

**DERBYSHIRE COUNTY COUNCIL****MEETING WITH CABINET MEMBER, HEALTH AND COMMUNITIES****02 February 2016****Report of the Strategic Director, Health and Communities****RESULTS OF A 'MANUKA HONEY' FOOD SAMPLING SURVEY****1. Purpose of Report:**

To advise the Cabinet Member, Health and Communities of the results of analysis of samples of honey described as 'Manuka Honey' on sale in Derbyshire.

**2. Information and Analysis:**

- 2.1 The Trading Standards Division has a statutory duty to enforce food compositional and labelling requirements to ensure that food is safe and complies with the law. The Food Safety Act 1990 (as amended) requires all food to be of the 'nature, substance or quality demanded'. It is also an offence for any person to falsely describe food or to mislead the public as to the nature, substance or quality of the food. In addition to the general provisions laid down in the Food Safety Act, there are also European-wide 'Food Information for Consumers' Regulations<sup>1</sup> that provide general labelling requirements for all pre-packed food. These Regulations, which came fully into force in December 2014, replaced existing Food Labelling Regulations requiring – amongst other things - all food to be labelled with a name that accurately reflects the true nature of the food, a list of ingredients and an indication of minimum durability (ie best before or use by date).
- 2.2 As has previously been reported, Manuka Honey commands a premium price as it is reported to have having 'anti-bacterial' healing powers. The name comes from nectar collected from Manuka trees exclusively found in New Zealand. However, intelligence from the Food Standards Agency suggests that there is more 'Manuka Honey' sold per year in the UK alone than is produced in New Zealand<sup>2</sup>. The purpose of this survey was to ascertain whether honey offered for sale in Derbyshire was in fact the genuine product and to see if it complied with composition and labelling requirements. Fourteen samples of 'Manuka' honey on sale throughout the county were purchased and submitted to the Public Analyst. All fourteen samples were considered to be inaccurately

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<sup>1</sup> EU Regulation 1169/2011 on the provision of Food Information to Consumers

<sup>2</sup><http://www.independent.co.uk/life-style/food-and-drink/features/the-manuka-honey-scandal-9577344.html>

labelled and some samples were found to have insufficient Manuka pollen to justify claims on the label.

- 2.3 As well as general food labelling requirements, there are specific composition and labelling requirements for certain food stuffs including honey. The Honey (England) Regulations 2015,<sup>3</sup> define honey as;

*“the natural sweet substance produced by Apis mellifera bees from the nectar of plants or from secretions of living parts of plants or excretions of plant-sucking insects on the living parts of plants which the bees collect, transform by combining with specific substances of their own, deposit, dehydrate, store and leave in honeycombs to ripen and mature.”<sup>4</sup>*

The Regulations recognise that there are different types of honey (such as “blossom honey” and “nectar honey”) and also prescribes the colour and consistency of honey and prohibits any food additives or other food ingredients to be added to honey – other than different types of honey. Minimum sugar and moisture contents are specified along with other compositional requirements. Further details about the composition and labelling requirements are provided in Appendix 1 to this report.

- 2.4 Finally there is legislation that prevents misleading nutritional and health<sup>5</sup> claims being made about food products and requires food producers to register approved claims. The Regulations define a nutritional claim as any claim which states, suggests or implies that a food has particular beneficial nutritional properties due to the presence, absence, increased or reduced levels of energy or of a particular nutrient or other substance, and includes claims such as “source of calcium”, “low fat”, “high fibre” and “reduced salt”. The Regulations define a health claim as any claim that states, suggests or implies that a relationship exists between a food category, a food or one of its constituents and health. Further details about these Regulations are in Appendix 1 to this report.

- 2.5 The samples of Manuka honey were purchased from a variety of different outlets throughout Derbyshire including local independent ‘health-food’ shops, national health-food chains, farm shops and supermarkets. All samples were described as ‘Manuka’ honey and the price ranged from £4.29 for a 250g jar from a supermarket in Chesterfield to £21.99 for a 250g jar from a national health-food chain store in Bakewell. These prices compare to £1 for a 340g jar of ‘basic’ supermarket own-label honey and £2.40 for a similar sized jar of a well-known brand of clear honey. The range of prices of the samples of Manuka honey; the type and location of the store from which they were purchased; and the price and price per 100g of each sample is provided in Table 1 below.

**Table 1 Price of Manuka Honey sampled**

<sup>3</sup> [http://www.legislation.gov.uk/ukxi/2015/1348/pdfs/ukxi\\_20151348\\_en.pdf](http://www.legislation.gov.uk/ukxi/2015/1348/pdfs/ukxi_20151348_en.pdf)

<sup>4</sup> Regulation 2, The Honey (England) Regulations 2015 (SI 2015 No. 1348)

<sup>5</sup> The Nutrition and Health Claims (England) Regulations 2007

	Sample number	Store	Cost (£)		Quantity (g)	Unit Cost £/100g	
			NS	S		NS	S
1	32977	Farm Shop	£10.99		340	£3.23	
2	32984	Supermarket, Buxton		£13.99	340		£4.11
3	32987	Health shop, High Peak	£8.99		250	£3.60	
4	33235	Health shop, Derbyshire Dales	£16.99		250	£6.80	
5	33236	Independent Health Shop, Ashbourne	£9.99		250	£4.00	
6	33237	Independent Health Shop, Derbyshire Dales	£15.95		340	£4.69	
7	33241	Supermarket, Chesterfield		£4.29	250		£1.72
8	33244	Farm Shop, Barlborough	£17.00		340	£5.00	
9	33317	Health shop, Barlborough (chain)	£19.99		250	£8.00	
10	33321	Supermarket, Chesterfield		£16.00	340		£4.71
11	33322	Supermarket, Chesterfield		£11.00	250		£4.40
12	33329	Health shop, Bakewell (chain)	£21.99		250	£8.80	
13	33330	Health shop, Bakewell (chain)	£21.99		250	£8.80	
14	33331	Supermarket, Matlock		£16.00	340		£4.71
		<b>Average</b>	<b>£16.61</b>	<b>£12.26</b>		<b>£6.21</b>	<b>£3.93</b>
		<i>Supermarket Basic Honey</i>		<i>£1.00</i>	<i>340</i>		<i>£0.29</i>
		<i>Branded Clear Honey</i>		<i>£2.40</i>	<i>340</i>		<i>£0.71</i>

NS: Non-super market

S: Supermarket

2.6 There has been much media coverage<sup>6</sup> about the ‘over-supply’ of Manuka Honey in the UK. Professor Elliott, who was commissioned to carry out a review of food fraud following the ‘horsemeat scandal’, summed up the concerns in his ‘Interim Report into the Integrity and Assurance of Food Supply Networks’<sup>7</sup> as follows:

<sup>6</sup> See for example the Grocer article, ‘The great Manuka Honey Swindle?’, 28 June 2014: <http://www.minervascientific.co.uk/documents/Manuka%20honey%20Grocer%20Article%202014.pdf>

<sup>7</sup> Elliott Review into the Integrity and Assurance of Food Supply Networks – interim report, December 2013, page 23; [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/264997/pb14089-elliott-review-interim-20131212.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/264997/pb14089-elliott-review-interim-20131212.pdf)

*‘...concerns about the authenticity of manuka honey from New Zealand were prompted by seeming over-supply. Research by the main honey producers’ organisation in New Zealand — from where almost all the world’s manuka honey comes — revealed that 1,700 tons of manuka are produced there each year, compared with the estimated 1,800 tons of New Zealand “manuka” honey sold in the UK alone. As much as 10,000 tons are sold worldwide, suggesting widespread fraud.’*

Professor Elliott’s interim recommendation to help to address this issue was that there should be better intelligence gathering and sharing between Government and Industry to identify fraud or potential fraudulent practices and that this should include an element of ‘horizon scanning’ to identify sectors where products command a premium price and therefore are at risk from substitution with cheaper/inferior products/ingredients.

- 2.7 The analysis of the samples of Manuka Honey purchased in Derbyshire included a microscopic examination to establish the Manuka pollen content. There is no legal specification as to what proportion of Manuka pollen is acceptable, but the Public Analyst formed a view that a minimum percentage of 75% is required to substantiate the claim ‘Manuka Honey’. Upon examination the samples ranged from 95% to less than 1%. Only five of the 14 samples had a Manuka pollen count in excess of 75%; five samples had a Manuka pollen content of between 50 and 75%; two were between 10% and 49%; one had less than 10%; and one had only traces of Manuka pollen (ie less than one percent). These results are shown in Table 2 below. In some instances other pollen from New Zealand was detected such as ‘white clover’, ‘birds foot trefoil’ and ‘honeydew’ pollen which suggests that cheaper honey had been added to the Manuka Honey.

**Table 2 Results of Analysis and reasons for unsatisfactory report**

No.	Sample number	Unit Cost £/100g	Satisfactory Y/N	Details of failure	% Manuka Pollen	Methylglyoxal (MGO) (mg/kg)	Non-peroxide activity (NPA)
1	32977	£3.23	N	Misleading Manuka Claim and unauthorised Health Claim. Main pollens white clover (36%) and birds foot trefoil (34%) and 9% manuka	9	37	3
2	32984	£4.11	N	Manuka claim OK but unauthorised Health Claim	83	331	12
3	32987	£3.60	N	Misleading Manuka claim (55% Manuka Pollen plus unquantified honeydew pollen)	55	73	5
4	33235	£6.80	N	Misleading Manuka Claim and unauthorised Health Claim (73% Manuka Pollen 7% clover)	73	79	5

5	33236	£4.00	N	Manuka claim OK but unauthorised Health Claim	95	273	10
6	33237	£4.69	N	Misleading Manuka Claim and unauthorised Health Claim (59% Manuka Pollen plus unquantified honeydew pollen)	59	311	11
7	33241	£1.72	N	Described as "Manuka type honey". 43% manuka pollen, 22% birds foot trefoil plus unquantified honeydew pollen found. Public Analyst criticised as no provision within Honey Regulations for honey 'type' claims	43	34	3
8	33244	£5.00	N	Misleading Manuka claim (less than 1% 46% white clover plus unquantified honeydew pollen). Unauthorised health claim	<1	91	5
9	33317	£8.00	N	Misleading Manuka Claim and unauthorised Health Claim (56% Manuka Pollen plus unquantified honeydew pollen)	56	796	20
10	33321	£4.71	N	Misleading Manuka Claim and unauthorised Health Claim (50% Manuka Pollen 22% clover)	50	367	12
11	33322	£4.40	N	Manuka claim OK but unauthorised Health Claim	95	298	11
12	33329	£8.80	N	The labelling 'UMF 10+' was not adequately explained on the label in breach of Art 36 of the Food Information Regulations (FICR). Nutritional Information (NI) not in prescribed form	78	455	14
13	33330	£8.80	N	Misleading Manuka claim (32% Manuka & 32 & 17 % white clover). The labelling 'UMF 10+' was not adequately explained on the label in breach of Art 36 of FICR. Also issues with NI labelling	32	607	17
14	33331	£4.71	N	The labelling '15+' was not adequately explained on the label in breach of Art 36 of FIC. Also unauthorised Health Claim	94	602	17
				Failed - Health Claims			
				Failed Manuka and Health claims			
				Failed Manuka Claims			

2.8 As well as the proportion of Manuka pollen in the honey, the Public Analyst was also concerned about some of the claims made on the product labelling. The words 'Active' and 'Activity' were typically added to the name of the food, such

as 'Manuka Honey 12+ Active'. The Public Analyst explains that this implies that the honey has an activity level of 12 which suggests that the honey has the same 'anti-bacterial effect as a 12% solution of phenol. The 'activity' of the honey comprises two forms, peroxide activity which is present in most types of honey and non-peroxide activity which is a characteristic of manuka honey. The total activity includes both the peroxide activity and the non-peroxide activity'.

2.9 He also explains that the Ministry for Primary Industries (MPI) of the New Zealand Government has produced an Interim Labelling Guide for Manuka Honey. The guide states that claims such as 'non-peroxide activity', 'total peroxide activity', 'peroxide activity', 'total activity' and 'active' should be removed as these imply a therapeutic effect. He is therefore of the opinion that the inclusion of phrases such as 'active' and 'activity' suggests the honey has healing properties and is thus prohibited by the Nutrition and Health Claims legislation. An example of the opinion of the Public Analyst regarding one of the samples together with a summary of the concerns regarding each sample is included in Appendix 2 to this report.

2.10 Another example of the labelling of a 'Manuka honey' – with the name of the brand redacted - is as follows:

*'Manuka [X] is farmed in the rural, unpolluted areas of New Zealand. Manuka Honey has been used by the Maori people for centuries for maintaining the balance of their digestive system. Research has also identified that Manuka Honey has unique natural active properties not found in other honey. This special quality is the UMF (Unique Manuka Factor). Every batch of UMF Manuka [X] is tested to guarantee its activity'.*

The Public Analyst comments, however, that:

*'The anti-bacterial effect of honey has only been demonstrated in medical honey for topical<sup>8</sup> use. There is no scientifically validated evidence to suggest that anti-bacterial properties are effective when the honey is consumed.<sup>9</sup>*

2.11 Although all the samples were purchased from shops in Derbyshire, no Derbyshire based business has been involved in the importation of the Manuka honey and so the results of analysis have been sent to the Food Standards Agency (FSA) as the national lead agency for food fraud in the UK. Addressing the issue is complicated by the fact that a number of government departments are involved: the Department of Environment Food and Rural Affairs is responsible for honey composition and labelling policy and the Department of Health for nutrition and health claims policy. We are advised that the UK has been working closely with the New Zealand Government in their preparation and production of guidance, for industry on what can constitute Manuka and its labelling and marketing.

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<sup>8</sup> Definition of 'Topical': "chiefly Medicine: relating or applied directly to a part of the body" [Oxford Dictionary]. In other words honey applied to the skin rather than consumed.

<sup>9</sup> See Appendix 2 below

- 2.12 We will continue to liaise with the Food Standards Agency to determine what further action is appropriate. An investigation into the honey described as Manuka Honey, but only found to have less than 1% Manuka pollen has been initiated. Details of the results of analysis of the remaining unsatisfactory samples have been provided to the relevant Home/Primary Authorities to bring to the attention of the companies concerned.

**3 Other Considerations:**

In preparing this report the relevance of the following factors has been considered; human resources, legal, financial, prevention of crime and disorder, equality of opportunity; environmental, health, human resources, property and transport considerations.

**4 Background Papers:**

CabCo Reports: Food and Feed Products Enforcement Activity First Quarter 2015-16

**5 Key Decision:**

No

**6 Call-in:**

Is it required that call-in be waived for any decision on this report? No

**7 Officer's Recommendation:**

That the Cabinet Member, Health and Communities notes the outcome of recent food sampling survey.

**David Lowe  
Strategic Director  
Health and Communities**

## **Appendix 1 – Food Labelling Regulations**

### **Composition and Labelling Requirements for Honey – The Honey (England) Regulations 2015**

1. The honey consists essentially of different sugars, predominantly fructose and glucose, as well as other substances such as organic acids, enzymes and solid particles derived from honey collection.
2. The colour varies from nearly colourless to dark brown.
3. The consistency can be fluid, viscous or partly or entirely crystallised.
4. The flavour and aroma vary but are derived from the plant origin.
5. No food ingredient has been added, including any food additive.
6. No other additions have been made to the honey except for other honey.
7. It must, as far as possible, be free from organic or inorganic matters foreign to its composition.
8. It must not—
  - (a) have any foreign tastes or odours;
  - (b) have begun to ferment;
  - (c) have an artificially changed acidity;
  - (d) have been heated in such a way that the natural enzymes have been either destroyed or significantly inactivated.
9. Paragraph 8 does not apply to baker's honey.
10. No pollen or constituent particular to honey may be removed except where this is unavoidable in the removal of foreign inorganic or organic matter.

The key requirements of the Regulation are outlined below, including references to the guidance where there is further information.

### **The Nutrition and Health Claims (England) Regulations 2007**

- Claims must comply with the general requirements of the Regulation as specified in Article 3, which include not being false, ambiguous or misleading, not encouraging or condoning excess consumption of a food and not implying that a balanced diet cannot provide necessary nutrients (Section 3.8).
- If a claim is made Article 7 makes it obligatory to provide nutrition labelling in most cases (Sections 4.2 and 5.1).
- Article 8 means that only nutrition claims listed in the Annex to the Regulation can be made on food and only if the product meets with the specific conditions of use for that claim (Section 4).
- Article 4 prohibits claims made on alcoholic beverages containing more than 1.2% by volume of alcohol, with limited exceptions for reduced energy or reduced alcohol and low alcohol content claims (Section 3.3).
- Article 12 prohibits health claims which suggest that health could be affected by not consuming the food (Section 3.2).
- Health claims which make reference to the rate or amount of weight loss are prohibited by Article 12 (Section 3.4).
- Article 12 states that health claims which make reference to recommendations of individual doctors or health professionals cannot be made on food (Section 3.5).
- As specified by Article 10, health claims must be authorised and included in the list of authorised health claims in the European Union (EU) Register, before they may be used on food. Products will also have to meet the specific conditions of use stated (Section 5).
- Article 4 of the Regulation puts in place provisions that may restrict the use of claims on certain foods or categories of foods based on their nutritional composition (nutrient



profile). Food business operators will have two years to comply with these controls once the profiles are adopted (Section 6.2).

- Article 2 defines a nutrition claim as any claim which states, suggests or implies that a food has particular beneficial nutritional properties due to the presence, absence, increased or reduced levels of energy or of a particular nutrient or other substance, and includes claims such as “source of calcium”, “low fat”, “high fibre” and “reduced salt”.
- Article 2 defines a health claim as any claim that states, suggests or implies that a relationship exists between a food category, a food or one of its constituents and health. This would include claims such as “calcium helps maintain normal bones”. More general claims such as “good for you” may also be health claims, and the Regulation takes these into account.

## **Appendix 2 - Public Analyst's Comments**

### **Example of detailed comments (Sample reference 32977)**

Under the terms of the Honey (England) Regulations 2015, the product name of a relevant honey may be supplemented by information relating to its floral or vegetable origin but no person may trade in a relevant honey for which supplemental information is provided unless the product comes wholly or mainly from the indicated source and possesses the organoleptic, physico-chemical and microscopic characteristics of the source.

The sample was described as 'Manuka Honey' and 'Product of New Zealand'. As a result of the analysis, I am of the opinion that the pollen spectrum was consistent with the declared origin of New Zealand. However, the main pollens present were white clover (36%) and birds foot trefoil (34%). Manuka pollen and honeydew were also detected. Manuka pollen was quantified at 9%. Consequently, I am of the opinion that product does not come wholly or mainly from the manuka plant and, therefore, should not be described simply as 'Manuka Honey'.

The sample was described as '12+ Active' and labelled with the words, 'X Manuka Honey has been tested by a certified laboratory for its activity rating. 'Total activity of the phenol equivalent'.

One way that the 'activity' is determined is by a microbiological assay and comparison with standard solutions of phenol. An activity level of 12 means that the honey has the same anti-bacterial effect in the assay as a 12% solution of phenol.

The 'activity' of the honey comprises two forms, peroxide activity which is present in most types of honey and non-peroxide activity which is a characteristic of manuka honey. The total activity includes both the peroxide activity and the non-peroxide activity.

The main contributor to the non-peroxide activity is methylglyoxal and a conversion factor can be used to convert the methylglyoxal level to the non-peroxide activity number.

The analysis undertaken determined the methylglyoxal level which has been converted to the non-peroxide activity rating. The sample was labelled with a total activity which will also include the peroxide activity and so the result is not comparable.

The Ministry of Primary Industries (MPI) of the New Zealand Government has produced an Interim Labelling Guide for Manuka Honey. The guide states that claims such as 'non-

peroxide activity', 'total peroxide activity', 'peroxide activity', 'total activity' and 'active' should be removed as these imply a therapeutic effect.

In my opinion, the use of the words 'active' and 'activity' on the sample labelling could be construed as claims to treat a human disease which are not permitted under the terms of Regulation (EU) No. 1169/2011 on the provision of food information to consumers. Alternatively, they could be construed as non-specific claims for overall good health or health related well-being. In which case, they will be subject to Regulation (EC) No.1924/2006 on Nutrition and Health Claims made on Foods which is implemented in England by the Nutrition and Health Claims (England) Regulations 2007.

Under the terms of Article 10(3) of Regulation (EC) No.1924/2006 on Nutrition and Health Claims made on Foods, reference to general, non-specific benefits of a nutrient or food for overall good health or health related well-being may only be made if accompanied by a specific health claim included in the lists provided for in Article 13 or 14.

Commission Regulation (EU) No.432/2012 establishing a list of permitted health claims made on foods, other than those referring to the reduction of disease risk and to children's development and health has now been published.

The sample label did not include any permitted health claims included in the list in Regulation (EU) No.432/2012 or any claims approved under the provisions of Article 14.

The anti-bacterial effect of honey has only been demonstrated in medical honey for topical use. There is no scientifically validated evidence to suggest that anti-bacterial properties are effective when the honey is consumed.

The MPI guide states that it is acceptable for manuka honey to be labelled with a grading system. The parameters associated with product grading should be meaningful, able to be verified, declared and explained on the label.

These requirements are in accordance with the requirements of Article 36 of Regulation (EU) No. 1169/2011 on the provision of food information to consumers relating to the provision of voluntary food information. In my opinion, the basis of the grade '12+' has not been adequately explained on the label. In particular, there is no indication that the grade level is based on properties exhibited by most honeys as well as properties characteristic of manuka honey.

The sample was labelled with the words 'can be taken internally for general good health'. This is a general non-specific claim for overall good health or health related well-being. As mentioned above, under the terms of Regulation (EC) No.1924/2006, such claims can only be made if accompanied by a specific authorised health claim and the sample was not labelled with a specific authorised health claim.

Under the terms of the Food Information Regulations 2014 which provide for the execution and enforcement of Regulation (EU) No. 1169/2011 on the provision of food information to consumers, I am of the opinion that the sample label possessed the following irregularity: -

1. The nutritional information was not in the order or format laid down in Annex XV of Regulation (EU) No. 1169/2011 on the provision of food information to consumers.

## **Summary of Public Analysts Comments about Manuka Honey samples**

### **32977, Manuka Honey**

The sample was described as 'Manuka Honey' and 'Product of New Zealand'. As a result of the analysis, I am of the opinion that the pollen spectrum was consistent with the declared origin of New Zealand. However, the main pollens present were white clover (36%) and birds foot trefoil (34%). Manuka pollen and honeydew were also detected. Manuka pollen was quantified at 9%. Consequently, I am of the opinion that product does not come wholly or mainly from the manuka plant and, therefore, should not be described simply as 'Manuka Honey'.

### **32984, Tiptree Manuka Active 10+**

The sample was described as 'Manuka Active 10+ Honey' and 'Product of New Zealand'. As a result of the analysis, I am of the opinion that the pollen spectrum was consistent with the declared origin of New Zealand and the proportion of manuka pollen was 83% which is consistent with the description of 'Manuka Honey'.

### **32987, Manuka Honey**

The sample was described as 'Manuka Honey' and 'Product of New Zealand'. As a result of the analysis, I am of the opinion that the pollen spectrum was consistent with the declared origin of New Zealand. Manuka pollen and honeydew were detected and the proportion of manuka pollen was 55%. In my opinion, the proportion of manuka pollen was too low for the product to have come wholly or mainly from the Manuka plant. Therefore, it should not be described simply as 'Manuka Honey'.

### **33235, Manuka Honey**

The sample was described as '12 + Active Manuka Honey' and 'Product of New Zealand'. As a result of the analysis, I am of the opinion that the pollen spectrum was consistent with the declared origin of New Zealand. The main pollen present was manuka with a small proportion of clover (7%). However, the organoleptical characteristics were weak and the consistency was not typical of manuka honey. Consequently, I am of the opinion that product does not possess the organoleptic and thickness characteristics of monofloral Manuka honey and, therefore, should not be described simply as 'Manuka Honey'.

### **33236, Manuka Honey, Natural Choice**

The sample was described as 'Blended Manuka Honey' and 'Product of New Zealand'. As a result of the analysis, I am of the opinion that the pollen spectrum was consistent with the declared origin of New Zealand. The main pollen present was manuka and despite being labelled as 'blended', I am of the opinion that the results of the pollen analysis were consistent with the sample coming wholly or mainly from the manuka plant. Therefore, I am of the opinion that the description, 'Manuka Honey', is acceptable.

### **33237, Manuka Honey**

The sample was described as 'Manuka Honey' and 'Harvested exclusively in New Zealand'. As a result of the analysis, I am of the opinion that the pollen spectrum was consistent with the declared origin of New Zealand. Manuka pollen and honeydew were detected and the proportion of manuka pollen was 59%. In my opinion, the

proportion of manuka pollen was too low for the product to have come wholly or mainly from the Manuka plant. Therefore, it should not be described simply as 'Manuka Honey'.

#### **33241, Manuka Type Honey**

The sample was described as 'Manuka type honey'. The country of origin was labelled as New Zealand and the ingredients list was 'raw unpasteurised multifloral honey'. As a result of the analysis, I am of the opinion that the pollen spectrum was consistent with the declared origin of New Zealand. Manuka pollen (43%), birds foot trefoil pollen (22%) and honeydew were detected. In my opinion, the proportion of manuka pollen was too low for the product to have come wholly or mainly from the manuka plant. Therefore, it should not be described as 'Manuka Honey'. There is no provision in the Honey (England) Regulations 2015 to describe a honey as a 'type'.

#### **33244, Manuka Honey**

The sample was described as 'Manuka Honey' and 'Product of New Zealand'. As a result of the analysis, I am of the opinion that the pollen spectrum was consistent with the declared origin of New Zealand. However, the main pollen present was white clover (46%). The proportion of manuka pollen was less than 1 per cent and honeydew was also detected. Consequently, I am of the opinion that the product does not come wholly or mainly from the manuka plant and, therefore, should not be described simply as 'Manuka Honey'.

#### **33317, Manuka Honey**

The sample was described as 'Manuka Honey' and 'Product of New Zealand'. As a result of the analysis, I am of the opinion that the pollen spectrum was consistent with the declared origin of New Zealand. Manuka pollen and honeydew were detected and the proportion of manuka pollen was 56%. In my opinion, the proportion of manuka pollen was too low for the product to have come wholly or mainly from the Manuka plant. Therefore, it should not be described simply as 'Manuka Honey'.

#### **33321, Raw 10+ Manuka Honey**

The sample was described as 'Raw 10+ Manuka Honey' and 'Made by Nature in New Zealand'. As a result of the analysis, I am of the opinion that the pollen spectrum was consistent with the declared origin of New Zealand. Manuka pollen (50%), white clover pollen (22%) and honeydew were detected. In my opinion, the proportion of manuka pollen was too low for the product to have come wholly or mainly from the Manuka plant. Therefore, it should not be described simply as 'Manuka Honey'.

#### **33322, Manuka Honey**

The sample was described as 'Manuka Honey' and 'Produce of New Zealand'. As a result of the analysis, I am of the opinion that the pollen spectrum was consistent with the declared origin of New Zealand and the proportion of manuka pollen was 95%. Therefore, I am of the opinion that the description, 'Manuka Honey', is acceptable.

#### **33329, Manuka Honey UMF +10**

The sample was described as 'UMF® 10+ Manuka Honey' and 'Product of New Zealand'. As a result of the analysis, I am of the opinion that the pollen spectrum was

consistent with the declared origin of New Zealand and the proportion of manuka pollen was 78% which is consistent with the description of 'Manuka Honey'.

**33330. Manuka Honey UMF 10+,**

The sample was described as 'Manuka Honey' and 'Product of New Zealand'. As a result of the analysis, I am of the opinion that the pollen spectrum was consistent with the declared origin of New Zealand. Manuka pollen (32%) and white clover pollen (17%) were the two main pollens detected. In my opinion, the proportion of manuka pollen was too low for the product to have come wholly or mainly from the manuka plant. Therefore, it should not be described simply as 'Manuka Honey'.

**33331, Manuka Honey NPA +15**

The sample was described as 'Manuka Honey' and 'From remote wild green hillsides of New Zealand'. As a result of the analysis, I am of the opinion that the pollen spectrum was consistent with the declared origin of New Zealand and the proportion of manuka pollen was 94%. Therefore, I am of the opinion that the description, 'Manuka Honey', is acceptable.