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

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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## Your details

| | |
|---|---|
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| 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)(b)(ii) |
| Your contact details (such as phone number, address, and email): | s 9(2)(b)(ii) |

## 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?

| Bay of Plenty |
|---|

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

## 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:

| |
|---|
| From our inventory test, we have more than 50% failure on our drums which were previously recognised as Manuka honey ranging from UMF 5+ to UMF 9+ (please see the attached file). We even have UMF more than 9+ failed as Non-Manuka honey. The new definition is ruining the Manuka Honey Industry in New Zealand now. |

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

| |
|---|
| Think about what Manuka honey is valued for. It is not because of some unknown chemical markers but because of Methylglyoxal (MG) giving Manuka honey antibacterial properties. Therefore, if the honey contains significant amount of MG, it should be recognised as Manuka honey. It doesn't really matter if it is multiflora or monoflora Manuka honey. We are satisfied with our current label regulation. |

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:

| |
|---|
| Because the new definition is not true to the fact. |

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:

| |
|---|
| Because the current use of UMF grading system represents the true property of Manuka honey. |

☐ I disagree because:

| |
|---|
| |

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

| |
|---|
| Yes, the new definition causes even more confusion. How do you label a UMF 10.5+ honey that has failed the marker(s) as non-Manuka honey? Can you find any other honey that contains as much MG as Manuka honey does? If not, why does a honey that contains more than 956 mg/kg of MG have to be called non-Manuka honey according to the test result? |

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

| |
|---|
| The summary science report is not convincing when you compare it with the data MPI previously released. How can you explain that a high MG content honey is not a true Manuka honey? How can a definition of Manuka honey conflict with a good grading system which has been the core of the New Zealand Manuka Honey Industry. |

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

| |
|---|
| More research is required to finalise the definition of Manuka honey. Perhaps we don't need a definition for Manuka 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:

| |
|---|
| From our inventory test, we have more than 50% failure on our drums which were previously recognised as Manuka honey ranging from UMF 5+ to UMF 9+ (please see the attached file). We even have UMF more than 9+ failed as Non-Manuka honey. The new definition is ruining the Manuka Honey industry in New Zealand now. |

| Sample | Dihydroxyacetone | Methylglyoxal | Non-peroxide Activity | Hydroxymethylfurfural | 4-Hydroxyphenyllactic acid | 2-Methoxybenzoic acid | 2-Methoxyacetophenone | 3-Phenyllactic acid | Class |
|---|---|---|---|---|---|---|---|---|---|
| Description | DHA | MG | NPA* | HMF | 4-HPLA | 2-MBA | 2-MAP | 3-PLA | |
| | mg/kg | mg/kg | w/v phenol e | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | |
| | 10 | 4 | 0.8 | 1 | 0.8 | 0.8 | 0.8 | 20 | |
| | 3in1 | 3in1 | NPA | 3in1 | anuka Marke | anuka Marke | Manuka Markers | Manuka Markers | |
| 1 | 3010 | 465 | 14.1 | 5 | 9.77 | 3.64 | 18.2 | 1010 | |
| 2 | 1450 | 457 | 14 | 7 | 7.96 | 7.91 | 18.8 | 928 | |
| 3 | 1110 | 421 | 13.3 | 9 | 9.97 | 3.14 | 6.49 | 1160 | |
| 4 | 2240 | 411 | 13.1 | 5 | 10.3 | 2.81 | 11.6 | 909 | |
| 5 | 1130 | 401 | 12.9 | 8 | 5.72 | 4.39 | 10.2 | 548 | |
| 6 | 2140 | 401 | 12.9 | 5 | 5.98 | 2.41 | 11.1 | 657 | |
| 7 | 1160 | 395 | 12.8 | 8 | 5 | 4.3 | 10.3 | 644 | |
| 8 | 2520 | 396 | 12.8 | 4 | 10.1 | 3.23 | 13.3 | 896 | |
| 9 | 994 | 392 | 12.7 | 7 | 7.52 | 2.58 | 4.33 | 564 | |
| 10 | 2210 | 383 | 12.6 | 4 | 9.19 | 2.88 | 10.8 | 831 | |
| 11 | 867 | 378 | 12.5 | 12 | 10.3 | 2.67 | 4.38 | 1160 | |
| 12 | 2290 | 381 | 12.5 | 4 | 10.1 | 3.08 | 9.84 | 876 | |
| 13 | 2160 | 380 | 12.5 | 3 | 9.81 | 2.75 | 9.97 | 836 | |
| 14 | 2070 | 381 | 12.5 | 5 | 5.16 | 2.33 | 8.55 | 602 | |
| 15 | 946 | 377 | 12.4 | 9 | 6.39 | 6.23 | 11.8 | 956 | |
| 16 | 1900 | 373 | 12.4 | 4 | 9.85 | 2.68 | 7.28 | 917 | |
| 17 | 2430 | 373 | 12.4 | 5 | 5.26 | 2.73 | 11 | 680 | |
| 18 | 856 | 369 | 12.3 | 8 | 7.03 | 2.17 | 3.27 | 569 | |
| 19 | 903 | 367 | 12.2 | 8 | 4.82 | 3.28 | 3.77 | 433 | |
| 20 | 938 | 367 | 12.2 | 4 | 8.5 | 2.55 | 2.97 | 600 | |
| 21 | 982 | 364 | 12.2 | 11 | 10.4 | 2.89 | 3.77 | 1060 | |
| 22 | 2020 | 362 | 12.1 | 4 | 7.48 | 2.68 | 9.81 | 742 | |
| 23 | 2070 | 349 | 11.9 | 4 | 8.7 | 2.84 | 8.39 | 794 | |
| 24 | 851 | 339 | 11.7 | 8 | 4.08 | 3.2 | 4.16 | 376 | Multi-M |
| 25 | 978 | 341 | 11.7 | 8 | 6.56 | 2.69 | 4.93 | 625 | |
| 26 | 799 | 337 | 11.6 | 10 | 8.8 | 5.05 | 13.5 | 1130 | |
| 27 | 1360 | 334 | 11.6 | 5 | 7.91 | 1.85 | 5.76 | 646 | |
| 28 | 903 | 331 | 11.5 | 7 | 7.21 | 5.22 | 12.3 | 1100 | |
| 29 | 819 | 330 | 11.5 | 11 | 8.28 | 4.93 | 11.90 | 994 | |
| 30 | 765 | 318 | 11.2 | 9 | 7.59 | 2.37 | 2.56 | 628 | |
| 31 | 703 | 305 | 10.9 | 10 | 6.16 | 1.79 | 2.25 | 467 | |
| 32 | 2000 | 303 | 10.9 | 3 | 7.52 | 2.48 | 6.97 | 769 | |
| 33 | 1880 | 303 | 10.9 | 2 | 5.89 | 6.64 | 13 | 635 | |
| 34 | 705 | 294 | 10.7 | 9 | 5.59 | 2.25 | 1.93 | 486 | |
| 35 | 956 | 285 | 10.5 | 3 | 8.74 | 2.79 | <0.8 | 686 | Non-M |
| 36 | 690 | 285 | 10.5 | 8 | 4.56 | 2.67 | 4.66 | 370 | Multi-M |
| 37 | 1510 | 283 | 10.5 | 3 | 5.91 | 2.99 | 6.8 | 527 | |
| 38 | 1160 | 285 | 10.5 | 7 | 5.34 | 1.45 | 4.23 | 542 | |
| 39 | 2340 | 285 | 10.5 | 2 | 8.01 | 7.8 | 13.5 | 745 | |
| 40 | 676 | 281 | 10.4 | 7 | 8.8 | 5.38 | 10.2 | 1040 | |
| 41 | 1210 | 282 | 10.4 | 4 | 4.01 | 1.88 | 5.27 | 467 | |
| 42 | 1170 | 277 | 10.3 | 4 | 4.36 | 1.89 | 5.52 | 456 | |
| 43 | 541 | 270 | 10.2 | 4 | 10.1 | 3.4 | 5.94 | 977 | |
| 44 | 1340 | 272 | 10.2 | 5 | 3.92 | 1.91 | 6.79 | 480 | |
| 45 | 1620 | 273 | 10.2 | 4 | 8.31 | 4.36 | 17.3 | 1110 | |
| 46 | 1590 | 273 | 10.2 | 7 | 4.78 | 4.81 | 16.3 | 613 | |
| 47 | 1290 | 265 | 10.1 | 4 | 7.57 | 1.88 | 5.08 | 583 | |
| 48 | 1530 | 257 | 9.9 | 4 | 6.51 | 1.8 | 6.8 | 602 | |
| 49 | 1330 | 260 | 9.9 | 6 | 5.26 | 1.44 | 6.11 | 581 | |
| 50 | 1240 | 258 | 9.9 | 3 | 5.69 | 1.58 | 3.37 | 556 | |
| 51 | 1300 | 256 | 9.8 | 4 | 5.7 | 1.54 | 5.38 | 527 | |
| 52 | 1420 | 255 | 9.8 | 4 | 7.14 | 2.23 | 5.19 | 594 | |
| 53 | 487 | 248 | 9.7 | 5 | 9.04 | 3.52 | 4.38 | 865 | |
| 54 | 1480 | 249 | 9.7 | 4 | 5.48 | 2.23 | 8.23 | 582 | |
| 55 | 1230 | 248 | 9.7 | 3 | 5.25 | 2.01 | 5.8 | 501 | |
| 56 | 1000 | 248 | 9.7 | 4 | 5.92 | 1.54 | 3.59 | 569 | |
| 57 | 741 | 245 | 9.6 | 5 | 4.71 | 5.08 | 6.46 | 358 | Multi-M |
| 58 | 415 | 236 | 9.4 | 11 | 5.3 | 1.45 | 1.54 | 396 | Multi-M |
| 59 | 707 | 234 | 9.3 | 6 | 3.33 | 2.89 | 6.75 | 310 | Multi-M |
| 60 | 532 | 235 | 9.3 | 9 | 8.21 | 3.66 | 8.63 | 1190 | |
| 61 | 997 | 233 | 9.3 | 3 | 5.44 | 2.7 | 6.74 | 558 | |
| 62 | 1220 | 230 | 9.2 | 4 | 6.33 | 2.04 | 4.65 | 554 | |
| 63 | 1070 | 223 | 9.1 | 4 | 4.42 | 1.44 | 4.82 | 463 | |
| 64 | 821 | 216 | 8.9 | 2 | 7.49 | 2.35 | <0.8 | 1100 | Non-M |
| 65 | 529 | 210 | 8.8 | 9 | 7.07 | 3.9 | 6.97 | 1120 | |
| 66 | 1000 | 205 | 8.6 | 6 | 4.9 | 1.39 | 5.28 | 542 | |
| 67 | 1030 | 196 | 8.4 | 4 | 6.66 | 1.52 | 6.35 | 727 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 68 | 1250 | 189 | 8.2 | 6 | 4.62 | 3.69 | 9.81 | 546 | |
| 69 | 1100 | 187 | 8.1 | 5 | 3.66 | 3.06 | 4.63 | 383 | Multi-M |
| 70 | 977 | 186 | 8.1 | 4 | 6 | 1.16 | 3.51 | 486 | |
| 71 | 464 | 181 | 8 | 5 | 4.99 | 1.49 | 4.16 | 678 | |
| 72 | 1070 | 183 | 8 | 4 | 4.69 | 1.79 | 4.09 | 371 | Multi-M |
| 73 | 615 | 177 | 7.9 | <1 | 2.7 | 2.66 | 3.08 | 248 | Multi-M |
| 74 | 558 | 172 | 7.8 | 2 | 2.59 | 2.56 | 3.55 | 287 | Multi-M |
| 75 | 928 | 174 | 7.8 | 4 | 4.47 | 1.47 | 4.33 | 340 | Multi-M |
| 76 | 547 | 170 | 7.7 | 2 | 6.65 | 1.66 | 1.14 | 652 | |
| 77 | 752 | 169 | 7.7 | 6 | 3.1 | 0.93 | 2.81 | 262 | Non-M |
| 78 | 471 | 166 | 7.6 | 1 | 2.08 | 2.48 | 2.39 | 219 | Multi-M |
| 79 | 737 | 168 | 7.6 | 7 | 3.31 | 0.99 | 2.79 | 271 | Non-M |
| 80 | 393 | 160 | 7.4 | 7 | 5.78 | 2.45 | 6.07 | 921 | |
| 81 | 375 | 158 | 7.4 | 6 | 3.11 | <0.8 | 1.8 | 234 | Non-M |
| 82 | 408 | 157 | 7.3 | 8 | 7.33 | 2.60 | 4.55 | 1217 | |
| 83 | 349 | 156 | 7.3 | 8 | 8.32 | 2.87 | 6.58 | 1230 | |
| 84 | 956 | 158 | 7.3 | 5 | 5.28 | 1.26 | 5.17 | 577 | |
| 85 | 890 | 155 | 7.3 | 3 | 7.44 | 2.35 | 8.65 | 1180 | |
| 86 | 830 | 155 | 7.3 | 3 | 5.32 | 1 | 3.58 | 464 | |
| 87 | 388 | 152 | 7.2 | 9 | 2.37 | 1.14 | 3.57 | 231 | Multi-M |
| 88 | 446 | 153 | 7.2 | 2 | 1.82 | 2.49 | 2.55 | 211 | Multi-M |
| 89 | 596 | 152 | 7.2 | 3 | 3.86 | 1.01 | 2.71 | 391 | Multi-M |
| 90 | 784 | 153 | 7.2 | 4 | 3.65 | 1.06 | 1.45 | 520 | |
| 91 | 811 | 148 | 7.1 | 4 | 6.27 | 4.2 | 10.3 | 765 | |
| 92 | 667 | 145 | 7 | 3 | 7.54 | 3.08 | 8.1 | 1330 | |
| 93 | 867 | 142 | 6.9 | 4 | 3.61 | 1.22 | 1.96 | 613 | |
| 94 | 671 | 131 | 6.6 | 4 | 2.62 | 1.39 | 4.59 | 234 | Multi-M |
| 95 | 623 | 130 | 6.6 | 4 | 1.8 | 1.34 | 2.73 | 201 | Multi-M |
| 96 | 567 | 133 | 6.6 | 3 | 8.53 | 2.86 | 7.42 | 1360 | |
| 97 | 657 | 133 | 6.6 | 4 | 3.3 | 0.85 | 1.4 | 417 | Non-M |
| 98 | 288 | 127 | 6.5 | 7 | 7.53 | 0.9 | 2.39 | 861 | Non-M |
| 99 | 654 | 121 | 6.3 | 3 | 8.28 | 3.11 | 6.87 | 1180 | |
| 100 | 397 | 119 | 6.2 | 3 | 1.6 | 1.75 | 1.71 | 190 | Multi-M |
| 101 | 364 | 119 | 6.2 | 4 | 3.71 | 0.96 | 2.21 | 257 | Non-M |
| 102 | 298 | 112 | 6 | 3 | 3.52 | 1.02 | <0.8 | 318 | |
| 103 | 259 | 108 | 5.9 | 3 | 3.73 | <0.8 | 1.27 | 243 | Non-M |
| 104 | 469 | 96 | 5.5 | 2 | 4.58 | 2.03 | 1.79 | 988 | |
| 105 | 250 | 96 | 5.4 | 3 | 3.84 | <0.8 | <0.8 | 245 | Non-M |
| 106 | 366 | 91 | 5.3 | 5 | 2.63 | <0.8 | 1.91 | 214 | Non-M |
| 107 | 221 | 87 | 5.1 | 1 | 1.18 | 1.7 | 2.01 | 118 | Multi-M |
| 108 | 232 | 82 | 5 | 3 | 2.45 | <0.8 | <0.8 | 191 | Non-M |

Conclusion:

1. 108 drums ranged from UMF 5+-14.1+
   30 drums failed on MPI markers test
   The failure rate is about 27.8%
2. 45 drums ranged from UMF 5+-9.0
   24 drums failed on MPI markers test
   The failure rate is about 53.3%

# 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 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)(b)(ii) . |
| Your contact details (such as phone number, address, and email): | s 9(2)(b)(ii) |

## 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?

| Auckland |
|---|

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?

| |
|---|
| We believe that this will have an impact on costs for all beekeeping operations. |

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 proposed traceability requirements will undoubtedly lead to more expense and more work for our staff.<br><br>We don't see any benefit coming from the proposed requirements of section 4.1. Traceability to the super level does not provide any advantage over the existing system. Traceability to the yard and end point testing (for tutin, C4 sugars, etc) of drums or batches by beekeepers/processors is far more practical and effective.<br><br>Our staff will need to spend more time implementing/utilising and recording information that is essentially pointless. |

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)?

As above, we foresee increased administration cost due to the proposed 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:

This requirement can create difficulties in situations where hives are gaining strength in an orchard and supers are placed to allow for additional growth.

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

C4 testing of honey.

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

☐ I agree because:

☒ I disagree because:

Bees will naturally move honey throughout a hive when necessary to accommodate more brood.

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

| |
|---|
| Utilising only Varroa treatments that will not leave harmful residue in honey or wax. |

## 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:

| |
|---|
| It put all produces under the same standards – I would also propose that those selling commercially within New Zealand also move to a risk-based programme. |

☐ 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:

However the cost of listing should be substantially reduced. $178.25 is a considerable amount yearly for a small amount of data entry.

☐ 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 requirement for traceability to the super level adds nothing beneficial to the existing system and will add additional costs to beekeeping operations. Traceability to the apiary site is sufficient when used in conjunction with batch testing.

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

Explaining to our trade partners why this is an ineffective measure (and that in many cases they do not require this of their own beekeepers).

Keeping the existing system in place.

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?

Increased administration costs for very little benefit.

## 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:

Section 4.2 needs clarification. It should state that a harvest declaration needs to be provided to the operator providing extraction services. Other than that I agree with the measure.

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:

However, all transfers should be made through the e-cert system.

☐ 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:

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☒ I disagree because:

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| The current testing method as proposed is flawed (as admitted to by MPI).<br>Pollen as a measure is an inaccurate indicator and may not necessarily reflect the source of the nectar present in the honey. Bees can collect nectar and pollen from different sources – this in turn will alter the pollen content of honey present in the hive. |

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

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| Utilise the research conducted worldwide by different associations, Universities, Government departments (Defra, CIQ, etc) and research bodies to come up with an alternative robust scientific definition. |

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:

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☒ I disagree because:

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| The proposed definition is not valid. It also does nothing to assure consumers of the quality of the Manuka that they are purchasing. |

☐ I have concerns because:

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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:

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| The term Manuka should be protected and utilised only for Manuka honey.<br>However this comes with a caveat in that we would only agree if the test utilised can be shown to be truly accurate (in the current state we don't believe that the test can correctly define Manuka Honey. |

☐ 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:

With the requirement that the grading system are truthful and not confusing to the end consumer.

☐ 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?

As noted above Pollen should not be included in the testing. It is well known that bees will collect Pollen from plants that do not even produce nectar – this alone could skew the results of tests.

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:

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☒ I disagree because:

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| As currently presented the test is not valid. |

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?

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Do you have any suggestions for minimising any impacts?

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## 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:

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☒ I disagree and propose an alternative timeframe:

It depends on what form the changed proposal takes. We will also need time to put in place the required measures to meet the requirements of the new standard.
e.g. after the introduction of the interim guidelines, we had to throughout a large number of labels and replace them – having new labels designed and printed at a period of time when many others were in the same boat definitely caused some delays.

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:

Most products are labelled with a best before of more than two years. Stock packed before the provision are in place should be allowed to be sold for at least a time frame of 1 year.

## 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).

Section 3.5.5
"Under Codex, a honey may make a monofloral claim if that honey comes "wholly or mainly from that particular source and has the organoleptic [taste, colour and aroma of the honey], physicochemical [thixotrophy, conductivity] and microscopic [pollen concentration using microscopy] properties corresponding with that origin""

The codex makes no comment regarding the use of chemicals to identify honey; yet MPI is to utilise chemical markers to identify Manuka.
MPI also notes that traditional microscopy is not suitable for the identification of Manuka honey (Section 6.1.1 Science Summary). We would suggest that Pollen in any aspect is not a suitable marker. MPI have admitted that they have had issue with this aspect of the test – we recommend that it is simply removed from the test.

If MPI can convince our trade partners of the relevance of the chemical markers then it should also be possible to put forward to those that require pollen concentration that the pollen content of honey is irrelevant to its nectar source.

We also fully endorse the submissions put forward by the UMFHA and the New Zealand Beekeeping Inc.

# Submission for the

# Proposed General Export Requirements for Bee Products



**Executive Summary.**

This submission is from R & L Bray, commercial beekeepers in Canterbury that process honey under an RMP.

Our submission deals not only with the proposed changes, but provides comment on the background leading up to the proposed changes.

We hope MPI will review all submissions and consider if the proposed changes in the GREX can be justified according to current legislation and the importing requirements of overseas countries. Our submission suggests MPI have proposed to introduce requirements that are beyond the scope of the current legislation, including ACVM and Biosecurity Act. As well it is beyond the scope of current import requirements of many other countries, in fact the NZ government only provides official assurance to 5 trading nations.

We have concerns the MPI definition of manuka honey appears to concentrate on laboratory techniques and we are unsure that the resultant definitive definition will result in a product that people expect to taste as manuka honey should. There have been some cases where honey has been identified as manuka according to the definition but the beekeeper does not consider it even tastes as though it is wholly or mainly manuka. We consider there needs to be further investigation carried out. Beekeeper confidence in the proposed standards needs to be assured before the standards are formalised.

We have serious concerns with the proposed GREX. We believe MPI have not established the need to so drastically change the requirements for all beekeepers regardless if they produce manuka honey or not. The proposed changes apply to all beekeepers and do not differentiate the ability of some to support all sorts of extraordinary procedures based on returns of $150 per kg for high grade honey while others that receive $10 per kg for the product they produce will likely struggle with any extra requirements. The proposed changes, despite the claims by MPI, are extremely onerous on beekeepers. In the case of the requirement for the beekeeper to make a declaration that hives were free of AFB ‘when last inspected by an authorised person’, for many this is impossible to do as most of the hives in NZ would never have been inspected by an authorised person.

The Animal Products Act does not require many of the items proposed to be contained in the GREX to come under an RMP, and we have indicated in our submission we consider much of the GREX ‘out of scope’ according to the requirements of the Animal Products Act. We consider the beekeeping RMP process at present is adequate and consistent with other industries that produce goods under the Animal Products Act that no changes are required at present.

We have commented on the industry consultation that has been conducted by MPI, in light of the fragmentation that exists in the industry. It does appear the ‘rules’ are being influenced by vested interests in both overseas countries and within the NZ Apiculture Industry. With reference to beehive management the proposals do not appear to be practical for many beekeepers and one has to ask if any competent beekeepers have at least perused the proposal prior to the release for public comment.

We have submitted that issues surrounding traceability and bee products being fit for purpose do not require intensive hive and site management rather the RCS for Residue Monitoring conducted by MPI, and paid for by RMP holders should be sufficient for official assurance purposes. If MPI deems their process inadequate then MPI can address those issues, however our submission contains evidence where MPI are comfortable their monitoring program is adequate.

MPI have promoted 'traceability' but in reality have not indicated why it is important to establish a GPS location of beehives – is the traceability so that in the unlikely event there is some human health issue with bee products all hives within a certain GPS location need to be burned? Would that unlikely event mean that all farm production within a GPS location would also be condemned? To require beekeepers to record specific information regarding location is rather pointless if beekeepers are not told how and why this information is likely to be used. To be told the information is for traceability is hardly sufficient without further detail relating to why is there a need, and what circumstances the information is likely to be used, an example of a food safety issue originating in the field would have assisted beekeeper understanding for the proposal.

We hold the view, apart from adulteration of product and misleading marketing associated with some honey, the beekeeping industry has a good record in producing food that is safe for humans to consume. Our honey can be stored at fluctuating temperatures for years without causing health issues for consumption. There have been few discoveries of chemical residues in bee products unlike other food groups, horticultural, agricultural, and animal products which have more serious issues relating to human health.

Finally we hold the view that the government should be supporting and facilitating export trade but in view of the impediments to the export of honey and bee products proposed by the GREX we now consider that we have been mistaken or misled in our view.

# Submission for the

# Proposed General Export Requirements for Bee Products

This submission is from R & L Bray, commercial beekeepers that operate hives around Ashburton, Mid-Canterbury. We process honey under a RMP and sell produce both in the domestic market as well as the export market. We do not farm our hives in manuka areas and do not produce or market manuka honey. We are concerned at the proposed manuka standard because of apparent inconsistencies within the testing regime. We are also concerned at the proposed conditions of the GREX on the basis the imposition of conditions are onerous on beekeepers in their beehive management as well the desired outcome can be achieved in less onerous ways. This submission is divided into sections with comment relating to those aspects as presented by MPI in their workshop presentations, written proposals, and incorporates information received through OIA Requests.

**Catalyst for proposal.**

We understand from information received in OIA 0017-0276 trading nations have raised concerns regarding the authenticity of manuka honey and about gaps in traceability across the bee product supply chain. There has been no further information given by MPI what those concerns are. There have been OIA requests (OIA17-281) for material that would clarify the issues however MPI has refused to release information because it would prejudice the international relations of the Government of NZ. We can only speculate the issues may centre on therapeutic claims or misleading and fraudulent activities. To our knowledge the beekeeping industry does have an established traceability procedures that enable batches of product to be recalled if the need arises. The concerns of misleading or fraudulent marketing are better addressed not by Food Safety measures but through enforcement measures by organisations such as the Commerce Commission through the Fair Trading Act.

From OIA 17-276;

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

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

**The concerns of China**.

As we do not know the true nature of the concerns expressed to the NZ Government we will be unable to assess if the proposed measures will address the problem. The proposal offers measures that will be costly to implement and maintain and without some surety they will address an unidentified problem there appears little benefit to the industry in accepting the proposals.

China has put the NZ beekeeping industry under scrutiny by Chinese Administration of Quality Supervision Inspection and Quarantine (AQSIQ), in 2016.

MPI conducted an audit of the American Foulbrood Pest Management Plan in May-August 2016. It appears a key drivers for the MPI audit was concern regarding the export of honey. The AFB PMP is an industry initiated and supported plan for the elimination of an endemic disease-AFB. There is no consideration in any of the legislation pertaining to the AFB PMP to repurpose any of the information collected under the provisions of the PMP for other uses such as export certification unless that relates to the disease status of NZ beehives under OIE considerations.

In the case of the objectives of the AFB audit it appears MPI have overstepped their jurisdiction in respect to export requirements.

From OIA17-55

*The key MPI drivers for the initiation of this audit were MPI systems audits showing incorrect apiarists' AFB attestations on bee products Harvest Statements. In addition, a recent audit of the New Zealand apiaries and bee products regulatory and export framework carried out by the China Government General Administration of Quality Supervision Inspection and Quarantine (AQSIQ) considered the status of AFB controls.*
*New Zealand could expect increased scrutiny of and greater expectations around AFB management, controls, compliance and MPI's direct overview of in this sector from specific trading partners.*
*Underpinning the Terms of Reference this systems audit is to identify current areas where MPI might be able to fac itate leadership not only to assist in meeting the objectives of The Plan but also in preparation for possible future foreign audits of AFB controls, by examining The Agency's operations and beekeepers' compliance to The Plan.*
*MPI is required to provide leadership in pest management under section 12A of the Biosecurity Act 1993. MPI is also responsible for the administration of The Plan and The Levy and it had been identified by MPI that it was timely to conduct a systems audit on the status of implementation of The Plan.*

And also

*The second goal of the audit was: "To provide MPI with evidence of how the AFB programme is currently functioning, to identify areas of risk and where improvements might be recommended in order to meet intended MPI and trading partners' requirements."*

It appears there are some ad-hoc measures that have been introduced into both export certification for official assurance markets and the AFB PMP. It is beyond the scope of this submission to comment on this aspect because such aspects are not covered within the respective Biosecurity Act 1993 or the Animal Products Act 1999.

**Conflict of interest.**

As China is a nation that conducts trade in honey with the rest of the world, it would be a competitive advantage for China to seek to impose trading restrictions on other nations and not conform to such restrictions themselves. It does appear that whilst there may be legitimate concerns expressed by China with respect to manuka honey, it is also accepted NZ authorities should consider those concerns in context.

The proposed GREX however, imposes far greater demands on all beekeepers and it adds considerable costs to NZ beekeeping businesses. It could be considered the expectation by Chinese government for NZ beekeepers to support and comply with the proposed GREX could be a conflict of interest. Chinese Beekeepers would have a trading advantage and NZ Beekeepers would be disadvantaged by the imposition of production conditions that other honey exporting nations (including China) do not have to meet.

**The Aim of the proposed Manuka Standard.**

The NZ beekeeping industry has been aware of media attention and claims of fraudulent activities in relation to marketing honey, in particular manuka honey.

Overseas countries have also been concerned at claims of fraudulent activities in relation to NZ honey products being marketed in their country.

It appears the claims of fraudulent activity relates to honey being misrepresented according to the floral source of the honey. There may also be concern, and possible misrepresentation relating to 'special properties' that have been attributed to manuka honey.

NZFSA through the Animal Products Act 1999, (APA) play an important role in insuring the food, in this case derived from animals (bees) is 'fit for purpose' and safe to be consumed by humans. There appears to be provision for setting a standard for a product under section 166 of the APA. We accept honey is a mix of the nectar of similar or different flowers grown in different climatic conditions in many different soil conditions throughout New Zealand. We expect there will be a lack of consistency associated with a product that has previously been defined as 'wholly or mainly' a monofloral variety of honey according to taste, colour and aroma. It does appear the definition of monofloral should be sufficiently flexible to take into account the regional variations in what is generally accepted as manuka honey.

We wonder why MPI through Food Safety within the Animal Products Act 1999 need be concerned to the extent they are with the issue of the determination of different flavoured honey, as this has little bearing on the products fitness to be consumed. All honey, and other bee products, processed for human consumption must be produced under some form of regulatory requirements for food safety (the Food Act or the Animal Products Act).

The marketing of products should be covered by the Commerce Commission under such Acts as the Fair Trading Act (FTA). We would assume items such as the misrepresentation and adulteration of products should come under the auspices of the Commerce Commission.

For this consultation it has not been made clear why MPI have embarked on setting a definition of honey based on chemical analysis of that honey when there is an established standard through the Codex standard. The Codex standard is perhaps an outdated method of distinguishing floral sources of honey but it takes into account the expectations that a honey labelled as 'monofloral' will have wholly or mainly properties of taste, colour, and aroma associated with honey from that source. It does appear that by MPI establishing a recipe of some of the constituents of honey it will be established that anything that has the required chemical constituents will taste as one expects manuka honey to taste. Is there any guarantee that honey meeting the MPI manuka standard will consistently 'taste' as the consumers expect manuka honey to taste? Will the NZ MPI support a NZ food manufacturer in a legal case where the manufacturer of a product that conforms to the MPI manuka standard is challenged because the product does not taste wholly or mainly like manuka should?

While we are not chemists and do not have a chemical background it seems strange that MPI have determined the 'manuka' taste is 'wholly or mainly' contained within slightly less than 420mg of product that has a further 999,580mg of other components that make up a 1kg pack of honey. With respect to the truth in labelling which should be subject to say, FTA, it may be more appropriate for honey that meets the criteria set by MPI to be labelled as "*this honey contains not less than 420mg/kg of 2'-methoyyacetophenone; 2- methoxybenzoic acid; 4-hydroxphenyllatic acid; 3-phenyllactic acid; and a trace of DNA from manuka pollen"*

Surely we are deviating from the issue of truth in labelling for a food product that should easily inform people the flavour of the product in the jar?

The issue of 'chemical ingredients' is also interesting when taking into account the MPI chemical definition. The minimum amount of ingredients needed in a sample to qualify as 'multifloral manuka' is 23mg/kg. Looking at the Maximum Residue Levels that have been established for food items, residues are expressed as mg/kg. It is common for many fruit and vegetables to have MRL for chemicals set at greater than 10mg/kg. It does seem interesting that in one case levels as low 1mg/kg can support the definitive definition of a product and yet up to, say up to 30mg/kg of chlorothalonil on peaches comes within the MRL for that product. One wonders how much chemical residues could be measured on a peach before it is considered not to be a peach, because it has sufficient chemical residues that would support redefining the object.

**So what is the Manuka Issue?**

Honey derived from manuka and kanuka flowers tastes very similar to the average consumer of honey. In the past both honeys were hard to sell because of their strong flavour. The term manuka became a generic term for honey derived from both manuka and kanuka trees.

As far back as the 1928 the Cawthron Institute was investigating a "*means of removing dark colours or strong flavours from honey, the value of which is detrimentally affected by those characteristics*" as was written in the annual report of the National Beekeepers Association to their members. No doubt this refers to the stronger flavoured honey that was generally referred to as 'manuka' honey, encompassing all manuka, kanuka and other bush type honey produced at the time.

In the late 1980's Dr P Molan was researching the antibiotic properties of the manuka plant. His research led him to consider the nectar of the plant and it was established the antibiotic properties of the manuka plant were

evident in the nectar/honey produced from manuka flowers. At the time Molan started research there was little differentiation between manuka and kanuka as they both tasted 'horrible' to most consumers.

As the research progressed Molan devised a method to measure natural antibiotic properties of honey. It was found some manuka honey had high levels of natural antibiotic while other floral sources, including kanuka had very little. There developed a patented trade mark called the Unique Manuka Factor (UMF®) and an incorporated society was set up to provide product assurance for the public that the honey marketed under the UMF® met the standards for natural antibiotic activity set by the UMFHA organisation.

One of the outcomes of the work of Molan has been the promotion and the increasing price of active manuka honey while other average honey sometimes became 'extender products. This has led to some of the claims of fraud and misrepresentation where kanuka, rewarewa, beech honeydew and other honey has been either added to manuka honey or offered for sale as manuka honey. The claims of misrepresentation and fraud also relate to therapeutic claims of the product and may relate to the introduction of chemicals into honey to 'increase activity'. A lot of the concerns appear have originated within the NZ apicultural industry as a result of the success of the marketing by the UMFHA members and those that see an opportunity to offer a similar tasting product and different health claims in competition with the product offered with the standards and specifications established under the UMF® brand.

Despite the MPI definition of manuka it appears the issue will still exist where manuka will continue to be marketed as already established while a similar tasting honeys (kanuka and other blended honey) may enter a new selling category of 'multifloral manuka' and become established with dubious therapeutic claims as MPI have failed to enter into the region of setting standards for therapeutic claims for honey.

We are still at a loss of what to expect a product labelled as 'multifloral manuka' would taste like- could it have a distinctive manuka/kanuka taste or would it have sufficient other 'wholly or mainly' properties that it could also be classified as a 'monofloral' honey from another species of plant?

It appears MPI have simply established a recipe that can be manipulated by food manufacturers to produce a product that complies with the proposed standards set by MPI. We have clearly got away from the naturalness of bee products and look set to establish an industry still based on product 'deception' assisted by the MPI definitive standard that appears to be able to be manufactured with natural or man-made products.

**The process.**

Apart from the complexities of the task of defining manuka given the similarities between manuka and kanuka honey and the Codex definition of honey depending on 'taste, smell, colour etc, MPI have also chosen to introduce new requirements on beekeepers in their animal management and processing systems that will be almost impossible for beekeepers to manage and comply.

Of greater concern is that beekeepers have been presented with a document that is so obviously onerous to beekeepers and impossible for beekeepers to meet some aspects that we consider should not have progressed to the stage of being presented to beekeepers as valid considerations. It is also disappointing MPI has been working with a small group within the beekeeping industry and the deficiencies have apparently not been identified prior to release of the document for beekeeper consideration.

**Consultation with Industry.**

There are a number of organisations within industry that are membership based and advocate for and communicate with their members. Some organisations have been in existence for 100 years, others 50 years. There was an industry split as a result of the beekeepers voting out the commodity levy in 2001, which funded, among other things, the administration and activities of the National Beekeepers Association. The industry split was caused through the establishment of Federated Farmers Bees, thus adding to already existing industry

organisations- NZ Honey Packers Association, NZ Comb Honey Association, UMFHA Inc., the National Beekeepers Association Inc and many regional beekeeping groups some of which retain incorporated society status.

With the industry split MPI stated they wished to communicate with all beekeeping organisations at the same time. MPI assisted in the establishment of an incorporated society, the Bee Products Standards Council Incorporated. MPI is a full voting member of that organisation. In reality the BPSC has not provided for effective industry consultation and it could be considered the 'representatives' of the organisations that met behind the BPSC banner were there for personal gain rather than communicating and interacting with the people or organisations they represented. We have been members of all NZ wide beekeeping groups except UMFHA and have a knowledge of how each organisation communicates with their members. A significant issue that imposed restrictions on beekeepers was the imposition of the Regulated Control Scheme for transport of bee products. BPSC were informed of the proposal but did not inform their respective organisations regarding the proposal and that became obvious when submissions were called. The submission period ended on a Friday and the proposal took effect the following Monday. The consultation with industry, in this instance was ineffectual and flawed.

We are unsure how the BPSC Inc., is now operating as Federated Farmers have terminated their beekeeping sector and a new incorporated society representing beekeepers, NZ Beekeeping Incorporated has been set up as an organisation representing the interests of beekeepers. MPI appear not to be communicating with the very organisation they assisted in setting up and retain full voting membership of.

It is also a concern that BPSC Inc., has been struck off the incorporated societies register on 30 May 2017 and the industry organisations that have an active participation have not notified their members of possible changes. In view the BPSC Inc., handled a lot of industry and members funding one could suggest there has been little transparency in matters concerning the industry with respect to the BPSC and those involved in that organisation.

There is a requirement under Section 163 (3) (a) of the APA for consultation. The requirement is for government through the MPI Director General to consult with persons or organisations of members that could be affected by proposals or regulations.

Sec 163 Animal Products Act 1999:

*(3) The Director-General must—*

*(a) do everything reasonably practicable on his or her part to consult with the persons or organisations that appear to the Director-General to be representative of the interests of persons likely to be substantially affected by the making of the relevant order or regulations or the setting of the relevant specifications or requirements referred to in subsections (1) and (2);*

It appears MPI have been selective in consultation prior to the public workshop meetings conducted around the country. It is a concern that it appears MPI are still conducting consultation with Apiculture NZ Inc., while other organisations and interested people are being side-lined. While clearly there is a responsibility for MPI to consult with all persons and organisations it does appear MPI and Apiculture NZ are dictating who or what organisations are to be excluded from consultation. It is our view that industry consultation is not being conducted in a fair and open manner that gives all people access to the same information and the ability to provide input in a timely manner when it is necessary.

The reason we have submitted our views that the consultation process is open to question, is because the GREX includes items that are particularly onerous on beekeepers, are probably impossible for beekeepers to comply with, and should have been identified prior to being presented to the industry for input.

Indeed it could be assumed that Apiculture NZ Inc., has been working in conjunction with MPI and jointly support the proposed measures, however onerous they may be, contained in the proposed GREX.

**General comments on the GREX.**

The proposed changes to the RMP requirements appear to be because an overseas country or two have raised concerns at the official assurance of the NZ government. MPI have refused to release any written comment by the unnamed countries exactly what the issues are. We are left with a proposed solution to an undefined problem. MPI have somehow established the current system is broken. Rather than addressing deficiencies in a logical manner there have been proposed measures that are impractical, probably impossible to comply and leave few options open to beekeepers.

Before we comment on specific items of concern in GREX we will make comment on specific items of general nature contained within the GREX.

**The AFB PMP.**

The AFB PMP is an industry managed plan to eradicate AFB from NZ beehives. Beekeepers and the Management Agency for the AFB PMP (Apiculture NZ Inc.) both have responsibilities under the respective Biosecurity Act 1993 and the Biosecurity Orders in council. There is no provision nor requirement for any of the information used by the PMP to be used for official assurance.

That MPI embarked on a process to propose changes to beekeeping and the official assurance export certification has highlighted the lack of any formal relationship for the sharing of information, or the conduct of beekeeping, that is used by beekeepers for the purpose of disease control. To a certain extent a can-o-worms has been released with the incorporation of AFB management into export certification. This could now jeopardise current official assurance program that uses information from the AFB PMP. It could also jeopardise the control of AFB and the PMP itself.

There has been an OIA request for information that establishes honey (bee products) from AFB infected hives pose a risk to human health. OIA 17-0273 provides details that there is no evidence AFB contaminated bee products cause a risk to human health. We now contend as there is no risk to human health from AFB, specific reference to AFB and the PMP should be removed from the official assurance documents.

There are many different ways overseas countries deal with AFB, in most instances, throughout the world, although AFB is on the OIE list, beekeepers have an option to control usually by treating the colony with antibiotics. There are few countries within the world that have requirements for imported honey or bee products to be certified free from AFB. Because of NZ Beekeepers continued support for the concept and intent of the AFB PMP NZ bee products should be generally free of AFB.

Further to our view of the lack of a formal relationship between disease control and export eligibility of products it is noted that AsureQuality (AQ), a State Owned Enterprise is a contractor to the AFB PMP and also verification agency for RMPs. It is disturbing AQ has sent reminder notices to beekeepers for the Annual Disease Return (ADR), suggesting possible actions that will take place if a beekeeper fails to furnish his ADR. It has been notified in the reminder a consequence of failure to furnish an ADR will be referred to Apinz for further action that may include *"referral to the Ministry of Primary Industries which may affect market eligibility of honey and other bee products you produce".* Has it been established that there is a legal basis for the actions expressed to be carried out?

It is interesting that there are claims of misrepresentation with respect to honey- it appears misrepresentation is also in the domain of those performing a regulatory role within the beekeeping industry.

A copy of the reminder notice is attached as *Appendix 1.*

**Traceability of product.**

We accept the need for some form of traceability for product in order that safety to human health is maintained. Honey is a product that generally does not support the growth and multiplication of bacteria, is not subject to any

storage provisions relating to temperature and is stable even after years of storage. Although honey is generally a very safe product there are some minimal risks involved in the process stemming from production, through processing and then into the market.

There can be traceability either to the production area or the processing area depending on the risk. Bees have a collection area of about 80 sq km if a foraging distance of 5km is accepted. Therefore if there was a desire to monitor an area for risks that bees could collect some toxic substance in the environment, bring sufficient quantities of that toxic substance into beehives and somehow it goes through the processing in sufficient quantities to have an effect on human health, it would take an army of people and intensive management of 80 sq km around each bee site. The logistics of MPI even organising such a monitoring regime borders on irrational thinking. This prompts the question to MPI what issues are there that would indicate a need for environmental monitoring to take place?

An OIA request has been made to MPI to provide a copy of an environmental monitoring program that would be suitable and justify identifying apiaries by a GPS location. The response OIA17-0279 states there is no environmental monitoring that would discover risk products in the environment. It goes on to state the residue monitoring program is where potential issues can be identified. This is in line with our thinking with this submission, but it appears MPI have been presenting the need to establish procedures to be taken in the production areas to mitigate risk. We are sure the savings in cost of the residue monitoring would be completely lost with the exorbitant costs of environmental monitoring.

We accept there is some benefit in environmental monitoring that can aid food safety and this is sometimes apparent in the seafood industry. Sometimes there are toxic algal blooms that affect shellfish and make them toxic to humans – the resultant restriction on harvesting shellfish from a certain area overcomes the risk of humans being affected. To an extent the beekeeping industry has a parallel with toxic tutu honeydew. There has been a risk area established where if conditions are present toxic honey may result. However to prevent risk to humans government have initiated a tutin control notice that sets out requirements for beekeepers, in most cases beekeepers in affected areas test batches of product by chemical tests conducted in a laboratory .

Generally because of the impracticalities of monitoring the environment for risks there is a mechanism to identify risks at the first point in the production chain. The dairy farmers, for example crow about being to trace milk back to the cows and the paddock when in reality milk is sampled as it is loaded into the milk tanker. The sample is analysed for contamination by such things as penicillin, at a stage where it is possible to dump contaminated milk before it has ended up in a huge silo at the milk factory. Other industries operating under the Animal Products Act such as the meat industry have a carcase inspection process that identifies diseases, and contaminations of risk to humans as well there is a residue monitoring program to identify agrichemicals and veterinary medicine residues that may be present. There is a trace back within other APA industries that identifies issues at a stage in the production chain that is both practical and relatively easy to manage.

Whilst the risks in the beekeeping industry are considerably less than other animal products there is a Regulated Control Scheme (RCS) that includes a residue monitoring program undertaken by MPI. Beekeepers with RMP premises pay $1005 per annum to provide for the residue monitoring program. Beekeepers already are able to identify the origin of batches of honey as they have been doing for some years now. The residue monitoring program should be sufficient for MPI to give some assurance to the nations we trade with that beekeepers are/are not producing goods for human consumption that are within recommended residue limits.

During the workshop presentations attendees were led to believe the present traceability of bee products was not sufficient for MPI to ensure products were safe from chemical residues. Hence the requirements in GREX relating to use of brood combs and intensive honey super management and recording.

From MPI reports of their residue monitoring program for all animal products food group it would appear MPI do have confidence that products are produced free from chemical residues.

The Executive Summary of the last 3 years monitoring reports are attached as *Appendix 2, a-c.*

It does appear there is now some conflict within MPI regarding their view as written in the monitoring reports and what is now being present as unsatisfactory traceability within the beekeeping industry.

**Extending RMP to cover Animal Management.**

There appears to be no requirement, under the Animal Products Act (APA), nor Orders, for the management of animals and the transport of animal material prior to processing to be undertaken under a RMP.

This is clarified in the APA Section 13 3 a) and (b).`

***13 Who must have a risk management programme?***
*(3) Nothing in subsection (1) requires a person to operate under a risk management programme in respect of—*
*(a) the primary production of animal material (subject to any order under section 15):*
*(b) the transporting of animal material prior to primary processing (subject to any order under section 15)*
Note the reference under Section 15 we consider relates to special considerations for food safety that must be managed to protect human health. The Tutin notice would fit as one of those provisions.

There is also reference to Apiarists in the Animal Products (Exemptions and Inclusions) Order 2000;

*Animal Products (Exemptions and Inclusions) Order 2000*
*13 Apiarists*
*A person who harvests animal material or products produced by bees is exempt from the requirement to have a risk management programme for their harvesting operations (including any associated storage or transport operations).*

We consider the provisions in this order clarify that the animal management, and associated harvesting and transportation of bee products is exempt from coming under the scope of an RMP.

The proposed GREX has included beehive management to be included into the RMP with proposals regarding the use of combs that have previously used within the brood nest, documentation of sugar feeding, AFB inspection requirements and an intensive documentation of boxes and the of amount of honey produced at each apiary site.

We assume that MPI is proposing to act contrary to the provisions of the APA, Section 13, the AP Order 2000, and include the management of beehives into the beekeeping RMPs.

The inclusion of this intensive management and documentation appears to add little to the safety of bee products and is extremely onerous for beekeepers to comply with the requirements. Much of the intended purpose can be dealt with, if necessary, in ways less onerous to beekeepers.

We do not consider it necessary to embark on a process not required under the APA.

**Misrepresentation of honey.**

For those not participating in the production and marketing of manuka honey it is interesting sitting on the side lines and watching the industry. Yes there are some aspects and outcomes that have been undesirable within the industry. There is also 'promotions of growth' that have produced an industry that is struggling to sustain itself and still attracting more participants with a lure of money.

For some there has been considerable investment simply because money has been freely available and the projected returns are made to look good.

The marketing of manuka honey has become a frenzied affair because NZ produces very little on the world market and the market is considerable. The Asian community have accepted the high priced manuka honey because it suits 3,000 years of herbal remedy heritage that underlies the Asian way of life. There is also a status symbol associated with the promotion of manuka honey and to some extent the Asians do not simply purchase a

honey for eating they purchase the story or wellbeing that is associated with a unique product that is promoted with all sorts of confusing numbers and activity claims.

It has become common for some involved in the marketing of honey to make claims and devise marketing 'standards' for their own products. The consideration here is that the market has shown resilience to such practices and it is only a small step by some to become more involved in fraudulent activities in a food industry that has a history of food fraud**.**

**Fraudulent activities.**

The Apiculture industry has always been associated with food fraud.

To quote from the 1913 ABC & XYZ of Bee Culture by A.I. and E.R. Root (p3&4) "*The most common forms of adulteration which are practiced at present in the sophistication of honey are the addition of commercial glucose, cane sugar, and invert sugar. The adulteration of honey with invert sugar syrup is being practiced to some extent in this country (USA) though not so widely at present as in certain parts of Europe."*

Food manufacturers of today have become skilled at 'manipulating products' in order there is a greater margin in it for the manipulators than for their competitors.

Adulteration in respect to the manuka honey industry can also be because of activities to increase antibiotic activity.

There is a possibility that some forms of adulteration of products exist within NZ as there is considerable financial advantage to be made through the practice and little chance of getting caught as there has been few convictions for fraudulent activities relating to honey in recent times.

Fraudulent activities are unlikely to be picked up through the RMP systems or the proposed GREX as those likely to commit fraud do so behind closed doors. They will also be skilled at covering their tracks and are unlikely to make declarations that would expose their fraudulent activities.

**Comments on specific aspects of GREX.**

Page 4 **Relationship with other legislation**;

There is reference to ACVM Act 1997 and the Biosecurity Act 1993. It has not been established any relationship between the listed acts and the Animal products Act. It is noted beekeepers have responsibilities to comply with the requirements of both acts but there does not appear to have been established a linking of the respective acts with the APA.

We consider each act should be responsible for the enforcement of their own provisions.

Page 5 **Part 1: 1.1 (2)**

> (a) *this notice covers all bee product exports regardless of whether the importing countries require official assurance or not*;
>
> The proposed GREX imposes many restrictions on beekeepers that are not required by most importing countries. The role of the government is to facilitate trade not to impose impediments to trade on the basis that our government do have the power to impose restrictions. It becomes especially difficult for those wishing to export if the restrictions to trade are because of our government's imposition rather than the importing countries requirements.

An official information (OIA17-281) request has been submitted requesting information from overseas countries that would require change to the present requirements. No information has been provided to support the need for a revised GREX.

We consider there has been no need established for revised GREX therefore proposed changes cannot be justified.

Page 5 **Part 1: 1.1 (2)**

(b) *export includes selling bee products to overseas buyers using the internet platform*;

Some exporters either purchase honey at retail level in NZ or deal with manufacturers on an infrequent and casual basis. They are not always recognised agents for NZ honey companies rather they are simply traders performing a service to their clients in procuring an item and arranging for the recipient in an overseas country to receive the product. To provide the necessary documentation required in order to receive export certification for a consignment of 500g of honey is ridiculous and onerous on the internet agent (exporter). In many cases small consignments of honey for personal consumption through the internet platform has generally been made to those countries that have few restrictions on trade, such as those countries that do not require official assurance.

MPI have not established the need for such measures as proposed so we recommend this provision should not proceed.

Page 8 **Part 2: 2.3 (1)**

Operators;-

a) *to ensure honey is not adulterated after extraction*.

While we accept the intent of the statement it is most unlikely adulteration would be identified while the product is being processed. If adulteration is identified at some later stage then it is likely the identification will be almost impossible to tell at what point adulteration occurred. To place blame or responsibility on an operator is unfair. It is most likely any deliberate adulteration will be 'hidden by dishonest people'. Those type of people will not furnish statements that are likely to expose their activities.

*e) to ensure that every delivery of bee products…receive… the relevant harvest declaration.*

There should only be a need for a harvest declaration that relates to a batch not every time some boxes are transported to a RMP facility. Some form of inventory control with larger businesses should recognise the need for relevant inventory control however producing harvest declaration for items that may not end up in the same batch creates confusion and an electronic or paper nightmare for some operators.

*k) to comply with the requirements of Part 8 …..of stock in trade.*

This requirement relates to stock in trade and already packed. Most of the stock produced during the last beekeeping season and already on hand is likely to be retained in drums and used during the next 2-3 years when 'activity' has been established. The trading world just does not operate on a 6month future.

Page 12 **Part 3: 3.1**

(1) a); b); c) sugar feeding, brood combs, freedom from AFB.

This is animal management and outside the scope of Animal Products Act. (sec 13 a) and b)). Any issues with animal management will be covered by more appropriate Acts or regulations such as ACVM or AFB PMP. The traceability of product for residues of materials covered by ACVM is better identified through the current Regulated Control Scheme that currently exists and already has a residue monitoring component. The residue monitoring program has only picked up varroacide residue on one occasion. The MRL for that product has been proposed to be increased to align with international requirements. To initiate requirements regarding intensive management of brood combs appears unnecessary if an appropriate residue monitoring system is utilised. Whilst it may be good beekeeping practice to inspect if hives are free from AFB at time of harvest this requirement may be impractical to carry out because of potential robbing issues as well it has been established honey from AFB hives causes no human health issues (OIA 17-273). AFB issues come under the control of the Biosecurity Act not APA. Sugar feeding and associated concerns with adulteration of product is better to considered within the Commerce Commission.

(3) *Nothing, other than honey is added to the product after extraction*.

We are aware that there are claims of adulteration as well as claims of adding DHA, MG. there will be further suspected activities as the imposition of a 'manuka standard' by the chemical markers determined by MPI takes effect. There will now be other chemicals that are apparently available that can be added to honey to produce 'MPI certified manuka honey'. There is also potential for honey to be laced with sufficient manuka pollen to establish a DNA presence of manuka. Such activities have always been considered fraudulent and if one has undertaken to 'manufacture' a product that conforms to a set standard then they are unlikely to disclose their activities on a declaration.

Page 13 **Part 3: 3.3.7 Removal of beekeepers from the beekeeper list.**

1.c) and d) beekeeper or person employed by beekeeper convicted of dishonesty….

This is also covered in APA sec 54 regarding the suitability of the person to be an exporter. The provisions in the GREX propose that the beekeeper could be removed from the list because he employs a person that has committed, or considered to have committed an offence. This is some pretty far reaching requirements especially when one considers many beekeepers have, over the years, committed offences under section 154N of the Biosecurity Act in relation to their beekeeping. Information released under OIA 17-0055 suggests that 30-40% of beekeepers were non complaint in the 2015 year. The PMS has been in operation since 1998 and it is likely that over 50% of beekeepers have been non-compliant, ie committed an offence under the Biosecurity Act, at some stage in their beekeeping career. It would be interesting to see how the Director General would manage the Beekeepers List in light of this information.

Page 15 **Part 4: 4.1 Pre-processing traceability requirements**.

(1) I consider we have expressed our views sufficiently regarding this provision which is not provided for in the APA, is onerous and costly for beekeepers to manage and the traceability can be achieved in a more practical way consistent with other animal products covered by the Act.

**Part 4: 4.2 Harvest Declarations.**

As discussed earlier the harvest declaration should relate to the batch or number of batches not each delivery of product.

(2) c) Beekeeper registration number is for AFB PMP (disease) purposes not for export certification.

h) Compliance with ACVM is a matter for ACVM monitoring people rather than Food Safety. Yes it is fine to tick a box, but that only confirms the person has the ability to tick boxes.
Unfortunately the public have become desensitised to making truthful statements because of the increasing demand for trivial information and declarations. A tick box exercise just establishes that people accept ridiculous regulations knowing they will simply fill out the forms with the required answer.

j) Declaration that hives were free of AFB when last inspected by an authorised person pursuant to the AFB PMP.
We believe there are less than 50 persons authorised by the chief technical officer under the Biosecurity Act 1993 Section 103 (1) (b). There is also no systematic program that has been used to establish that hives have been inspected and declared free of AFB by an authorised person. This proposed requirement will be impossible for the industry to manage.

l). Declaration that the harvesting, storage, and delivery of the product is minimised in its exposure to contamination.

Again already discussed as outside the scope of the APA. If this was a requirement of the harvest declaration would those filling in the form state the product was exposed to contamination, if that was a true statement, thus destroying 12 months work?

(3) b) The HD is accurate and truthful.

There is little that can be done to verify the declaration is truthful. There is a psyche in NZ that a bureaucracy of ridiculous and onerous rules has led to a disregard of concepts and those subject to the rules simply making any statements they need to qualify under the rules, however ridiculous the rules may be.

Page 16 **Part 4: 4.3.1 Traceability between operators**

(1) the statement states 4.3 applies to countries not requiring official assurance but the guidance box states an operator is not required to comply with 4.3 for countries that require official assurance- a contradiction here.

Page 24 **Part 8: 8.1 Stock in trade**

The proposed GREX provides for existing stock of honey when the GREX comes into force to be able to be exported to countries that do not require official assurance for a period of 6 months.

Those countries that require official assurance require all honey to conform at all time there is no proposed lead in time.

We consider there should be some lead in time for all countries in order that businesses are not inconvenienced and suffer because the 'rules change'. The lead in time might also provide for the grandfathering of product produced under conditions that are applicable at the time.

There should also be time for a lead in period, and grandfathering for honey in drums in storage. People store manuka in order to 'grow' the antibiotic properties associated with the product. The people that produce product and store in drums for up to 3 years should be able to market their products according to the production systems that exist at the time of production.

**Conclusion.**

It has been an interesting exercise to observe the process involved in both the manuka definition and the development of the GREX. In most instances we are still left with a quandary – What was broken and does the proposed changes fix the problem?

There is an apicultural industry that is struggling with the growth in beekeepers, hive numbers and people marketing products, in a frenzied climate of perhaps deception, greed, jealousy, and sometimes suspected fraud. Growth in the industry has attracted not only the genuine long term investors but these seeking quick and large financial return for minimal effort. The climate created in the Apicultural industry has encouraged the involvement of a criminal element that steal beehives and boxes of honey from the field or finished product from shop shelves.

It is unlikely the proposed setting of a standard for manuka honey will assist the situation. There is already an Apicultural industry that has become very inventive in manipulating product and label claims that will simply adapt to any proposed changes. The fact remains that manuka and other manufactured products can taste similar and could both be considered as complying to the Codex 'wholly or mainly' definition as manuka honey. We have no suggestions how to solve this issue.

With respect to the GREX we are at a loss to understand why the present traceability is unacceptable as an assurance that bee products are safe. Beekeepers at present create batches that can be a basis for trace-back if necessary. MPI undertakes a residue monitoring scheme that is paid for by the RMP holders. MPI consistently have assessed their program as 99.xxx% effective thus on that basis the proposed GREX is not needed.

There is also the consideration that one or two countries can influence the trading and official assurance of an independent country. We can understand if there are deficiencies with the official assurance process but it appears that there have been no situations highlighted that would indicate cause for concern.

We do not accept the provision to include all nations as subject to the requirements for official assurance and we support individual countries setting their own requirements regarding their imported products.

**Recommendation**.

We have concerns that the manuka standard as proposed will not address the market concerns that exist. We suggest that it is better to continue industry discussions on what is needed and then work toward that goal. Perhaps the industry discussions need to establish if there is a need to create separate standards for kanuka honey at the same time as establishing a manuka standard.

We recommend MPI continue with industry dialogue to establish standards that all producers will accept.

MPI have not established and justified the need for changes to official assurance to cover all countries therefore we recommend that the propose changes do not proceed.

**Attached:**

Official Information Responses:

Appendix 1 – 2.

13th June 2017.

Appendix 2(c)

# 1 EXECUTIVE SUMMARY

The Ministry for Primary Industries (MPI) has a number of residue monitoring programmes associated with the Animal Products Act (APA), the Food Act and the Agricultural Compounds and Veterinary Medicines (ACVM) Act.

The residue monitoring programmes cover the full range of primary products (meat, seafood, honey, milk and dairy products), and fresh produce intended for export and domestic consumption, as well as general food, as consumed by the average New Zealand person.

These programmes are based on ensuring that we have the confidence and requisite assurance that food is safe and good agricultural practice (GAP) is being followed. MPI regularly reviews the programmes to consider new chemicals of interest, changing use patterns, new scientific information and trade requirements.

The National Chemical Residues Programme (NCRP) is a risk-based sampling and testing programme.

The monitoring component of the NCRP tested samples from randomly-selected farmed animals, wild animals, farmed salmon and honey.

The surveillance component tested samples from targeted at-risk animals, animal material or animal products.

Ongoing research and development designed to enhance the programme took place.

Samples were collected by persons authorised to do so and procedures are in place to ensure that traceability, security and quality management are maintained from collection through to analysis and storage.

Samples were analysed at laboratories contracted by MPI to do so. Contracted laboratories have ISO/IEC 17025 and International Accreditation New Zealand accreditation and are approved under the MPI Laboratory Approval Scheme. Laboratories providing testing services for the NCRP are also required to participate in Australian National Residue Survey proficiency testing programmes relevant to the overall residues programme.

A total of 3,013 samples were collected and tested for hundreds of agricultural compounds, veterinary medicines and environmental contaminants. Over 205,196 test results were obtained with just 5 non-compliant results. This represents a compliance rate in New Zealand of 99.998%. No food safety issues identified. The reported results from the NCRP confirm that good agricultural practices are being followed in the use of agricultural compounds and veterinary medicines.

The results of the species verification programme confirmed there was no species substitution.





MPI Technical Paper No: 2016/19

Results Year End June 2014

Appendix 2(b)

# 1 EXECUTIVE SUMMARY

The Ministry for Primary Industries (MPI) has a number of residue monitoring programmes associated with the Animal Products Act (APA), the Food Act and the Agricultural Compounds and Veterinary Medicines (ACVM) Act.

The residue monitoring programmes cover the full range of primary products (meat, seafood, honey, milk and dairy products), and fresh produce intended for export and domestic consumption, as well as general food, as consumed by the average New Zealand person.

These programmes are based on ensuring that we have the confidence and requisite assurance that food is safe and good agricultural practice (GAP) is being followed. MPI regularly reviews the programmes to consider new chemicals of interest, changing use patterns, new scientific information and trade requirements.

The National Chemical Residues Programme (NCRP) of the Ministry for Primary Industries (MPI) is a risk-based sampling and testing programme.

The monitoring component of the NCRP tests samples from randomly-selected farmed and wild animals, farmed salmon and honey.

The surveillance component tests samples from targeted at-risk animals, animal material or animal products

Samples are collected by persons authorised to do so and procedures are in place to ensure that traceability, security and quality management are maintained from collection through to analysis and storage.

Samples are analysed at laboratories contracted by MPI to do so. Contracted laboratories have ISO/IEC 17025 and International Accreditation New Zealand accreditation and are approved under the MPI Laboratory Approval Scheme.

Over 2,900 samples were collected and tested for hundreds of agricultural compounds, veterinary medicines and environmental contaminants. Over 204,000 test results were obtained with just 9 non-compliant results. This represents a compliance rate in New Zealand of 99.996%. No food safety issues were identified. The reported results from the NCRP confirm that good agricultural practices are being followed in the use of agricultural compounds and veterinary medicines.

The results of the species verification programme verified there was no species substitution.





MPI Technical Paper No: 2016/36 May 2016
Year End June 2015

Appendix 2(9)

# 1 EXECUTIVE SUMMARY

The Ministry for Primary Industries (MPI) has a number of residue monitoring programmes associated with the Animal Products Act (APA), the Food Act and the Agricultural Compounds and Veterinary Medicines (ACVM) Act.

The residue monitoring programmes cover the full range of primary products (meat, seafood, honey, milk and dairy products), and fresh produce intended for export and domestic consumption, as well as general food, as consumed by the average New Zealand person.

These programmes are based on ensuring that we have the confidence and requisite assurance that food is safe and good agricultural practice (GAP) is being followed. MPI regularly reviews the programmes to consider new chemicals of interest, changing use patterns, new scientific information and trade requirements.

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The monitoring component of the NCRP tests samples from randomly-selected farmed and wild animals, farmed salmon, fish and honey.

The surveillance component tests samples from targeted at-risk animals, animal material or animal products.

Samples are collected by persons authorised to do so and procedures are in place to ensure that traceability, security and quality management are maintained from collection through to analysis and storage.

Samples are analysed at laboratories contracted by MPI to do so. Contracted laboratories have ISO/IEC 17025 and International Accreditation New Zealand accreditation and are approved under the MPI Recognised Laboratory Programme.

Over 3 000 samples were collected and tested for hundreds of agricultural compounds, veterinary medicines and environmental contaminants. Over 211 000 test results were obtained with just 5 non-compliant results. This represents a compliance rate in New Zealand of 99.998%. No food safety issues were identified. The reported results from the NCRP confirm that good agricultural practices are being followed in the use of agricultural compounds and veterinary medicines.

The results of the species verification programme verified there was no species substitution.





MPI Technical Paper No 2017/19 February 2017

AsureQuality Limited
Private Bag 3080
Hamilton, NEW ZEALAND

**29th May 2017**

Dear Beekeeper

# Reminder Notice: ANNUAL DISEASE RETURN (ADR)

In April 2017 you were sent an ADR to be completed and returned to AsureQuality Limited by the **1st June 2017**.

**Our records indicate that you have not filed your ADR.** Please urgently complete your ADR as this is a statutory requirement. We are obliged to inform you that if your ADR is not received by Thursday 1st June 2017, your details will be referred to the Management Agency for further action. This may include:

- **default inspections of your hives at your expense, by an agent of the Management Agency.**
- **referral to the Ministry for Primary Industries which may affect market eligibility of honey and other bee products you produce.**

**IMPORTANT INFORMATION REGARDING APIWEB**

In earlier correspondence you were offered the ability to complete your ADR online via APIWEB. While APIWEB is working well on the Internet Explorer, Edge and Chrome (PC) web browser platforms, we are aware that there are compatibility issues with other platforms including Apple IOS, and browsers on various mobile devices. The Management Agency and AsureQuality acknowledge that this is particularly frustrating and ask for your patience as funding is secured to bring what is now relatively old programming up to modern standards.

Please also note that APIWEB was not accepting ADR returns from beekeepers with '0' hives. This has been fixed and we would ask that those affected by this issue to login again and complete your return. We apologise for any inconvenience caused.

The collection of information through the Annual Disease Return (ADR) process is a very important part of the American Foulbrood (AFB) National Pest Management Plan. Accurate information is key to the industry goal of eradication of AFB from New Zealand.

In order to achieve this goal, we need a high level of industry compliance and support so your attention to this matter is important. Please complete and return your ADR today.

If you believe you have returned your ADR to AsureQuality Limited or misplaced your ADR forms please respond to this email or call us on 0508 001122 and ask to speak with an Apiary Registrar.

Thank you in advance for your co-operation.

Yours sincerely

Byron Taylor
Apiculture Technical Manager
AsureQuality Ltd

# OIA17-0055 Summary of Systems Audit of the Apiaries American Foulbrood (AFB) Pest Management Programme in New Zealand

May-August 2016

## Summary

The first goal of this audit was: "To conduct a systems wide audit of the American Foulbrood (AFB) disease management and control programmes in bees and bee products, to determine if intended Ministry for Primary Industries (MPI) regulatory and biosecurity outcomes are being met."

The audit shows that the primary objective of the Biosecurity (National American Foulbrood Pest Management Plan) Order 1998 (hereinafter The Plan) - "to reduce the reported incidence of AFB by an average of 5% each year", is not being met. In fact, the audit shows that rather than decreasing the reported incidence of AFB has increased in recent years.

For example, if the reported incidence of AFB in bee hives was decreasing by the required percentages annually, the reported number of AFB cases should be 750 individual hives reported as being infected with AFB in 2016. Instead, in the 2015- 2016 reporting year there were 1750 cases reported. (Refer to Appendices B & C for graphic analysis).

In addition, many other intended outcomes of The Plan including compliance to the rules of The Plan are not being met.

For example, there is widespread non-compliance (approximately 30 - 40% of beekeepers are non-compliant), to two time bound reporting requirements of The Plan. Annual Disease Returns are due by 1st June annually and Certificate of Inspection reporting is due before 15th December annually. This level of non-compliance is in the auditors' view, "serious", as failure to comply with these reporting rules means that a very large number (30 - 40% of the approximately 7000 registered beekeepers) are in breach of section 154N (18) of the Biosecurity Act 1993.

There are many possible reasons why the reported incidence of AFB is not decreasing as intended by The Plan. Some of these reasons are outlined in the body of this report. A principal reason may be the significant increase in the number of both apiarists and hives since 2010.
This increase has strained the capabilities of Apiculture New Zealand (The Agency). Other reasons may include the widespread non-compliance to the rules of The Plan by significant numbers of beekeepers. Nevertheless, further evidenced based epidemiological assessment is required to determine all of the reasons and consider their impacts on AFB incidence.

The second goal of the audit was: "To provide MPI with evidence of how the AFB programme is currently functioning, to identify areas of risk and where improvements might be recommended in order to meet intended MPI and trading partners' requirements."

The AFB Programme is currently being managed by a Board of up to 5 apiary industry representatives appointed by The Agency. They are responsible for implementing The Plan. In the auditors' view, the Board is staffed by very conscientious and diligent individuals.

However due in part to the failure of all beekeepers to consistently comply with all of the rules of The Plan, there is significant risk that the ongoing increased rate of reported AFB will continue unabated. Another related risk is that there may be under-reporting of AFB occurring, which if fully reported would further increase the AFB rate. In this scenario of non-compliance and failure to reduce the rate of AFB there are also very significant reputational and export trade access risks for New Zealand bee products.

The auditors' recognise (and it is also their understanding, following due audit process that the Agency Board share this view), that it is possible that the increased recent reported incidences of AFB may be due to increased education and increased reporting of AFB by some beekeepers. However, the auditor's view is that this possible cause must be scientifically determined by robust epidemiological methodology and further systems audits. A key epidemiological question here is, what is the ongoing "actual incidence" versus "reported incidence" of AFB?

The auditors' view is that marked improvement in beekeepers' compliance to all of the rules of The Plan is the critical prerequisite to reduce the trade and reputational risks outlined above.

All auditees involved in implementing The Plan, from The Board to individual authorised persons, expressed their strong desire to be given more immediately enforceable sanctions such as monetary fines or bee products trading restrictions, against apiarists who do not comply with the rules of The Plan. Currently there are 30 rules of The Plan and many auditees involved in implementing The Plan felt that it was no longer “fit for purpose”. The auditors agree with this view.

Nevertheless, there are also many other areas for immediate improvement in the leadership, management and implementation of The Plan. To achieve these improvements many audit recommendations ar made.

Core audit recommendations relate to:

• The Agency to comply with the reporting requirements of section 100B of the Act and the Agency Governance Document to ensure appropriate implementation and improved beekeeper compliance, to the rules of The Plan

• The Agency and MPI to engage proven epidemiological and bio statistical animal disease expertise, to guide the ongoing implementation of The Plan.

• MPI to undertake an efficiency review of the activities of the implementation of the Plan and expenditure of funds derived from The Levy Order and any other activities undertaken by the Agency

• MPI and the Agency to commence AFB regional surveys ac oss New Zealand using proven epidemiological methods to better understand the “actual incidence” of AFB and compare this to “reported incidence” to better meet the objectives of The Plan

• MPI to review the current Plan and the Levy Order and include the considerations to incorporate Varroa controls in order to ensure that both AFB and Varroa controls are "fit for purpose". (Note: Varroa long term disease control is outside the Terms of Reference of this audit, this ecommendation is made cognisant of these matters but within Systems Audit protocols)

• The Agency (and if necessary MPI) to consider exercising the full powers of the Biosecurity Act 1993 against those beekeepers in breach of the rules o The Plan and who are deemed to be committing offences against the requirements of the Act.
• MPI to consider ongoing Systems Audits of AFB PMP implementation and compliance. The auditors raise a serious non-compliance, against those beekeepers (approximately
30-40% of the approximately 7000 registered beekeepers) who are failing to comply with the
reporting requirements contained in clauses 27 and 32 of The Plan. In addition, the work conducted by the AFB PMP B shows many beekeepers' widespread use of unregistered apiary sites throughout New Zealand. Such use is also a serious failure to comply with clauses 15 and 17 of The Plan.

Failure to comply with many of these rules of The Plan are prosecutable offences under section 154N (18) of the Biosecurity Act 1993.

Failure by such significant numbers of beekeepers to comply with the above-mentioned clauses of The Plan are serious non-compliances. Ostensibly, a systems failure across the industry.

In the auditors' view these failures, not only place the apicultural industry at great risk to reputation and trade, but also contribute significantly to the ongoing failure to meet the objectives of The Plan.

However in raising this serious non-compliance the auditors also recognise that the majority of beekeepers are committed to compliance to the rules of The Plan and they appear to make every effort to ensure effective management of AFB.

# Important Note

This report may discuss Topics, i.e. subjects of particular interest. The discussion can include positive and negative elements. In some cases, the negative elements are such that Non-compliances result.

All deficiencies discussed as Non-compliances are expected to be resolved by auditee or the auditee's organisation, whether or not they are described as Serious Non-compliances. Serious Non-compliances constitute a system failure. They have a profile such that the effectiveness of the corrective actions will be measured in subsequent Standards Group audits. Inadequate resolution can lead to failure of the subsequent audit.

Recommendations may appear in the report. These are non-binding, and do not affect subsequent audits. Their implementation may provide efficiencies for both the auditee and MPI. The presence of recommendations to change existing specifications does not excuse the absolute requirement to conform to the existing specifications. Changes to specifications that may result from these recommendations will be promulgated officially.

The Auditee is reminded that audit reports are subject to the *Official Information Act 1982*. The Auditee may highlight any information considered confidential during the course of the audit however the Auditor cannot provide any assurance to the Auditee that the information considered confidential will not be disclosed as a result of an enquiry under the Official Information Act.

# Terms of Reference

## Goal(s)

To conduct a systems wide audit of the American Foulbrood (AFB) disease management and control programmes in bees and bee products, to determine if intended Ministry for Primary Industries (MPI) regulatory and biosecurity outcomes are being met.

To provide MPI with evidence of how the AFB programme is currently functioning, to identify areas of risk and where improvements might be recommended in order to meet intended MPI and trading partners requirements.

## Scope

Shall consider any necessary matters as outlined in section 105C (3) of the Biosecurity Act 1993 (the Act):such as

To examine in relation to the Act the current effectiveness and appropriateness of standards relating to American Foulbrood control including (but not limited to) the Biosecurity (National Ame ican Foulbrood Pest Management Plan) Order 1998.

To examine the effectiveness and appropriateness of the Ministry for Primary Industries (MPI) internal systems and procedures for the administration of AFB controls and management

To examine compliance with MPI internal systems and procedures relating to AFB under the Act.

To examine the exercise of powers or carrying out of functions or duties of statutory officers appointed in relation to AFB under the Act.

To examine the performance of activities by persons who carry out activities relating to AFB for the purposes of the Act.

To examine the performance of activities by persons, examine systems , procedures and facilities to assess compliance with biosecurity law in relation to AFB under the Act.

To examine apiarists and RMP operators compl ance with AFB requirements.

Shall allow for recommendations to be made to MPI and stakeholder organisations to help ensure that the audit goals are met.

Explanatory Note: New Zealand controls and effectiveness in AFB management and compliance are increasingly relevant to this country's international trade in bee products. This systems audit has been initiated in order to ensure ongoing effectiveness of AFB management and compliance for sustainable outcomes in biosecurity and trade in bee products. This audit is principally initiated under the Biosecurity Act 1993. However, if audit circumstances indicate consideration may be given to the requirements of other Acts as listed in the "Standards/Legislation" section below.

## Standards / Legislation

Shall consider, as necessary, the requirements of the following legislation and any relevant subordinate requirements
- The Biosecurity Act 1993
- The Animal Products Act 1999
- The Food Act 1981
- The ACVM Act 1997.

May also consider other legislation administered by MPI.

## Initiator

The Initiator of this audit is Allan Kinsella, Director, MPI Systems Audit, Assurance and Monitoring. Several other MPI staff involved in Standards and Market Access have been identified as having requirements to be considered during this audit. These MPI staff have been consulted as part of the development of this audit.

## Specialist / Observers

Specialists or Observers shall, at the discretion of the initiator be allowed to accompany the audit team on audit visits

## Response to Critical Situation

If a critical situation is identified, the provisions of the Systems Audit Team procedure for management of critical situations shall be implemented. The critical situation is defined as follows: "Any situation which, in the professional judgement of the auditor, or audit initiators, places food safety, market access, official assurances, animal welfare or MPI Directors' credibility at risk. A critical situation may result from information received from a number of sources as well as individual audit findings." In the event of a critical situation the Initiator and/or Manager, Systems Audit shall be contacted immediately and any actions will be determined in consultation with the Initiator and/or Manager, Systems Audit.

## Other Terms of Reference

The audit will be conducted according to SAT operating procedures. All travel associated with this audit and undertaken by SAT auditors is approved by the Manager, Systems Audit on approval of these Terms of Reference (TOR).

SAT auditors partaking in this audit, will notify auditees and/or auditee organisations or association bodies of the impending audit and provide them with a copy of this TOR, prior to, or at the outset of, auditors' visits. Upon completion of the audit, the lead auditor will submit a draft audit report to the Initiator and the Manager, Systems Audit and identified MPI staff for comments. The final report will be d stributed to the Initiator who will decide on further distribution of the report.

The auditees / auditee organisations are reminded that audit reports are subject to the Official Information Act 1982. The auditees may highlight any information considered confidential during the course of the audit; however, the auditors cannot provide any assurance to the auditees that the information considered confidential will not be disclosed as a result of an inquiry under the Official Information Act.
SAT audit reports may discuss Topics, i.e. subjects of particular relevance identified during the audit. These topics can include positive findings and deficiencies to requirements. In some cases, the deficiencies may be such that non-compliances will be formally raised. All
non-compliances are expected to be resolved by the auditee or the auditees' organisations to the satisfaction of MPI. Serious Non-compliances may also be identified where the auditors rate non-compliances or cumulative deficiencies as a system failure. Inadequate resolution of serious non-compliances may lead to failure of subsequent SAT audits and / or MPI sanctions

Recommendations may also be raised and included in the report. MPI Director(s) with named accountability over specific areas covered by non-compliances and recommendations of the report will be responsible for ensuring that all audit findings are considered and suitably addressed. All responses will be attached as appendices to the main audit report

# Background

**Glossary of Acronyms and Abbreviations**

• AFB PMP B – The American Foulbrood Pest Management Plan Board/Committee of the Agency

• AFB – American Foulbrood

• APIWEB/APSYS - Computer database used by The Agency to record beekeeper compliance to The Plan requirements

• The Act – The Biosecurity Act 1993

• Office - The office of the AFB PMP manager

• AP1 – an in-house identifier used by the AFB PMP B to identify a senior technical authorised person

• AP2 - an in-house identifier used by the AFB PMP B to identify a field operative regionally based authorised person

• APINZ- Apiculture New Zealand Incorporated (The Agency responsible for the implementation of The Plan)

• ADR – Annual Disease Return required under The Plan

• AQ – AsureQuality Limited Apiculture Group

• The Agency – the management agency responsible for implementing The Plan Apiculture New Zealand Incorporated

• The Plan - Biosecurity (National American Foulbrood Pest management Plan) Order 1998

• The Levy - Biosecurity (National Americ n Foulbrood Apiary and Beekeeper Levy) Order 2003

• COI – Certificate of Inspection

• DECA – Disease Elimination Conformity Agreement

• MPI - Ministry for Primary Industries

• The Minister - The Minister for Primary Industries

• RMP - Risk Management Programme Bee Products Premises

The key MPI drivers for the initiation of this audit were MPI systems audits showing incorrect apiarists' AFB attestations on bee products Harvest Statements. In addition, a recent audit of the New Zealand apiaries and bee products regulatory and export framework carried out by the China Government General Administration of Quality Supervision Inspection and Quarantine (AQSIQ) considered the status of AFB controls.

New Zealand could expect increased scrutiny of and greater expectations around AFB management, controls, compliance and MPI's direct overview of in this sector from specific trading partners.

Underpinning the Terms of Reference this systems audit is to identify current areas where MPI might be able to fac itate leadership not only to assist in meeting the objectives of The Plan but also in preparation for possible future foreign audits of AFB controls, by examining The Agency's operations and beekeepers' compliance to The Plan.

MPI is required to provide leadership in pest management under section 12A of the Biosecurity Act 1993. MPI is also responsible for the administration of The Plan and The Levy and it had been identified by MPI that it was timely to conduct a systems audit on the status of implementation of The Plan.

The day to day management, implementation, and oversight, of beekeepers' compliance to the rules of The Plan and The Levy has been assigned to Apiculture New Zealand Incorporated.

The structure of the controls, leadership and implementation of The Plan is provided as a wiring diagram in Appendix A.
Note - During the course of the audit the name of the agency, recognised by MPI and the Minister, for implementing The Plan changed from the National Beekeepers Association of New Zealand Incorporated (NBA) to Apiculture New Zealand Incorporated (APINZ). In addition, Stephen Black as the NBA representat ve was replaced on the Board by Russell Marsh as the APINZ representative. In addition, at the end of the audit the Chairman's position of the AFBPMP B changed from Frans Laas to John Hartnell. Mr Laas being retained as a board member.

# Topics

**Audit Method**

The audit team conducted an entry meeting with the Board of the American Foulbrood Pest Management Plan Board (AFB PMP B). At this meeting two of the AQ AP1 contract service providers were also present.

Following an initial entry meeting the audit team visited the Wellington Office of the day to day manager of The Plan, Mr Rex Baynes. Here, over the course of several visits the audit team examined the day to day management of the implementation of the Plan. The AFB PMP B Chairman, Mr Frans Laas, was present at the initial meeting at the office.

Then the audit team visited the Te Rapa offices of AsureQuality Apiculture Group (AQ), the technical contract service provider to The Agency. Rex Baynes was also present at this meeting. Here the provision of technical advice and the management of all relevant data received from apiarists in order to track compliance and implementation of The Plan rules were examined. At this location an AP2 who provided field services for the Auckland and Waikato regions was also interviewed.

A total of eight authorised persons (AP2s) including 12 beekeepers were interviewed from the following areas: East Cape, Poverty Bay, Hawke's Bay, Northland, Central Plateau, Whanganui, Taranaki, Manawatu, Nelson and Canterbury. In addition, the authorised person located in Northland had extensive knowledge of the Wellington and Wairarapa regions having been located in the Wairarapa fo many years.

The audit team also visited MPI offices and interviewed key technical personnel who are involved in biosecurity pest management and policy and trade.

It is important to note that the AFB PMP has been in operation since 1998 and that this is the first specific systems audit to look at the implementation of The Plan. MPI in consultation with the apiculture industry was involved in amending The Plan in 2012-2013.

The hierarchy of the Ministry's administrative overview and industry's delivery of technical expertise to implement The Plan is relatively complicated. To aid with understanding of how these matters are achieved a wiring diagram is attached as Appendix A. These matters and key audit findings plus recommendations are further discussed under the ensuing topics.

**The AFB PMP Board and Office**

The AFB PMP B members were initially interviewed in May 2016. At the time of the initial interview the board consisted of the following people:

• Frans Laas, Chairman – Experienced beekeeper and bee reproduction technical expert
• John Hartnell, Deputy Chairman – Marketing Specialist, RMP operator and exporter, beekeeper, experienced Board member in other primary industry spheres
• Stephen Black, - Beekeeper and RMP operator and exporter plus retailer of bee products (National Beekeepers Association Representative)
• Neil Mossop, - Beekeeper (large scale operation) RMP operator and exporter plus retailer of bee products. (Absent from the audit entry meeting)
• Kim Poynter, - Beekeeper, (hobbyist) experienced in ISO systems management.

The AFB PMP B outlined the challenges that they, in conjunction with the day to day manager Rex Baynes, were facing in imp ementing The Plan. This included enforcing beekeeper compliance to the rules of the Plan clauses 10-40 (Refer Appendix E).

The AFB PMP Annual Report 2015-2016 (Refer Appendix D page 7) outlines significant non - compliances by what are said to be large commercial beekeepers in Taranaki to clauses 15 and 17 of the Plan. Here a helicopter survey identified almost half of the 140 apiaries examined were not registered. A breach of clause 15 of The Plan rules is an offence under section 154(N)
(18) of The Act.

The remaining pages of that report "Apiary Auditor Inspection Activity" pages 8-10 show that unregistered hives are a frequent finding by AP2 across all regions. The auditors note that the report does not go into consistent detail of numbers of hives found to be unregistered or numbers of actual hives in apiaries which have been diagnosed as affected by AFB by AP2.

The auditors' view is that both of these parameters are important epidemiological and statistical data sets that should be compiled and fully reported upon in order to more effectively implement The Plan.

The AFB PMP B added that the challenges referred to above had come to a head in the last few years due in part to the very significant increase in the numbers of beekeepers and the numbers of hives and apiaries being registered. The year on year increases are available in the AFB PMP Report 22 June 2016 (Again refer Appendix D). In summary, these increases mean that the numbers of registered beekeepers, beehives and apiaries have approximately doubled between 2010 and 2016.

Many of the newly registered beekeepers are small scale operations or hobbyists. However, there has also been a significant growth in the numbers of hives and apiaries held by long established beekeepers as they rapidly expand the scale of their operations. The AFB PMP B expressed their and the se vice provider AQ's frustration in implementing the Plan both with small hobbyist beekeepers and with some of these large scale operations.

In essence, the AFB PMP B felt that they had few regulatory options other than to withdraw DECA, destroy hives and appliances either associated with diagnosed AFB or abandoned hives, or as a last resort to take legal action. The cost and time involved in taking legal action through the courts is often deemed by the AFB PMP B as impracticable. . There are no intermediate sanctions such as immediate financial penalties or forfeitures able to be exercised.

The question raised at this time was - "is The Plan currently 'fit for purpose'?"

In conclusion at this audit interview and during audit communications, the AFB PMP B described the issues they faced in implementing The Plan as "challenging, but not insurmountable, provided they are equipped with appropriate sanctions and support in the future". They also outlined their desire to increase engagement with MPI leadership in order to more successfully implement The Plan.

Despite these challenges the systems auditors' view throughout the audit, was that the AFB PMP B is staffed by appropriately experienced, diligent and very conscientious individuals who are making every effort to implement The Plan in the most effective way they possibly can.

**APINZ Agency Plan Manager's Offices Wellington**

The auditors visited the Office of Rex Baynes the day to day manager responsible for the implementation of The Plan. Frans Laas the AFB PMP B Chairman was present at this meeting.

Rex Baynes is employed in a part time capacity in his role as manager and he is assisted by an office person, also part time.

At this location the aud tors examined documented procedures and the delivery of work relating to how the AFB PMP B interacted with the manager and subsequently, how the Office interacted with their technical service providers AQ and all authorised persons. In addition, the auditors also examined, how all of the above mentioned parties interact with other stakeholders including, MPI, beekeepers and members of the public in carrying out activities relating to AFB for the purposes of The Act.

The auditors are not qualified as auditors under section 100P sub - section 6 of the Biosecurity Act which requires an auditor of this field to be qualified in accordance with section 35 of the Financial Reporting Act 2013. Therefore this audit did not focus on the requirements of The Levy. However, some recommendations are made by the auditors in relation to The Levy insofar as it affects the current implementation of The Plan.

The AFB PMP B and the Offices do not operate under an independently audited quality system such as ISO. However, they do operate under a Governance Document and a range of work place policies. Many of these documents are available on the AFB NZ website. (Refer www.afb.org.nz).

Overall, the auditors were satisfied that the AFB PMP B and Office is being run substantially in accordance with the Governance Document, internal policies and the requirements of The Plan.

The systems auditors' view, gained throughout this audit, is that the Office manager works very diligently, under an increasing workload due to the rapid expansion of this industry, to deliver the best outcomes he possibly can for The Plan.

However, there are several areas where AFB PMP B and Office improvements could be made to help meet the objectives of the Plan. These areas are covered in the subsequent recommendations (1-6).

**Recommendation - 1. To AFB PMP B- Review Direction - Re Teaching and the Need to Engage a More Science Based Approach to Ensure the Primary Objective of The Plan is Met.**
Clause 5 (1) of the Plan states:

"The primary objective of The Plan is to manage American foulbrood so as to reduce the reported incidence of American foulbrood by an average of 5% each year."

The audit shows that the reported incidence of AFB in hives has increased since 2010.

Currently there are no qualified animal disease epidemiologists or biostatisticians employed or contracted by the AFB PMP B. The auditors also note that a significant amount of resource appears to be allocated to teaching or training beekeepers in the recognition of AFB. This is despite The Plan not specifically requiring the Agency to undertake teaching or training in order to implement The Plan. Although the Agency must approve methods of inspection for AFB.

In the light of the failure to meet the primary objective of The Plan it is recommended that the AFB PMP B utilise the services of qualified animal disease epidemiologists and biostatisticians to help develop a more robust science based implementation to help ensure the objectives of The Plan are met.

In making this recommendation the auditors do not intend to draw into question the very palpable good work and intentions of The Board and all authorised persons who are and have been for many years, involved in training of beekeepers to identify AFB.

Nevertheless, in the auditors view and interpretation of the powers conferred to The Agency and authorised persons under The Act and in the specified objectives and rules of The Plan, the responsibility for training beekeepers in AFB recognition is not described. The auditors also make this recommendation in good faith on the basis that as they understand it there are significant human resource constraints on The Agency, the Office and authorised persons. It may be that the topic of who is responsible for training is considered in any future review of The Plan.

**Recommendation - 2. To AFB PMP B and Office - Compliance to Section 100B of the Biosecurity Act and Board Governance document Reporting Requirements.**
Section 100B of the Biosecurity Act 1993 states:

"(2) A management agency must—
(a) prepare a report on the operational plan and its implementation not later than 5 months after the end of each financial year; and
(b) provide a copy of the report to the Minister or council." In addition, the AFB PMP Governance document states:
"The AFB PMP Management Board will produce a comprehensive annual report for the Minister, the management Agency (NBA) and other key industry organisations as determined from time to time."

The audit shows that while an annual report is made available at the APINZ annual general meeting and these reports are also posted on the publicly available AFB NZ website there do not appear to have been any reports provided directly to the Minister for some years.

Provision of an operational plan and implementation report annually to The Minister, in compliance to section 100B of The Act, is a statutory requirement, incumbent upon The Agency.

In essence, because these annual reports have not been sent to the Minister, it would seem that in recent years, MPI has not been kept informed of the operations and implementations of The Plan.

It is recommended that the AFB PMP B and Manager's Office comply with Section 100B of the Biosecurity Act and the Board Governance document's annual reporting requirements to the Minister.

**Recommendation - 3. To AFB PMP B - Terms of Appointment of Board to Comply with Governance Document Requirements.**
The AFB PMP Governance Document (signed 3/6/2014) outlines the term of appointment for both the chairman and board members. Respectively , the Chairman, maximum of one four year term but voted into the position as chair annually by the Board, and for board members appointed for a four year term with a maximum of two terms (8 years) and a stand-down period of one four year term before re-appointment.

It appears that some of the current Board may have exceeded their allocated term or be near to exceeding it.

It is recommended that the Board considers the need to comply with appointment term requirements outlined in the Governance document.

**Recommendation - 4. To the AFB PMP B and Office - Correct Term of Authorised Person to be Used in all External Documents.**
During the audit it was noted that authorised persons appointed under section 103 (1) 9b of the Biosecurity Act 1993 were being referred to in external communication and vehicle signage variably as "auditors or inspectors or AP1 or AP2".

s 9(2)(h)

It is recommended that "authorised person" is used appropriately in all external communications with stakeholders.

Note: in using the term (AP1 and AP2) in this report the auditors recognise that this recommendation is for the Agency to cease using this term other than for in-house reference. Nevertheless this audit report for clarity will continue to use these acronyms as they were universally used by the auditees during the audit.

**Recommendation - 5. To AFB PMP B and Office - Resourcing Staff.**
At the entry meeting and during the audit the AFB PMP B described the recent large increases in beekeepers, hives and apiaries as being "near overwhelming".

It is recommended that consideration subsequent to financial means, is given to increasing the number of staff being employed not only in the manager's Office but also the numbers of authorised persons working as service providers.

**Recommendation - 6. To AFB PMP B and Office - Internal and External Audits and Ensure Policy Documents are Signed, Dated, and Reviewed.**
Several of the policy documents viewed in the Office or on the public website are not signed, dated or reviewed by the Chairman or other responsible persons despite them having requirements for these matters.

It is recommended that the AFB PMP B and Office conduct regular internal audits of all operational matters. One such matter might be to immediately ensure that that all operational policy documents are signed, dated, and reviewed by the responsible person.

The AFBPMP B conducted an audit of AQ in 2011 and it is also recommended that ongoing external audits of this service provider are undertaken.

It is also most important to ensure that all audit findings and corrective actions are acted upon and closed out via a traceable documented record where appropriate.

**AsureQuality, Apiculture Group (AQ) Te Rapa**
The auditors visited the offices of AsureQuality (AQ) accompanied by the Office manager Rex Baynes.

AQ is employed under a yearly renewable contract by the AFB PMP Agency to provide technical apicultural input for the implementation of The Plan.

A copy of the 2015/2016 contract was made available to the auditors.

s 9(2)(b)(ii)

AQ's administrative role under the contract is to maintain the register of beekeepers, apiaries and hives. They also manage the computer databases (APIWEB and APSYS) that are used to record much of the necessary information for the implementation of the rules of The Plan. This means that AQ manage all AFB disease reports from beekeepers plus all beekeepers' Annual Disease Returns (ADR) and Certificates of Inspection (COI) returns including the negotiation and records maintenance of all the Disease Elimination Conformity Agreements (DECA) that are agreed between the Agency and individually approved beekeepers. (Refer Appendix E).

AQ, as the administrative centre for collating all data received relating to the rules of The Plan, also assist the Office manager in preparation of annual reports on the implementation of The Plan.

The systems auditors note, firstly the unique skill set that the four AQ AP1 people possess and that two of these people may be nearing retirement. Secondly, the auditors' view is that an increase in AQ technical staff (AP1) needs to be considered, in order to more effectively implement and meet the objectives of The Plan.

Having reviewed the work that AQ does the following recommendations (7 - 9) are made to both the AFB PMP B and AQ.

**Recommendation - 7. To AFB PMP Offce and AQ - Ensuring Beekeeper Compliance to Clause 27 of The Plan, Timely ADR Submissions by Beekeepers.**
The Plan rules, clause 27, states:

"(1) On or before 1 June in each year, every beekeeper must for all beehives owned by that beekeeper, complete and send, whether electronically or otherwise, to the management agency an Annual Disease Return."

The auditors note that between 2013 and 2015, AQ and the AFB PMP Office has accepted ADR from beekeepers well past the due dates, and up to January, February and March in the following year. This has meant that the ADR compliance figures for these years has been reported as approximately 90% of all beekeepers were reported as complying with the 1st June reporting deadline. (Refer Appendix D Page 3)

However, when the compliance rate has been reported by both the AFB PMP Office and AQ on the due dates of 1st June, the compliance rates are for June 2015, 68.1% and for 2016, 63.1%. This means that approximately 30-40% of all registered beekeepers are breaching the statutory requirements to report "on time".

A breach of The Plan rule, clause 27, is an offence under section 154N (18) of the Act. The auditors also note, that the AFB PMP Agency-AQ 2015/2016 Contract clause C2 (4) states:

"In every case where a beekeeper fails to send The Service Provider (AQ) an ADR by 1 July [sic] each year, The Service Provider shall inform the Management Agency of the number and names of the defaulting beekeepers. Further action will be negotiated on advice from the management Agency NBA executive.

Note: The names of the ADR defaulters will be notified to MPI by the plan manager upon receipt of above."

The auditors cannot find evidence that Contract clause C2 (4) is being acted upon in entirety by the parties responsible.

It is recommended that the AFB PMP Agency and AQ take all necessary measures to help ensure compliance to clause 27 of The Plan by beekeepers and to ensure that ADR compliance records are closed and duly recorded at 1st June annually. In addition, it is recommended that the AFB PMP Agency and AQ ensure that Contract clause C2 (4) is acted upon in entirety.

**Recommendation - 8. To AFB PMP agency and AQ - Improved accuracy in Reporting of AFB incidence in Compliance to Clause 5 of The Plan**

AQ is responsible for collating the statistics for annual reported incidence of AFB in hives. It should be noted that there is no requirement in The Plan to record the incidence of AFB in apiaries.

The Plan clause 5 (3) states:

"For the purposes of this clause, reported incidence " means for the period of the 12 months beginning 1 July in any year the number of American Foulbrood cases expressed as a percentage of the total number of honey bee colonies notified to the management agency."

So this means the 12 month time frame for reporting is from 1 July in any year to 30 June in the subsequent year. Although clause 27 requires the beekeeper to submit his ADR on or before 1 June.

The auditors note that the AFB PMP Report dated 22 June 2016 (Refer Appendix D page 2) has several intervals reported that do not appear to be 12 month time frames. For example the 2010-2011 period is reported as ("June to March") - an eight or nine month interval , the 2012 year is reported as ("May") a 10 or 11 month interval, the 2013 period is reported as ("February") a 7 or 8 month interval. It is not clear in these reports if the final report date is the beginning or end of these months.

The auditor's view is that it is likely that the actual reported incidence of AFB for these years could be significantly higher than that stated in the Annual reports as they appear to report for reduced periods.

It is recommended that MPI, the AFB PMP Agency and AQ, review the management and reporting of AFB annual disease incidence to ensure their compliance to clause 5 of The Plan and only report AFB incidence for the interval, 1 July in any year to 30 June in the subsequent year. Note; it may be that significant efficiencies may be made by all parties reviewing and aligning to minimise multiple reporting times.

**Recommendation - 9. To AFB PMP Office and AQ - Ensuring Beekeeper Compliance to Clause 32 of The Plan, Certificate of Inspection (COI) timely Completion by Beekeepers.**
The Plan clause 32, requires those beekeepers who do not hold their own DECA, to have all of their beehives inspected by an appropriately approved person for AFB on or after 1 August and before 30 November each year.

In addition, clause 32 (3) states:

"Within 14 days after the inspection is completed or before 15 December of each year, whichever is earlier, every beekeeper must complete a Certificate of Inspection in a form provided by or obtained from the management agency the COI together with the statement made in accordance with clause 33."

The auditors note, that between 2013 and 2015 AQ and the AFB PMP Office was reporting compliance to COI from beekeepers past the due dates, variably, such as February, March and June in the following years. These reported compliance statistics show between 70% and 60% compliance to the 15 December deadline. (Refer Appendix D Page 4).

This means that approximately 30 - 40% of all registered beekeepers required to supply a COI are breaching these requirements. The auditors' view is that, the actual non-compliance rate if measured at the legally required earlier time of 15th December in the preceding year may be well in excess of 30 - 40%.

A breach of clause 32 is an offence under section 154N (18) of the Act.

It is recommended that the AFB PMP Agency and AQ take all necessary measures to help ensure beekeepers' compliance to clause 33 of The Plan and to ensure that COI compliance records are closed and duly recorded at 15th December annually.

**Visits and Interviews with Authorised Persons (internally called AP2) and beekeepers**
The audit Team visited several regions to interview Authorised Persons operating in an official capacity and beekeepers located in the following areas:

s 9(2)(a)

s 9(2)(a)

Authorised persons (AP2), receive work instructions from both AQ and from the Agency Office Manager (refer Appendix A wiring diagram). AP2 are paid directly by the Agency from funds derived from The Levy and other sources such as training in AFB detection and the issue of DECA. Many of the current AP2 also participate in training of beekeepers in approved methods of AFB detection. Revenue outside of that derived from The Levy is gained from these training activities for The Agency.

This means that many AP2 are both trainers and compliance officers. In addition, many AP2 are beekeepers themselves, within the regions where they are also fulfilling their statutory roles and exercising the powers allocated to them under the Act. s 9(2)(g)(i) Nevertheless, the auditors were satisfied that all of the AP2 interviewed were well trained, had the appropriate skills and were highly motivated to reduce the incidence of AFB. All of the AP2 were very aware of potential conflicts of interest and they commented that they were always mindful of this when conducting official duties.

The following range of edited comments were made by AP2 and/or beekeepers being interviewed (denoted by a preceding • hereafter in this section). The comments may in some cases be anecdotal information. Nevertheless, they are included in this audit report as the audit team consider that they provide information that is relevant to the overall audit and status of control and compliance to the current requirements. In the auditors' view they also provide some valuable insights relating to AFB controls moving forward. All auditees' full responses are attached as appendices to the main audit report.

s 9(2)(ba)(i)

s 9(2)(ba)(i)

s 9(2)(ba)(i)

**MPI Involvement in the AFB PMP**

MPI is the administrator of both The Plan and The Levy. In addition MPI is tasked with providing leadership for both of these instruments. Part 6 of the Act outlines the administrative provisions under which MPI administers these instruments, section 12A of The Act outlines the leadership requirements.

In 2012-2013, The Plan and The Levy were amended. Between 1998 and 2013, the primary objective of the plan was to reduce the reported incidence of AFB by an initial 10% each year. In 2013, the primary objective of the plan was altered to reduce the reported incidence of AFB by 5% each year. In 2014 the reported incidence of AFB increased by 20% over the previous year and it is still at this level in 2016. (Refer Appendices B and C)

Section 100B of The Act requires the Agency to provide an annual report to the Minister on the implementation of The Plan. The audit shows that these reports do not appear to have been provided to the Minister and therefore by progression to MPI.

There is no evidence to show that MPI and the Agency are communicating on a structured or time-bound ongoing basis in relation to the implementation of The Plan. While the AFB PMP Office manager advised the auditors that annual reports had been sent to MPI evidence was not available to show reports had been provided. Although these reports are available on the AFB public webpage.

The audit shows that more can be done by all parties involved in the administration and implementation of The Plan to help ensure that the outcomes of section 12A are met.

Section 12A (2) of the Act states that MPI leads by:

"(a) promoting alignment of pest management within the whole biosecurity system:
(b) overseeing New Zealand's systems for pest management and measuring overall system performance:
(c) facilitating the development and alignment of national pest management plans and national pathway management plans:
(d) promoting public support for pest management:
(e) facilitating communication, co-operation, and co-ordination among those involved in pest management to enhance effectiveness, efficiency, and equity of programmes.

The following recommendations (10 - 11) are made to MPI.

**Recommendation - 10. To MPI - Considerations to Ensure the Leadership Requirements of Section 12A of The Act and the primary objectives of The Plan are met.**
It is recommended that MPI considers the following measures, in order to better ensure, that the leadership requirements of section 12A of the Act and the primary objectives of The Plan are met:

• MPI to lead the Agency to engage proven epidemiological and bio statistical animal disease expertise to guide the ongoing implementation of The Plan.

• MPI to undertake an efficiency review of the activit es of the implementation of the Plan and expenditure of funds derived from The Levy Order and any other activities undertaken by the Agency

• MPI and the Agency to commence AFB regional surveys across New Zealand using proven epidemiological methods to better understand the "actual incidence" of AFB and compare this to "reported incidence" to better meet the objectives of The Plan

• MPI review the current Plan and the evy Order and include the considerations to incorporate Varroa controls in order to ensure that both AFB and Varroa controls are "fit for purpose". (Note: Varroa long term disease control is outside the Terms of Reference of this audit, this recommendation is made cognisant of these matters but within Systems Audit protocols)

• The Agency (and if necessary MPI) to consider exercising the full powers of the Biosecurity Act 1993 against those beekeepers in breach of the rules of The Plan and who are deemed to be committing offences against the requirements of the Ac .

**Recommendation - 11. To MPI consideration for ongoing Systems Audits of The Plan Implementation**
It is recommended that MPI considers the need for ongoing Systems Audits to assist with improved implementation of The Plan and to help ensure that the primary objectives are met.

**Serious Non Compliance - Raised against relevant Beekeepers - Failure to comply with Rules of the AFB Plan**
The auditors raise **a serious non-compliance,** against those beekeepers (approximately 30-40% of the approximately 7000 registered beekeepers) who are failing to comply with
clauses 27 and 32 of The Plan. In addition, the work conducted by the AFB PMP B shows many beekeepers' widespread use of unregistered apiary sites throughout New Zealand. Such use is also a serious failure to comply with clauses 15 and 17 of The Plan.

Failure to comply with many of these rules of The Plan are prosecutable offences under section 154N (18) of the Biosecurity Act 1993.

Failure by such significant numbers of beekeepers to comply with the above-mentioned clauses of The Plan are serious non-compliances. Ostensibly, a systems failure across the industry.

In the auditors' view these failures, not only place the apiculture industry at great risk to reputation and trade, but also they contribute significantly to the ongoing failure to meet the objectives of The Plan.

However, in raising this serious non-compliance the auditors also recognise that the significant majority of beekeepers are committed to compliance to the rules of The Plan and they appear to take every effort to ensure effective management of AFB.

**Ministry for Primary Industries**
Manatū Ahu Matua

OIA17-0273

06 JUN 2017

Linda Bray
Secretary
New Zealand Beekeeping Incorporated
info@nzbeekeeping.co.nz

Dear Linda Bray

**OFFICIAL INFORMATION ACT REQUEST**

I refer to your official information request on 9 May 2017 relating to American Foulbrood (AFB, general requirements for export (GREX) for honey, and importation requirements of other countries. Each of your questions is quoted and responded to below.

The following information is released to you under the Official Information Act 1982 (OIA):

1. *A copy of any evidence that American Foulbrood (AFB) contamination of bee products has an effect on human health.*

The *Import Risk Assessment: Honey bee products*, dated 15 December 2004, was an update of the risk analysis on honey bee hive products and used beekeeping equipment released for public consultation in July 2002. This assessment covered American Foulbrood in Section 20. (https://mpi.govt.nz/document-vault/2789)

AFB, caused by the bacteria Paenibacillus larvae, is not a zoonotic disease. This disease does not spread between animals and humans; it does not affect human health because it is not infectious to humans. The Ministry for Primary Industries (MPI), therefore, does not hold any information regarding the effect of AFB contamination on human health. Your request is refused under section 18(e) of the OIA as the information requested does not exist.

2. *A copy of any information that led to the inclusion into the proposed GREX of provisions for bee products to be sourced from hives that are free of AFB.*

The proposed provisions in the GREX regarding AFB reiterate existing AFB domestic requirements. Export eligibility is based on compliance with all applicable domestic standards as well as additional export requirements. The proposed AFB related requirements reflect section 29 of the Biosecurity (National American Foulbrood Pest Management Plan) Order 1988. (http://www.legislation.govt.nz/regulation/public/1998/0260/latest/DLM258691.html)





**Regulation and Assurance**
**Pastoral House, 25 The Terrace**
PO Box 2526, Wellington 6140, New Zealand
Telephone: 0800 00 83 33, Facsimile: +64-4-894 0300
www.mpi.govt.nz

3. *A copy of the import requirements of any and all countries that require bee products to be certified free from AFB.*

At this time, there are no specific import requirements from other countries that require AFB-free certification.

It is important to note however, that there are international agreements that list AFB as a notifiable disease:

- Under the Sanitary and Phytosanitary Measures (SPS) agreement, through the World Trade Organization, New Zealand must ensure that trade in animal and animal products does not spread listed animal diseases. AFB is a listed disease for bee products. More information on this agreement can be found on the World Trade Organization's website at https://www.wto.org/english/tratop_e/sps_e/spsund_e.htm.
- In line with the terminology of the SPS Agreement, the World Organisation for Animal Health (OIE) also classifies diseases as hazards and lists diseases on the degree of importance in international trade. AFB is also a listed disease for the OIE. More information on this list can be found at http://www.oie.int/en/animal-health-in-the-world/oie-listed-diseases-2017/.

You have the right under section 28(3) of the OIA to seek an investigation and review by the Ombudsman of our decision.

Yours sincerely

Allan Kinsella
Director Systems Audit, Assurance and Monitoring

**Ministry for Primary Industries**
Manatū Ahu Matua

OIA17-0276

25 MAY 2017

Linda Bray
Secretary
New Zealand Beekeeping Incorporated
info@nzbeekeeping.co.nz

Dear Linda Bray

**OFFICIAL INFORMATION ACT REQUEST**

I refer to your official information request on 9 May 2017 relating to a copy of the speaking notes and power point presentation that I gave at the MPI Consultation workshop, Claudelands, Hamilton meeting on Friday 5th May 2017.

The following information is released to you under the Official Information Act 1982 (OIA):

- Presentation slides
- Talking points

I trust this satisfies your request

Yours sincerely

Paul Dansted
Director, Animal & Animal Products





**Regulation & Assurance**
**Animal & Animal Products**
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**Ministry for Primary Industries**
Manatū Ahu Matua

OIA17-0279

06 JUN 2017

Linda Bray
Secretary
New Zealand Beekeeping Incorporated
info@nzbeekeeping.co.nz

Dear Linda Bray

**OFFICIAL INFORMATION ACT REQUEST**

I refer to your official information request on 10 May 2017 relating to:

1. *A copy of a documented procedure that the* [Ministry for Primary Industries] *MPI could use to confirm, on a continual (daily/weekly) basis, that bee products produced within a specified area, ie within an 8km radius of any beehives located at a specific grid reference would be suitable or unsuitable for production and sale of bee products for human consumption.*
2. *A copy of any reports completed by MPI policy analysts and advisers regarding MPI considering a role in monitoring the environment for potential food safety issues, sufficient to cause harm to human health, connected with the production of products under the Animal Products Act (the environmental monitoring would be as documented in 1. above.)*
3. *A copy of documentation that would show the procedure that would be taken should environmental monitoring identify an area of concern for the suitability of animal products for human consumption, that would prompt a cessation of production of animal products from the area and the recall of any products covered by the Animal Products Act, already in the production chain and destined for human consumption.*

The information is released to you under the Official Information Act 1982 (OIA).

Please be aware that there are no specific documents, reports, or procedures that can be supplied to answer your questions. The following information is supplied to you to explain the measures taken by MPI to ensure products, including bee products, are suitable for human consumption.

**Questions One and Two**

MPI is responsible for making sure that food produced and sold in New Zealand is safe and suitable to eat. This is done by monitoring levels of residues, contaminants, and other hazards in food and setting food safety standards. MPI does this by:

- regulating the use of certain chemicals through the Agricultural Compounds and Veterinary Medicines Act 1997





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http://www.legislation.govt.nz/act/public/1997/0087/latest/DLM414577.html?search=qs_act%40bill%40regulation%40deemedreg_acvm_resel_25_h&p=1&sr=1;

- monitoring chemical levels in specific foods through programmes like the National Chemical Residues Programme (NCRP) and the Food Residues Surveillance Programme;
- assessing New Zealanders' overall consumption of chemicals through the New Zealand Total Diet Study (http://www.foodsafety.govt.nz/policy-law/food-monitoring-programmes/total-diet-study/);
- requiring primary processors of animal material and products to have operate under a registered risk management programme (RMP) – refer to further information below; and
- requiring food businesses to have registered food control plans or national programmes to minimise risks to food safety (http://www.mpi.govt.nz/food-safety/food-act-2014/food-control-plans/).

Honey is tested through the NCRP. This programme collects and tests samples from randomly selected animals or animal products. Results are used to establish the level of Good Agricultural Practice and for Official Assurances purposes. A summary and overview of this programme and the documents associated are available on MPI's website at http://www.foodsafety.govt.nz/policy-law/food-monitoring-programmes/apa-1999/ncrp/.

All primary processors of animal material and products for human or animal consumption are required to operate under a registered and independently verified RMP. An RMP describes how products are processed to meet the requirements of the Animal Products Act 1999. This is to ensure the products are 'fit for purpose' – safe and suitable. Secondary processes can choose to operate either under an RMP or a risk based measure under the Food Act 2014. More information on RMPs can be found on MPI's website at http://www.foodsafety.govt.nz/industry/general/rmp/.

MPI takes an active role in environmental monitoring only where there is not a sufficient framework in place overseen by other government agencies, predominantly the EPA and MFE, or regional councils. For example, MPI published a report to guide landowners on managing food safety risks from the use on agricultural land of rocks and minerals from oil drilling activities; http://www.mpi.govt.nz/document-vault/8698.

Wider environmental food safety issues are commonly managed on a population basis and as such programmes that estimate full dietary exposure, such as the New Zealand Total Diet Study, are considered the best practice form of monitoring for trends in dietary exposure. Specific site based environmental monitoring may be undertaken in relation to compliance and investigation activities if an environmental source of exposure leading to a food safety contamination or animal welfare concern is considered likely.

**Question Three**

A food recall isolates and removes unsafe or unsuitable food which is no longer under the manufacturer's direct control, and has passed into the control of others in the storage, distribution, retail or consumer chain. Therefore, in response to question three about the procedure that would be taken on products in the production chain, please refer to MPI advice and information on food recalls (http://www.foodsafety.govt.nz/recalls-warnings/overview/).

If our regular monitoring programmes detect any unexpected or hazardous chemicals in products, a full investigation is carried out as to the potential source. If a particular environmental problem is discovered, steps may be taken to impose specific controls to manage the risks.

Under section 81B of the Animal Products Act 1999, the Director-General may impose movement and related controls where he has reasonable grounds to suspect the existence of a hazard or source of contamination that may affect animals or animal material that may be processed for human or animal consumption; http://www.legislation.govt.nz/act/public/1999/0093/latest/DLM35211.html?search=sw_096be8ed814f83e6_residue_25_se&p=1.

You have the right under section 28(3) of the OIA to seek an investigation and review by the Ombudsman of our decision.

Yours sincerely

Allan Kinsella
Director Systems Audit, Assurance and Monitoring

**Ministry for Primary Industries**
Manatū Ahu Matua

OIA17-0281

08 JUN 2017

Linda Bray
Secretary
New Zealand Beekeeping Incorporated
info@nzbeekeeping.co.nz

Dear Linda Bray

**OFFICIAL INFORMATION ACT REQUEST**

I refer to your official information request on 10 May 2017 relating to:

1. *Copies of requests from any and all importing countries that have requested MPI develop requirements for export procedures and documentation in order to meet the importing countries requirements for trade to be maintained.*
2. *Copies of the MPI policy analysts and advisors comments and review of those requests received from any and all overseas countries.*
3. *Copies of the advice that led to the development of the proposed GREX for all importing countries.*

It is important to note that your third question was interpreted as advice developed based on requests from importing countries and MPI's comments and review of these request.

The following information is released to you under the Official Information Act 1982 (OIA):

MPI, and the wider New Zealand Government, has open and ongoing communications with trading partners on a range of matters. To facilitate trade, Governments must ensure that market access is maintained through adherence to domestic and international requirements. As advised through the mānuka honey public forums, MPI has communicated with trading partners regarding exportation of bee products and New Zealand's controls on this industry.

However, making available the communications, analysis, and advice pertaining to these ongoing negotiations would prejudice the international relations of the Government of New Zealand, section 6(a) of the OIA refers.

You have the right under section 28(3) of the OIA to seek an investigation and review by the Ombudsman of our decision to withhold information.

Yours sincerely

Allan Kinsella
Director Systems Audit Assurance and Monitoring





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**Pastoral House, 25 The Terrace**
PO Box 2526, Wellington 6140, New Zealand
Telephone: 0800 00 83 33, Facsimile: +64-4-894 0300
www.mpi.govt.nz

[Not relevant to request]

**From:** s 9(2)(a) yahoo.co.nz>
**Sent:** Tuesday, 13 June 2017 4:58 p.m.
**To:** Manuka Honey
**Subject:** s 9(2)(a) Submission letter on Animal Products Notice; General export Requirements for Bee Products.

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

Dear MPI

Re Animal Products Notice; General export Requirements for Bee Products

Please do not burden the Apiculture industry with any more costs and regulation's than you have already imposed upon us.

Honey can already be traced from the saleable jar back to the site of hives that it came from under the current MPI regulations.

There is only a need for a sound definition to provide assurance to the industry and consumers alike, that all New Zealand Manuka Honey sold around the world is true to label and thereby stop counterfeit honey being sold as Manuka.

s 9(2)(b)(ii)

[Not relevant to request]

**From:** s 9(2)(b)(ii), s 9(2)(a) .com>
**Sent:** Tuesday, 13 June 2017 6:33 p.m.
**To:** Manuka Honey
**Cc:** s 9(2)(a)
**Subject:** What is true Manuka honey
**Attachments:** ALNuMed-Manuka-sts20170612.pptx.pdf

**Importance:** High

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

Dear MPI Manuka Honey Team,

I would like to provide you with some information about work on honey authenticity - including manuka honey - that my team has been doing in the past few years.

My name is s 9(2)(b)(ii) and together with my colleague s 9(2)(b)(ii) I am founder of s 9(2)(b)(ii) . The purpose of s 9(2)(b)(ii) is do develop and market novel analytical methods for rapid testing of quality and authenticity of food stuffs. Our main technology is nuclear magnetic resonance spectroscopy, which provides quantitative ingredient fingerprints of foods and which has already been successfully applied to test, e.g., fruit juices and wines, for more than 10 years. Since the very beginning of s 9(2)(b)(ii) we had a focus on honey authenticity. We initiated a consortium that developed Honey-Profiling(tm), which is now in the market for three years and is applied to test authenticity of honey, i.e, does the product comply with law (e.g. codex definition of honey), where is it from, which variety, and has it been adulterated. The method builds on:

1) quantitative ingredient fingerprints
2) very large databases of authentic honey samples (thousands) from worldwide origins
3) extensive cross validation with conventional methods
4) several 10-thousands of accompanying classical analysis regarding quality and authenticity.
5) Experience from > 10 years of application in the the food industry
6) Expertises from the consortial partners (including analytical methods expert, chemometrics experts, and internationally renown and independent honey analysis experts)

My group at s 9(2)(b)(ii) has been intensively and independently working on Manuka honey, in particular to develop test discriminating Manuka and Kanuka, as well as Manuka from New Zealand and Australia. Based on own sample collection and wIth the kind support of s 9(2)(a) we have now several hundred samples of Honeys from New Zealand that (together with thousands of honeys from other countries) build the basis for our research.

I have attached a summary of our current status, which is still work in progress. Nevertheless, I´d like to mention that Honey Profiling 1.0 has already the possibility to test for a class Manuka/Kanuka honey, The reported status is part of the development of a next level of differentiation.

Please feel free to contact me in case of question. I also took the liberty to comment on the current proposal of the MPI. The proposal certainly has its stengths, but also some major draw backs (including scientific issues) that I would like to address. Again, in case of question please feel free to contact me.

s 9(2)(b)(ii)


ALNUMED

in collaboration with

foodQS GNS SCIENCE TE PŪ AO UNIVERSITÄT BAYREUTH BIOmac UMFHA

# Differentiating Manuka and Kanuka Honey/Nectar from other Honeys by NMR

Prof. Dr. Stephan Schwarzinger (s.schwarzinger@alnumed.com)
Research Center for Biomacromolecules (BIOmac), University of Bayreuth
ALNuMed GmbH (Founder & Shareholder)

Felix Brauer, MSc. (ALNuMed),
Dr. Karyne Rogers (GNS),
John Rawcliff (UMFHA)
Dipl.-Ing (FH) Bernd Kämpf (FoodQS),
Prof. Dr. Paul Rösch (BIOmac, ALNuMed)

Status: June 2017

ALNuMed GmbH (www.alnumed.com) is a
spin-off from the RC BIOmac of the University Bayreuth

# *NMR-Profiling of Food*
# *One Measurement – Many Answers*

**NMR (nuclear magnetic resonance) spectroscopy is a**

- primary quantitative analysis method with
- high resolution (>> hunderet compouds per spectrum)
- outstanding dynamic bandwidth (hunderets of g/kg to mg/kg within same run)
- unmatched reproducibility allowing production of quantitative fingerprint databases

**NMR spectroscopy provides**

- quantitative ingredient fingerprints of foods within a few minutes of measurement time
- information about general quality of a food (compliance with guidelines, identification of premium qualities)
- proof of authenticity of a product (species, variety, purity/dilution, geographic origin, adulteration, and illegal manipulation)

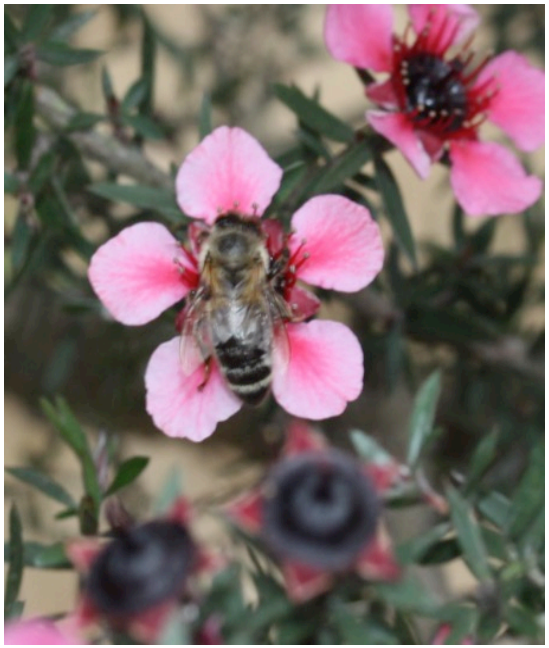
**NMR spectroscopy adds traceability through a multi-parameter fingerprint (ALNuMed BatchCheck – helps battling product piracy)**

**NMR spectroscopy is already successfully applied for several years in routine testing of fruit juices, fruit purees, wines and musts, *honeys*, edible oils**

# *Honey-Profiling*™ – Why a Single Parameter Is Not Enough

Development of the Honey Profiling data base is a collaborative effort of Bruker BioSpin, QSI, and ALNuMed with FoodQS.

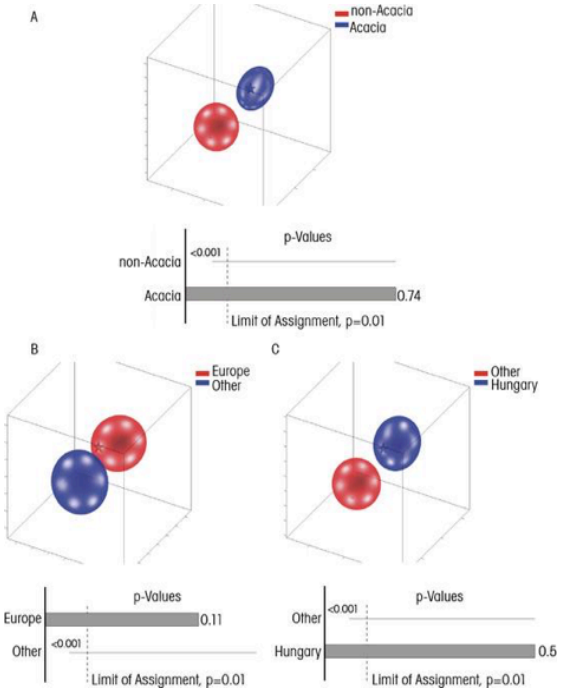
## Verification of provenience and variety (product label) are part of authenticity testing



**Authentic Food –**
**Why a single analytical parameter is not enough**

(Schwarzinger *et al.*, Q&More 1/2016)

| Compound | Value | Unit | LOQ | Official Reference min | Official Reference max | Official Reference Flag | Honey-Profiling™ NMR Distribution |
|---|---|---|---|---|---|---|---|
| glucose + fructose | 75.5 | g/100g | 20.0 | 60.0 | - | ● | 59.2 80.0 |
| fructose / glucose | 1.22 | - | - | - | - | ○ | 0.97 1.55 |
| fructose | 41.4 | g/100g | 10.0 | - | - | ○ | 32.3 44.2 |
| glucose | 34.1 | g/100g | 10.0 | - | - | ○ | 23.7 39.1 |
| sucrose | <LOQ | g/100g | 0.5 | - | 5.0 | ● | <0.5 2.8 |
| turanose | 1.5 | g/100g | 0.2 | - | - | ○ | 0.6 2.5 |
| maltose | 1.3 | g/100g | 0.5 | - | - | ○ | <0.5 6.3 |
| melezitose | 1.0 | g/100g | 1.0 | - | - | ○ | <1.0 3.1 |
| ~ | | | | | | | ~ |
| citric acid | 93 | mg/kg | 50 | - | - | ○ | <50 564 |
| malic acid | 160 | mg/kg | 100 | - | - | ○ | <100 721 |
| ~ | | | | | | | ~ |
| 5-hydroxymethylfurfural | 10 | mg/kg | 5 | - | 40 | ● | <5 52 |
| acetic acid | 18 | mg/kg | 10 | - | - | ○ | <10 132 |
| acetoin | <LOQ | mg/kg | 20 | - | - | ○ | <20 mg/kg in reference dataset |
| ethanol | 45 | mg/kg | 5 | - | - | ○ | 9 1420 |
| ~ | | | | | | | ~ |
| 3-phenyllactic acid | 526 | mg/kg | 300 | - | - | ○ | <300 1202 |
| dihydroxyacetone | 870 | mg/kg | 20 | - | - | ○ | <20 1934 |
| kynurenic acid | <LOQ | mg/kg | 60 | - | - | ○ | <60 mg/kg in reference dataset |
| methylglyoxal | 346 | mg/kg | 30 | - | - | ○ | <30 1486 |
| shikimic acid | <LOQ | mg/kg | 80 | - | - | ○ | <80 114 |




based on
**several thousand**
*authentic reference honeys*
from world-wide origins

screening of quality parameters
non-targeted verification
geographical origin (adulteration indicator)
floral variety (removal of pollen!)
→ **Only sum of parameters allows judgement of authenticity**

http://q-more.chemeurope.com/q-more-articles/234/authentic-food.html

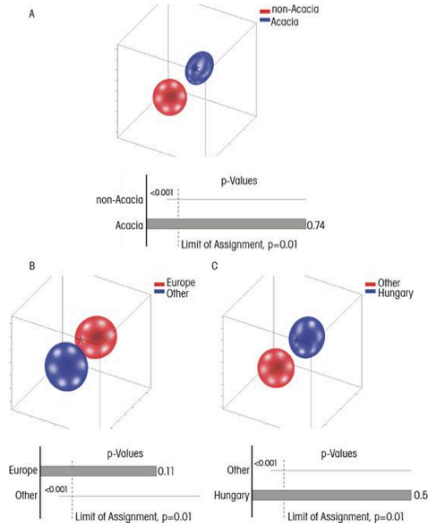
# *Honey-Profiling*™ – Why a Single Parameter Is Not Enough

Development of the Honey Profiling data base is a collaborative effort of Bruker BioSpin, QSI, and ALNuMed with FoodQS.

## Honey Profiling generates a spectral fingerprint of a honey sample:

- **Information of general honey quality**
  - sugar profile, sum of G+F, F/G ratio
  - HMF
  - proline
  - important organic acids
  - ethanol and other degradation parameters

- **Information about Authenticity**
  - specific marker compounds (including DHA, MGO, phenyllactic acid)
  - targeted testing for adulteration (syrup addition)
  - targeted statistical testing for geographic origin
  - targeted statistical testing for variety (i.e. comparison of ingredient concentration profiles deduced from thousands of reference samples)
  - untargeted univariate and multivariate comparison with reference profiles → allows detection of so far unkown adulterations and manipulations




| Compound | Value | Unit | LOQ | Official Reference min | Official Reference max | Official Reference Flag | Honey-Profiling™ NMR Distribution |
|---|---|---|---|---|---|---|---|
| glucose + fructose | 75.5 | g/100g | 20.0 | 60.0 | - | ● | 59.2 80.0 |
| fructose / glucose | 1.22 | - | - | - | - | ○ | 0.97 1.55 |
| fructose | 41.4 | g/100g | 10.0 | - | - | ○ | 32.3 44.2 |
| glucose | 34.1 | g/100g | 10.0 | - | - | ○ | 23.7 30.1 |
| sucrose | <LOQ | g/100g | 0.5 | - | 5.0 | ● | <0.5 2.8 |
| turanose | 1.5 | g/100g | 0.2 | - | - | ○ | 0.6 2.5 |
| maltose | 1.3 | g/100g | 0.5 | - | - | ○ | <0.5 6.3 |
| melezitose | 1.0 | g/100g | 1.0 | - | - | ○ | <1.0 3.3 |
| citric acid | 93 | mg/kg | 50 | - | - | ○ | <50 566 |
| malic acid | 160 | mg/kg | 100 | - | - | ○ | <100 721 |
| 5-hydroxymethylfurfural | 10 | mg/kg | 5 | - | 40 | ● | <5 52 |
| acetic acid | 18 | mg/kg | 10 | - | - | ○ | <10 132 |
| acetoin | <LOQ | mg/kg | 20 | - | - | ○ | <20 mg/kg in reference dataset |
| ethanol | 45 | mg/kg | 5 | - | - | ○ | 9 1420 |
| 3-phenyllactic acid | 526 | mg/kg | 300 | - | - | ○ | <300 1202 |
| dihydroxyacetone | 870 | mg/kg | 20 | - | - | ○ | <20 1934 |
| kynurenic acid | <LOQ | mg/kg | 60 | - | - | ○ | <60 mg/kg in reference dataset |
| methylglyoxal | 346 | mg/kg | 30 | - | - | ○ | <30 1496 |
| shikimic acid | <LOQ | mg/kg | 80 | - | - | ○ | <80 114 |

→ Report provides > 35 quantitative results and prints how the respective sample compares to the distribution in the reference database

# Our VAULT of Authentic Honey Samples:
## Large sample numbers are the basis for any fingerprinting

**> 4.900 samples total with**

> 60.000 accompanying conventional analysis (quality, adulteration)

including pollen analysis, test for honey foreign enzymes and oligosaccharides, syrup markers etc.

>> 100.000 NMR-derived quantitative analysis results for up to 36 substances

**> 4.200 authentic real honey samples covering:**

**30 proveniences** (33 % with more than 100 samples, 50 % more than 50)
covering the most important players in global honey trade, recent harvests

**> 30 varieties**

**> 1000 monofloral honeys** (incl. ~ 200 monofloral Manuka honeys)

**> 2500 polyfloral honey** samples from worldwide origins

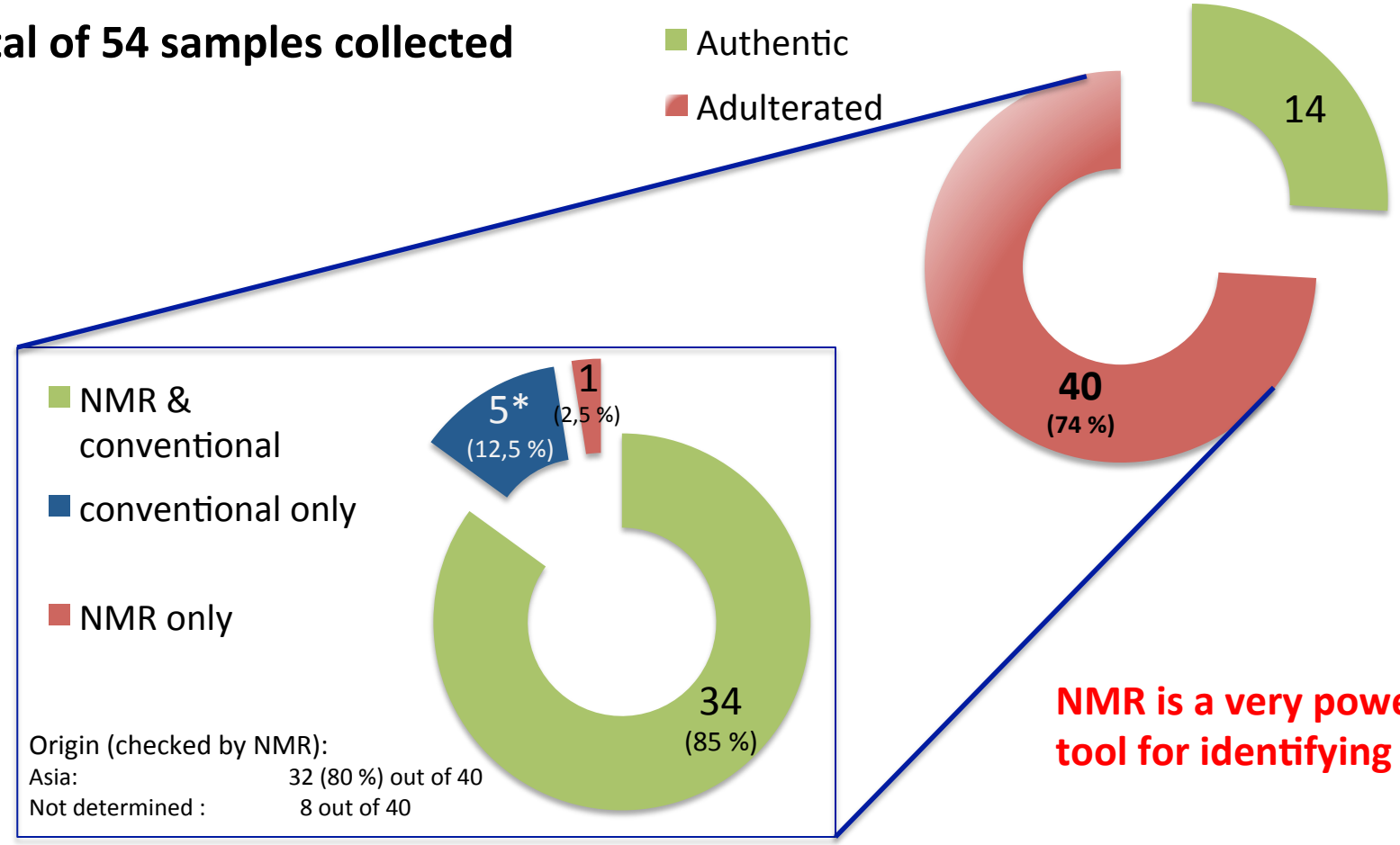
## Remaining samples:

- defined adulterated/manipulated samples
- adulterated samples from market
- syrup samples and bee feed

Part of the even larger
Honey-Profiling Database

# Recent Case Study on Samples Collected from Supermarket Shelves (Confidential)

**Total of 54 samples collected**




**NMR is a very powerful tool for identifying fraud**

- one sample identified by NMR to be good for consumption (+ HMF to high, too)
- conventional tests applied include: honey foreign enzymes, syrup specific markers, honey foreign oligosaccharides, and presence of artificial food additives

# NMR-research by ALNuMed on Manuka Honey

**~ 350 honey samples from New Zealand, including Kanuka**
**~ 200 monofloral Manuka honey samples (including Australian Manuka)**
**Nectars taken from Manuka, Kanuka, and other Plants from New Zealand**

Samples were self collected from stores (and tested with reference analysis), as well as provided by Dr. K. Rogers (GNS) and Mr. J. Rawcliff (UMFHA)

NMR-Spectra were collected for all samples

- Samples were compared with thousands of other honeys from world wide origins
- Manuka and Kanuka groups were compared against each other
- Manuka from New Zealand and Australia were compared against each other

**Goal: Identification of signals/compounds contributing to discrimination of groups**

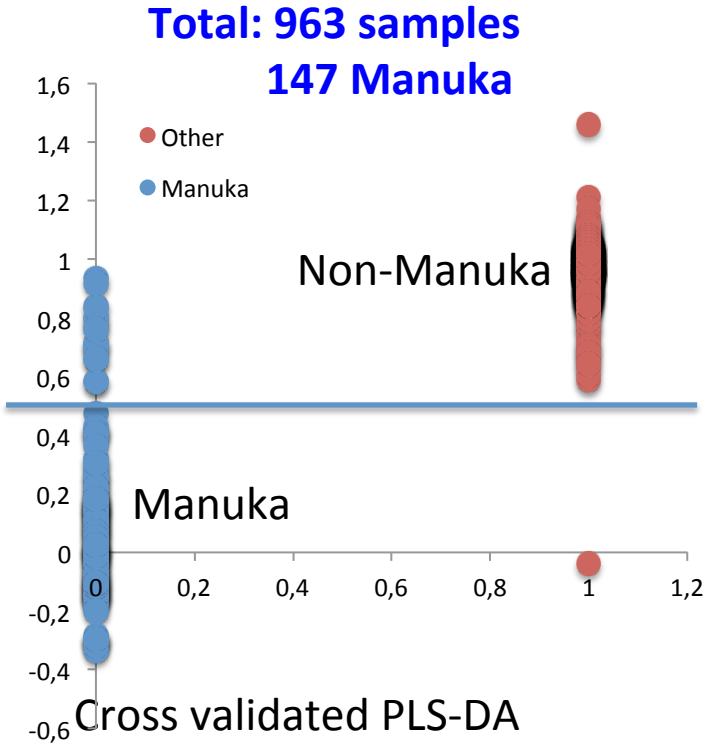
→ Important: aim at signals/substances also correlating with anti-microbial activity
→ Important: aim at several signals contributing to discrimination
→ Important: consider not only absolute concentrations of markers, but also their relative relations with each other and with "standard" ingredients → this gives a robust multi-component marker that is very hard to manipulate by addition of substances!

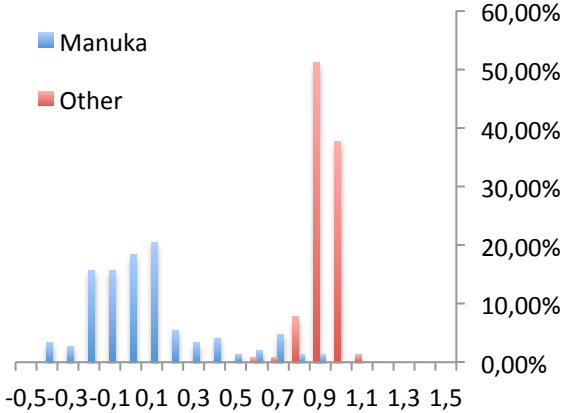
# NMR-research by ALNuMed on Manuka Honey
# Achievements so far (work in progress)

## Other markers/discriminators accessible by NMR:

Leptosperin, 4-methoxyphenyllactic acid (putative assignment), kojic acid
putative Manuka marker X (compound already identified)
putative Manuka marker Y (signals identified, compound identification in progress

Considering these substances and other parts from NMR spectra groups can be distinguished:




Confusion Matrix

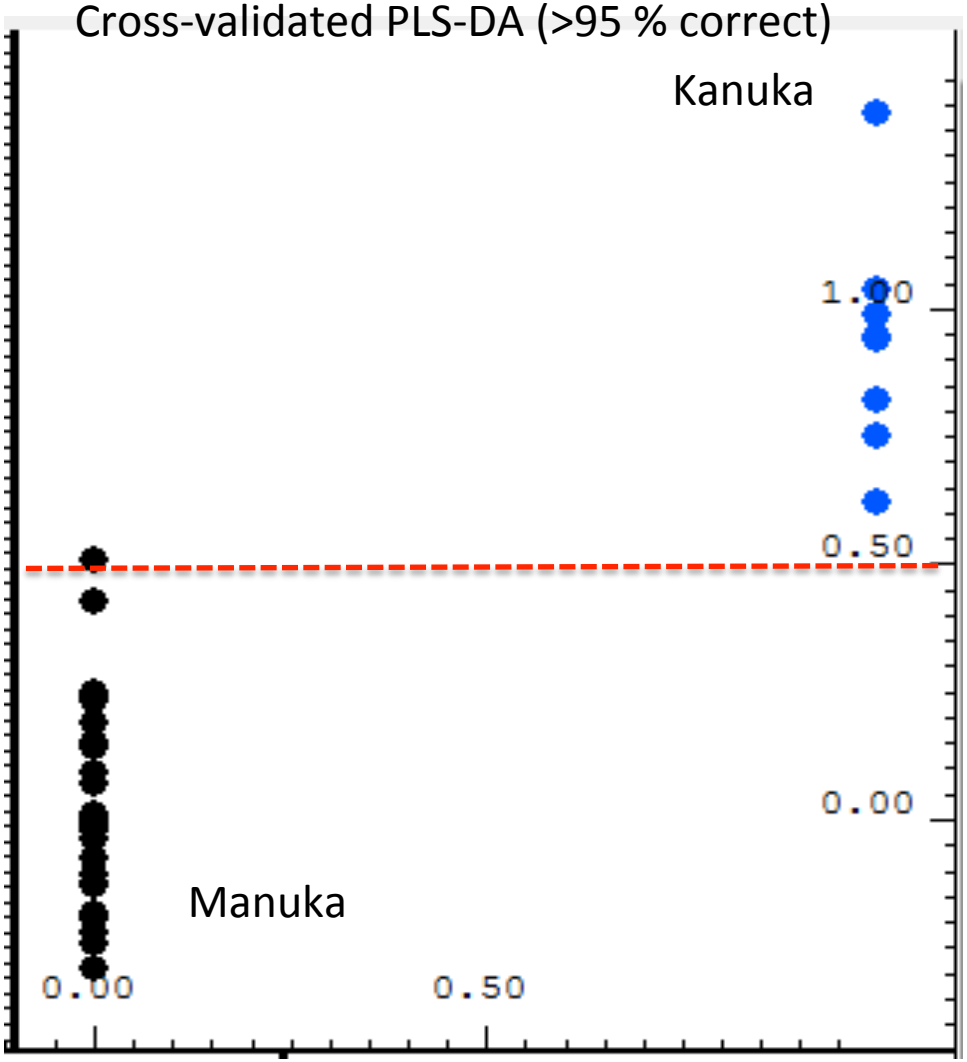
| *absolute* | Manuka | other |
|---|---|---|
| Manuka | 131 | 16 |
| other | 1 | 815 |
| % | Manuka | other |
| Manuka | 89,1% | 12,2% |
| other | 0,1 % | 99,9% |

Work in progress: note that PLS-DA is a very conservative method
Target: Discrimination > 95 %, low rates of false negatives and false positives

# NMR-research by ALNuMed on Manuka Honey
# Achievements so far (work in progress)

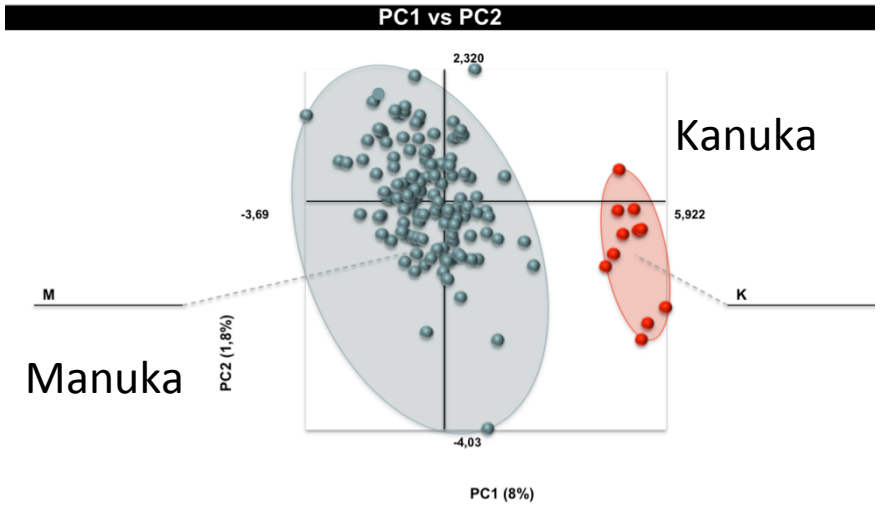
## Differentiation of Manuka and Kanuka by NMR spectral data:

Cross-validated PLS-DA (>95 % correct)




or by more powerful PLS-eDA

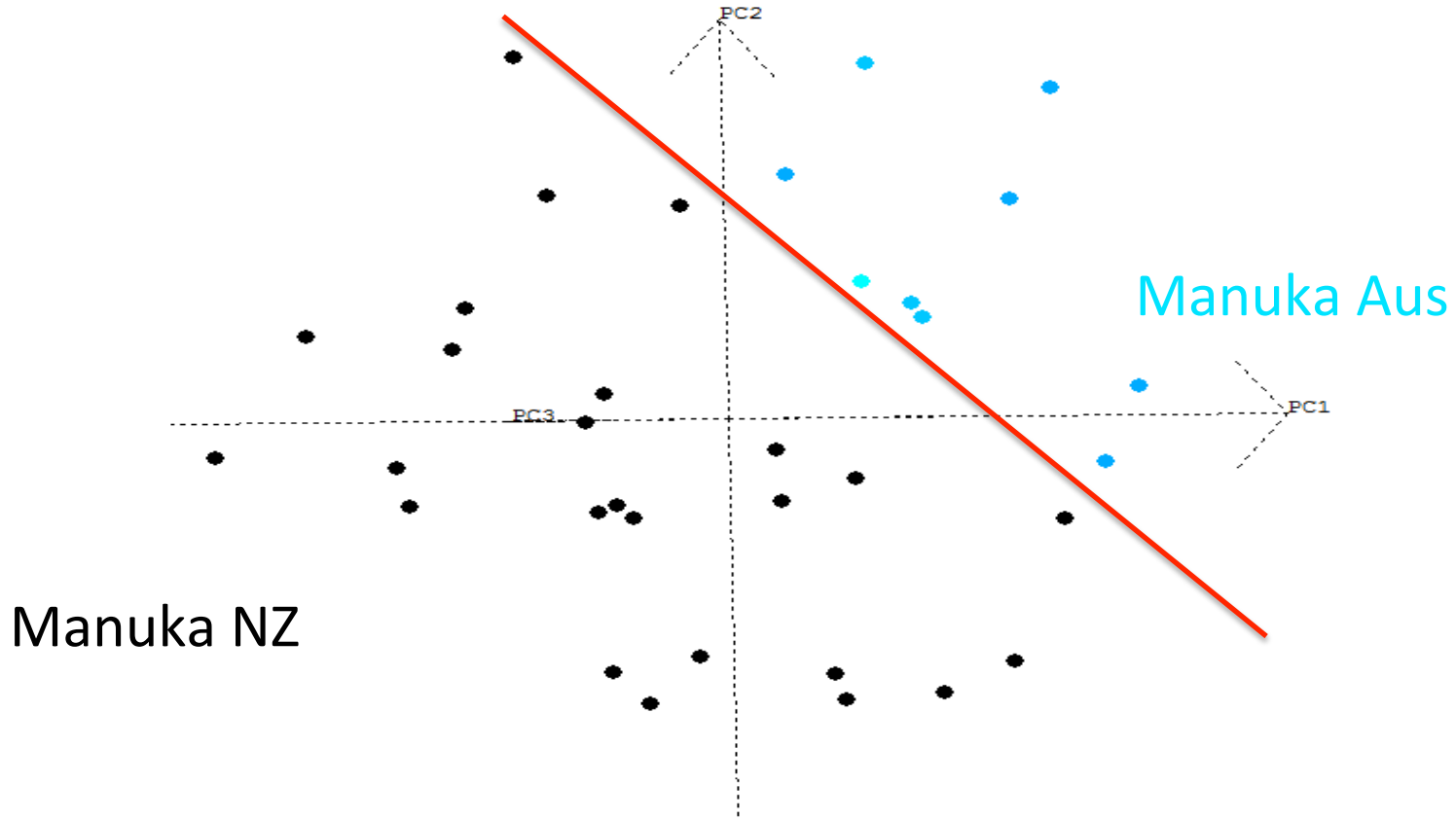
(no cross validation, quantified substances only, experimental)




For PLS-eDA only samples with HMF < 30 mg/kg and no indication of presence of other varieties have been taken into account (work in progress)
Other chemometric methods are tested as well.

# NMR-research by ALNuMed on Manuka Honey
# Achievements so far (work in progress)

## Differentiation of Manuka from New Zealand and Australia by principal component analysis (unsupervised differentiation):




Due to different subspecies of Manuka (*scop. vs. polyg.*)? Substances involved: 2-Methoxybenzoate etc.

# NMR-research by ALNuMed on Manuka Honey
# Current status and future work plan

- **Continuing identification of additional putative marker substances**

- **Continuing validation for quantification for additional markers/discriminators**

- **Improved statistical modelling and data mining:**
  modelling with spectral data (most powerful)
  modelling with quantification data only (for explaining causality)
  establishing new correlations of substances with DHA & MGO etc.
  modelling withouth typical markers only with honey "standard" ingredients
  to demonstrate these also contribute to discrimination.

- **Expansion of database of New Zealand honeys and Manuka honey samples & expansion of global reference sample data base to monitor seasonal effects and new developments.**

- **Combination of NMR with other methods** (already performed for other foods)

- **Continuation of research on nectar samples (with ultra-high resolution NMR)**

- **Contribution to Honey-Profiling database (joint venture) and publication of results**


in collaboration with

# Differentiating Manuka and Kanuka Honey/Nectar from other Honeys by NMR

Prof. Dr. Stephan Schwarzinger (s.schwarzinger@alnumed.com)
Research Center for Biomacromolecules (BIOmac), University of Bayreuth
ALNuMed GmbH (Founder & Shareholder)

Felix Brauer, MSc. (ALNuMed),
Dr. Karyne Rogers (GNS),
John Rawcliff (UMFHA)
Dipl.-Ing (FH) Bernd Kämpf (FoodQS),
Prof. Dr. Paul Rösch (BIOmac, ALNuMed)

Status: June 2017

ALNuMed GmbH (www.alnumed.com) is a
spin-off from the RC BIOmac of the University Bayreuth

# Current MPI Proposal for Manuka Honey

**Relies on DNA and 4 chemical compounds. Presence of all markers required.**

- **DNA**
- **3-phenyllactic acid**
- **4-hydrocxy phenyllactic acid**
- **2´-methoxyacetophenon**
- **2-methoxybenzoic acid**

Based on evaluation of a large dataset of New Zealand honeys and comparison with a database of honey samples from 16 countries

→ Markers are identified as being stable

→ Discrimination of monofloral Manuka Honey
polyfloral Manuka Honey
non-Manuka Honey

**Criticism:**

\+ Definition of a variety based on several markers

\- Selection of markers cannot prevent adulteration (no correlations, ratios etc.)
Discrimination of mono- and polyfloral honey not conclusive (see next page)
Database of non-New Zealand honey samples not suitable (see next page)

# Comment on Weaknesses of Current MPI Proposal for Manuka Honey

Criticism (continued):

**Selection of markers cannot prevent adulteration**

Addition of chemicals worth approx. 10 € will turn any honey with some Manuka DNA into a premium product selling for > 200 €/kg.
The compounds select are easily available at low prices, similar to DHA and MGO.

No proposal has been made for judging the value of a particular sample.
It is likely that industry will continue proposing own ranking schemes

**Discrimination of mono- and polyfloral honey not conclusive**

As polyfloral Manuka is a mixture of monofloral Manuka with other varieties consequently the concentration of all parameters must be reduced. Otherwise, any polyfloral Manuka can be turned into monofloral Manuka honey just by addition of phenyllactic acid. Likewise, DNA testing of monofloral Manuka honey should produce a signal with less amplification rounds.

**Database of non-New Zealand Honey samples not suitable:**

Honey varieties around the world are very diverse, as is the natural variance of ingredients within a given variety. The underlying database is much to small, includes countries not playing a role in global honey trade at all, but lacks most major producers. It is not clear which measures have been made to ensure authenticity of samples (origin, variety, adulteration).

# Comment on Weaknesses of Current MPI Proposal for Manuka Honey

**Recommandations:**

**Utilize expanded database of non-Manuka honeys to prove suitability of markers**

**Utilize a general quantitative method, such as NMR**
**(all signals are quantitatively recorded, primary quantitative method)**

**Rely on larger ingredient fingerprints rather than on single markers (spectrum is the marker) and combine with modern chemometric/statistical data evaluation** (use combinations and rationsof concentrations of markers among each other and relative to standard honey ingredients to obtain a robust definition of Manuka honey that cannot be frauded easily).

Note: Statistical evaluation of ingredient and metabolite fingerprints may make DNA analysis obsolete thereby reducing cost and time required for analysis!

# 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)(b)(ii) |
| Your contact details (such as phone number, address, and email): | s 9(2)(b)(ii) |

## General questions: getting to know you

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

  **beekeeper - yes**

  extractor

  processor

  packer

  exporter

  retailer of bee products

  other – please specify

- How long have you been involved in the apiculture industry:

  0-5 years

  5-10 years

  **10 + years -- 47 years**

  not applicable

- 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

- 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

- What region of New Zealand do you operate in?

| Wellington |
|---|

- If you export bee products please tell us a little about your business. How many people do you currently employ**? N/A**

0

1 – 5

6 – 19

20 or more

What are the roles of your employees and how many are**: N/A**

beekeepers

processors

packers

other – please specify

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

- 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 the standards are set an an overage level and so our honeys passed the MPI test

- 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.

Sorry, but the GREX doesn't fit all types of beekeeping. I expect that after the meeting results MPI will put a new modified document out for discussion.

As it stands the propoasl doesn't fit normal beekeeper practices where more than one super brood nest is used.

- 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)?

This would completely change the way I beekeep. More eqipment would be required.

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

- 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:**

bees can have raw sugar available in the feeder. They will only use it if no nectar is coming in and because it takes so much efforet to convert, it is not stored.

I disagree because:

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

as above

- 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:**

Apivar is water soluable so will move in honey where as most of the other are only wax soluable so remain in the area they are placed.

Hovwever to prevent swarming in the spring. honey suppers are added to give the bees space to expand. tif this is not done the hive will swarm.

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

only allow the use of apivar in the autumn

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

- 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:

This just adds additional charces. we used to operate under a RMP but the costs for a small operator are too great.

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

Suggest we got to BeeQual the Australian standard. They have no problems with exporting

## Bee products to be sourced from listed beekeepers

- 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:**

| |
|---|
| All that is required is to put the harvest declaration online so you have electroninc tracing. |

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

| |
|---|
| |

## Pre-processing traceability requirements

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

I agree because:

| |
|---|
| |

I disagree because:

| |
|---|
| Look at the BeeQual system which was designed for beekeepers and packers. We just visited a beekeeper in Australia who can trace **HIS HIVES** back 8 years.<br>Honey boxes are a waste of time. Frames are moved between boxes if they are not full as it costs more to put empty frames therought a contract extraction plant. |

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

| |
|---|
| Beekeepers can use NEC electronic tags to trace hives and boxes. MPI should design a system and give it to the beekeeping industry. That way an MPI official, the Police and a beekeeper can read the owners phone number and the box number with an IPhone. complete MPI should sit down |

with beekeeper representatives from API NZ and the Beekeepers Group and work out a system that will be both practical and workable to the beekeeper and provide information to MPI. Good try but it needs a lot more work with beekeeper input.

- 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?

could take a lot of time to impliment but basically a read writer and chips you can read at 1/2 a mtre through a wooden bee box.

## Traceability from beekeepers to operators – harvest declarations

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

I agree because:

yes all beekeeoers should be filling these in an keeping records for trace back but you don't teach this to hobby beekeepers MPI do little for the beekeeping industry domestically but chargelots for registrations. cut out all the overheads in the charging ragime.

I disagree because:

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

- 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:

time costs money you need systems to make it easy and uniform to all beekeepers.

I disagree because:

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

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

I agree because:

Not applicable to me but your chrages are far too high. no charges in Australia, this form a barrier to exporting.

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

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

I agree because:

I disagree because:

you have to do a big sell to local and overseas cutomers tif a new labelling system is introduced

use the existing UMF ets labelling. Just add meets NZMPI standards.

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

- 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:

- 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:

- 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:

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

- Do you have any comments on the summary science report?

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

## Laboratory Tests

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

  I agree because:

  Sorry ran out of time as I left this submission to the last day

  see my comments below

  I disagree because:

- 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

- 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:

- 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

- 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).

**MPI new proposed Manuka Standards**
Congratulations on getting this far, you have gone much further than the industry had done in 20 years.

I support the ApiNZ submission and like them have concerns about mānuka pollen and feel more research is required before you look at the DNA test.

**I have never seen a mellifera bee collect mānuka pollen nor have any of the**

**microscopic tests done on my honey revealed mānuka pollen grains in the samples I have had checked in the 1990's.**

**From the sample MPI tested of our honey it took at least 25 DNA cycles to replicate the pollen DNA. To me this means there is a minuscule amount in the honey. I realise that in some areas, they do get manuka pollen in their honey.**

**I have a science question: how does the mānuka pollen get into the honey?**

Information: Bees collect pollen to feed bee larvae and on emerging young bees gorge on pollen to increase it's fat bodies. Each bee requires a cell of pollen from egg to adult flying bee.
Our bees placed in mānuka country in the Wellington area collect; tutu, lotus major, clover and other ground source pollens – anything within 5kl of the hive.

In areas where they do not have weed species, just mānuka scrub, where do the bees collect pollen. Possibly they don't as only native bees collect mānuka and kānuka pollen so unless bees are fed a pollen supplement, they do not prosper and wouldn't build in time for an other mānuka crop in a different area.

Whether bees collect mānuka pollen could be proved by either collecting pollen samples from hives during the mānuka flowering or by looking at Rosemary Webby's DSIR research on flavonoids in pollen and see if any of the pollen pellets collected by the bees throughout New Zealand was straight mānuka pollen.

So if it's not collect deliberately by a bee, how does it get into the honey?

Sounds simple. According to Linda Newstrom-Lloyd in her article on mānuka flowers pollen in the April New Zealand Beekeeper, it drops off and collects in the nectar and is ingested by the bees so stays in the honey. However, pollen is produced well before the flower starts secreting nectar so that is unlikely to happen that way. Also being an open flower the nectar is washed out by rain.

One suggestion was that it spills is from another open flower close-by that is at the pollen releasing stage and it's either blown or moved by a native or mellifera bees into a nectar producing flower.

She proposed that the bee collects the nectar along with a small amount of pollen. Plausible but while flying when returning to the hive, a bee cleans all the pollen grains out of the nectar in the crop by the action of a comb-like structure on the bee's proventriculus and passes all the foreign particles including pollen to the honey bee's stomach.

However, the European honey bees has adapted over millions of years to European pollens and perhaps this mechanism is design so that it doesn't completely remove mānuka pollen

as it's tiny compared to European flower pollen.

**Research project: Collect returning bees working mānuka and check their honey crops for mānuka pollen.**

There also an alternative route. Pollen collects in the hairs of bees is passed from bee to bee in the hive. (kiwifruit pollination occurs through this action as pollen collecting bees on visit either holey male flowers or female flowers). I.E. a returning forager transfers nectar to house bees and they put it in empty cells around the brood nest. Later in the day when nectar collection ceases or at night, this nectar is ripened and transferred up into the honey combs.

Perhaps pollen on the head or body of these house bees drops off while the nectar is being transferred to the honey comb. (Noting that it's also likely to be further removed by the house bees in the same manor that a returning forager does with it proventriculus).

Honeybees remove pollen grains from nectar as it can start granulation of the super saturated sugar. **This aspect will also have to be researched.**

And yet another method is that it could be mechanically introduced into the honey at processing by the action of the pricker. I.E. grains of pollen could be on the cappings and these are forced into the honey by mechanical action.

**Pollen failing the DNA test:** Could it be that pollen is collected and degrades, (unlikely as pollen grains last millions of years) or the test degrades mānuka pollen or that there wasn't any mānuka pollen in the honey in the first place.

I.E. in medical grade honey, the cappings on the honey combs are removed because this can introduce CFU's and pollen into the honey. The honey remaining in the combs after the cappings are removed is pricked and processed so very little pollen is introduced into the honey, especially as medical honey processing plants are cleaned down each day.

This could be an explanation why some of the high grade mānuka honeys are failing.

**Another un-plausable method:** We use honey frames over and over again until they become discoloured or damaged. Perhaps the pollen was in the frames to start with but again this is unlikely as bees polish the cells before placing nectar in the cells.

If the bees don't collect mānuka pollen, the use of a pollen DNA marker is a flawed test.

MPI really needs to research this aspect before they can use pollen as a marker. At the moment I believe MPI has jumped to a conclusion without adequate science bases research.

**Second: Why didn't Tasmanian mānuka honey which is from the same specie that grows in New Zealand not show similar characteristics to New Zealand mānuka**

**honey?**

Could be that the Sunshine Coast University didn't collect samples of the genus as they were looking at all the other leptospermum species for antibacterial activity and know this is active so didn't collect it.

If they did, then an explanation is required as to why it didn't show. The explanation give to me at the Palmerston North meeting that other leptospermums diluted this specie is not plausible under the DNA testing.

**Third: Some kanuka samples showed mānuka honey characteristics.**
Why is this and if this is correct, then mānuka and kanuka honey can still be blended and pass the mānuka test. A more fuller explanation or a revision of chemical markers is required to separate this specie from mānuka otherwise blending will continue.

Thank you for allowing me to make a submission.

s 9(2)(a)

14 June 2017

**Submission to MPI re Proposed Manuka Honey definition**

The information from MPI is inadequate and in some cases inappropriate for consultation.

All parties want a clear and unambiguous definition but only MPI has access to some of the information. For this reason groups, including s 9(2)(b)(ii), cannot provide a substantiated recommendation for change. Submitters are reduced to asking for more information or dismissed because their suggestion is unreasonable.

For example, statistical analyses are critical and there will be variance associated with all measures but the only information shared is in Table A which suggests the answers can be reduced yes – no options as if there is no variance.

Asking what would happen if 1 or 2 of the tests were removed in relation to the surety of the answer is needed to show why all 5 tests are needed.

Also, why are we told how to do the DNA test but not what factors influence the numbers. Given Analytica's finding that some high UMF honey would fail the DNA test, why are those cutoff numbers chosen and what is the effect of changing them.

On another level there is the issues of cost benefit and market response.

How would the cost of the testing change if different criteria were removed?

Inclusion of Leptosperin in the definition carries the charge of a $10 royalty to UMFA for every test, so is its inclusion cost effective?

Then how will the market receive the names.? Will the majority of the market, which does not have English as a first language, comprehend the difference between Monofloral and Multifloral? Won't they see "Manuka" and a UMF or MG value? What is the justification of the cutoff level for 3-PLA? What protection does it offer the customer or the beekeeper?

We would therefore appreciate the opportunity for further dialogue on this matter before any final decisions are made.

Kia ora,

s 9(2)(a)

[Not relevant to request]

**From:** s 9(2)(b)(ii) gmail.com>
**Sent:** Friday, 16 June 2017 11:40 a.m.
**To:** Manuka Honey
**Subject:** Proposed general export requirements for bee products
**Attachments:** s 9(2)(b)(ii) - PP2-17.pdf

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

Hi,

I have attached a recent 5-in-1 test from s 9(2)(b)(ii). I am struggling to see how my honey that has always been known as Manuka Blend.....has passed the DNA of Manuka; has passed all but one of the chemistry markers for Manuka.....therefore not allowing it to be labeled Manuka at all! It looks like manuka....tastes like manuka but now I'm not allowed to call it Manuka.....what do I refer to it as? This is not good enough.....for years there has been no problem and now I have a 3.8 NPA honey that has other floral sources in it, but also has activity that I can't call Manuka. Crazy.

I'm a small beekeeping operation and this year I am struggling to sell my honey at all.....you are really putting pressure on the small companies! I understand the protection of the brand and Manuka pureness, but there has to be some way to allow what has been known for years as a blend to be labeled as such. There are tonnes of this honey produced every year and sold overseas as it is a great honey to eat! Now this rigid testing is taking that option away.

What do we refer to the honey as if we can't call it a manuka blend.....bush honey - what is that that could be anything.....it has above 50 MG, so a part of it is Manuka, that is clear. I'm confused with this chemical marker testing for the lower grades of Manuka based honeys.

Any explanation or answers are welcome.

Yours sincerely,
Frustrated beekeeper.

s 9(2)(b)(ii)

s 9(2)(b)(ii)

# ANALYSIS REPORT



| | | | |
|---|---|---|---|
| **Client:** | s 9(2)(b)(ii) | **Lab No:** | 1759700 RLPPv1 |
| **Contact:** | | **Date Received:** | 18-Apr-2017 |
| | | **Date Reported:** | 24-Apr-2017 |
| | | **Quote No:** | |
| | | **Order No:** | |
| | | **Client Reference:** | s 9(2)(b)(ii) |
| | | **Submitted By:** | s 9(2)(b)(ii) |

**Sample Type: Honey**

| | | | | | | |
|---|---|---|---|---|---|---|
| **Sample Name:** | | PP2/17 | | | | |
| **Lab Number:** | | 1759700.1 | | | | |
| Tutin | mg/kg | 0.194 | - | - | - | - |
| MRL as per Tutin in Honey Food Standard 2016* | mg/kg | 0.70 | - | - | - | - |
| Tutin Result Evaluation* | Pass/Fail | PASS | - | - | - | - |
| 3-Phenyllactic acid* | mg/kg | 510 | - | - | - | - |
| 2'-Methoxyacetophenone* | mg/kg | < 1.0 | - | - | - | - |
| 2-Methoxybenzoic Acid* | mg/kg | 2.5 | - | - | - | - |
| 4-Hydroxyphenyllactic acid* | mg/kg | 1.8 | - | - | - | - |
| MPI Manuka Honey Classification* | | Non-manuka Honey | - | - | - | - |
| Manuka Cq* | Cq | 31.50 #1 | - | - | - | - |
| Manuka DNA* | pg/µL | 0.0337 #1 | - | - | - | - |

## Analyst's Comments

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

# 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 | | | |
| Tutin Analysis in Honey | Acidified acetonitrile/water extraction, analysis by LCMSMS. Analysis performed at s 9(2)(b)(ii)<br>**RLP Official Test 8.42**<br><br>Tutin Result Evaluation (PASS/FAIL)<br>The PASS/FAIL result is based on comparison of the tutin result with the "Food Standard: Tutin in Honey (2016)". A result that falls at or BELOW the maximum permitted tutin level will give a PASS result. A result that falls ABOVE the maximum permitted tutin level will give a FAIL result.<br><br>Individual Sample Testing Recommended?<br>Where a tutin result for a composited sample is above the maximum permitted level, it is recommended that the individual samples are retested. Please contact the laboratory to arrange for individual sample retesting. | - | 1 |
| 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 |

| Sample Type: Honey | | | |
|---|---|---|---|
| **Test** | **Method Description** | **Default Detection Limit** | **Sample No** |
| Manuka Honey Chemistry Profile | | | |
| 3-Phenyllactic acid | Aqueous solvent extraction, dilution. LC-MSMS analysis. **RLP Official Test 10.05**. | 10 mg/kg | 1 |
| 2'-Methoxyacetophenone | Aqueous solvent extraction, dilution. LC-MSMS analysis. **RLP Official Test 10.05**. | 1.0 mg/kg | 1 |
| 2-Methoxybenzoic Acid | Aqueous solvent extraction, dilution. LC-MSMS analysis. **RLP Official Test 10.05**. | 1.0 mg/kg | 1 |
| 4-Hydroxyphenyllactic acid | Aqueous solvent extraction, dilution. LC-MSMS analysis. **RLP Official Test 10.05**. | 1.0 mg/kg | 1 |
| Manuka Honey PCR Profile | | | |
| Manuka DNA | Quantification of Manuka DNA by real time PCR. Subcontracted to s 9(2)(b)(ii) **RLP Official Test 10.04**. | 0.0032 pg/µL | 1 |

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.

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

s 9(2)(a)

[Not relevant to request]

**From:** s 9(2)(b)(ii) .govt.nz>
**Sent:** Wednesday, 21 June 2017 2:05 p.m.
**To:** Manuka Honey
**Subject:** Environmental Profit & Loss Accounting for the apiary industry

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

Good afternoon,

I have been reading your FAW's regarding consultation on the definition for Manuka honey and proposed export requirements.

I'm responding to your request for suggestions for how oversight of the supply chain can be established through another traceability system.

Have you thought of trying Environmental Profit & Loss Accounting? This accounting is 360 degrees and looks at the cost of ecosystem services that nature provides.

The methodology is open-sourced and is being used by global brands. Might be worth you investigating? If interest, all data needed is on my LinkedIn profile, just ask and we can connect.

Ngā Mihi | Kind regards,

Heidi

s 9(2)(b)(ii)

[Not relevant to request]

**From:** s 9(2)(a) co.nz>
**Sent:** Tuesday, 13 June 2017 11:28 a.m.
**To:** Manuka Honey
**Subject:** Re: MPI Manuka Honey Science Programme Update 13 June 2017

I think you need to tell honey producers that the DNA test is completely unreliable at the moment, and the test results are worthless, therefore don't waste your money on DNA testing until MPI have resolved all problems associated with the DNA test. This may save MPI litigation and money.

Regards

s 9(2)(a)

s 9(2)(b)(ii)

[Not relevant to request]

**From:** s 9(2)(a) .co.nz>
**Sent:** Wednesday, 7 June 2017 6:35 p.m.
**To:** Manuka Honey
**Subject:** Re: MPI Manuka Honey Science Programme Update 7 June 2017

Dear Honey Team,

You say {Of the samples that meet the chemical levels for monofloral mānuka honey, 7.1 % fail the DNA test} and {Of the samples that meet the chemical levels for multifloral mānuka honey, only 2.4% fail the DNA test}??? surely if we are defining ""Maunka Honey"" the multifloral manuka should have a higher DNA failure rate than the Mono floral???

To me it is nonsensical that the better quality IE higher MGO Manuka which obviously has a higher content of actual Manuka nectar is failing the DNA test?? If this cannot be reversed and or corrected I suggest abandoning the DNA test as a requirement and maybe using an MGO test as one of the requirements to define Manuka honey after all high MGO content in Manuka alone is what makes Manuka honey valuable to the consumer.

Regards

s 9(2)(a)

s 9(2)(b)(ii)