760645 8	1760645.13	1760645.14	1760645.15
3-Phenyllactic acid	mg/kg	379	248	304	318	426
2'-Methoxyacetophenone	mg/kg	5.8	2 3	5.7	5.8	8.6
2-Methoxybenzoic Acid	mg/kg	7 9	4.2	4.9	5 0	6.3
4-Hydroxyphenyllactic acid	mg/kg	5.4	2.9	2.9	3 0	4.4
MPI Manuka Honey Classification		Multifloral Manuka Honey	Multifloral Manuka Honey	Multifloral Manuka Honey	Multifloral Manuka Honey	Monofloral Manuka Honey
Manuka Cq	Cq	26.78 #1	27.13 #1	25.58 #1	25.52 #1	24.76 #1
Manuka DNA	pg/µL	0.7034 #1	0.5634 #1	1.5262 #1	1.5878 #1	2.579 #1

Analyst's Comments

The client requested the 3-Phenyllactic Acid test be repeated for samples 13, 14, and 15.

The repeat results are as follows:

3-Phenyllactic Acid

MAT 1 - 300 mg/kg

MAT 1A - 310 mg/kg

MAT 2 410 mg/kg

#1 Report Signatory for this analysis is s 9(2)(a)

Amended Report: This report replaces an earlier report issued on 24 Apr 2017 at 5:14 pm
Reason for amendment: Analyst comment added for repeat 3-Phenyllactic acid results.

SUMMARY OF METHODS

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively clean matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis.

Sample Type: Honey

Test	Method Description	Default Detection Limit	Sample No
MPI 5 Attributes Tests			

Sample Type: Honey			
Test	**Method Description**	**Default Detection Limit**	**Sample No**
MPI Manuka Honey Classification	Evaluation of result against Ministry of Primary Industries (MPI) guideline criteria for monofloral and multifloral manuka honey. s 9(2)(b)(ii) is certified under the MPI Recognised Laboratory Programme to perform manuka honey classification testing. Ministry for Primary Industries Science Summary Report, Criteria for Identifying Manuka Honey, April 2017.	-	1-6, 8, 13-15
Manuka Honey Chemistry Profile			
3-Phenyllactic acid	Aqueous solvent extraction, dilution. LC-MSMS analysis. **RLP Official Test 10.05**.	10 mg/kg	1-6, 8, 13-15
2'-Methoxyacetophenone	Aqueous solvent extraction, dilution. LC-MSMS analysis. **RLP Official Test 10.05**.	1.0 mg/kg	1-6, 8, 13-15
2-Methoxybenzoic Acid	Aqueous solvent extraction, dilution. LC-MSMS analysis. **RLP Official Test 10.05**.	1.0 mg/kg	1-6, 8, 13-15
4-Hydroxyphenyllactic acid	Aqueous solvent extraction, dilution. LC-MSMS analysis. **RLP Official Test 10.05**.	1.0 mg/kg	1-6, 8, 13-15
Manuka Honey PCR Profile			
Manuka DNA	Quantification of Manuka DNA by real time PCR. Subcontracted to Hill Laboratories - Microbiology; 1 Clow Place, Hamilton. **RLP Official Test 10.04**.	0.0032 pg/µL	1-6, 8, 13-15

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

Samples are held at the laboratory after reporting for a length of time depending on the prese vation used and the stability of the analytes being tested. Once the storage period is completed the samples are discarded unless otherwise advised by the client.

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

s 9(2)(b)(ii)

Important information to our customers concerning the Quality of Measurements

Do you use analytical results to make decisions and judgements?

As an accredited laboratory, we closely manage the quality of the measurements we supply to you. We would like to let you know that we have report options available that show the analytical variation in our testing. These reports are designed to help you make better decisions with the analytical results you obtain from us.

What is Analytical Variation?

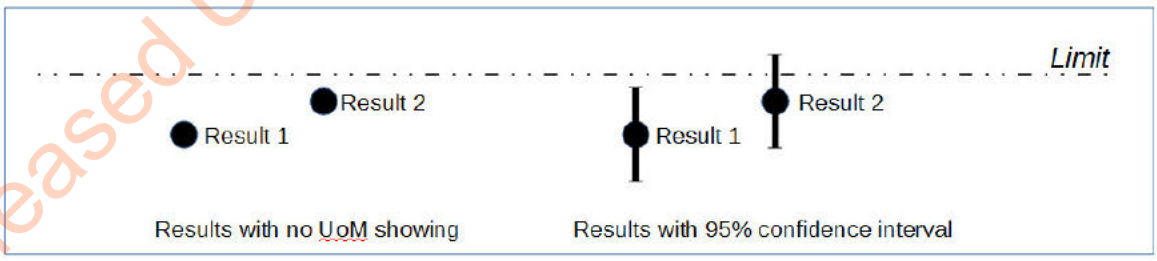
We hope that this doesn't surprise you but if we carry out ten analyses on the same sample we will not get ten identical results. The results produced will vary slightly each time due to slight variations in testing conditions, such as equipment, the technicians carrying out the test, or the environment. In the laboratory, we call this "Uncertainty of Measurement" or "UoM" for short. We have regular controls to measure the UoM for a test and we actively try to remove as much variation as best we can, but the variation in any analytical process will never be zero.

Why is Analytical Variation Important?

A common reason for testing is to ensure limiting values are not exceeded. Without knowing the UoM, it may seem easier to make decisions, but these decisions may be incorrect and lead to undesired outcomes. Therefore it is important match the analytical method's capability with the limit or critical value under consideration. Providing us with full information about any limits your result is likely to be compared against, will ensure the best testing method is chosen for your sample(s).

The example below illustrates this. With no UoM shown, it seems that Result 1 and 2 are below the limit and pass. However because the UoM information is not included, we are unsure how confident we can be regarding these decisions. It also increases the risk of making an incorrect decision.

When including the UoM with the results, for Result 1 the result indeed passes. We also have greater confidence in that pass decision, as the top of the 95% confidence interval is below the limit. For Result 2 on the other hand, the top of the 95% confidence interval crosses the limit. This means that we cannot say Result 2 passes with 95% confidence and that there is a small but significant possibility that the true result could actually fail. This increases the risk of accepting the pass decision. Reanalysis of the same sample could result in a different conclusion, with potentially drastically different consequences. Re-sampling or reanalysis may be required to achieve a clearer understanding.



We hope the above example illustrates the importance of UoM in the decision making process.

Our optional UoM reports will provide you with an estimate of UoM that allows for better decisions to be made, thereby reducing your risk. This is especially important where results are close to the limit required to be met. Variation in repeating a test in such cases may show some results as being acceptable compared to the limit and some not. The uncertainty estimate allows for an assessment of where the result is truly likely to lie.

When is UoM Reported?

In New Zealand, IANZ accredited laboratories must be able to provide UoM information when the customer asks for it. In some cases, such as testing for Drinking water, the reporting of UoM is a mandatory requirement. Such requirements are likely to become more common in the future.

What will the reports look like?

s 9(2)(b)(ii) will typically still provide the standard report type as a default. UoM results will be provided along side your results in a separate report if requested. The UoM report will however be the default report in cases when providing UoM is a mandatory requirement.

How will UoM be reported?

The result and its associated uncertainty will be reported in the following way:

Your result: 4.87 ± 0.65 g/m3 (95% confidence level)

In this example, we can be 95% sure the true result lies somewhere in the range 4.22 and 5.52 mg/kg. Stated another way, if the test was repeated 100 times, you would expect that 95 of the results obtained would fall between those values. Our default is to report a level of confidence of 95%.

*Please note that the uncertainty reported with a result is an estimate based on routine laboratory performance on typical sample matrices. It does not include variation due to steps outside of the laboratory's control, such as sampling by the customer.

What is the Coverage Factor?

The accepted method for combining uncertainties is using standard uncertainties (the equivalent of one standard deviation, approximately 68% confidence level). For reporting, this standard uncertainty is multiplied by an appropriate coverage factor to give the required level of confidence. A coverage factor of 2 is used to give approximately 95% confidence, and a coverage factor of 3 is used for 99% confidence. If you wish to use our uncertainty estimates in your own calculations, you will first need to divide them by the supplied coverage factor.

Our aim is to make your job easier

If you have any further questions about this, please don't hesitate to contact the laboratory. We are eager to understand your testing needs and ensure that they are met consistently, so that your decisions are easier and more meaningful. We hope you are satisfied with the additional information available to you and find it useful when making decisions.

Contact Details

For further information contact one of our Client Services Managers:

s 9(2)(b)(ii)

s 9(2)(b)(ii)

ANALYSIS REPORT

Client:	s 9(2)(b)(ii)	**Lab No:**	1761501 RLPPv2
Contact:		**Date Received:**	20-Apr-2017
		Date Reported:	11-May-2017 **(Amended)**
		Quote No:	81277
		Order No:	
		Client Reference:	
		Submitted By:	s 9(2)(b)(ii)

Sample Type: Honey

Sample Name:		MAT1 02-Mar-2017	MAT1A 02-Mar-2017	MAT2 01-Mar-2017		
Lab Number:		1761501.1	1761501.2	1761501.3		
3-Phenyllactic acid	mg/kg	270	270	360	-	-
2'-Methoxyacetophenone	mg/kg	5.1	5.0	7.5	-	-
2-Methoxybenzoic Acid	mg/kg	5 0	5.0	6.5	-	-
4-Hydroxyphenyllactic acid	mg/kg	2.8	2.9	4.1	-	-
MPI Manuka Honey Classification		Multifloral Manuka Honey	Multifloral Manuka Honey	Multifloral Manuka Honey	-	-
Manuka Cq	Cq	24.87	26.29 #1	24 29	-	-
Manuka DNA	pg/µL	2.402	0.967 #1	3.494	-	-

Analyst's Comments

The client requested the 3-Phenyllactic Acid test be repeated for samples 1, 2, and 3.

The repeat results are as follows:

3-Phenyllactic Acid

MAT1 - 300 mg/kg

MAT1A - 320 mg/kg

MAT2 - 420 mg/kg

#1 Report Signatory for this analysis is s 9(2)(a) .
Note: PCR inhibition was observed in the original honey pollen DNA sample assay. Sample dilution was carried out and result has been adjusted accordingly. This test result is equivalent to that for the unmodified test

Amended Report: This report replaces an earlier report issued on 27 Apr 2017 at 4:15 pm
Reason for amendment: Analyst comment added for repeat Phenyllactic Acid results.

SUMMARY OF METHODS

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively clean matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis.

Sample Type: Honey

Test	Method Description	Default Detection Limit	Sample No
Individual Tests			
3-Phenyllactic acid	Aqueous solvent extraction, dilution. LC-MSMS analysis. **RLP Official Test 10.05**.	10 mg/kg	1-3
MPI 5 Attributes Tests			
MPI Manuka Honey Classification	Evaluation of result against Ministry of Primary Industries (MPI) guideline criteria for monofloral and multifloral manuka honey. s 9(2)(b)(ii) is certified under the MPI Recognised Laboratory Programme to perform manuka honey classification testing. Ministry for Primary Industries Science Summary Report, Criteria for Identifying Manuka Honey, April 2017.	-	1-3
Manuka Honey Chemistry Profile			

Sample Type: Honey			
Test	**Method Description**	**Default Detection Limit**	**Sample No**
2'-Methoxyacetophenone	Aqueous solvent extraction, dilution. LC-MSMS analysis. **RLP Official Test 10.05**.	1.0 mg/kg	1-3
2-Methoxybenzoic Acid	Aqueous solvent extraction, dilution. LC-MSMS analysis. **RLP Official Test 10.05**.	1.0 mg/kg	1-3
4-Hydroxyphenyllactic acid	Aqueous solvent extraction, dilution. LC-MSMS analysis. **RLP Official Test 10.05**.	1.0 mg/kg	1-3
Manuka Honey PCR Profile			
Manuka DNA	Quantification of Manuka DNA by real time PCR. Subcontracted to s 9(2)(b)(ii) - Microbiology; 1 Clow Place, Hamilton. **RLP Official Test 10.04**.	0.0032 pg/µL	1-3

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

Samples are held at the laboratory after reporting for a length of time depending on the preservation used and the stability of the analytes being tested. Once the storage period is completed the samples are discarded unless otherwise advised by the client.

s 9(2)(a)