

**AGRIQUALITY NZ LTD REPORT TO THE ANNUAL CONFERENCE OF THE  
NATIONAL BEEKEEPERS' ASSOCIATION OF NEW ZEALAND: GISBORNE, 19-  
20 JULY 2000**

**1.0 Personnel**

Full or part time apiculture staff and Registrars of Apiaries are located at the following addresses;

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## **2.0 Beekeeping Statistics**

### *2.1 Beekeepers, Apiaries and Hives (1998-99 figures in brackets)*

There were 4956 (4918) registered beekeepers owning 320113 (302,988) hives on 22443 (21793) apiaries, as at 15 July 2000. While beekeeper numbers increased by 38 this is not particularly significant given that there are usually around 300 new beekeeper registrations each year and about as many cancellations. The Annual Disease Return (ADR) cycle coincided with the varroa outbreak so it will never be known how many new beekeepers and apiary registrations would have occurred anyway or were a direct result of the publicity surrounding the varroa response.

There were over 600 new apiary registrations in the country with the greater Auckland area accounting for 100 of these (220 hives and 96 new beekeepers). The response did 'encourage' several commercial beekeepers to register significant numbers of apiaries and hives which probably would not have been registered under normal circumstances.

### *2.2 Honey Production*

The total saleable crop was assessed at 9609 tonnes (30 kg/hive) which is an increase of 540 tonnes on last years crop of 9069 tonnes (29.9 kg/hive). The six year average is 8659 tonnes or 29 kg per hive. Per hive honey production figures are taken over all registered hives not just the productive ones.

## **3.0 AFB Pest Management Strategy**

### *3.1 Apiary Register*

The Register costs an estimated \$40,550 to operate for a year, although the true costs of hardware maintenance and upgrading and programming costs are not fully covered. The register proved its worth in the varroa response even though a lot of beekeeper addresses and apiary location data was 12 months out of date because of the ADR cycle. Further programming has been undertaken, with the approval of the NBA, to enhance the mapping capability and upgrade the reporting and recording functions needed for an exotic bee disease response and ongoing management of varroa.

### *3.2 Annual Disease Returns (ADR's)*

These were mailed to every beekeeper on 10-11 May this year (due date 20 April). This was later than desirable due to delays in the NBA approving the forms and letter, to key AgriQuality staff being away after NBA approval was obtained and to the varroa outbreak. The completed ADR's were to be returned by 1<sup>st</sup> June but of the 4900 mailed out, reminder notices had to be sent to over 2,700 defaulters. A significant number of beekeepers are returning the ADR's without placing a stamp on the envelope. This increases the cost of the PMS as the postal services charge double the postage rate for these envelopes.

### *3.3 PMS Inspection and Audit Services*

The NBA secured Authorised Person warrants for 70 beekeepers and some of these were engaged to assist AgriQuality to inspect hives for American foulbrood (AFB).

### 3.3.1 Field Inspections

AgriQuality was contracted to inspect up to 432 apiaries, and with beekeeper assistance, inspected 443 apiaries, 2910 hives and found 115 hives of AFB in 46 apiaries. This means that 10% of the apiaries inspected and 4% of the hives inspected were infected with AFB. Three apiaries and 8 hives infected with AFB were destroyed by AgriQuality on default of a notice to the beekeeper to destroy the diseased hives. Thirteen unregistered apiaries were found and 9 notices were sent to register these. Inspectors also found 11 abandoned apiaries, burnt one and found new owners for the rest.

### 3.3.2 Honey & Bee Sampling Programme

AgriQuality was required to arrange for the collection of 912 honey samples from 112 commercial beekeepers and 38 bee samples from 38 non-commercial beekeepers for a total of 950 solicited samples. In addition 50 suspect samples were allowed for, to be sent in by AgriQuality officers or beekeepers after approval from AgriQuality. The sampling programme was changed this year by the NBA so more honey samples were requested from commercial beekeepers with only a few bee samples being requested from hobby beekeepers. Last year samples were requested from 300 beekeepers.

A personal reminder notice was sent to all defaulters and further requests were made at field days and NBA meetings and by individual contact for the samples to be returned. Despite all this, only 67 beekeepers (45%) sent in the requested samples by the end of June. Some samples are still trickling in and will continue to do so until the end of September, when the contract to test the samples ends. The number of sample results notified to AgriQuality is 306 (32%) with 20 being described as positive. The Hort & Research results recorded below include suspect samples as well as others that may not have been passed to AgriQuality. These results are interim figures only for the 1999-00 season.

**Table:1 Summary of Testing Honey Samples of AFB to 30<sup>th</sup> June 2000**

| No. beekeepers sent jars | No. jars sent | Beekeepers returning samples |    | Samples returned |    | No. samples positive on culture | No. AFB hives in field |
|--------------------------|---------------|------------------------------|----|------------------|----|---------------------------------|------------------------|
|                          |               | No.                          | %  | No.              | %  |                                 |                        |
| 112                      | 950           | 59                           | 53 | 438              | 46 | 20                              | 0                      |

**Table:2 Summary of Testing Bee Samples for AFB to 30<sup>th</sup> June 2000**

| No. beekeepers sent jars | No. jars sent | Beekeepers returning samples |   | Samples returned |   | No. samples positive on culture | No. AFB hives in field |
|--------------------------|---------------|------------------------------|---|------------------|---|---------------------------------|------------------------|
|                          |               | *No.                         | % | *No.             | % |                                 |                        |
|                          |               |                              |   |                  |   |                                 |                        |

|    |    |    |      |    |     |   |   |
|----|----|----|------|----|-----|---|---|
| 38 | 38 | 39 | 103% | 88 | 232 | 5 | 0 |
|----|----|----|------|----|-----|---|---|

\* Beekeepers sent in more samples as a result of increased inspections during the varroa response.

In addition to the samples above, 24 beekeepers sent in suspect larvae or comb containing larvae and 15 of these were positive.

### 3.4 Total AFB Reports

The number of AFB infected apiaries found or reported increased by 103 over the same period in 1999, while the number of infected hives also increased by 355 hives. There is no obvious explanation for this small increase although a number of AFB hives were found during the Exotic Disease Response exercise in Auckland in early September 1999 and again during the recent varroa response.

**Table 3: AFB Reported by Beekeepers or Found by Inspectors to June 30 2000**

| Apiary District  | Apiaries AFB |            | Hives AFB   |             |
|------------------|--------------|------------|-------------|-------------|
|                  | 99/00        | 98/99      | 99/00       | 98/99       |
| Whangarei        | 79           | 56         | 152         | 103         |
| Hamilton         | 156          | 165        | 269         | 307         |
| Tauranga         | 169          | 112        | 358         | 184         |
| Palmerston North | 60           | 57         | 128         | 93          |
| Blenheim         | 79           | 59         | 179         | 88          |
| Canterbury       | 39           | 46         | 72          | 66          |
| Invermay         | 78           | 62         | 135         | 97          |
| Total            | 660 (2.9%)   | 557 (2.6%) | 1293 (0.40) | 938 (0.31%) |



# New Zealand beekeeper, apiary and hive statistics by apiary district as at 15-Jul-2000

| <i>Apiary Register<br/>Location</i> | <i>Category 0 - 5 Hives</i> |                 |              |
|-------------------------------------|-----------------------------|-----------------|--------------|
|                                     | <i>Beekeepers</i>           | <i>Apiaries</i> | <i>Hives</i> |
| Blenheim                            | 274                         | 317             | 577          |
| Canterbury                          | 482                         | 563             | 978          |
| Hamilton                            | 320                         | 363             | 717          |
| Otago/Southland                     | 252                         | 289             | 617          |
| Palmerston North                    | 822                         | 904             | 1921         |
| Tauranga                            | 285                         | 321             | 640          |
| Whangarei                           | 887                         | 965             | 1810         |
| <i>New Zealand</i>                  | 3322                        | 3722            | 7260         |

| <i>Apiary Register<br/>Location</i> | <i>Category 6 - 10 Hives</i> |                 |              |
|-------------------------------------|------------------------------|-----------------|--------------|
|                                     | <i>Beekeepers</i>            | <i>Apiaries</i> | <i>Hives</i> |
| Blenheim                            | 42                           | 69              | 324          |
| Canterbury                          | 92                           | 160             | 726          |
| Hamilton                            | 78                           | 120             | 621          |
| Otago/Southland                     | 68                           | 99              | 517          |
| Palmerston North                    | 219                          | 302             | 1725         |
| Tauranga                            | 61                           | 89              | 468          |
| Whangarei                           | 143                          | 225             | 1108         |
| <i>New Zealand</i>                  | 703                          | 1064            | 5489         |

| <i>Apiary Register<br/>Location</i> | <i>Category 11 - 50 Hives</i> |                 |              |
|-------------------------------------|-------------------------------|-----------------|--------------|
|                                     | <i>Beekeepers</i>             | <i>Apiaries</i> | <i>Hives</i> |
| Blenheim                            | 40                            | 100             | 952          |
| Canterbury                          | 54                            | 153             | 1316         |
| Hamilton                            | 33                            | 82              | 811          |
| Otago/Southland                     | 43                            | 108             | 1038         |
| Palmerston North                    | 98                            | 274             | 2463         |
| Tauranga                            | 60                            | 134             | 1453         |
| Whangarei                           | 69                            | 145             | 1569         |
| <i>New Zealand</i>                  | 397                           | 996             | 9602         |

| <i>Apiary Register<br/>Location</i> | <i>Category 51 - 250 Hives</i> |                 |              |
|-------------------------------------|--------------------------------|-----------------|--------------|
|                                     | <i>Beekeepers</i>              | <i>Apiaries</i> | <i>Hives</i> |
| Blenheim                            | 24                             | 163             | 3082         |
| Canterbury                          | 38                             | 449             | 5220         |
| Hamilton                            | 21                             | 182             | 2774         |
| Otago/Southland                     | 33                             | 329             | 3891         |
| Palmerston North                    | 46                             | 386             | 5164         |
| Tauranga                            | 42                             | 285             | 4694         |
| Whangarei                           | 38                             | 314             | 4503         |
| <i>New Zealand</i>                  | 242                            | 2108            | 29328        |

| <i>Apiary Register<br/>Location</i> | <i>Category 251 - 500 Hives</i> |                 |              |
|-------------------------------------|---------------------------------|-----------------|--------------|
|                                     | <i>Beekeepers</i>               | <i>Apiaries</i> | <i>Hives</i> |
| Blenheim                            | 17                              | 358             | 6356         |
| Canterbury                          | 18                              | 380             | 6147         |
| Hamilton                            | 12                              | 313             | 5059         |
| Otago/Southland                     | 17                              | 382             | 6110         |
| Palmerston North                    | 10                              | 249             | 3676         |
| Tauranga                            | 10                              | 153             | 3295         |
| Whangarei                           | 10                              | 382             | 3288         |
| <i>New Zealand</i>                  | 94                              | 2217            | 33931        |

| <i>Apiary Register<br/>Location</i> | <i>Category 501 - 1000 Hives</i> |                 |              |
|-------------------------------------|----------------------------------|-----------------|--------------|
|                                     | <i>Beekeepers</i>                | <i>Apiaries</i> | <i>Hives</i> |
| Blenheim                            | 12                               | 419             | 8310         |
| Canterbury                          | 26                               | 1166            | 17374        |
| Hamilton                            | 13                               | 489             | 10519        |
| Otago/Southland                     | 23                               | 1070            | 16326        |
| Palmerston North                    | 11                               | 460             | 8055         |
| Tauranga                            | 20                               | 583             | 11736        |
| Whangarei                           | 12                               | 384             | 8224         |
| <i>New Zealand</i>                  | 117                              | 4571            | 80544        |

| <i>Apiary Register<br/>Location</i> | <i>Category 1000+ Hives</i> |                 |              |
|-------------------------------------|-----------------------------|-----------------|--------------|
|                                     | <i>Beekeepers</i>           | <i>Apiaries</i> | <i>Hives</i> |
| Blenheim                            | 6                           | 341             | 9342         |
| Canterbury                          | 17                          | 1877            | 28595        |
| Hamilton                            | 9                           | 1251            | 29362        |
| Otago/Southland                     | 15                          | 1218            | 22324        |
| Palmerston North                    | 8                           | 1080            | 20530        |
| Tauranga                            | 19                          | 1421            | 29222        |
| Whangarei                           | 9                           | 618             | 15584        |
| <i>New Zealand</i>                  | 83                          | 7806            | 154959       |

| <i>Apiary Register<br/>Location</i> |                   |                 | <i>Total</i> |
|-------------------------------------|-------------------|-----------------|--------------|
|                                     | <i>Beekeepers</i> | <i>Apiaries</i> | <i>Hives</i> |
| Blenheim                            | 414               | 1741            | 28443        |
| Canterbury                          | 727               | 4748            | 60356        |
| Hamilton                            | 486               | 2800            | 49863        |
| Otago/Southland                     | 451               | 3495            | 50823        |
| Palmerston North                    | 1214              | 3655            | 43534        |
| Tauranga                            | 496               | 2971            | 51008        |
| Whangarei                           | 1168              | 3033            | 36086        |
| <i>New Zealand</i>                  | 4956              | 22443           | 320113       |