

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proved its worth in the varroa response even though a lot of beekeeper addresses and apiary location data was 12 months out of date because of the ADR cycle.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 1st 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 30th 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 30th 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%) |

From: Nick.Wallingford@boppoly.ac.nz
To: "Nbalist (E-mail)" <nbalist@beekeeping.co.nz>
Date: 26 July, 2000 8:03:46
Subject: NBALIST: from Murray Bush [bushes.honey@xtra.co.nz]:

PMS Report to Conference July 2000.

AFB has captured the focus of the NZ beekeeping industry since 1992. In three short months, Varroa has stolen this focus, but it is critical we remember; AFB HAS NOT GONE AWAY.

Undeniably, Varroa is going to place huge burdens on beekeepers, financially, physically, and mentally, but we need to remember why the PMS was voted into existence by the industry. We need to re-evaluate our attitudes to AFB, because these attitudes will determine the level of integrity and success our AFB disease program is able to attain.

We need to remember: WE IGNORE AFB AT OUR PERIL.

A number of problems have been experienced by the NBA, our contractors, and Government agencies, since the PMS was implemented. Many are minor and nothing more than part of the huge learning curve experienced by all parties in the PMS. Some problems are so serious, they actually threaten to prevent the NBA complying with their statutory obligations. These major problems are: 1). The unregistered beekeepers and apiaries uncovered during the Varroa delimiting survey. Similar levels of non-compliance are likely to be found elsewhere in NZ. This non-reporting makes a mockery of AFB statistics and destroys the integrity of the PMS.

2). Non-compliance within the Annual Disease Returns and Certificate of Inspection programs. The 1999/00 contract had approx. 1250 beekeepers failing to return their apiary registration lists, and 1000 beekeepers had no DEKA or CoI. This means 20% to 25% of registered beekeepers are not part of the AFB PMS program. This creates a huge dollar cost to the NBA, and generates false AFB statistics.

3). Export Certification requirements are penalizing AFB PMS compliant beekeepers. There is no distinction between beekeepers with serious AFB problems, and a beekeeper finding one isolated hive which is quickly destroyed. 4). The NBA requires direct access to the apiary register to make informed decisions on AFB management and in designing strategies on non-compliant beekeepers. AgriQuality will provide extra reports, but there are costs and time delays in this procedure. Flexible management requires faster access to data base information.

5). The number of honey samples returned so far is 46%. The Varroa incursion has effected the returns, but for this audit program to work, the level of honey samples needs to increase dramatically and quickly. Despite these problems, the PMS has many positive attributes.

POSITIVES.

1). An increase in beekeepers awareness of AFB issues and management techniques. Care needs to be taken to ensure Varroa does not damage this process.

2). 680 people have sat or due to sit the AFB competency examination.

3). 2934 beekeepers have received DECA's, with a further 1080 opting for a CoI. Approximately 80% of beekeepers have committed to the principles of the PMS.

4). The AFB knowledge base within branches is expanding through more AFB training courses. This willingness to learn will prove crucial as we embark on varroa education programs.

5). AFB levels have increased. A strange positive, but it was always logical with greater awareness, and the more we looked, the greater the chance of finding AFB. Finding and destroying AFB has to be good news.

The PMS is still a viable strategy, but to ensure a strong future, minor changes are required to the way the PMS is implemented, and beekeepers need to commit to a greater level of compliance.

THE FUTURE:

Varroa will create a challenging environment for the AFB PMS this year. On top of a 20% non-compliance level, the following comments are being received: "Now we have varroa, it is pointless worrying about AFB" "If we are going to use Apistan for varroa, we may as well use Terramycin for AFB and forget about the PMS" "The NBA won't get anymore money from me as I'll need it for varroa control"

COMPLIANCE, ATTITUDE, and FINANCE will be our biggest problems this year.

The PMS Review committee has recommended the following strategy to the NBA Executive in an attempt to address these three points. The Order in Council and the AFB Operational Plan were used as guidelines.

CONTRACTORS.

1). Our major contractor with the PMS is Agriquality NZ. It is our recommendation that the services of Agriquality are retained for the year 2000/2001 contract. I would like to take this opportunity to thank Murray Reid and his team for their efforts, support, and advice both to the PMS committee and the beekeeping industry at large.

The components within the contract such as Apiary Register maintenance, Annual Disease Returns, and Certificate of Inspections will remain virtually untouched, except for initiatives to address the non-compliance problems.

DECA auditing will focus specifically on disease statistics and at risk areas. The DECA budget will be reduced by 50% to ensure money is available for the other essential components of the PMS. This is a contingency plan to cover the risk of budget shortfalls in NBA finances.

The DECA program is the only area budget reductions are being recommended.

2). INSPECTIONS and AUDITS.

The major change to the way the PMS will be implemented this year is in the areas of Inspections and Audits.

Remember; the problems facing the PMS were:

- *Beekeeper compliance.
- *Attitudes; is the PMS worth worrying about with varroa.
- *Money. Will the NBA have enough?

To solve these problems, we had to get beekeepers focused back on AFB, while acknowledging the

huge effect of varroa. We had to create an opportunity for beekeepers to feel some ownership of the PMS, and provide some finances to branches.

Our recommendation is to split this part of the contract between the NBA branches and Agriquality NZ. NBA branches will be offered inspection and audit contracts specifying the number of apiaries to be inspected and auditing duties required. One or two disease coordinators will be required in each branch to run this program similar to diseaseathons. For branches that have not run diseaseathons, help will be provided in organizing and coordinating an inspection program. Authorised level two beekeepers will be appointed in each branch to allow right of access and inspection. Planning is underway on the course these beekeepers will need to attend.

Branch contracts will be voluntary, but for branches not participating, either no AFB inspection will occur in your area, or at best Agriquality will be employed to perform a small audit program. Branches, who do participate, will receive between \$1000 and \$3000 depending on apiary Numbers contracted. Agriquality will be employed in a back up role to provide apiary information, disease destruction notices, and some auditing.

NOTE: I need to stress at this point, these changes have not been made because of the performance of Agriquality. They have been recommended, because if beekeepers were not involved and branches financed, there was a very real danger the AFB PMS would be ignored, thus destroying the integrity of the AFB program.

3). Branch advice and help will be utilized in the attempt to reduce ADR and CoI defaulters.

4). Dr. Mark Goodwin and this committee, will write a proposal seeking a AFB check on every hive having an Apistan test during South Island varroa surveillance program. Beekeeper involvement will be part of this program.

SUMMARY.

The PMS needs to be a living document, which adapts to new beekeeping problems. We need to recognize the legal obligations set out in the Order of Council, and our moral obligations to the beekeeping industry. The success and survival of the AFB PMS will depend on beekeepers accepting their obligations to comply, and grasping the opportunity to become directly involved.

Beekeepers have requested the opportunity to be part of the PMS and to gain some ownership of the PMS. Well this is your chance to be VERY INVOLVED. "Use it or Lose it"

Remember: We ignore AFB at our peril