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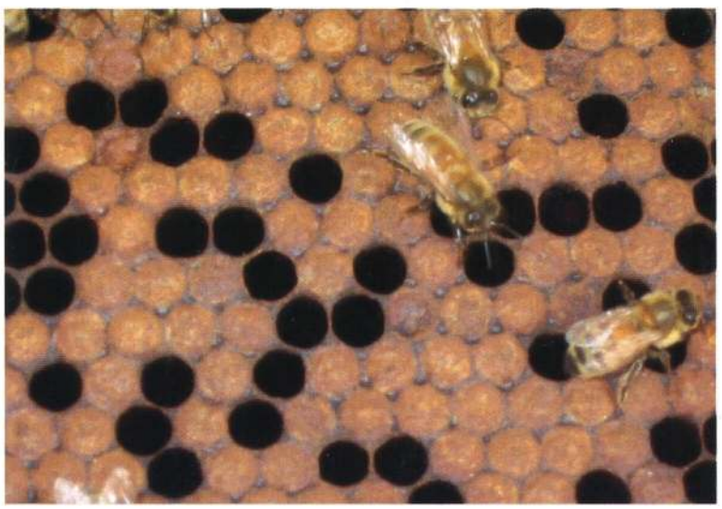
In This Issue: AFB Information



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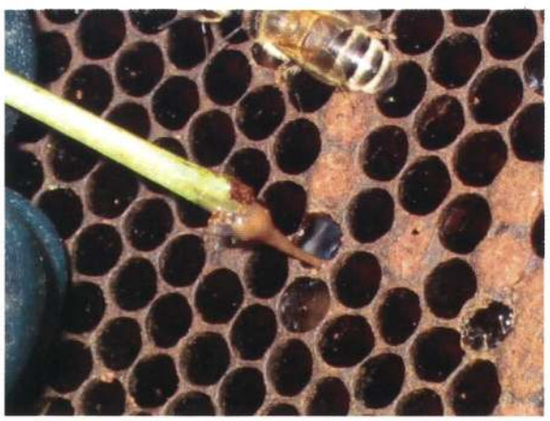

IN THIS ISSUE

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President's Report

NPMS Operations
This issue is once again going out to all registered beekeepers, as part of the Management Agency's commitment to keeping beekeepers informed as to what is being undertaken on the American Foulbrood National Pest Management Strategy (AFB NPMS).

It would be fair to say that we have given our NPMS Manager, James Driscoll, a huge amount of work to undertake to get the strategy to a more workable situation. This has meant that a number of communications going to all beekeepers have been redrafted, and an accounting package has been installed, so that the Management Agency can generate the invoices as well as the reminder notices with the appropriate penalties calculated.

Where beekeepers are non-compliant with the strategy, they can expect to have greater follow-up in the future to ensure compliance is improved.

In the future, more information will be going onto the NBA website on the AFB PMS page to help increase communication to beekeepers.

Emphasis will be placed on getting some audits/inspections undertaken throughout the country from now to May 2005.

Tutin toxin
We wish to remind those of you who keep bees in the tutin toxin risk areas to monitor conditions during the summer to assess whether there is a high risk of getting tutin toxin in your honey this year. If you cannot remember what the tutu plant looks like, refer back to page 24 of the November 2003 issue of the journal.

Groups visiting New Zealand
Two beekeeping groups will be visiting New Zealand in the near future. The first group comprises Chilean beekeepers and Chilean government technical personnel, who plan to visit from 22–25 November 2004. This group is very interested in the American Foulbrood Pest Management Strategy, including how it is funded under the Biosecurity Act, as well as the Industry Risk Management programme that we are assisting to set up in conjunction with the New Zealand Food Safety Authority.

The other group is coming from Sweden, and will consist of 30–40 professional beekeepers. A number of you will have been recently contacted about hosting them for a period of their visit in March 2005.

I always enjoy meeting beekeepers from other countries and finding out about our common issues as well as our differences. There is always something to learn from others, and something we can teach in return.

Varroa National Pest Management Strategy
On 8 October, Don Stedman and Roger Bray attended a meeting on the proposed Varroa Pest Management Strategy, as part of a focus group. The aim of the focus group is to help to establish the Management Agency (MA) for the Varroa NPMS.

The following timetable has been suggested for establishing the MA, the NPMS, and a funding levy for the NPMS:

- Formation of a Focus Group: September/October 2004
- Agreement on a detailed structure for the Management Agency: November/December 2004
- Registration of a Management Agency as an Incorporated Society: December 2004
- Order in Council approval of the NPMS: December 2004
- Establishment of the Management Agency's Board of Directors: February 2005
- Levy comes into force: 31 March 2005
- Levy notification goes out: mid-April 2005.

The Management Agency will have one beekeeper representative with a deputy. A formal nomination process will be developed at a meeting in early November, where guidelines and principles for that representative to follow will be drawn up. The meeting is open only to members of the NBA and the Bee Industry Group (BIG), Federated Farmers of New Zealand (Inc.).

The focus group meets again on 30 November. It appears from the feedback given that the meeting was very constructive.

Forward planning
The Executive is currently working with members who have expressed interest in being involved in committees in various areas; e.g., Research, Exotics, Membership. We will be exploring what our scope of involvement should be as a voluntary organisation, what we are able to achieve realistically, and what our priorities should be over the next few months.

Once the Structure Review of the NBA is complete, the job of setting the objectives for the year and beyond will become one of the tasks undertaken by the Executive Council elected by the Wards.

Deadline for Publications

December 2004 edition: 22 November 2004

(NB: No January 2005 edition)

February 2005 edition: **15 January 2005**
March 2005 edition: **20 February 2005**

All articles/letters/photos to be with the Editor via fax, email or post:

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Structure Review
By now the first of the consultation documents on the proposed rules of the new structure will have been circulated to all members of the National Beekeepers' Association. We hope that many of you will have taken the time to study these proposed rules and have made submissions on them to ensure that the rules will be workable and fair for all members.

Insurance
Over the last few weeks I have been working with several people over insurance coverage for beekeepers. This should result in one or two companies now covering loss of hives, and also offering income protection for beekeepers. It has been difficult once again to explain the uniqueness of our profession. The following is a statement from one of the providers:

> *"Waikato Insurance Brokers Limited in conjunction with the National Beekeepers Association of New Zealand are proud to announce the launch of a new and innovative farm package tailored specifically for professional beekeepers.*
>
> *Underwritten by one of New Zealand's leading farm insurers, this new package is designed to not only insure your buildings, machinery, vehicles and liability etc, it now incorporates replacement cover for hives and bees in the open, which has not been available previously on the New Zealand market.*
>
> *This package is exclusive to Waikato Insurance Brokers and Tracy would welcome your enquiries by contacting him on 07 839 3627 or tracy@wibl.co.nz.*
>
> *We look forward to providing this service to the association members."*

Journal/Publications
You may be aware that we now have a new editor for the journal — Nancy Fithian. We welcome her to this role and challenge her to continue the upgrade of the journal. Requests for journal subscriptions are being received by our Secretary on a regular basis.

Fiona O'Brien will now be concentrating her efforts on the suggested improvements to be made to the website. We hope as a result that the website will be utilised more by our computer-savvy beekeepers. I wish to express the Executive's thanks to you, Fiona, for the huge contribution you made to keeping *New Zealand Beekeeper* in print, and for implementing changes that we feel made many improvements to the magazine.

Varroa research
Several trials are underway once again due to the success of the NBA in obtaining funding from the Sustainable Farming Fund. Michelle Taylor recently has requested queens for the breeding trial, and Mark Goodwin has been looking at some isolates of metarhizium fungus they are currently testing against varroa. It will be interesting to see the results.

- Jane Lorimer

Manager's Report on AFB National Pest Management Strategy

To give context to this report I first need to outline the role of the American Foulbrood National Pest Management Strategy (AFB NPMS) Manager (The Manager). The Manager is required to assist the Management Agency (MA) in the management of the AFB NPMS as required by the Biosecurity Act 1993, the Biosecurity (AFB NPMS) Order 1998, and the Biosecurity (AFB – Apiary & Beekeeper Levy) Order 2003.

As the AFB NPMS Manager, I oversee the development and the direction of the operational plan, write reports, do the banking, help to establish and maintain policies, promote compliance, manage administrative issues, and facilitate the development of the budget for the upcoming AFB NPMS operational period. I also manage relationships with the industry and contractors with respect to the MA.

Given this role, during the process of putting together the 2005–2006 operational budgets for industry consultation, I have reflected on the milestones achieved over the past six months. And, in doing so, have also taken into consideration the operational competence of the AFB NPMS. In short, things are coming together nicely and to make this statement more compelling in the minds of you, our beekeepers, I will look to outline what the achievements have been.

The strategy milestones reached are the:

- appointment of an AFB NPMS Manager to define the operational role;
- on-time management of operational matters;
- completion of operational commitments within a shortened operational period;
- establishment of an effective working contract with AgriQuality;
- first levy reminder letters sent out (to 2003-2004 levy defaulters) requesting payment;
- establishment of a MYOB accounting system;
- renewal of a larger number of Approved Person Level 2 (AP2) appointments;
- reformatting of the DECA Exam;
- initiation of a national AFB audit inspection programme;
- development of effective communication with MAF, New Zealand Bee Industry Group (BIG) Federated Farmers of New Zealand (Inc.), NBA branches and BIG groups, and other industry bodies;
- effective day-to-day operation of the AFB NPMS; and
- development of a strong culture with respect to the management of the AFB NPMS.

Establishing a central point through which industry AFB matters can be channelled has resulted in a faster turnaround on industry requests, a much better relationship with contractors, and a consistent voice with respect to policy. It has also meant a consistent output with respect to operational deadlines. For example, ADRs, levy requests, and Certificates of Inspection (COIs) have all been mailed to beekeepers within expected timeframes and follow-ups have also been delivered within expectations. Reports from contractors have been received as expected and information from those reports has been used for the benefit of the strategy. Defaulting beekeepers are still high in numbers and this is an area that will receive a greater focus in the coming months.

A great deal of work was undertaken in the 2003–2004 operational period. Operational activities were completed within the required timeframe, 20 November 2003 to 31 May 2004 (a shorter timeframe than previous years). This meant at times a few late nights and one or two headaches but a great deal of satisfaction from those involved. One area that was not actioned in the 2003–2004 period was apiary inspection audits. However, to counter this, a greater level of inspections will be made in the 2004–2005 operational timeframe.

AgriQuality continues to provide the MA with excellent service. The lines of command have been well and truly squared away and the contract between the MA and AgriQuality is now very clear and sound. AgriQuality apiary advisors currently are working hard to assist the MA to coordinate the national audit inspection programme. Without their assistance, logistical management of this programme might have been very difficult.

Since 20 November, AFB NPMS levies have been handled with integrity and professionalism. However, a major barrier to the consistent management of the AFB NPMS levies in the past has been the volume of payments that needed to be managed and the processes used to manage them. With approximately 3300 'customers' (beekeepers), sending out reminders has been a difficult process and the management of Excel spreadsheets time-consuming. To offset time-management problems and to reduce transaction costs the MA has initiated a MYOB accounting software programme to assist in the prudent and consistent management of levies. However, this has not been without its difficulties, with over 18,000 data entries made over two levy periods — not to mention the filing! Also, changes in apiary details and the x-coding of a number of beekeepers has meant people have had to work many hours to get all the financial information up and running. So what does this mean? It means that financial information will now be more easily accessible and reportable; for example, Statements of Account can now be sent out regularly and penalties can be charged simply and without argument. It also means that the MA has a 'tight' financial system for managing your levies, payments, and other fiscal matters. So, in the near future a number of people will be reminded of their Biosecurity levy responsibilities. I apologise now if I incorrectly send you a reminder about money owed but I make no apologies for penalties charged if you have

chosen simply not to pay. And, please remember the AFB NPMS strategy is for the benefit of our industry and needs to be paid equitably by all beekeepers. The cost of non-payment neither benefits the beekeeper (who will receive penalty charges), nor the industry as a whole.

The renewal of AP2s was one of those just-in-time milestones achieved as we moved to audit apiaries for AFB. This is because some areas of the country had no AP2 appointed beekeepers which meant that we had a limited ability to send warranted beekeepers out to inspect hives. This issue was highlighted recently when the MA worked with AgriQuality and a beekeeper was placed under a Restricted Place Movement Control. Without the beekeeper's agreement, and given limited AP2s, getting the AFB under control could have been an expensive and potentially very difficult process.

Issues around DECA exam questions has led to a number of debates about examination equity and fairness to those beekeepers having to sit the DECA exam. As a consequence of these discussions, as well as the notable reduction in the number of beekeepers sitting the exam, new exams were developed to refresh beekeeper confidence in the DECA exam process. To date there have been no complaints.

In relation to the AFB Audit inspections, we're looking to do a random national audit. Given this, AgriQuality is working with the MA and to identify areas that should be paid a visit to see if the strategy is working.

Note that this is not a 'witch hunt'. We are working to have the whole country audited. The inspections will encompass all beekeepers in the chosen regions. If we discover AFB, we will then use other processes, which have checks and balances, to get an AFB problem under control, through tools such as AFB counselling, DECA reviews, and notices requiring compliance.

AgriQuality has a good understanding of what the MA is looking to achieve and will identify apiaries appropriate for inspection.

The MA payments to be made to participating NBA branches and or BIG groups relate to an equity split of funds across the country to get between 2% and 4% of apiaries inspected.

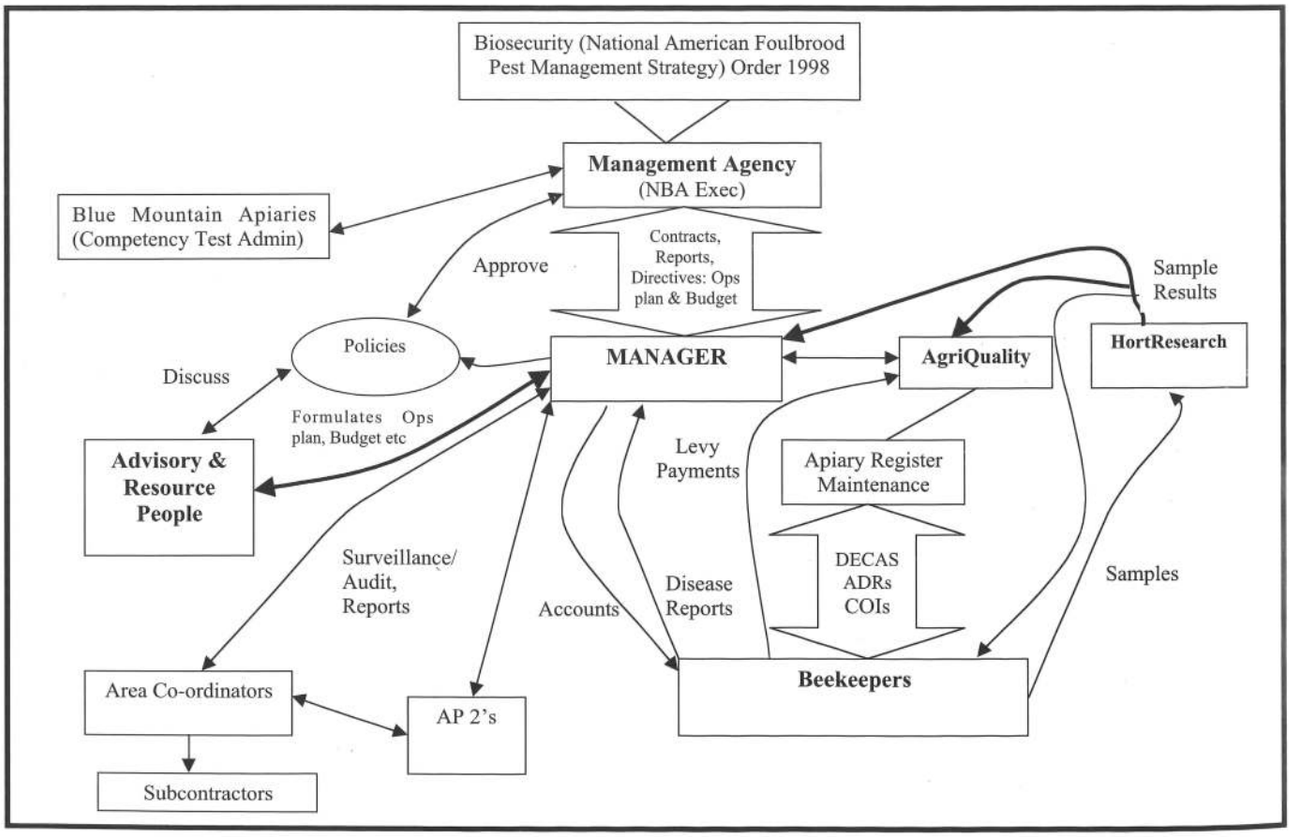
Further, if this process works well, I will engage AP2s at branch or group level on a fee-for-service basis to inspect defaulting beekeeper hives. The MA will bill the defaulting beekeeper once the AP2 inspection is completed and a cost is established.

ADR (and COI defaulters) are high in numbers and we will have a major focus on this issue. *NB: Reminder letters for ADR will be in the post very soon!*

To conclude, culture is very important in any organisation. For me the culture of the AFB NPMS management style is to be built around fairness, firmness, and a focus to see the AFB NPMS succeed. If you find yourself at odds with the strategy then let's talk, because our collective focus is about getting rid of AFB from New Zealand in a manner that is equitable for all involved.

- James Driscoll

Operating Structure of the American Foulbrood Pest Management Strategy



AFB NPMS 2004–2005 Operational Plan: 1 June 2004 through 31 May 2005

The overall aim of the American Foulbrood National Pest Management Strategy (AFB NPMS) is to reduce the incidence of AFB in New Zealand to less than 0.1% by 2008. The 2004–2005 operational plan is aligned with this aim. Furthermore, it is a plan that will have a greater focus on beekeeper strategy compliance than previously seen. Note: This plan is compliant with the Biosecurity (American Foulbrood — Apiary and Beekeeper Levy) Order 2003 (AFB NPMS).

2004–2005 Operational Activities: The 2004–2005 operational plan is summarised below. The Management Agency (MA) intends that the following categories of work will be performed in the 2004–2005 period. *NB: some monetary figures are reported for beekeeper interest. These figures relate directly to the 2004–2005 operational budget consulted on with all beekeepers in 2003.*

a. **Beekeeper Education:** The continued reflection on the importance of the AFB NPMS will be promoted through articles, DECA exam facilitation, and awareness programmes. To meet this objective, articles will be written by Mark Goodwin and beekeeper awareness programmes will be run on these topics: dealing with disease (including destruction processes); keeping bees in movable frames; keeping access to apiaries clear; registering apiaries; de-registering apiaries; the requirement for apiaries to have identification markings; abandoned apiaries; and the financial implications of non-compliance with the strategy.
Also, AFB samples used for education will be tightly managed; beekeepers will be encouraged to sit their competency tests; issues relating to the feeding of drugs to prevent AFB will be highlighted (illegal activity); and a review of AFB NPMS Training Instructors will be undertaken to determine if there is a need for industry refresher courses.

b. **AFB NPMS Reporting (including financial reports):** AFB NPMS reports are an important part of maintaining transparency with respect to AFB NPMS management direction and expenditure associated with the strategy.
All reports are to be distributed on time and without bias towards any organisation and will include contractors' reports, NBA Executive reports, MAF Reports, and Financial Reports. All reports to be distributed by the NBA Secretary.

c. **Disease Elimination Conformity Agreement (DECA) Scheme ($11,580):** DECAs are recognised as an important tool in the success of the strategy. The 2004–2005 plan is to have beekeeper DECA reviews based on AFB levels, AFB risk, and ADR compliance, and to have a significant number of Certificates of Inspection (COI) beekeepers apply for a DECA. New DECA applications will continue to be managed as before, with the exception that a greater number of DECAs will be reviewed and beekeepers will need to complete a competency test before the DECA is approved and a COI exemption is given.

d. **Certificates of Inspection (COI) ($5,148):** COI will be managed in the same manner as the 2003–2004 operational period.
   - **Certificates of Inspection (COI) defaulters:** The 2003–2004 operational period and previous periods in the strategy have had a high number of COI defaulters. The 2004–2005 period will aim to get a greater number of beekeepers complying with this part of the strategy. To do this, COI compliance will be given high priority, audit inspections will be made at the defaulting beekeeper's cost and abandoned apiaries will be destroyed through due process at the cost of the defaulting beekeeper.

e. **Annual Disease Returns (ADRs) ($38,160):** ADRs will be managed in the same manner as was seen in the 2003–2004 operational period.
   - **Apiary and Disease Register:** The National Apiary Database will continue to be managed the same as it was in the 2003–2004 operational period.
   - **Annual Disease Returns (ADRs) defaulters:** A significant number of beekeepers each season default on their ADR returns and this impacts on the integrity of the AFB NPMS. Consequently, a significant review of ADR compliance will be made. Defaulting ADR beekeepers will be contacted and compliance will be made a high priority. Audit inspections will be made at the cost of the defaulting beekeeper, and apiaries deemed to be abandoned will be destroyed through due process at the cost of the defaulting beekeeper.

f. **X-coded Beekeepers:** A large number of beekeepers have departed the industry since 20 November 2003.

However, there are reports of beekeepers using x-coding as a strategy to avoid levy payments. Consequently, an audit of x-coded beekeepers will be made. Hives discovered to still exist through the audit process will be deemed to be abandoned and will be destroyed through due process and costs will be charged to the defaulting x-coded beekeeper. Furthermore, levies will be recharged with penalties.

g. **AFB Spore Testing ($15,000):** The random sampling of apiaries assists the industry to discover AFB concerns. It is a valuable service that will continue in the 2004–2005 operational period. It is planned that sampling and testing will be undertaken in a similar manner to that of the 2003–2004 operational period and that beekeepers will be encouraged to a greater extent to return samples as requested. Results will be used to assist the MA and affected beekeepers in identifying and overcoming AFB risk in the affected beekeepers' operations.

h. **AFB Counselling ($6,576):** Beekeepers with AFB concerns will receive counselling to help them overcome evolving AFB problems associated to their beekeeping activities.

i. **AFB NPMS Policy Documentation:** Policy reference documentation will be reviewed and developed where needed to ensure all beekeepers are treated equally and in an even handed way, in line with the strategy.

j. **AFB NPMS Audit and Inspection Programme ($38,000):** 2% and 4% of apiaries registered in New Zealand will be audited by Approved Persons Level 2 (AP2) appointed beekeepers. This process will be managed in consultation with AgriQuality and industry. National Beekeepers of NZ (NBA) Branches, New Zealand Bee Industry Group (BIG) Groups, and AP2 beekeepers providing assistance in this regard will be compensated for their services in meeting this objective:

k. **AFB NPMS Review Committee ($6,000):** A Strategy Review Committee will be convened and shall be responsible for carrying out an annual review of the operational plan of the strategy during the month of July 2005. This review committee will review the strategy as set out in the AFB NPMS Order in Council.

l. **Feeding of Drugs:** Incidental reports of drug feeding for the medication of beehives infected with AFB have been reported to the MA. These reports, if found to be genuine, will be reported to the New Zealand Food Safety Authority (NZFSA) with any supporting evidence to assist the NZFSA in securing a conviction.

m. **AFB NPMS Accounts — Levy Management:** An MYOB accounting format will be used to manage AFB NPMS Levy records. Statements of accounts will be sent monthly to beekeepers owing levy money and penalties will be charged. Furthermore, frustrated overdue accounts will be managed by a professional debt collection agency.

n. **Complaints:** A complaints management policy will be developed in order to see complaints managed transparently for all interested parties. Disputes will be mediated and arbitration will follow any failure in mediation.

o. **Calendar of Events for the AFB NPMS — 1 June 2004 through 31 May 2005:** The following bullet points outline important activities occurring through the 2004-2005 period.

1 June 2004	• ADR returned to MA; AFB NPMS 98 Order S27 • Last day for payment of the levy; Levy Order S13
10 June 2004	• MA inform contractors of intentions for coming year • Contractor reporting date for register information • Contractor reporting date AFB statistics from ADR • Contractor reporting date DECA information • Contractors advised of date for NBA Industry conference • Full report from contractors due for industry
15 June 2004	• ADR defaulters sent a reminder letter by contractor requesting a signed ADR declaration within 14 days
1 July 2004	• Last day for ADR defaulting beekeepers to return their declaration
10 July 2004	• Contractor reports due if Conference is in July
15 July 2004	• Contractor report to MA – names and details of defaulting ADR beekeepers in breach of the Act
20 July 2004	• Contractor report to MA – Gone no Address (GNA) file of ADR Beekeepers
1 August 2004	• COI sent to beekeepers by contractor; AFB NPMS 98 Order, section 32 – Beehives to be inspected between this date and 30 November 2004
1 September 2004	• Audit inspections of Apiaries commence: on or after this date and 31 May the Management Agency must carry out Audits; beekeeper ADR/COI compliance, accuracy of ADRs, and DECAs.
31 October 2004	• Budget consultation starts via the November Issue of the New Zealand Beekeeper magazine; Levy Order, section 16 • Annual Report to the Minister of Biosecurity • 2004–2005 Operational Plan reported in *New Zealand Beekeeper* magazine • Audit Financial Reports; Biosecurity Act, section 85
1 November 2004	• Contractor report to MA – GNA COI beekeepers
	• Levy rate consultations initiated/notified before 20 January, Levy Order, section 16
1 December 2004	• Last day for COI returns
15 December 2004	• Contractor report – number of COI defaulters • Deadline for beekeeper submissions on proposed operational budget • Deadline for beekeeper submissions on proposed 2005-2006 levy.
20 January 2005	• New Levy rate to be notified if an amendment has been made to the previous years value; Levy Order, section 12
1 February 2005	• Contractor report to MA – abnormal events summary
31 March 2005	• 'Snapshot' of the National Apiary Database to ascertain the number of Apiaries that each beekeeper has re-registered so that levies may be struck • Contractor reporting date – register information, COI defaulter information, DECA information
20 April 2005	• Last day for posting ADRs to beekeepers • Levy invoices to be sent out (not less than 28 days before 1 June) to all registered beekeepers • Contractors contacted in relation to the renewal or discontinuation of contracts
31 May 2005	• Last day of contractor engagement • Audit inspections and compliance matters to have been completed • Contractor report to MA – abnormal events summary

AFB NPMS Operational Budget 2005–2006: Beekeeper Consultation

BIOSECURITY (AMERICAN FOULBROOD—APIARY AND BEEKEEPER LEVY) ORDER 2003 – Payment of levy

Section 16: Consultation on how levy spent —

(1) The management agency must, before the start of each levy year, consult with beekeepers on how the levy money is to be spent.

(2) The management agency must use the following process to consult beekeepers:

(a) it must send to every beekeeper a proposed budget for the levy year's expenditure; and

(b) it must give every beekeeper an opportunity to make submissions to it on the proposed budget; and

(c) it must send to every group or association of hobby and commercial beekeepers known to it a copy of the proposed budget.

The budget presented below is for the coming 2005–2006 operational period: 1 June 2005 through 31 May 2006. The budget is based on the 2004–2005 operational plan. This is how the Management Agency intends to spend levy income for that period. If the budget is approved, the levy will be set at $20.00 per beekeeper and $8.00 per apiary (that is, no change from the previous year).

If you wish to make a submission on the proposed budget then please do so in writing by 15 December 2004 to:

James Driscoll
AFB NPMS Manager
PO Box 9098
Hamilton
james@driscoll.pn

CATEGORY/ITEM	ITEM TOTALS
A. ADMINISTRATION	**2005–2006 Operational Period**
1. AFB NPMS Manager	$30,000
2. Financial Accounting	$3,000
3. Financial Auditing	$3,000
4. Reporting (Government, NBA, and other Industry Stakeholders)	$1,200
5. Legal Expenses	$1,000
6. Governance	$8,000
Subtotal Administration	**$46,200**
B. OPERATIONAL	
1. Disputes Arbitration	$4,150
2. Review Committee	$6,000
3. Beekeeper Communication	$4,250
4. Beekeeper Education	$6,000
5. DECA Scheme Maintenance	$11,580
6. Certificates of Inspection	$5,148
7. AFB Inspection/Audits	$18,516
8. Counselling	$6,576
9. Audit Programme	$38,000
10. ADR Management	$38,160
11. Abandoned Apiaries Admin	$2,250
12. Subcontractors	$10,000
13. AFB Spore testing	$15,500
14. AFB Drug feeding Audit	$800
15. Complaints Management	$2,000
Subtotal Operations	**$168,930**
TOTALS	**$215,130**

Biosecurity (American Foulbrood—Apiary and Beekeeper Levy) Order 2003

2005–2006 levy rate (Unchanged)
The Management Agency has recommended that the rate for 2005–2006 levy will be the same as 2004–2005 levy period.

The rate of the 2005–2006 levy (excluding goods and services tax) will be calculated at—

(a) $20 per beekeeper for the base levy; plus

(b) $8.00 per apiary for the apiary levy.

Noting that for the purposes of subclause (3), the sum of the number of registered apiaries owned by a beekeeper will be treated as 1 if, as at 31 March 2005 of the previous levy year, the beekeeper—

(a) owned fewer than 11 beehives; and

(b) had fewer than 4 apiaries.

DETERMINATION OF LEVY

Section 7. Basis of calculation of levy—
(1) The levy must be calculated on the basis of—

(a) a base levy; plus

(b) an apiary levy.

(2) The base levy for each beekeeper is a fixed amount.

(3) The apiary levy for each beekeeper is the sum of the number of registered apiaries owned by the beekeeper, as at 31 March of the previous levy year, multiplied by a fixed amount.

(4) For the purposes of subclause (3), the sum of the number of registered apiaries owned by a beekeeper must be treated as 1 if, as at 31 March of the previous levy year, the beekeeper—

(a) owned fewer than 11 beehives; and

(b) had fewer than 4 apiaries.

Section 8. Maximum rate of levy—
The maximum rate of the levy (excluding goods and services tax) is—

(a) $20 per beekeeper for the base levy; plus

(b) $15.17 per apiary for the apiary levy.

SUBMISSIONS SOUGHT

The Management Agency is seeking submissions from beekeepers on the levy rate as part of its consultation on the AFB NPMS operating budget. If you wish to make a submission on the recommended 2005–2006 levy please do so in writing by 15 December 2004 to:

James Driscoll
AFB NPMS Manager
PO Box 9098, Hamilton
James@driscoll.pn

NOTICE TO BEEKEEPERS STILL OWING BIOSECURITY LEVIES

PENDING OVERDUE AFB NPMS BIOSECURITY LEVIES 2003–2004 AND 2004–2005 DEBT COLLECTION

The Biosecurity (National American Foulbrood Pest Management Strategy) Order 1998 (AFB NPMS) is funded by the Biosecurity (American Foulbrood—Apiary and Beekeeper Levy) Order 2003. To date, two levies have been charged to beekeepers: one in December 2003 to pay for the 2003–2004 AFB NPMS operational period, and one in April 2004 to pay for the 2004–2005 operational period. Currently, the AFB NPMS has an unacceptable number of levies outstanding. Therefore, over the next three months the AFB NPMS Manager will be making a concerted effort to recover levies still owed by beekeepers to the strategy. After this period, frustrated levies will be sent to a professional debt collection agency for recovery.

Therefore, may I kindly suggest that if you still haven't already paid your AFB NPMS Biosecurity levy, that you do so in the near future to offset any unnecessary expense, upset, and stress.

Thank you and I look forward to your attention to this matter.

James Driscoll
AFB NPMS Manager
james@driscoll.pn
PO Box 9098
Hamilton

Eradicating American foulbrood from New Zealand

Mark Goodwin
HortResearch
Mgoodwin@hortresearch.co.nz

New Zealand beekeepers are currently trying to eradicate American foulbrood disease (AFB) — a disease of honey bees. Although this is something that no other significant beekeeping country has ever tried to do, New Zealand has a history of eradicating diseases; e.g., hydatids. Interestingly, the idea of eradicating AFB is not new to New Zealand beekeepers.

This from Volume 1 of the *New Zealand Beekeeper* 1939:

> 'the disease can and should be eradicated completely. Under the present system which has had many years' trial elimination of disease from all apiaries in New Zealand seems to be as far away as ever and it certainly high time that something more definite was done about it.'

Why is the goal to eradicate AFB from New Zealand desirable?

1) Once eradication is achieved there is no need to invest in AFB control.
2) By looking for AFB and burning infected colonies, New Zealand beekeepers have an eradication policy for their own hives. It therefore makes sense for the New Zealand beekeeping industry to have the same strategy.
3) Feeding antibiotics to control AFB is not sustainable long term. Many countries are currently finding that AFB is becoming resistant to the antibiotics being used.

Why is eradication possible?

1) AFB is difficult to spread. Large numbers of bacteria (500 million spores/litre) need to be fed to a colony to cause an infection. It is therefore not necessary to eradicate the bacteria itself, which is probably impossible, but just to reduce the number of bacteria to a point that the infection of new colonies is unlikely to happen.
2) Many beekeepers have eradicated AFB from their own outfits. If some beekeepers can do this then it is possible for all beekeepers to do so.
3) One problem for eradication is that the feral bee population cannot be inspected for AFB. However, every cloud has a silver lining. Thanks to varroa, the feral honey bee population is being eliminated.
4) Another benefit of varroa is that it is changing beekeeping practices. Those beekeepers not really interested in keeping bees have lost or sold their hives. Also many beekeepers managing large numbers of hives per labour unit are reducing their hive numbers to better control varroa which also means they have more time to control AFB.
5) New Zealand is an island, therefore not subject to continual reinvasion once AFB has been eradicated.
6) Most AFB is spread by beekeepers, so changes in the way beekeepers manage hives can have a dramatic effect on AFB levels.

So how can eradication be achieved?

Eradication can be achieved through a combination of two approaches.

1) The first is the traditional approach of trying to find and burn AFB hives faster that beekeepers can infect new hives. The approach taken is to have every hive inspected each year by someone capable of recognising AFB. This is achieved by a combination of training beekeepers, approved beekeepers carrying out the inspections and compulsory inspections. Assuring that all hives are thoroughly inspected each year at an appropriate time of year could by itself result in eradication.

2) The second approach is to educate beekeepers to reduce the rate with which new hives are infected.

As long as more AFB hives are found and burnt than are infected each year, eradication will happen, the only question is how quickly. The trick is to get the right balance between search and destroy and prevention of infection.

What could stop eradication being achieved?

There are a number of threats to eradicating AFB.

1) As far as we can determine we do not have European foulbrood (EFB) in New Zealand. When we get EFB we will need to feed antibiotics to control it. The use of antibiotics can at times make it more difficult to diagnose AFB.
2) Politics are also a threat. While everyone was part of the same beekeeping organisation, whether they wanted to be or not, there was little incentive for beekeepers to use the eradication programme for political gain. However, now that the beekeeping industry is splintered into a number of organisations competing for beekeeper members, there is a larger risk that the programme will be damaged by beekeepers seeking political advantage.
3) If the eradication programme is not well managed and objectives of the programme are not met, beekeepers will lose their enthusiasm for carrying it out.
4) If the participants in the eradication programme forget that reducing the spread of AFB is at least as important as trying to find infected colonies, eradication will not be achieved.

The final eradication may be difficult. It will certainly need a new approach. Once AFB has been isolated to some small areas, strategies like extensive inspections and investigations into hive movements can be used to track down the last infected colonies.

In the end eradication can only be achieved by beekeepers, both commercial and hobbyist. Most AFB is found and destroyed by beekeepers and most AFB is spread by beekeepers. No outside agency can do it for beekeepers: it can only assist them. For this reason AFB eradication is about changing beekeepers' beekeeping behaviour.

REPORTING AFB OR REGISTERING AN APIARY?

Please contact your nearest AgriQuality Apicultural Consultant:

- Phone 0508 00 11 22; or
- Write c/-Byron Taylor, Private Bag 3080, Hamilton.

Trees and Shrubs of New Zealand

Pittosporum eugeniodes

Maori Name: Tarata

Common Name: Lemonwood

Although this tree is called lemonwood it isn't the wood that smells of lemons but the crushed leaves and gum.

The Tarata is a white barked tree up to 12 metres high with pale green leaves, often green/yellow in colour. Nurserymen have produced a variegated variety with a sort of white/green leaf.

The flowers are small, greenish yellow and fragrant. The compact mass of flowers appears August to November, depending on altitude.

This is a great nectar and pollen bearing plant. The honey is extra light amber and fine grained, and the pollen is pale yellow.

The Maori collected the gum from the Tarata and used it as a body scent and it was also chewed to get rid of foul breath. The leaves, boiled, were used for relief from rheumatism or sore joints and also as a form of disinfectant.

- Tony Lorimer

NZFSA Update for Beekeepers and Bee Product Processors

Risk Management Programmes and Bee Products Code of Practice (COP)

All bee products for export that require official assurances (export certificates) after 1 July 2006 must come from businesses with a registered Risk Management Programme (RMP) under the Animal Products Act. RMPs are business-specific documented systems designed to ensure that the products are fit for purpose.
To assist businesses to develop their RMPs, a working group of industry representatives have been busy helping the NZFSA develop a COP and RMP template for the bee products sector over the past few months. The draft COP is expected to be completed by December 2004. This draft will be published on the NZFSA website (www.nzfsa.govt.nz) for comment by industry members and other interested parties.

The draft COP can be trialed voluntarily by businesses through the summer of 2005. Feedback from industry trials and consultation will need to be provided to the working group by the end of April 2005. Selected premises trialing the COP are also likely to be asked to undergo trial verification audits to ensure that COP requirements are verifiable in practice. NZFSA staff will also be visiting premises during the extraction season to ensure that all relevant issues have been covered in the COP. This should ensure that the COP is both relevant and practical.

The COP is expected to be finalised by the working group in May 2005 with publication in final form in June 2005. The COP and RMP template can then be used by bee products businesses to develop their RMPs for registration. RMPs will have to be submitted to the NZFSA for registration prior to 1 April 2006 in order to meet the 1 July 2006 deadline.

NZFSA Bee Products Website
NZFSA has just updated its bee products website: http://www.nzfsa.govt.nz/animalproducts/subject/bee-products/index.htm to better describe the regulatory environment for bee products. The pages include new links to relevant documents and should provide a comprehensive resource for all bee people involved in honey production, extraction, packing and export.

Apivar®

Apivar® has now been widely used by commercial beekeepers throughout the North Island for Autumn and Spring treatments and has proved to be highly effective in NZ conditions.

Use Apivar® and keep your queens and bees healthy and your hive products free from residues.

Apivar® is very user friendly and is safe and easy to use.

NEW REDUCED PRICE!!!!!

We have successfully negotiated a new reduced price with the manufacturer. This will be effective for our next shipment, which will arrive in late January.

New reduced prices	
10 – 90 strips	$3.75 each plus G.S.T.
100 – 990 strips	$3.40 each plus G.S.T.
1000 – 4999 strips	$3.10 each plus G.S.T.
5000 plus strips	$2.85 each plus G.S.T.

Price includes delivery. Payment is required in advance by cheque or electronic banking. Call or email for an order form.

N Z Beeswax Ltd

Postal Address
Private Bag
Geraldine 8751

Factory Address
44 Gladstone St
Orari
South Canterbury

Phone: 03 693 9189
Fax: 03 693 9780
Email: info@beeswax.co.nz
Web: www.beeswax.co.nz

Apivar® is the product and the registered trademark of:

Veto-pharma S.A. Véto-pharma
14, avenue du Quebec F-91945 Courtaboeuf Cedex France_

AGRIQUALITY LIMITED REPORT TO THE ANNUAL CONFERENCE OF THE NATIONAL BEEKEEPERS' ASSOCIATION OF NEW ZEALAND: NAPIER 1 JULY 2004

1 PERSONNEL

Apicultural Officers AgriQuality Limited

Murray Reid (Hamilton)
Phone (07) 850 2881;
Fax (07) 850 2801; Mob (021) 972 858
Email reidm@agriquality.com

Byron Taylor (Hamilton)
Phone (07) 850 2867; Fax (07) 850 2801;
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Tony Roper (Christchurch)
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Fax.(03) 358 6222, Mobile (021) 283 1829
Email ropert@agriquality.com

David McMillan (Mosgiel)
Phone (03) 489 0066; Fax (03) 489 0071; Mob (021) 951 625
Email mcmillan@agriquality.com

Further restructuring took place within AgriQuality and a number of officers, who had a role in apiculture, left the company. Among those was Phil Sutton from Timaru. Phil made a valuable contribution to the apiary business during his many years with us. The contribution of Phil and the other officers in helping with auditing work and dealing with outbreaks of AFB, suspect exotics and varroa is gratefully acknowledged. Four Apiary Registrars were also lost to the apiary business during the year. Their contribution over the years in maintaining the database and assisting with outbreak responses is greatly appreciated.

Registrar of Apiaries AgriQuality Limited

Byron Taylor or Murray Reid
Registrars for the North Island.

Carole Lasseter Registrar for the South Island
Phone (03) 358 1732; Fax (03) 358 1733
lasseterc@agriquality.com

2 HONEY PRODUCTION

The honey season returned to the more usual pattern of good crops in some areas and poor crops in other areas, compared to the record harvest in 2002-2003, when all regions experienced an above average crop. Honey production was calculated at 8888 tonnes, down from 12252 tonnes in 2002-03 (see Table 1). The 6-year average is 8941 tonnes.

3 BEEKEEPERS APIARIES AND HIVE STATISTICS

There were 3211 beekeepers, 19592 apiaries and 292530 hives on the 10th of June 2004 compared to 3649 beekeepers, 20228 apiaries and 300729 hives at June 2003. Beekeeper numbers continued to track downwards with a net loss of 438 beekeepers compared to 324 beekeepers in 2003 and 290 in 2002. Over 600 beekeepers cancelled their registrations while 172 new beekeepers entered the industry. The increase in cancellations may be due in part to beekeepers, who have not had bees for some time, advising AgriQuality of their situation when presented with a levy demand. Prior to the varroa

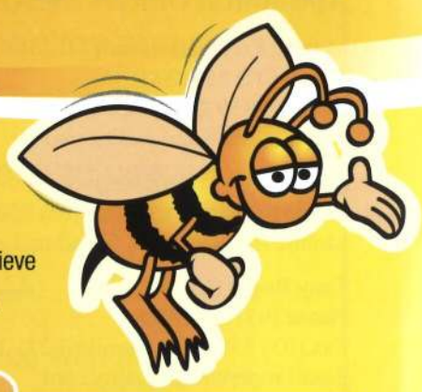
Continued on page 19

Table 1: New Zealand Honey Crop (tonnes)

	1999	2000	2001	2002	2003	2004	6-year average
Northland, Auckland, Hauraki Plains	615	982	869	593	1066	1047	862
Waikato, King Country, Taupo	1617	1434	672	708	2210	1164	1301
Bay of Plenty, Coromandel, Poverty Bay	1800	1300	794	319	2064	2052	1388
Hawkes Bay, Taranaki, Manawatu, Wairarapa	1416	1323	1735	750	1607	1330	1360
Marlborough, Nelson, Westland	770	705	606	300	1350	550	714
Canterbury, North Otago	1782	2310	2743	921	2400	1500	1943
South and Central Otago, Southland	1069	1555	1725	1091	1555	1245	1373
New Zealand	9069	9609	9144	4682	12252	8888	8941
Yield/Hive (kg)	29.9	30.0	29.4	15.0	40.8	30.2	29.1

BeeSafe

Bee Hive Preservation-Guidelines



With the ever-increasing cost of wood and labour you have to make best use of what you have and preserving the wood is a job done once and right.

Using **Hometeams CopperTreat 2 Green** or **ZincTreat 4 Clear** is a good start, making sure you achieve the best performance is reliant on good preparation, understanding the instructions on the label, actual treatment process and drying.

Three methods of treatment

Soak and wrap *- The timber is soaked in* ***CopperTreat 2 Green or ZincTreat 4 Clear*** *solution for one hour, tightly wrap in plastic for three days and then air dry for at least three weeks, depending on temperature. (Penetration is faster at higher temperatures)*

Soak only *- In the past was the most commonly used method but requires more time and stock holding. Soak timber in* ***CopperTreat 2 Green or ZincTreat 4 Clear*** *solution for 12-24 hours, drain and air dry for 1 to 6 weeks, depending on air temperature.*

Flood Brush *- For remedial treatment of made up hives or larger section timbers, flood brushing is best method of application. Using thick brush or roller, apply solution to all sides, ends and edges of the timber, stack to dry with fillets in-between the pieces. Leave to dry until touch dry, re-apply second coat and leave to dry overnight or until fully dry.*

It is imperative to air season the treated timber so that wax or paint will adhere properly. The use of fillets or stickers is essential to allow air movement between the layers of wood.

When assembling ensure any exposed edges or nail holes are brushed with preservative to ensure full and complete coverage.

The use of an external filler is recommended for nail holes or joints.

Good quality Oil or water based paints may be used, but it is recommended that a good quality primer and undercoat sealer is used first and left to fully dry between coats. White is the preferred colour for top coats as cooler in summer and warmer in winter.

Treat well and treat once with **Hometeam CopperTreat 2 Green** and **ZincTreat 4 Clear**. *Available in 5, 10 and 20 litre packs.*

Please refer to label for warning, precaution and first aid guidance.

NORTH ISLAND:
Ceracell Beekeeping Supplies Ltd
Ph 09 274 7236

SOUTH ISLAND:
Beeline Supplies
Ph 03 488 0151

Continued from page 17

outbreak there were 4914 beekeepers, 21793 apiaries and 302988 hives (July 1999).

4 LIVE BEE MOVEMENTS AND EXPORTS

Demand for package bees to Canada was even stronger than the previous calendar year and was due in part to the high prices being paid for honey. For the year ended December 2003, 27281 x 1 kg packages of bees were exported and 6283 queen bees. For the year ended December 2002, 10,780 queen bees and 18,028 x 1 kg packages of bees were exported. Export orders in the autumn of 2004 were higher again but these statistics will be included in the year ending December 2004.

5 PMS SUMMARY

5.1 Disease reports

Between June 1 2003 and May 31 2004, 870 cases of AFB (0.3% of hives) in 422 apiaries were found and reported by beekeepers and/or AgriQuality staff. Of these only 43 cases were found and reported by beekeepers who are not DECA holders. This represents 0.29% of the total number of hives held by non-DECA holders.

AFB-PMS Authorised Persons (AP's) and AgriQuality inspected 1711 hives on 202 apiaries during the last year and found 108 cases of AFB (6.3%). Of these AgriQuality inspected 48 apiaries (418 hives) and found 27 cases of AFB (6.5%) while AFB-PMS AP's inspected 1293 hives and found 81 cases of AFB (6.3%).

5.2 Disease Conformity Agreements (DECA's) & Certificate of Inspection (COI)

As at the end of May 2004 there were 2366 beekeepers with DECA's and a Certificate of Inspection Exemption. These beekeepers are able to inspect their own hives for AFB and make reports to AgriQuality on the authorised forms. No DECA's were revoked in the reporting period although there is one beekeeper currently under review.

There were 845 beekeepers owning 14776 hives on 1650 apiaries, who required a COI at the end of May 2004. The requirement of beekeepers without a DECA to find a beekeeper with a DECA to inspect their hives is an ongoing problem. Many beekeepers sign and return their own COI's i.e. they are not getting their COI's signed by a beekeeper with a DECA. These are usually returned to the beekeepers concerned, and the beekeepers are encouraged to obtain a DECA.

6 EXOTIC BEE DISEASE SURVEILLANCE

6.1 Field Inspection and Sampling

500 apiaries were selected to be inspected and sampled for exotic diseases, with 400 of these coming from high-risk areas and 100 from beekeepers' home apiaries. High-risk areas are those locations considered to have the greatest potential for

entry of exotic bee diseases eg ports, airports, cities and tourist destinations. The high-risk sites were inspected in the South Island, by AP2's and beekeepers, as part of the varroa surveillance programme. In the North Island beekeepers were asked to inspect and sample their own hives and were sent a kit for this purpose. In general the surveillance contract required that the hives on each site:

- Be inspected for exotic bee disease symptoms with any symptoms being sampled (namely European foulbrood, small hive beetle and other sub-species of bees).
- Have a sample of 50 adult bees taken from each hive to be examined for internal mites.
- Have a 24-hour sticky board and miticide sample taken for external mites.

Over and above this programme, a further 300 apiaries were sampled by beekeepers who export live bees. These samples were tested for external and internal mites. All samples to date are negative for exotic bee diseases and pests with the exception of the recent varroa discovery in the South Island, which was detected following a home apiary test. It is becoming more difficult for AgriQuality to find beekeepers who are willing to test their own hives, and a number of kits are still outstanding. These beekeepers are currently being followed up.

6.2 Reports

Each year, reports on surveillance activity are prepared for MAF and the *New Zealand Beekeeper* magazine. These are used to meet our international reporting requirements for New Zealand's bee health status and also to keep New Zealand's beekeepers informed of surveillance activities.

6.3 Surveillance models

A number of meetings were held to develop and cost models for surveillance for exotic bee pests and diseases. These have been presented to the industry for consultation and discussion over funding.

6.4 Beekeeper Extension / Education

A series of articles were written for beekeepers and published in the *New Zealand Beekeeper* magazine. These articles covered issues relating to surveillance and exotic pests and diseases (Asian mite and Africanized honey bee) and their relevance to the New Zealand beekeeping industry. An exotic bee disease web site is under development and will appear on the World Wide Web in the near future.

6.5 Screening of Exotic Bee Disease Inquiries

Each year MAF and AgriQuality Limited receive a number of calls regarding suspect exotic diseases or strange symptoms that beekeepers find in their hives. AgriQuality works with MAF's National Centre for Disease Investigation (NCDI) to screen these calls and determine whether a sample needs to be taken. Often a phone diagnosis can be made which rules out an exotic bee disease or pest.

7 HONEY BEE EXOTIC DISEASE AND PEST RESPONSE (EDPR)

7.1 Testing the new EDPR Model

This year's programme focused on the Small Hive Beetle that is present in Australia. A major field exercise involving AgriQuality and the beekeeping industry was held in Tauranga during April 2004. The exercise was designed to train beekeepers and AgriQuality staff in field response operations and was based around a simulated Small Hive Beetle outbreak. The exercise was well supported by the Bay of Plenty beekeepers, many of whom also attended a one day training course which is a requirement to obtain AP2 warrants.

7.2 Technical Advisors Training

Byron Taylor and David McMillan completed a 2-week study tour to Australia as part of their technical advisor training for exotic diseases. The primary focus of the trip was to study the impact of Small Hive Beetle. They also investigated EFB, exotic surveillance and response programmes and aspects of Australian beekeeping. David and Byron presented a very informative debrief on their findings to MAF and the beekeeping industry at a workshop held in Wellington.

NZFSA/European Union requirements for processing, storing and handling honey destined for the EU

Dear All,

It has been brought to our attention that processing premises supplying honey destined for the European Union are not currently listed with the NZFSA, as required by the 'European Union Animal Products: Overseas Market Access Requirements' (OMAR):

http://www.nzfsa.govt.nz/animalproducts/publications/omar/eun/eu.pdf

Refer in particular to clause 7 (11) (f), of this OMAR. The list that was previously available on the web included exporters, as opposed to processing premises.

Note that a password is required to access this website. All exporters and processors of honey for export should have access to this site to ensure that relevant requirements have been met. Applications for a password can be made online at

http://www.nzfsa.govt.nz/animalproducts/publications/forms/passwd-form.htm

To assist in the full implementation of this requirement, verifiers and certifiers have been advised to continue to operate from the previous list of exporters for a period of three weeks. Premises processing, storing or handling honey destined to the EU are to use this time to complete the attached application form, and to return the form to Bryan Anderson, NZFSA Verification Agency, PO Box 90-101, Invercargill, Email: bryan.anderson@nzfsa.govt.nz, Ph: 03 214 3590 Fax: 03 214 4325.

Please note that to complete the application, evidence must be provided that demonstrates that the processing premises is either:

- registered under Food Hygiene Regulations 1974 or
- operating a registered Risk Management Programme under the Animal Products Act 1999 or
- operating a Food Safety Programme under the Food Act 1981.

Evidence may be provided by way of a copy of the relevant current documentation, as supplied under the respective legislation; e.g., Food Hygiene Regulations certificate.

It is important to note that EU listing for honey processing includes all secondary processors (including extractors), processing, storing or handling honey destined for the EU market. In effect this includes all processors that will require a risk management programme by July 2006 that process, store or handle EU-eligible honey. Export certificates can not be issued for honey that has been derived from non-listed establishments. That is, all secondary processing and storage must be within EU-listed establishments.

Regards,
Steven Ainsworth, Programme Manager (Market Access)
Telecom House, P.O. Box 2835, Wellington
Ph (04) 463 2645, Fax (04) 463 2501

Editor's Note: This notice means that most processing premises in NZ should be registered with the NZFSA.

Swarming solutions

Collecting swarms in a vacuum box

Swarms have been emerging thick and fast this past October, with some the biggest I have ever seen. One was too big for all the bees to fit into a single full-depth box. One theory that has been postulated is that the mites are causing absconding, so every swarm collected should be treated immediately.

How often do you find that the swarm you have been called to is not hanging conveniently on a low branch? For those that are in a tangle of twigs, low to the ground or on a post or wall, some use a vacuum box. This can be a box with no gaps except for an inlet for bees and an outlet for a vacuum source with an internal screen to stop the bees going right through. Of course there has to be a lid, usually sliding, to allow the captives to be introduced into a hive box. If there is power available, two domestic vacuum cleaners in parallel give enough volume, but the domestic hose is so small in diameter that the bees form a blocking ball on the suction side. Some partners are also reluctant to have their vacuum cleaner used for this!

To overcome these problems a swimming pool cleaner hose can be used with a garden blower/sucker. If this is petrol driven, then the range of use is extended. For higher swarms, lengths of rigid plastic pipe extend the reach of the suction. In the middle of the day there will be many bees flying, so you warn the caller that there will be some remainders to be treated with fly spray in the evening, or you may leave the outlet blocked and the inlet open for the latecomers to join their queen. Of course this involves a second visit to reclaim everything.

Combining swarms

The problem with swarms is having enough boxes and frames ready to house all these bees. Being naturally lazy, I thought it was worth trying to just take out a few frames and throw a small swarm in on top of the early boxed small swarm, then replace the frames. Surprise, surprise, this seems to work with very few dead bees pushed out on to the landing board. Don't tell the purists that this has been recommended!

Nearly finished the winter maintenance, but must paint some boxes before the flow starts.

Remember that all strips should come out before the honey boxes go on.

- Ron Morison

From the colonies

Auckland Branch

The Auckland branch will be conducting an AFB disease recognition and destruction course that is open to all or intending beekeepers on *Saturday 19 March 2005, Presbyterian Church Hall, 105 Centreway Road, Orewa, from 10.00 am to 3.00 pm.* The course duration will be 4-1/2 hours.

The course will be followed by the revised competency test. The questions will be taken strictly from the yellow manual, with photos in the questions the same as in the brochure 'Diagnosis of Common Honey Bee Brood diseases and Parasitic Mite Syndrome'. Those wishing to sit the test only can do so. Those wishing to sit a retest only must provide the registered provider certificate from their last training course. Please register interest by contacting Bob Blair, Auckland area disease coordinator, on 09 479 4354, or Bob Russell, the training provider (contact details inside front cover of magazine). To facilitate planning, an early response would be appreciated. Further details provided on registration of interest.

- Bob Russell

Hawkes Bay Branch

Well! The weather has been kinder in the last month and many hives have gone from a bit weak to a bit strong; i.e., swarming. Most pollination hives are out of the apples now but with hives in gold kiwifruit and orchardists spraying carbaryl as a thinning spray, poisoning problems are happening on an almost-daily basis: fortunately so far mostly only light to moderate poisoning has occurred. The regional council is investigating whether to prosecute one case already. Orchardists are going to have to decide whether they want carbaryl as a thinning spray or whether they want beehives. Some years the poisoning in some kiwifruit blocks is so bad that without replacement hives there would be a complete crop failure, and it is not unusual to lose 5% to 10% of queens while they are in the orchards.

- John Berry

Southern North Island Branch

Spring is here: commercial beekeepers are flat out building up hives or watching the ones in pollination. Swarms are happening, which is a problem for some and an opportunity for the hobbyists in the towns to get more bees. We are looking forward to a warm summer with good production of honey.

Queen cells for most, but some have obtained mated queens from up north, so replacements are in full production.

Varroa is having a big impact around Taranaki and parts of Manawatu, especially amongst those hobbyists who have not been careful about regularly checking their hives. The stories that SNI beekeepers have heard from those northern beekeepers are now happening to us — so the motto is test and check and treat.

- Neil Farrer

Nelson Branch

Winter seemed to drag on very long, or was it just that early spring was late and cold? Perhaps this is said every year, but spring has been a difficult one for beekeepers here in the Nelson area. Because winter arrived early, and spring came late, a lot of hives in the higher and colder districts died of starvation. Other hives with spring pollen depletion ended up with good honey stores but dwindling to a few cups of bees, the 'old' bees unable to get out to get pollen to get the queen laying. It would be fair to say that the area in general has fewer hives and perhaps weaker hives than in other springs. Nonetheless, mid October saw a reasonable flow of willow with plentiful pollen and that has been followed by early hawthorn and barberry. Won't be long before we are complaining about swarming, especially with those hives that got fattened up with copious sugar feeds in preparation for pollination. The pollination hives were a very short time in the apples and the berries but there seemed to be higher than usual losses with spray damage. It looks like kiwifruit pollination will be on schedule, starting about the last week of November. It feels more like summer than spring, and queens are getting mated in under two weeks. Queen raising was late getting started due to the cold spring but the process is now in full swing with hot and settled weather abundant.

Of course we were disappointed when the PMS for varroa was approved but now it will be a case of wait and see. We hope that it will help us to remain free of varroa for as long as possible, but of course our biggest worry is that an eradication attempt will occur *when* an incursion is found. The Murchinson experience of a false incursion last autumn gave us little reason to have confidence in the process.

- Merle Moffitt

Canterbury Branch

Sustained inclement weather during this spring has had an effect on the spring build-up of hives. Conditions have generally been cold and wet, with little foraging time for bees to gather the meagre supplies of pollen available from a dwindling pollen source (gorse and broom). Willow flows have been extremely late, with some areas needing feed when one would have expected hives to be gathering. Dandelions are starting to flower and with a bit of luck and fine conditions hives can start to make up lost ground. Queens have been slow to mate and some beekeepers have reported many misses, while others have preferred to postpone splitting hives until conditions improve.

The Canterbury NBA Branch recently made a submission to Environment Canterbury (ECAN) with regard to the proposed Canterbury Natural Resources Regional Plan (NRRP), known as the 'Air Plan'. The ECAN proposal is to ban all outdoor burning of painted and treated wood, plastics and rubber. This is great for the environment but our AFB PMS requirements to burn beehives may place beekeepers in an awkward position to comply with the bylaws and the strategy. We look forward to ECAN addressing our concerns.

The Conference Committee continues to plan for 2005: refer to our advertisement elsewhere in this issue of the magazine.

- Brian Lancaster

Residues in beeswax caused by the use of varroa control products in New Zealand

Peter Lyttle
Managing Director of New Zealand Beeswax Ltd

Recent analysis of combs beeswax has shown high levels of fluvalinate (Apistan).

Since the discovery of varroa in the North Island in 2000 and the subsequent use of products to control varroa mites, residues in beeswax are now becoming an issue.

Beeswax from New Zealand has traditionally enjoyed a reputation of purity and high quality and as such has been able to command a higher price and demand than beeswax from many other countries. Since the widespread contamination of beeswax in other countries from the use of varroacides, uncontaminated beeswax from New Zealand has been sourced for comb foundation production.

Varroacides with hydrophilic (water soluble) active ingredients, such as the organic acids, do not accumulate in beeswax. However, some of the most commonly used strip varroacides used in New Zealand are lipophilic (fat soluble) and do accumulate in beeswax.

The level of residues found in beeswax is determined by the amount of active ingredient used, its chemical properties, the method of application and the duration of the treatment.

Because fluvalinate was the first chemical control used here, and because of the high concentration of the active chemical and its lipophilic nature, it is the most potent contaminant of beeswax, as is the case in other countries where it has been used.

On the other hand, overseas experience is that amitraz (Apivar) and flumethrin (Bayvarol) are rarely detected, as amitraz degrades quickly in beeswax, while flumethrin strips (Bayvarol) contain very small amounts of the active ingredient.

Recent analysis done in NZ on commercial quantities of processed combs beeswax have shown levels of fluvalinate up to 5.1 mg/kg or PPM. While the USA is the only country that has a MRL (maximum residue level) for fluvalinate in beeswax set at 6.0 mg/kg, it would be imprudent to use beeswax with this level of fluvalinate contamination for comb foundation. Flumethrin was not detected above the detection limit of 0.04 mg/kg.

Also the practice of using combs beeswax for priming plastic foundation would be equally imprudent, especially if the combs were being used in honey supers, as this would increase the risk of fluvalinate migration into honey.

Long-term effects of fluvalinate residues on bees and their brood cannot be discounted. It is also recognised that the constant exposure to sublethal varroacide levels favours the selection of resistant mites. Our analysis has shown that fluvalinate residues appear after very few treatments. These residues have been detected in combs beeswax where a maximum of three treatments were used in the first two years of varroa arriving in NZ.

Our main market for combs beeswax is for comb foundation manufacture. Any residues would make it unsuitable for this purpose and of little or no value to us. If a buyer is not worried about residues, they will not buy from a distant country like NZ, but from China or Eastern Europe where the price is half of what we are used to.

The largest user of cappings beeswax in the world is the cosmetic industry. With the global trend towards Good Manufacturing Practice (GMP) and much higher standards of purity of ingredients, it is only a matter of time before buyers and manufacturers ask us to state likely contaminants such as varroa control products.

As beeswax buyers and processors, we urge beekeepers to carefully consider the downstream effects that their varroa treatments may have on the value of their hive products, not just beeswax. Although we already have residues in some beeswax now, we are well behind many other parts of the world and at a stage where we can limit the damage. With the increased costs of operating with varroa, maintaining the value of your hive products is more important than ever.

Sources

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About the Apiary

It's been an interesting spring. Some areas of the country are doing very well while other areas are reporting poor hive conditions with just a handful of bees, in large part due to the harsh autumn. High winds and rainy days meant that the bees were restricted to the hives and brought in very little pollen needed to raise good healthy winter bees, the ones that take the colonies right through to spring. High honey prices have also meant the commercial beekeepers have removed a lot of honey and fed back sugar syrup, which requires a lot of energy to convert into winter stores. This system works well when bees are able to fly and bring in valuable pollen but can put enormous pressure on the bees if flight activity is curtailed. Hence quite a few beekeepers have been feeding pollen supplements to build up colonies.

As of mid October, cold fronts continue to sweep the country every few days and temperatures in the west and south have been low, with only a few days reaching 20 degrees Celsius — the ideal temperature needed for queen mating flights. Conditions underfoot are still very wet and farmers are having a difficult time providing enough feed to keep dairy cows producing.

My bees are a mixed lot. Some of my hives are well ahead and have been split because they are just too strong. This could be because there isn't as much competition for nectar and pollen as my northern hives were ravaged by varroa last autumn and right through the winter from collapsing feral hives. A few apiaries around Otaki lost 50% of their hives from June onwards (quite a shock, as I thought I had learnt to manage varroa). The ones that survived are now springing ahead. Quite a few of the weaker hives marked for queen replacement have superceded, and are bounding ahead from three frames with small patches of brood a month ago to five to six frames of capped brood and a super of bees.

The hives along the coastal strip have done very well on the Willow despite the low cloud and misty days, while those inland are just starting to getting away on the early bush nectar sources such as Rewarewa (*Knightia excelsa*), Lemonwood (*Pittosporum eugenioides*) and Hangehange (*Geniostoma rupestre)* — a very fragrant under-story shrub (i.e., it grows in shady places). Interestingly, R S Walsh's booklet *Nectar and Pollen Sources of New Zealand* lists Hangehange under a different botanical name and said the scent resembles that of a pigsty. Perhaps my sense of smell is out just like John Berry's taste (see his letter to the editor in last month's issue). This early nectar has stimulated some hives into making swarm preparations so I have been splitting them, with the old queen on top and the queen cell below.

So what should we be doing now?
Continue with your 10-day round of quick inspections but before you smoke the entrance prior to opening each hive, take a minute to observe the comings and goings at the entrance.

Bees all over the entrance could be an indication of a strong hive (it may need an extra super) or perhaps drifting. The bees could be defending the entrance against what they see as intruders; i.e., several bees will be held in a submissive position — tail hard down on the bottom board offering nectar to the guard bees. Drifting is caused when the bottom supers are the same colour, facing in the same direction. Don't put hives close together in lines — turn them slightly to eliminate this problem.

Is the hive working at the same rate at the other hives in the apiary? A strong hive not working could be making swarm preparations or it could be starving. Is the hive bringing in pollen, indicating that there is brood in the hive? These observations give you a clue as to what's happening in the hive.

Then proceed with the quick inspection. You are looking for three indicators: whether there is queen cell development along the bottom bars (i.e., when you find an egg in a queen cell bud), whether the hive has enough food and whether the bees have enough space.

When you remove the roof and crown board, look for whether the bees are covering all the frames in the top super. If they are, tilt the hive back to expose the underside of the bottom super. Are the bees covering all these frames? If so, the hive needs another super, which you should do after you complete your inspection.

Right the hive and crack the top super with your hive tool. Tilt it back to expose the underside of the bottom bars. This is where you are likely to see queen cell buds. With the light behind you, look for an egg or royal jelly in these cells. If none, all is well.

As you right the super, judge its weight, then look into the outside frames to ascertain if there is capped honey. If you're not sure, lift out a couple of outside frames to see how much honey is in the hive. Don't let its stores go below three frames of honey — a week's supply for a strong hive. Feed if in doubt. That's all that is required; it's very quick and simple.

Strong hives with developing queen cells have to be attended to on the spot. If you have more than one hive, consider swapping a strong hive with a weaker one but before doing this, you need to determine whether it's swarming or superseding.

If there's a spotty brood pattern (no eggs or only a few eggs), has less than five queen cells, then it's most likely to be superseding — leave it alone. If the hive is strong, has lots of capped brood frames and lots of queen cells, it's going to swarm. Go through the hive starting with the bottom super: quickly inspect all the frames of brood, one by one, for queen cells. Some will be buried amongst the bees so it is necessary before totally removing the frame from the super to give each frame a light shake to remove half the bees. Remove all the queen cells with your hive tool, but also look at the emerging brood to determine the hive is disease free. Put the hive back together and swap this hive for a weaker one. The strong hive loses a lot of field bees, reducing the likelihood of swarming, and the weaker hive gets a boost of bees that enables the queen to lay over a greater area. Don't miss out the AFB check.

Then once a month do a more comprehensive inspection. Reverse the bottom two brood supers so that the queen always has somewhere to lay (bees gradually move upwards). It's important to remember when you are inspecting the brood nest that you are looking at what happened 15 days ago. To see how things are going now, look for whether there are eggs in all cells where brood has emerged and that there is pollen and fresh nectar around the edge of the brood frames. If you do not have pollen and nectar, feed the hive.

You may also notice that the brood may be confined to perhaps five or six frames in a super. Look carefully and you will find a pollen frame on the outside of the brood. Queens generally will not lay past a pollen frame, although when the hive gets crowded they do. Look at the frame containing the pollen. Is there pollen on one side and hardly anything on the other? If so, turn the frame around so that the majority of the pollen is to the outside. This allows the queen to lay on the other side of the frame, which will expand the brood nest. If the frame has pollen on both sides, move this frame out by one position and replace the space made with a drawn frame.

If the hive has brood right up through the center of the supers (the chimney effect), reorganise all the brood into a single super and allow free super space above for expansion.

As soon as the bees start storing honey in the hive, move a few outside honey frames up into the centre of the next super to draw the bees up and put a frame of foundation into the middle of the brood nest and fill the other spaces with drawn comb. By this time, you have strong hives and there is very little chance when moving the brood frames out one space that they'll get chilled.

Now all we need to do is maintain the hives through November so that they continue to expand in bee numbers without swarming. Sounds easy but you also have an added complication in some rural areas; i.e., during November there is a break in nectar flows (called the 'June gap' in the northern hemisphere) where hives will need feeding to keep things ticking over but not enough to encourage them to swarm. I do this by adding raw sugar to the top feeder. If you don't have a top feeder, a frame feeder will do. Bees will only work raw sugar if there isn't an alternative source. Consequently some hives work the sugar; others will leave it alone until they need it. Top feeders also give me an indication of hive strength. When bees start clustering in the feeder, it's time to add more supers.

What is most important is that the queen continues laying right up until the main honey flow. If a hive runs short of stores, the first thing that happens is that the queen will stop laying. If the hive is severely short of food, the bees will cannibalise the brood. Generally the first indication that the bees are starving is that there is no flight activity at the entrance and there are bees crawling over the front of the bottom board and into the grass. The hive will also feel light and when an outside frame is lifted out of the top super, the bees fall off. At this stage the hive could have been starving for over a week and needs immediate attention. Feed warm syrup or borrow some frames of honey from an adjacent hive (after inspecting each hive for AFB), scratch an area of cappings to expose the honey and put the frame into the hive close to the bees. The bees will start feeding each other and should recover within an hour.

Supering

Supering is important. You have to super ahead of time so the bees have space. The bees from a super of capped brood need to have somewhere to go once they emerge. Also, empty frames above the brood nest encourage bees to gather nectar.

At the beginning of the main honey flow, don't just put on one super at a time: a strong hive will fill a super in a week. Don't wait until the hives are packed out with honey before adding extra supers; you could have missed out on a super of honey if the flow is short.

For those new beekeepers who have only foundation to place in supers, space the foundation between drawn frames and the bees will draw it out quicker. You will also encourage the bees to produce more if you 'under super'. That is, when a super is partly full, you lift it off, put a new one immediately above the brood nest and then replace the partly filled super on top. Commercial beekeepers don't have time to do this: they merely add two or three supers on top and then add any extras if required on subsequent rounds.

Some prefer to let their hives go only four supers high: removing capped supers as they are filled, extracting them and then putting the 'wets' back on again. The wet (sticky) frames encourage the bees into bring in more nectar. It's up to you which method best suits your area and your operation. There's no right or wrong way. Just remember to remove honey frames only when they are fully capped or at least five-eighths capped and when honey is ripe; i.e., it doesn't come out when the frame is given a quick shake.

Varroa

For those in the varroa-affected areas, it's almost time to remove the strips. Plan to have the strips out of your hives at least a week before the honey flow begins. This will give the bees time to remove the active ingredients from their bodies so that residues are not transferred into the honey supers. Whatever else you do, plan to monitor varroa numbers monthly from now on. In some areas, hives are still collapsing, which means varroa mite numbers will suddenly increase in the hives around the collapsing hive. It will only take a week at an invasion level of 200 mites a day to reach the 1000 mite threshold. A further month of invasion and the hive will be dead.

There are several methods of monitoring mite levels: sampling drone brood, natural mite fall, sugar shake or an Apistan strip in a jar of 300 bees. (Refer to your MAF *Control of Varroa* manual for details).

Some beekeepers have also been putting in one or two 3/4-depth frames in full depth supers so the bees build drone comb in the space below these frames. Every 15 days they cut out the capped drone brood, which removes a high proportion of the varroa mite from the hive. This is part of an Integrated Pest Management (IPM) technique developed in Europe that helps to control the build up of varroa in the spring without the use of harsh chemicals. Please remember that IPM techniques only work after the acute invasion phase has passed,

so give your hives full protection in the first two years by using strips.

Incidentally, Neil Farrer (Secretary of the Wanganui Beekeepers Club) has found that the sugar-shake method to be just as accurate as the Apistan jar method, if you leave the jar of bees in the shade for half an hour before releasing them. His method is to collect the brood nest bees, apply the sugar, give them a good shake then leave the jar beside the shady side of the hive while proceeding to inspect the rest of the hives in the apiary.

Upon completion, the jars are upended on to a white surface and the sugar and mites shaken out. The bees are then released back into the entrance of the hive. Otherwise use the method advocated in the MAF varroa manual: collect 300 bees, put in the icing sugar, shake for 30 seconds, pour out the sugar (and mites) and then add some more icing sugar and shake again, but Neil found that a much better result was obtained if the bees were left in the jar for at least 20 minutes.

I prefer to use mesh bottom boards to monitor natural mite fall. They are quick to read and easy to clean using a machete. They also give an indication of how the bees are doing. Small colonies hardly leave any dross on the slides while large hives are very messy. It doesn't take long to appreciate just how much work the bees do to keep the bottom boards clean. You then start to notice just how well the grass grows within two metres of a hive, having been well fertilised by bee droppings. I'm having to move hives in some apiaries as the bush has grown so much in the last 10 years that the hives are now in shade. Yet there is very little growth about 10 metres away. All that unseen compost. All those little dots you see on your neighbours' cars when you have a beehive in the garden.

Things to do this month:
Check feed, check pollen, AFB check, raise queen cells, requeen hives, swarm control, cull out old or broken frames, fit foundation into comb honey and replacement frames. Wax the plastic frames if you use them, remove all varroa treatments from hives before the flow starts.

- Frank Lindsay

Hangehange

Lemonwood

Photos by Frank Lindsay

History revisited: Canterbury Beekeepers' Association Annual Field Day, 1913

An Afternoon with the Bees — The Question of Export

On Saturday week the members of the Canterbury Beekeepers' Association held their annual field day at Mr R.N. Gidley's apiary, at Lakeside.

The Christchurch members of the Association journeyed in a large dray, and on arrival at Lakeside they were met by local members, and quite a number of people interested in beekeeping who were present at the invitation of the Association.

A fair proportion of those who attended were ladies, who took a keen interest in the proceedings. Mr Bowman, Government Inspector of Apiaries, was present and took an active part in connection with the day's programme.

The spot selected for the gathering was an ideal one, the apiary being well sheltered from the prevailing winds, while some trees in the adjoining grounds provided nice shaded spots for those who desired to escape the burning heat of the sun.

The district surrounding Mr Gidley's place is rich fertile country, a good deal of which is showing splendid crops of both white and red clover, not to mention other vegetation from which the best quality of honey is obtained.

The apiary, which at present comprises about a hundred and twenty hives of bees, has not long been established at Lakeside, Mr Gidley having brought his bees from Fendalton last September.

To convey some seventy colonies of bees from Fendalton to Lakeside was anything but a small job. Rather than run any risk by sending the hives by rail to Doyleston, and then transporting them by vehicle to Lakeside, Mr Gidley preferred to cart them, several hives at a time in a spring dray, and the magnitude of the task he undertook can be imagined when it is stated that twenty seven trips were made.

At the time Mr Gidley established his apiary at Lakeside the prospects for the ensuing honey season did not look at all bright, the continued wet weather keeping the clover back and preventing the bees doing their work.

With improved weather conditions, however, matters brightened up, vegetation came ahead fast, and by the middle of November there was as fine a showing of white clover — from which the best honey is obtained — as has been seen in the Ellesmere district for many years.

The result was that the bees filled their hives very rapidly, and the proprietor of the apiary was obliged to keep on adding supers and half supers in order to give the bees room to store away the honey.

Though Mr Gidley has been busy extracting the honey for some time past he has not been able to get ahead of the bees, and in several cases as many as seven boxes, known as supers and half supers, have been added to the colonies.

These presented a very pleasing sight to those who attended the field day on Saturday.

Upon arrival at the scene of operations, about noon, the visitors were welcomed by Mr Gidley and lunch was the first item on the programme.

After lunch short addresses were given by Mr Ward, president of the Beekeepers' Association, and by Mr Bowman.

Reference was made to the steady growth of the industry, and to the assistance the Government was giving bee-keepers.

The inspector touched upon foul brood, and remarked how important it was that every effort should be made to stamp out the disease.

Some bee-keepers who kept only a few hives, had been under the impression that it did not matter if their bees were affected with foul brood, but in going round the district he had impressed upon them the serious nature of the disease, and had pointed out that one hive affected with foul brood might in time spread the infection through the large apiaries with very serious consequences.

There were, no doubt, men who thought he had been rather hard on them in compelling them to destroy infected hives, but he would assure them that such steps were necessary in the interests of the industry.

The Government was most anxious to do all it could to foster the industry, but bee-keepers would have to do their part.

It was no uncommon thing to hear persons criticising the Government for being behind time, and not giving an industry enough assistance, but in the case of the bee-keeping industry the Government was well ahead.

He had been instructed by his chief, Mr Kirk, to report on the question of grading honey for export, so that the Government would be ready when an exporting trade commenced.

The inspector went on to emphasise the value of honey as a food, mentioning that it was of greater value than beef.

He also touched upon co-operation and urged apiarists to combine to further their own interests.

An adjournment was then made to the apiary, those present having provided themselves with veils as protection from any unkindly attentions that the honey gatherers might pay them.

A correspondent of "The Weekly Press" was present, at the invitation of the Association, and being anxious to see the inner workings of an apiary, he borrowed a veil from a beekeeper who had brought two extra ones.

With his head securely fixed inside the veil — the first he had ever worn — the newspaper representative sallied forth, along with the inspector and other apiarists, and as a result of the demonstrations given by experts he was able to make a more intimate acquaintanceship with the bees and their workings than he had ever been able to do before — probably because he had long harboured a secret grievance against all bees because of some swellings they had caused in years gone by.

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The afternoon was exceedingly warm, and as a result the bees were hard at work, and evidently in an amiable mood, for they raised no serious objection to being handled and shaken by those who gave the demonstrations.

The instructor having removed the top from a hive, proceeded to remove some of the frames containing honey, at the same time speaking upon the elementary stages of bee-keeping, for the benefit of beginners, of whom there was a fair number present.

The queen bee was shown and the other bees were seen at work.

The inspector gave a great deal of information on various points, and answered numerous questions put to him by interested spectators.

Following this, Mr Gidley opened up one of his most prosperous hives and explained the progress made by the bees in honey gathering during certain periods.

The proceedings were watched with the keenest interest, Mr Ward, president of the Association, took advantage of the occasion to secure several photographs.

An adjournment was then made to Mr Gidley's honey room, where extracting and other matters were dealt with.

Before the honey can be extracted the wax must be removed from the end of the cells.

An arrangement called an "uncapped tin" is used.

This consists of two fair-sized cans of different sizes, one of which goes inside the other, the outer can being filled with water.

A lamp placed below heats the water and keeps the uncapping knives warm.

With these knives the apiarist removes the capping or wax at the end of the cells, and this wax drops into the tin arrangement.

The heat of the water melts the honey which runs out from a tap at the bottom of the tin while the wax is also boiled down.

After being uncapped the frames of honey are put into an extractor and the honey is taken out very quickly, the empty combs being returned to the hives to be refilled by the bees.

After this, Mr Ireland, a leading member of the Association, gave an address on co-operation and agriculture generally.

Dealing with the subject of co-operation, Mr Ireland said that the bee-keeping industry had made considerable progress of late, and the result was that they were now producing more honey than was required for local consumption.

In other words there was a glut in the honey market, and prices were likely to be very low.

It was necessary therefore, that the surplus stock of honey should be exported in order that producers should get a fair return for their products.

The industry at present occupied much the same position as the butter and meat positions occupied years ago.

They all knew what co-operation and exporting had done for these industries and the same might be done for the honey industry.

He suggested the establishment of some co-operative concern to buy the honey from producers for sale locally as well as for export. The price could then be regulated in the interests of bee-keepers.

He strongly urged all bee-keepers present to join the Association and help in putting the industry on a sounder working basis.

The Inspector, in dealing with the subject of co-operation and the exporting of honey, assured those present that there was a good demand at Home for New Zealand honey.

He had seen honey sold in pound packages at Home at 10d, and 1s per lb. England at present drew supplies from Africa, India, Australia, Jamaica, Chile and other sources.

From what he had seen he had no hesitation in saying that the honey produced in this country was equal to the best that could be obtained from any country.

Of course, it was absolutely essential that they should export nothing but their very best if they were to establish a market at Home.

It was necessary that regular shipments should be sent home when the export trade became established.

A good number of bee-keepers became members of the Association at the close of the day.

After tea, the party left by dray for their homes having thoroughly enjoyed the outing.

- *From* Ellesmere Echo, *July 7 and July 21, 2004. Original story from* The Weekly Press, *January 29, 1913. Reprinted with permission of Kathy Grant, Editor,* Ellesmere Echo.

Queen honey bee introduction and early survival — effects of queen age at introduction

This article has been abridged from **Apidologie** *35 (2004) 383–388.* **New Zealand Beekeeper** *gratefully acknowledges the authors for their permission to reprint an abridged version of this article, which excludes tabular material and some technical explanations in the results section of the paper.*

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Abstract — The survival of honey bee *Apis mellifera* queens to 14 days and 15 weeks after introduction into an established bee colony increases with increasing age of the queen at introduction. Survival rates increased strongly to high levels for queen bees introduced between 7 and 24 days of age and at a slower rate for queens introduced at ages up to 35 days. The survival rates were similar for sister queens introduced into two unrelated apiaries suggesting that apiary site and beekeeper management differences had minimal effect on survival rates. A year effect was found but the response to increasing age was similar for the three years.

Keywords — Apis mellifera / queen age / queen introduction / queen survival

1. Introduction

Over recent years commercial honey producers in Australia have reported that the numbers of commercially reared queen bees surviving introduction into established honey production hives are often low, or they may have a satisfactory introduction survival rate but poor performance by the surviving queen bees. Similar problems have been reported in North America (Camazine et al., 1998; Bach, 1993) with a number of possible causes being suggested.

One factor not discussed is the effect of queen age at introduction. Little or no data are available on the earliest age that queen bees can be introduced into established bee colonies to provide the highest introduction and early survival success rates. To provide data on this subject a three year study, 1999–2001, investigated introduction and early survival success rates of commercially reared queen bees.

This paper discusses queen bee survival rates of sister queen bees caught from their mating nucleus or from a queen bank at a range of ages between 7 and 35 days of age and introduced into established bee colonies 36-48 h after being caught.

2. Materials and methods

2.1. Queen bees and apiaries

A commercial queen bee breeder based in south eastern Queensland provided queen bees for the three years of the project. Two commercial honey producers based in the south eastern (Apiary A) and in the north western (Apiary B) districts of New South Wales provided commercially managed honey production apiaries for queen bee evaluation each year. The three locations represent widely different climate zones.

Sufficient numbers of test queen bees for each year's experiments were reared at the considered peak queen bee production time (October–November) from two sister (year 1) and one (years 2 and 3) Italian race type *Apis mellifera* II breeder queen bees. Different breeder queens were used each year, all were provided from a breeding program utilising homogenised semen in its II program. All queen cells were grafted on the same day, reared in colonies in the same cell rearing apiary, and all queens were mated in the same queen mating apiary at the same time each year. Queen bees caught at 7 days of age had not commenced laying while all queen bees caught at 14 days and older had commenced laying. Drone mother colonies were managed to provide mature age drones at the time test queens were expected to be mating. Queen mating apiaries were encircled by drone mother colonies distributed at three sites 2.3, 1.5 and 1.0 km from the mating apiary.

Each commercial honey producer provided a 100 hive apiary which required requeening each year of the experiment.

2.2. Field project

2.2.1. Queen age at introduction

For years 1 and 2 (1999 and 2000), queen bees were caught from their mating nucleus at 7, 14, 21, 28 and 35 days of age. Twenty queens of each age were sent to each of the two honey producers.

For year 3 (2001), some queen bees were caught from their mating nucleus at 17, 24 and 31 days of age, and others were caught at 17 days of age, placed in a queen bank for 7 or 14 days, and taken from the queen bank and introduced into honey production hives at 24 and 31 days of age. Twenty 17 day old queens were sent to the two honey producers. For 24 and 31 day old queens, the two honey producers each received 20 queens caught from their mating nucleus and 20 queens taken from the queen bank.

Queen bees caught from their mating nucleus were marked on the thorax with a Posca® water based marking pen at 7, 14 or 17 days of age, queen bees placed in the queen bank were marked on removal from the queen bank.

For the purpose of this paper, the age queen bees were caught from their mating nucleus or queen bank is referred to as the Introduction Age. In practice, following transport time between the queen bee breeder and the honey producer, all queen bees were physically introduced into bee colonies between 36 and 48 h after being caught from their mating nucleus or queen bank.

2.2.2. Queen introduction

Queen bees were subjected to the normal management practices used by each honey producer when receiving and introducing queen bees. In Apiary A, queen bees were introduced in Benton type mailing cages with six escort bees present and in Apiary B, Miller type introduction cages were used with the escort bees removed. Queen candy used in the Benton type mailing cages was manufactured by the queen bee supplier and a commercial brand queen candy was used in the Miller type cages.

2.2.3. Queen survival and performance data

Data were collected on queen bee survival to provide the following information:

- Introduction Survival Success (ISS) – all hives which had a marked queen introduced were examined 14 days after introduction and the presence or absence of the marked queen recorded.
- Early Survival Success (ESS) –all hives containing a marked queen 14 days after introduction were examined a second time 15 weeks after the queen introduction and the presence or absence of the marked queen recorded.

3. Results

Queen bee survival data for 1999, 2000 and 2001 are shown in Table I with fitted curves for Introduction Survival Success and Early Survival Success shown in Figure 1.

This final model implies that survival rates are a function of age with survival rates being lower in some years but having a similar response to age in each of the three years, while there were no significant differences due to the apiaries used.

The predictions are for the average over the three years of the experiment. The predicted values and SE's for ISS at 7, 14, 21, 28 and 35 days were 21.0 (5.5), 58.6 (5.6), 82.2 (3.6), 90.1 (2.2) and 91.6 (3.0) percent survival, for ESS they were 19.9 (5.2), 48.2 (5.0), 69.5 (4.3), 79.0 (3.2) and 80.6 (4.3) percent survival. The curvilinear response to age indicates that while survival rate increases over the interval 7 to 35 days, the rate of increase in survival rate decreases as age increases. Most increase occurs before 28 days. Note that data for queens caught from a queen bank were not included in the analysis because they were collected only in 2001 for queen bees aged 24 and 31 days.

When data from the non egg laying queens were omitted and the models refitted the predicted values and SE's for ISS at 14, 21, 28 and 35 days were 57.6 (7.0), 82.6 (3.9), 90.4 (2.4) and 91.3 (3.3) percent survival, for ESS they were 47.7 (6.4), 69.6 (4.5), 79.2 (3.6) and 80.4 (4.5) percent survival. The response of survival rate to increasing age is similar to the response obtained when data for the egg laying and non egg laying queens were used to fit the curve.

Other factors
Climate, foraging (availability of nectar and pollen) and general hive conditions during the production of experimental queens and for both commercial honey production apiaries for the duration of the 1999, 2000 and 2001 projects were average to very good. Although 1999 provided the best overall foraging conditions, queen survival rates were lowest.

4. Discussion

Based on the number of queen bees surviving the first 14 days following introduction, and supported by the number of queens surviving 15 weeks after introduction, the accepted beekeeping management practice of catching queen bees from their mating nucleus at between 14 and 21 days of age for immediate introduction into established bee colonies on arrival at their destination must be questioned.

For this experiment, the highest introduction survival rate obtained was 92.5% for 35 day old queens 14 days after introduction which is less than the 100% ideal success rate indicating that factors not covered by this experiment are also involved in introduction survival.

The small survival advantage av. 2.5% from holding queen bees from 28 days to 35 days before catching suggests that from a practical beekeeping management aspect, the earliest age to catch queens from their mating nucleus for introduction into established bee colonies is about 28 days of age.

The 2001 experiment attempted to determine whether queen bees caught from their mating nucleus at a young age and held in a queen bank to age them before introduction into established bee colonies was as effective as holding queens in their mating nucleus. Results were inconclusive, data obtained suggest that catching queen bees from their mating nucleus at 17 days of age and holding them in a queen bank to an age between 24 and 31 days may be a satisfactory and less expensive method for aging queen bees prior to introduction into established bee colonies but the survival rates appeared slightly lower than aging them to the same age in the mating nucleus. This management procedure requires further investigation.

Seven day old queens had not commenced laying when caught, this factor may be reflected in the large introduction survival differences between 7 day old and older queens which had commenced laying when caught. The response of survival rate to increasing age when data from the 7 day old non egg laying queens were omitted is similar to the response obtained when data for egg laying and non egg laying queens were used suggesting that increased survival can be attributed to increased age and not whether the queens were laying or non laying when caught prior to shipping.

Under the conditions of this experiment the low survival rates 14 days after introduction demonstrate that 7, 14 and 17 days are not satisfactory ages to catch queens for introduction into established colonies. For queen bees caught from their mating nucleus at 21 days of age the survival rate 14 days after introduction averaged 82.5% which was improved further to an average of 90% for queen bees caught at 28 days of age.

The benefits from increased numbers of queen bees surviving the introduction process were retained with increased numbers of queens surviving 15 weeks after introduction.

There were no significant differences between survival rates for queen bees of each age group introduced into bee colonies at either Apiary A or Apiary B, suggesting that apiary site and beekeeper management differences had minimal effects on survival rates.

The project identified a year effect on queen bee survival following introduction. Data from the 1999 season provided lower queen survival across all age groups of queen bees. Queen bees used each year were sister queens reared from related but different II queen mothers. Seasonal effects and genotypic differences between each year's queens would have contributed to the lower survival rate recorded in 1999.

Test queen bees were reared at the same time and introduced over a number of weeks. For each year's test queens, rearing conditions were constant but introduction conditions may have varied. There was no significant difference in survival rates between queens introduced at the two climatically separated apiaries used each year suggesting that conditions at introduction had minimal effect on queen survival.

Beekeepers can expect an economic benefit from introducing queen bees that are 28 days of age or older. The benefit derives from reducing queen loss in colonies 15 weeks after introduction from 30.5% when queens are caught at 21 days to 21% for queens caught at 28 days. Costs to the beekeeper when purchasing and introducing young queens into bee colonies are relatively low when compared with benefits provided from requeening (Mangum, 1997). Costs to the beekeeper when requeening increase substantially when an introduced queen bee fails to be accepted or is superseded a short time after being accepted.

Colony population can decline rapidly during queen replacement and for several weeks afterwards (Tarpy et al., 2000). Increased costs result from replacement queen costs, travel and labour costs involved in requeening a colony in which queen removal was not controlled by the beekeeper, and loss of colony population growth and production following an uncontrolled period without a queen.

Improved survival benefits from introducing queen bees at an older age should encourage beekeepers to select queen bees that are 28 days of age or older at introduction in their requeening management programs.

Acknowledgements

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The project was funded by the Honey Bee Program, Rural Industries Research and Development Corporation, Canberra, Australia. The New South Wales Department of Agriculture provided staff and facilities.

FSANZ issues advice to fructose intolerant people to avoid new food ingredient: tagatose

Food Standards Australia New Zealand's Chief Medical Adviser, Dr Bob Boyd, has issued advice for people who are fructose intolerant to avoid the novel food tagatose.

"Tagatose is a new food ingredient that has recently been approved by FSANZ as a lower kilojoule substitute for sugar. Tagatose occurs naturally at low levels in the gum from *Sterculiasetigera* (an evergreen tree), as well as heated cows' milk and other dairy products. It is safe for the general population but, because tagatose is metabolised in the same way as fructose, FSANZ considers that foods containing tagatose would not be suitable for people who are fructose intolerant," Dr Boyd said.

"About one person in every 22,000 of the population may have fructose intolerance where they have an absence of enzymes in the body which digest fructose (a naturally occurring fruit sugar, used as a sweetener in foods and beverages). Such individuals are also unable to tolerate sucrose (table sugar), which is broken down in the gut to glucose and fructose.

"If they consume foods containing fructose or sucrose it can result in low blood sugar, severe abdominal symptoms, and eventually jaundice and liver damage if consumption continues. The condition is usually detected in early childhood, and the most effective form of treatment is to eliminate fructose and sucrose from the diet and use alternative sweeteners if needed.

"Individuals who are fructose intolerant are also likely to be intolerant to tagatose therefore avoidance is recommended. The best way to avoid tagatose is to check the ingredient list of food products where it will be listed," Dr Boyd concluded.

The types of foods that may contain tagatose are:

- breakfast cereals
- carbonated and non-carbonated diet soft drinks
- low fat/fat free ice cream and frozen dairy desserts
- diet/health bars
- diet soft confectionary
- hard confectionary
- chewing gum
- icings and frostings
- special purpose foods/meal replacements.

More information about tagatose, a fact sheet: 'Information about Tagatose for Individuals with Disorders in Fructose Metabolism' can be found on the FSANZ website at www.foodstandards.gov.au.

FSANZ Review of Novel Foods

FSANZ has raised a pre-Proposal to review Standard 1.5.1 – Novel Foods – of the Code. This review is being undertaken in accordance with policy guidance received from the Australia and New Zealand Food Regulation Ministerial Council in December 2003. The main elements of the policy guidance are that FSANZ:

- Raise a proposal to review Standard 1.5.1 – Novel Foods – of the Code.
- Recognise that the standard is there to ensure the safety of new foods coming on to the market and that the standard reflects a risk based approach.
- Use a reference group that includes representatives from relevant Australian Government, New Zealand and State and Territory enforcement agencies to provide advice in reviewing the Standard.
- Consider, as part of the review process, the issues raised by stakeholders during the Food Regulation Standing Committee (FRSC) consultation including subjectivity, scope of the definition, protection of information, and level of assessment to be commensurate with level of risk; and
- Review the user guide to reflect any amendments made as a result of the review. The guide should give greater clarity about the process FSANZ takes in determining if a food is a novel food.

To assist in the review of novel foods, a Standard Development Advisory Committee (SDAC) has been formed to provide advice to FSANZ. The SDAC has 16 members, including representatives from government, industry, public health/ nutrition and consumers, and Professor Chris Hudson will attend as the FSANZ Board observer. The SDAC met for the first time on 23 September 2004 in Canberra to discuss the relevant issues. The discussion at this meeting will inform the Initial Assessment Report, which, subject to consideration by the FSANZ Board, will subsequently be released for public comment. The SDAC will have an ongoing involvement during the course of the review and will likely meet for the second time in early to mid 2005 to discuss issues that are raised in public submissions to the Initial Assessment Report.

Some of the main issues to be addressed during the review include: options for the regulation of novel foods; the definitions for non-traditional and novel provided in the Standard; the operation of the Standard, including how determinations are made as to whether a food is deemed novel or not; enforcement of the Standard; data requirements for the assessments of novel foods; and examination of the inter-relationships with other Standards and the foods-therapeutic goods interface. The review will also consider the need to regulate food produced from new technologies.

FSANZ has assessed and approved the following novel foods in accordance with Standard 1.5.1: Docosahexaenoic acid derived from marine micro-algae (*Schizochytrium*sp.); γ–Cyclodextrin; D-Tagatose; Trehalose; Phytosterol esters (for use in certain foods only); and Tall oil phytosterols (for use in certain foods only). The review of novel foods will not revisit these existing permissions for novel foods. FSANZ is currently assessing a number of Applications for novel foods against the existing Standard, and these Applications will progress in tandem with the review.

- Information provided by Food Standards Authority Australia New Zealand (FSANZ)

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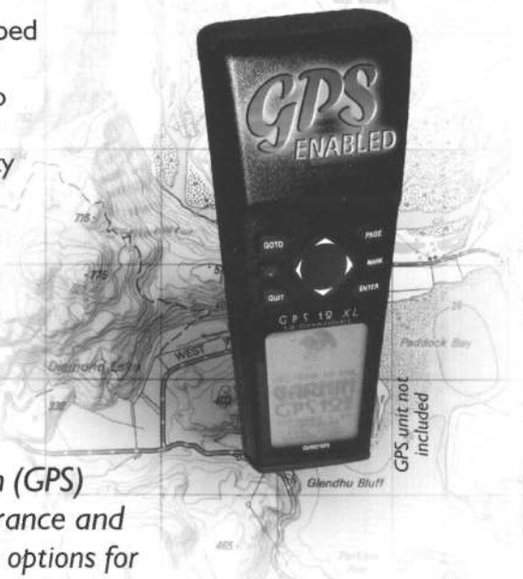

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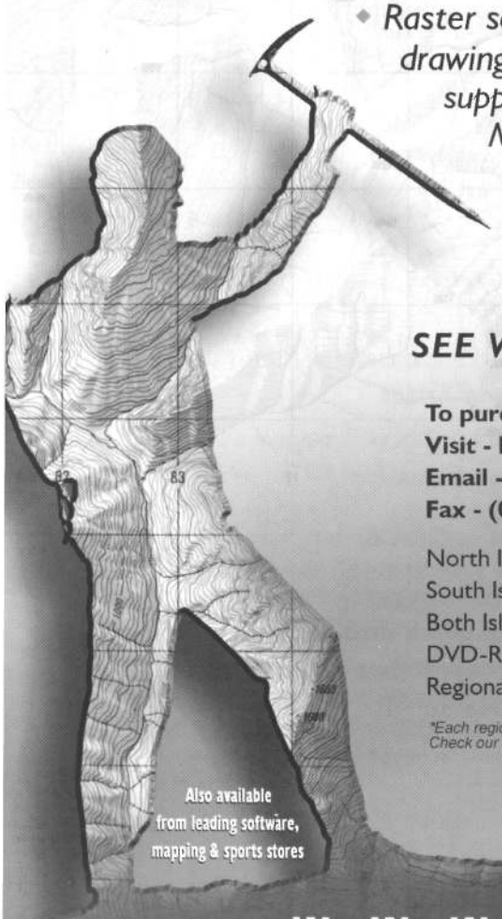

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Letters to the Editor

Changes to management of the AFB Pest Management Strategy

There has been a significant change to the management structure of the Pest Management Strategy (PMS), which all beekeepers as levy payers need to be informed about. Up to the middle of this year the PMS has been run by two committees. Overall management was the responsibility of the Executive of NBA, while the operation of the PMS was managed and run by the Operations Committee. The Executive of NBA, as the appointed Management Agency, has now decided to disband the Operations Committee and, with the Manager, administer the operational aspects of the PMS itself. This means that the Executive now have undertaken both the roles of governance and operations. We all as beekeepers and levy payers need to be assured that the bigger picture of policy, reporting to Government, both administrative and financial, plus the day-to-day operational aspects is going to continue to happen.

The AFB PMS, established under the Biosecurity (National American Foulbrood Pest Management Strategy) Order in Council 1998, sets the rules, and obligations for beekeepers, and the Biosecurity (American Foulbrood – Apiary and Beekeeper Levy) Order in Council 2003, establishes the levy to be paid by all beekeepers. For the first five years the commodity levy system was used to fund the PMS program as well as all other functions of NBA from the one bank account. With the expiration of this Levy Order in 2002, the NBA became a voluntary organisation, and the funding system for the PMS was non-existent, until the Biosecurity Order in Council 2003 laid down the rules and amounts to be paid by all beekeepers.

The overall performance of the PMS is a NBA responsibility under their appointment, by Government, as the Management Agency. Over the first six years there have been problems both administrative and operational. Beekeepers have also caused problems by non-compliance and failure to pay levies due. Unfortunately the NBA Executive of the time did not have a robust accounting ability to handle the financial responsibilities; now all PMS levy funds are processed through a separate bank account.

It is part of the NBA's responsibility, as Management Agency, to ensure that that an operational plan is produced each year, and to see that the plan is followed. If things slip in any one area it is the Executive's task to immediately put matters into place to ensure that the operational plan is back on track and all areas correctly addressed. Executive have often been confused with their role and been a de facto second operations committee instead of making policy and then passing the operation of that policy to the Operations Committee. At times there have been communication problems between the two committees. The Operations Committee has always sought approval and guidance from the NBA Executive for the major matters but delays or negative decisions have frustrated the efforts of the Operations Committee to get things done.

Both the NBA Executive and the Operations Committee were comprised of voluntary workers who are trying to run their own businesses and also attend to the many duties of NBA and the PMS, and this has caused some difficulties. In Auckland the two-tiered structure was approved by Conference. At Conference in Nelson, the committee structure was endorsed as it was clear at that stage that running the PMS was too big for the Executive to manage and do everything else that we expect unpaid executives of NBA to carry out. Now, however, the Executive has decided to take over both roles.

The Operations Committee (now disbanded) has achieved a lot in the last 18 months:

1. appointment of a part-time manager whose role is to carry out specific tasks
2. finally got Executive to untangle PMS funds and accounts from the NBA finances
3. with PMS Manager, the Operations Committee has created a financial record of 2003 and 2004 years (to 30 June each year) and identified those beekeepers that have not paid according to the PMS Regulations set by Government. Debtors will be followed up
4. commenced arrangements to auditing and inspection of apiaries in the North and South Islands as per our legal requirements
5. arranged a review and revision of the DECA testing papers and systems.

It is now over to the Executive of NBA to follow on, administer the funds and the workload, plus have a 'stand back' overview of the PMS program, something that has not happened in the past. However, it is our view that the NBA is still the preferred organisation to run the PMS. It has the interests of all beekeepers at heart, even though many beekeepers have not chosen to become association members under the new structure.

We believe that with the appointment of a manager to reduce the workload of volunteers, and secure funding under the Levy Order, the PMS organisation is in the best position to move forward since its inception. The former Operations Committee is disappointed that Executive has chosen this new path, and wishes them well in discharging their responsibilities in the future.

- Members of the former Operations Committee

Editor's Note: A response from the NBA Executive will appear in the December 2004 issue.

Kudos for gorse article

Congratulations, Dave Black, for an excellent article "Pollination sir? Of Gorse!" in the September issue of *New Zealand Beekeeper*. In the Mid-Canterbury area beekeepers are very much aware of the depletion of pollen sources associated with our agricultural use and the public and council perception of weeds which are classed as "no use" species. Dave's article helps to point out to the farmers that there are many weeds which provide important pollen sources to enable bees to build up. I hope all Branches can represent beekeepers to the farming groups and Regional Councils to continually put the case that "weeds" in many Regional Pest Management Strategies provide the sustenance for bees to allow for adequate build-up in hives for pollination of farmers' crops. Perhaps a greater tolerance to gorse and broom on waste areas could be considered as these are important resources for beekeepers. Also well done to the Bay of Plenty Branch for your representation to the Regional Council.

- Roger Bray

Beehive shifting solution

On 28 September I was asked by a neighbour to help her shift a beehive approximately 30 yards away from an access driveway over ground unapproachable by vehicle. The gradual shift method was not on because of the contour. So we chose a cloudy damp evening when the bees were in bed about an hour before dark, lit the smoker and donned bee gear. Light smoke in the entrance to the two-storey strong hive with very adequate stores, we took the top box off, put on a spare base and cover, then we loaded the bottom box, floor and lid onto a wheelbarrow and trundled slowly to the new prepared site. All very quiet beewise. Back to the second box and ditto, replacing it on the bottom box. We then put a plywood board the width of the hive and reaching from the top of the bottom box to the ground like a lean-to tent about 4 inches from the entrance at that point, so that the bees coming out had to go round the corner, and similarly to return; the board held against the hive by two bricks. We left a spare box with a few frames on the old site. The bees were working macadamias, and next morning there was considerable activity at both sites. By dusk there were two frames worth of bees at the old site which we put on top of the new site, putting another box on the old site. Thus the returned bees had to negotiate the 'board' a second time next morning and we removed it at midday.

The evening of the second night revealed approximately 40 bees on the old site which we shook into the new site and called it a day.

A surprisingly smooth and successful operation which could be useful at times.

Yours sincerely,
David ffiske,
Kaikohe

NOTICE TO REGISTER AN APIARY

From:
Registrar of Apiaries
AgriQuality New Zealand
Private Bag 50035
Mosgiel

NOTICE TO BEEKEEPER: RULE 15 of BIOSECURITY (NATIONAL AMERICAN FOULBROOD PEST MANAGEMENT STRATEGY) ORDER 1998

Take notice that the beehives situated

115 FORTIFICATION ROAD, OAMARU

are not registered as an apiary as required by Rule 15 of the National American Foulbrood Pest Management Strategy

You are advised that you are required to register this apiary with the Management Agency at the address listed above within 30 days of the date of this notice.

If this notice is not complied with an Authorised Person may destroy these hives under the authority of Rule 25 of the Pest Management Strategy

Dated at Invermay this Wednesday 3rd day of November 2004

Signed

David McMillan D.C. McMillan

Authorised Person under the Biosecurity Act 1993

BK228

It could be worse: a cautionary tale about varroa from the UK

(Abridged from an entry on the email list irishbeekeeping@yahoogroups.co.uk)

If we add in the UK, we could say Ireland is reputedly the home of the fairies, there are orcs in New Zealand and in UK the National Bee Unit seems to be run by pixies — NBU pops up occasionally, says something quaint about varroa and quickly vanishes!

The last issued publication from NBU was 'Managing Varroa' in 2000, which authorised only Apistan and Bayvarol whilst alluringly mentioning many other treatments (including Apiguard and the organic acids), all classified as 'not approved in UK'.

Now resistance is removing Apistan/Bayvarol for many, and only Apiguard has been substituted — which you find out only from an advice sheet on NBU website since 'Managing Varroa' has not been updated.

'Managing Varroa' never gave enough information for dealing with resistant mites: what is needed is a comprehensive 'Code of Practice' covering how and where to obtain the oils or acids, how to dilute and store, when and how to administer the treatments, how to test effectiveness and what to do next.

The best document I know was published by the NZ Ministry of Agriculture & Forestry in 2001: 'Control of Varroa, a guide for NZ beekeepers', 120 pages long, ISBN 0-478-07958-3. It can be read and printed in full off the web: click http://www.maf.govt.nz/biosecurity/pests-diseases/animals/varroa/guidelines/control-of-varroa-guide.pdf.

In my own county, Hertfordshire, we have had mites for 10 years so the numbers have settled down after the initial wave of collapses and invasions. All that has been needed is one annual application of Apistan in August/September when supers are removed. No real need to follow what is happening, or monitor — just mindlessly stick in strips as 'a rule of thumb'.

This year, an alert beekeeper noted that there were many bees with chewed wings when he removed strips at end September. The bee inspector found resistance throughout the surrounding area. Now, NBU say use Apiguard — but that is temperature dependent, so does not work in October, you need to apply oxalic acid in November. 'Managing Varroa' has alerted beekeepers to acids — but not authorised their use. We do not have any prior training and infrastructure in place for storing/splitting/distributing/demonstrating how to administer. So we are totally unprepared, after 10 years during which it was known this situation will occur and the pixies just kept out of sight.

Experience has shown that beekeepers, in ignorance and desperation, will pour almost any agricultural chemical into hives. Mites are very easy to kill! It is doing it safely and without residues that is difficult. But those who follow the book will just lose their colonies when resistance first arrives.

Of course, a few wise individuals will test for resistance BEFORE it is in their area, and will switch to IPM in good time — they are the minority with time to do things just for the sake of it, ahead of definite need. Mostly, even serious beekeepers will only start to learn IPM methods, book in hand, after resistance has been found. Many others will just leave beekeeping — it will have become too difficult.

The UK has wasted the chance to learn IPM ahead of resistance. Ireland is following exactly in the footsteps of UK — and will face the same crisis. Since the mites that got to Ireland presumably came from a source where fluvalinate had been used for years, Irish mites may show resistance in a year or so, perhaps it has happened already but not been detected (dead colonies show no varroa). New Zealand by contrast can motor ahead with gaining experience while Apistan can still be used to save colonies after any failures.

We can only be grateful for the publication of information on the web that our own authorities have not seen fit to provide. I hear even the orcs are friendly.

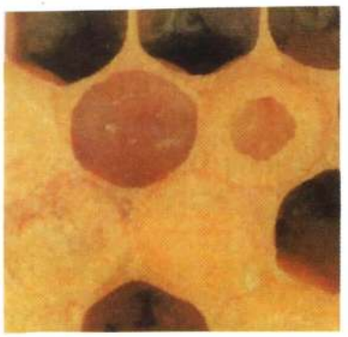
- Robin Dartington

Club Contacts & Beekeeping Associates

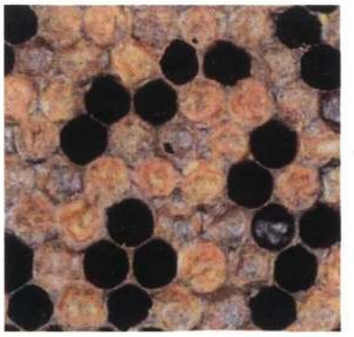
WHANGAREI BEE CLUB Meetings: 1st Saturday each month (except January) Time: 10 am, wet or fine (we are keen) Contact: Dave Trinder Phone: 09 433 8566 John Parsons Phone: 09 438 8766 Kevin Wallace Phone: 09 423 8642 (Wellsford)	**AUCKLAND BEEKEEPERS CLUB INC** Meets 1st Saturday monthly at Unitec, Pt Chevalier, Auckland. Contact: Carol Downer, Secretary Phone: 09 376 6376 Email: fairy-angel-peewee@xtra.co.nz	**FRANKLIN BEEKEEPERS CLUB** Meets second Sunday of each month at 10.00am for a cuppa and discussion. 10.30am open hives. Contact: Peter Biland Phone: 09 294 8365
HAWKES BAY BRANCH Meets on the second Monday of the month at 7.30pm, Arataki cottage, Havelock North Contact: Ron Phone: 06 844-9493	**TARANAKI AMATEUR BEEKEEPING CLUB** Contact: Stephen Black 685 Uruti Road RD 48, Urenui Phone: 06 752 6860	**WANGANUI BEEKEEPERS CLUB** Meets on the second Wednesday of the month. Contact: Neil Farrer Phone 06 343 6248
MANAWATU BEEKEEPERS CLUB Meets every 4th Thursday in the month at Newbury Hall, SH3, Palmerston North Contact: Frances Beech 35 Whelans Road, RD 1 Levin Phone: 06 367 2617	**WAIRARAPA HOBBYIST BEEKEEPERS CLUB** Meet 3rd Sunday of month (except January) at Norfolk Road, Masterton at 1.30 pm. Contact: Arnold Esler Phone: 06 379 8648	**WELLINGTON BEEKEEPERS ASSN** Meets every second Monday of the month (except January) in Johnsonville. All welcome. Contact: John Burnet 21 Kiwi Cres, Tawa, Wellington 6006 Phone: 04 232 7863 Email: johnburnet@xtra.co.nz
NELSON BEEKEEPERS CLUB Contact: Kevin Phone: 03 545 0122	**NORTH CANTERBURY BEEKEEPERS CLUB** Meets the second Monday of April, June, August and October Contact: Mrs Hobson Phone: 03 312 7587	**CHRISTCHURCH HOBBYIST CLUB** Meets on the first Saturday of each month, August to May, except in January for which it is the second Saturday. The site is at 681 Cashmere Road, commencing at 1.30pm Contact: Jeff Robinson 64 Cobra Street Christchurch 3. Phone: 03 322 5392
CANTERBURY BRANCH Meets the second Tuesday of every month, February to October Contact: Roger Bray Phone: 03 308 4964	**SOUTH CANTERBURY BRANCH** Contact: Peter Lyttle Phone: 03 693 9189	**DUNEDIN BEEKEEPERS CLUB** Meets on the first Saturday in the month September - April, (except January) at 1.30pm. The venue is at our club hive in Roslyn, Dunedin. Contact Club Secretary: Margaret Phone: 03 415-7256 Email: flour-mill@xtra.co.nz
	NZ QUEEN PRODUCERS ASSN Contact: Mary-Anne Phone: 06 855 8038	

Is your group or Branch missing from here?

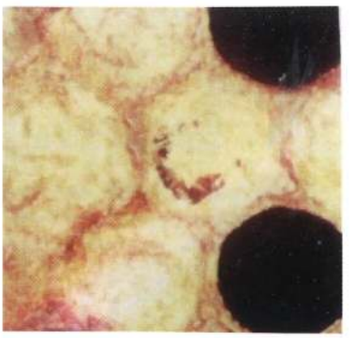
Please contact the national Beekeepers Association - inside front cover.



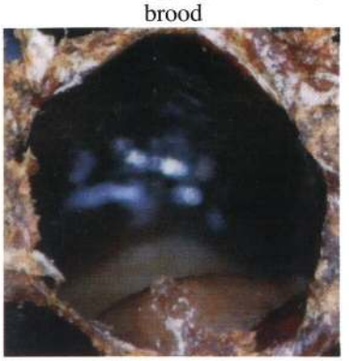
Unfinished cappings of healthy brood



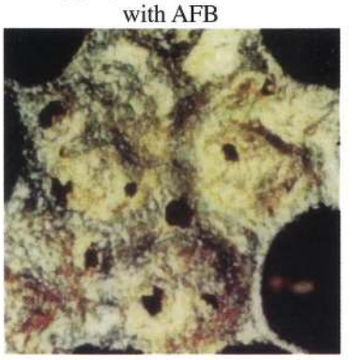
Cappings of brood infected with AFB



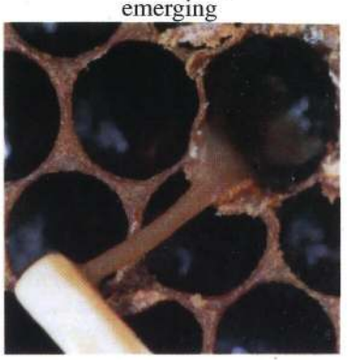
Bee chewing apart prior to emerging



Diseased larva



Holes in cappings of brood infected with AFB



AFB "Ropiness" test

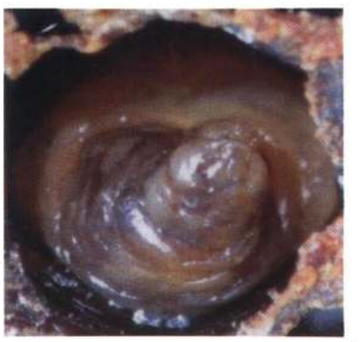
PMS larva with varroa

Older, darker diseased pupa

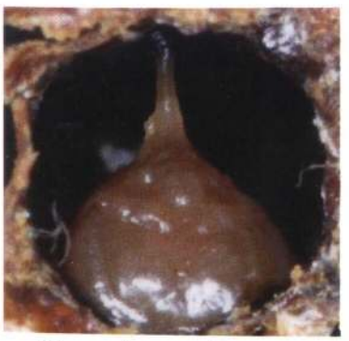
Removing PMS larva

White mummy

Prepupa

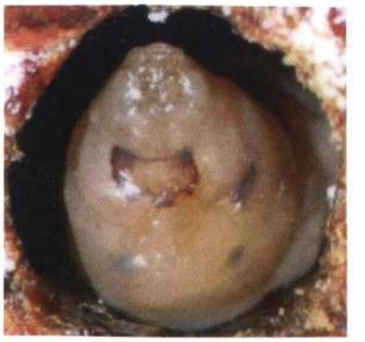


Coffee coloured larva



Diseased pupa with tongue

PMS larva spiralling up cell



Swollen larva