Volume 14 No. 9

October 2006

The New Zealand BeeKeeper

New Zealand
Permit No. 154506
Permit

Tell us your hot spots

If in doubt, consult AgriQuality

Let's clean it up before it spreads

Have your two-yearly eye exam!

**View of a hive heavily infected with AFB.
Note sunken brood.**

Photo: Frank Lindsay.

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President's Report

Conference was a very successful affair, I believe, with most people getting something from the seminar sessions (although I know several people will have walked away from the Biosecurity New Zealand sessions on risk analysis and import health standards less than happy). I noted with some cynicism that it was reported in one of the newspapers that the exporters of New Zealand summer fruit have now managed (after long hard negotiations!) to get access for their fruit into Australia — it just happened to be some coincidence that bee product imports into New Zealand had been given the go-ahead a couple of weeks prior. Maybe it wasn't honey for apples but honey for summer fruit!

Executive Council meeting

The Executive Council has been busy since Conference with a two-day meeting in Wellington on the weekend of 26–27 August. We have delegated various portfolios and have identified several goals to work towards for this year. We spent the Saturday discussing NBA affairs and on the Sunday we met as the Management Agency of the American Foulbrood National Pest Management Strategy. Whilst the face-to-face meetings are more expensive, they are invaluable for everyone to get to know one another and to form a good cohesive team. There is more time to explore ideas and it is therefore easier to identify people's strengths. We missed having this sort of meeting last year. Having a two-day meeting has also enabled us to share the costs between both functions of the Executive Council. I would like to see the Executive meet face to face at least twice a year and hopefully also a third time.

Saturday's session centred on strategic planning for the future, concentrating on what we wish to achieve this year. More detail will be outlined in the next issue of *The New Zealand BeeKeeper.*

List portfolios – Executive member responsibilities

Membership: Arthur Day, Barry Foster, Neil Mossop and Brian Alexander

Marketing: Jim Edwards to lead; group yet to be determined
Antioxidants: Neil Farrer, Barry Foster and Neil Mossop
Training:Frans Laas
Lobbying/Profile/Alliances: Jane Lorimer
Communications: Brian Alexander, with the Publications Committee
Compliance: Jane Lorimer
Research: Barry Foster, Frans Laas
Biosecurity: Neil Farrer
Treasurer: Neil Farrer
Conference:Jane Lorimer and Pam Edwards

AFB NPMS Operational Plan and key goals

Sunday was spent looking at the Operational Plan of the American Foulbrood National Pest Management Strategy — getting into the details of the policies and procedures required to assist the Strategy to run smoothly. It was great that the Management Agency members were keen to see policy in place that will provide for some procedures which target beekeepers who are not complying with the Strategy. Allowing non-compliance to continue effectively penalises those who are complying.

We also spent some time in identifying some key goals for the year. These goals are identified in the consultation part of this issue of *The New Zealand BeeKeeper*. *[Editor's note: see pages 18–19, 21–23 and 33 for further information].*

AFB NPMS extension recommended

With the continuing consultation on the five-year review of the AFB NPMS, we have talked with Ian Govey (a Senior Policy Analyst with MAF/ Biosecurity New Zealand) about whether any alterations are necessary from the submissions made last year. As a result, it has been suggested that no significant changes need to be made. We are therefore recommending that the Strategy be extended for a further five years. This means the Strategy will continue to 2011. I believe that the Strategy is essential to keep in place. Otherwise, levels of AFB could escalate, especially in the presence of varroa, to a point where changes would need to be made in the manner in which we

keep AFB under control; e.g., the use of drugs. Using drugs to control AFB is unacceptable to most beekeepers in New Zealand, therefore maintaining the AFB NPMS is extremely important — it is in essence our insurance policy.

Bee Products Standards Council (BPSC)

The BPSC has been exceedingly busy during and after Conference 2006. Of particular concern at this time has been the discovery of some residues in New Zealand bee products. This issue is only likely to get worse for our industry unless we make sure that we follow best practice to ensure no residues remain in products that we use in the beehive or for preserving our equipment. The reason I say that it is likely to become a more common occurrence is that laboratory test methods are becoming more sophisticated, and are able to detect the most minute amount of residue. Laboratories can now test for up to 500 different chemicals at one time.

We propose to put together some best practice guidelines that we will distribute to members and place on the NBA website. These guidelines will include information about the best type of product to use to ensure the production of residue-free product. Many beekeepers are already following best practice in the production of product, but others may need to change their management techniques.

The NBA is also supporting some research into how to manage PDB residues; for example, how long must people air boxes of combs before placing on hives.

The one concern I have — which I am sure is shared by the Honey Packers group — is that the Bee Industry Group continues to be involved in these meetings without having to contribute to the cost of this forum, as of course do all of those people who do not belong to any organisation. It is about time that beekeepers did not pass on all information to those who are sitting outside of the organisation. Instead, we suggest that beekeepers encourage these people to join (even at the lowest subscription rate) to help to keep our subscriptions at a suitable level, and enable us to do more for the industry. There should always be a higher cost to non-members who wish to attend branch field days or other NBA activities. A lower cost to NBA members for these activities is one of the benefits of belonging to the organisation.

- Jane Lorimer

Deadline for articles and advertising

10th of each month

NB: No magazine in January

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

Nancy Fithian
Email editor@nba.org.nz

(See page 2 for full details)

Please direct advertising inquiries to: Allan Middlemiss, South City Print Ltd, PO Box 2494, Dunedin. Phone 03 455 4486, fax 03 455 7286, email ckp@xtra.co.nz

From the Secretary's desk

It is now been eight months since I became the Executive Secretary and a very busy eight months it has been. The membership is slowly increasing but more members are needed: the more members there are, the more the NBA can do in areas such as research.

Changes have been made to align the magazine subscription with the NBA financial year; so all subscriptions will be due for renewal in January for that current year. If a new subscription is requested during the year, the cost will be worked on a pro rata basis in relation to the number of issues remaining for that year. We have started this process already and it is working well.

Attending the conference was fantastic. It was a pleasure to meet so many beekeepers, and all those members who put the time into Conference deserve a very large thank you. Obviously a lot of very hard work went on to make it the success it was.

The secretariat is now starting to put together standard operating procedures (SOPs) for all areas of the NBA, including conferences and membership, and we thank all those who have helped with information to date. There is so much knowledge out there, and for the betterment of the NBA we need those who are willing to pass on their knowledge to us to do so. This will definitely be a 'team effort' but something that will assist the NBA as a whole in the future.

- Pam Edwards
Executive Secretary

Do you believe that it is not worth alternating your treatment if your neighbours aren't as well?
Well it is actually very worthwhile to alternate because at least you will be killing any resistant mites in your own hives plus any invading resistant mites which come from your neighbours. While your neighbours treatments will be getting less effective, yours will still be highly effective and you won't run the risk of having to treat twice.

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VARROA AGENCY INC

Varroa Agency Incorporated News

Update from Varroa Agency Chairman Duncan Butcher

Agency pleased with developments

The Varroa Agency is pleased with the tremendous progress being made in Nelson over the last month.

The month has seen a huge amount of organisation to get to the point where all hives from the Nelson varroa-infested zones have been exported to the North Island, to be followed by a programme to hit the feral bee population in the Nelson area.

I'm pleased to say we've enjoyed an excellent working relationship with the South Island Varroa Control Group on the work they are doing on behalf of beekeepers. This has been an enormous project carried out by beekeepers in Nelson and the South Island, and its success is due to the keenness of the people driving the project in Nelson.

While we're disappointed the government hasn't delivered on funding the project fully, the efforts shown by industry in handling its own problem successfully augurs well for the future. The relationship up until this time between Biosecurity New Zealand and beekeepers is a positive example of industry and government working together.

The Varroa Agency has provided financial assistance, information and support for the work. The Agency is now consulting with the Nelson group on how the future varroa surveillance programme in the South Island can be more targeted, to more quickly find any varroa incursion.

While the Agency's funds are not unlimited, early indications are that a vigorous surveillance programme could be handled within the Agency's budget for the next two surveillance rounds.

A reminder about control lines

It is vital that beekeepers in Nelson and the Canterbury areas respect the control lines being imposed by Biosecurity New Zealand. It's important to realise that while a varroa mite on a bee doesn't travel far, a varroa-infested bee in a beehive on a truck can go a long distance in a short time.

Until information on the success of the field poisoning programme is available, beekeepers should take a cautionary approach to hive movement. We don't want to undo the good work that has been done to bring varroa under control.

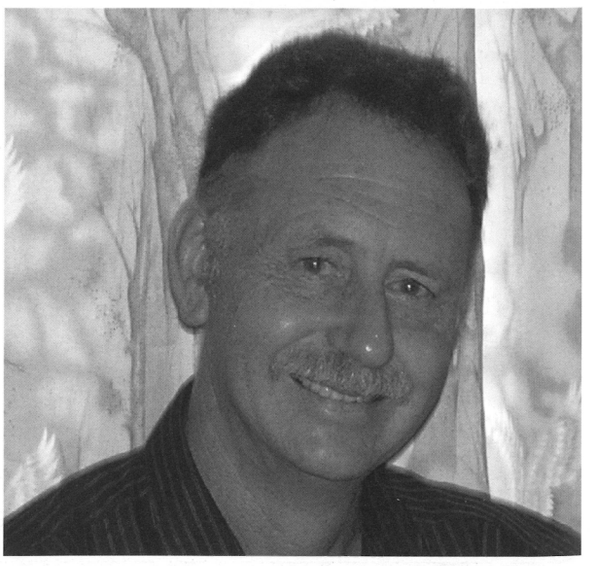
The Agency will continue its education programme, informing New Zealanders about shifting bees from the North Island to the South Island, with emphasis on the control lines around Nelson.

Don't forget, information on varroa control and other news from the Nelson area, along with reports on the surveillance programmes, will be posted regularly on the Varroa Agency's website www.varroa.org.nz.

NBA Executive Council member profile: Neil Mossop

Neil Mossop has been keeping bees for 38 years. He began his beekeeping career as a youngster, assisting his father Ron with the bees (preferring the opportunity to drive the truck through the paddocks). At 13 years old he began collecting swarms, and in 1971, at the age of 16, he bought his first truck and 100 beehives.

In 1972 Neil pioneered kiwifruit pollination, placing 89 hives this first year. He now places over 5000 beehives into kiwifruit orchards each year. In 1981 Neil and his wife Wendy bought out Ron's share of the business. In addition to pollination, they also raise their own queen bees, and produce, pack, wholesale, retail and export their honey which includes Active Manuka with UMF®, and comb honey. Mossop's Honey is a member of Active Manuka Honey Association (AMHA), New Zealand Comb Honey Producers Association, and the New Zealand Honey Packers & Exporters Association.



AFB NPMS Management Agency adopts new policy on dealing with AFB outbreaks

The AFB NPMS Management Agency has been reviewing its policy on dealing with AFB outbreaks as part of the Operations Plan review process.

The agreed policy, as confirmed at a recent Management Agency meeting in Wellington, is as follows.

Where an outbreak has been notified to the Management Agency by a third party

Step One — The AFB NPMS Manager will contact the contractor (AgriQuality) to obtain verification of the presence of the AFB infected hive(s). This verification will be undertaken either by an AP1 or by an AP2 under the instruction of an AP1. The contractor and Management Agency will liaise over the appointment of the most appropriate person(s) to be involved in the verification.

Step Two — The AFB NPMS Manager will inform the Management Agency of the circumstances surrounding the outbreak following report back from contractor. The AFB NPMS Manager will consult with the Management Agency, with the latter providing the necessary direction within 48 hours of being notified by the AFB NPMS Manager.

Step Three — The AFB NPMS Manager will then instruct the contractor accordingly.

The AFB NPMS Manager will initiate a log (file) detailing times and actions taken.

The contractor will provide the Manager/Management Agency with a weekly update on the particular outbreak until resolution is achieved.

Where an outbreak has been notified to the Management Agency by the contractor

Steps two and three to apply, along with log and reporting requirements as listed above.

Follow-up surveillance action

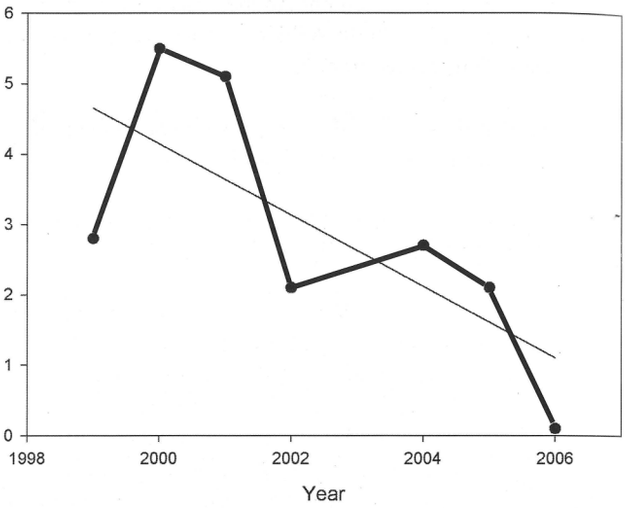
A full inspection is to be carried out on the hives concerned during the next surveillance round.

- Rex Baynes
AFB NPMS Manager

Results from testing of honey samples for AFB good news in the fight against AFB

A key component in the American Foulbrood National Pest Management Strategy is the testing of honey samples for *Paenibacillus larvae* (*P. larvae*) spores, a programme that has been in place since the beginning of the PMS.

The Management Agency allocates funding from levies paid to undertake this testing programme.



In studying the graph, beekeepers will note there has been a gradual decline in the percentage of positive samples. This year only one sample tested positive. The decline in the percentage of positive samples with time suggests the low level of positive samples encountered this year is likely to also occur next year.

Note: The bold line indicates percentage of positive samples tested each year.

- Rex Baynes
AFB NPMS Manager

A reminder to all beekeepers

The American Foulbrood Pest Management Strategy (AFB NPMS)

The management of American foulbrood disease in New Zealand is controlled by law. Currently this law is the Biosecurity (National American Foulbrood Pest Management Strategy) Order 1998. This legislation retains many of the provisions of the Apiaries Act that had been in place for over 90 years.

Background

The Apiaries Act, which had provided the legal powers to control American foulbrood for over 90 years, was replaced in 1993 by the Biosecurity Act. Using this Act, the National Beekeepers' Association created the Biosecurity (National American Foulbrood Pest Management Strategy) Order 1998, which came into force on 1 October 1998. The aim of the strategy is to eliminate American foulbrood disease (AFB) from New Zealand.

The AFB NPMS is designed to both encourage and require beekeepers to rid New Zealand of American foulbrood disease for good. Elimination of AFB can be achieved.

Beekeepers who put an honest effort into reducing AFB will be encouraged to rid their hives of this disease through the Disease Elimination Conformity Agreement (DECA) they have with the Management Agency. These beekeepers are able to call on all of the expertise and information we now have available to help them.

Put simply, if you don't attempt to do the job right, someone will do the job for you and send you the bill. The choice is yours ...

The Management Agency

The legislation names the National Beekeepers' Association as the Management Agency responsible for implementing the strategy. The Management Agency employs contractors to carry out a number of its duties under the AFB National Pest Management Strategy. The main contractor is AgriQuality Limited.

Funding

From its inception in October 1998 until November 2002, the Pest Management Strategy was funded from revenue collected under the industry's Commodity Levy Order. This Order then expired. A new Order under the Biosecurity Act was approved by the Cabinet Legislation Committee and came into force on 20 November 2003.

The levy year is from 1 June to 31 May. The levy consists of a base levy, plus an apiary levy.

The 2006/2007 rates are:

"base levy of $20.00 and an apiary fee of $8.00 per apiary, excluding GST. The base levy will be the same each year, but the apiary levy may change annually, but is limited to a maximum rate of $15.17 + GST. The levy will be calculated on the apiaries registered on the 31st of March each year."

All beekeepers are required to fund the levy, although those beekeepers who have registered fewer than 11 beehives on fewer than four apiaries will only be required to pay the base fee plus one apiary; i.e., $28.00 + GST.

When will I need to pay the levy?

Invoices are sent out on or about 20 April and will be due for payment by 1 June.

PLEASE NOTE: penalties will apply to outstanding debts. These will be initially at 10% with 2% for each month (compounding).

What is a 'DECA'?

A Disease Elimination Conformity Agreement, or DECA, is a formal agreement between you as a beekeeper and the Management Agency. The agreement sets out a 'code of beekeeping practice' to ensure that the incidence of AFB in your hives will reduce to zero over a period of time and remain at that level once achieved. Scientific and case study knowledge show that this goal is attainable if beekeepers follow the correct procedures.

The DECA agreements are tailored to suit each beekeeper's particular circumstances. If you have little or no AFB you won't need to change your beekeeping procedures much, if at all. Beekeepers with a progressively more serious AFB incidence in their hives will need tighter controls and more attention to detail in order to reduce the incidence.

In consultation with the Management Agency or the contractors, you will be able to review your procedures over time to ensure that the goal of AFB elimination is reached. The aim is to use these agreements to ensure that you get all the help and advice available to eliminate AFB from your beehives, and hence, from all beehives in the country!

Who should have a DECA?

Hopefully nearly every beekeeper will eventually have a DECA. Remember, the NPMS applies to any and every beekeeper, hobbyist and commercial. There will be some who, for a number of reasons, will not enter into an agreement to control AFB. These beekeepers will be considered "unapproved".

If you take up the offer of a DECA, you will need to show your proficiency in AFB identification and control by passing a Disease Recognition and Destruction Competency Test. This test can be taken 'cold' or after completing a Disease Recognition and Destruction course. These courses will be made available to all beekeepers at centres throughout New Zealand.

If you enter into a DECA you will have Approved Beekeeper status and will receive a Certificate of Inspection Exemption.

Continued on page 11

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You will not have to complete a Certificate of Inspection each year for your hives. However, you must maintain a record of inspection dates and relevant information for audit purposes. As part of the DECA you must agree to undertake a test on AFB recognition and control within six months of your DECA being approved.

What happens if I don't have a DECA?

Those beekeepers who fail to respond to the Management Agency's offer to enter into a DECA agreement will be, for the purposes of the NPMS, "unapproved" beekeepers. These beekeepers must furnish a Certificate of Inspection each year for their hives.

This certificate must be completed, and hives inspected by, an Approved Beekeeper or by Management Agency personnel. Most beekeepers will incur some cost to have this work done for them.

Providing the Certificate of Inspection is mandatory. If the beekeeper fails to arrange for the Certificate to be completed, the Management Agency will authorise a contractor to do the work and the beekeeper will be liable to pay for the services.

Beekeepers who for any reason do not have a DECA must furnish a Certificate of Inspection each year, again completed by an Approved Beekeeper or by Management Agency personnel. To be exempted from this process, these beekeepers will need to complete the Disease Recognition and Destruction course and pass the test before a DECA will be issued.

Obligations for all beekeepers

AFB – Exposure: you must not allow honey bees to have access to any hive, equipment or products that have come from an AFB-infected hive. You must not extract the honey from an AFB-infected hive.

AFB – Destruction of Hives: ***you must destroy by burning any of your hives that have AFB within seven (7) days of it being found***, unless you have written permission from the Management Agency to do otherwise.

AFB – Moving Hives: you may not transfer ownership of any AFB-infected hives or infected equipment or products, or remove the hives or equipment from the place where it was found, without permission of the Management Agency. You may move the diseased hives or equipment, however, if you have a provision in your DECA allowing you to transport diseased hives to a safe place for destruction.

AFB – Notification: if AFB is found in your hives you must notify the Management Agency Contractor (AgriQuality) **in writing within seven (7) days.**

AFB – Sterilising: this can only be done with permission of the Management Agency, using methods they have approved.

Annual Disease Return: before 1 June each year you must record, on the form mailed to you by the contractor:

- the number of hives you have
- the number of AFB hives found during the previous year (if any), the dates on which they were found and where they were found, and the dates that you destroyed them
- any changes to the apiary information you have supplied to the Management Agency. Complete all sections
- the dates on which you transferred the ownership of any of your hives to someone else, and provide the name and address of the new owner.

Apiaries – Registration: an apiary is any group of your hives that are more than 200 metres from any other apiary that you have registered. **All apiaries must be registered** with the Management Agency Contractor (AgriQuality) if hives are on a site for more than 30 days.

When registering the apiary you will need to supply:

- your full name and address
- the number of colonies in the apiary
- the name and initials of the occupier of the property
- the road name and address of the property
- a written description of where the apiary is on the property
- a 260 map series grid reference
- whether it is seasonal (stating the months it is usually occupied) or permanent.

If you have a permanent apiary site that has been unoccupied for 30 days or more you must deregister it. You will, therefore, need to deregister all your permanent apiaries that are not occupied, or alternatively change them to seasonal apiaries if you intend to use them in the next 12 months.

Approved Beekeepers: any beekeeper can become an Approved Beekeeper by:

- having an American Foulbrood Disease control plan (known as a 'DECA') for their hives that has been approved by the Management Agency Contractor (AgriQuality) and
- having sat and passed, or agreed to sit and pass within six months, an AFB Disease Recognition and Destruction Competency Test.

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Certificate of Inspection: unless you are an Approved Beekeeper you must ensure all of your hives are inspected by an Approved Beekeeper between 1 August and 30 November each year. An authorised beekeeper must complete the Certificate of Inspection form, which details the inspection, and forward it to the Management Agency with 14 days of the inspection. The Approved Beekeeper who carries out the inspection will need to fill out parts of the certificate, including signing off the form.

Change of ownership: when you transfer the ownership of your hives you must remove or deface all of your codes on the hives and notify the Management Agency that you have done it. You also need to give them the name and address of the new owner of the hives.

Code (hive registration) numbers: new beekeepers will be given a new code number. The code number must be marked on the outside of one hive in each apiary or on a sign in the apiary. Only the beekeeper who was allocated a code may remove or alter the code (without written permission from the Management Agency).

You should not have any other person's code number on your hives, or any other number that could be confused with a code number. In reality many beekeepers have equipment in their apiaries that have purchased from other beekeepers over the years. Considering the difficulty of removing code numbers, it will be considered sufficient in the meantime to remove any confusion by erecting a sign in the apiary with the correct apiary code number.

Compensation: no compensation will be paid by the Management Agency for any losses occurred by beekeepers in having to comply with the Pest Management Strategy.

Drugs: you must not feed any substance to your bees that has the effect of obscuring AFB or attempting to 'cure' it.

Hives – access: you must ensure that the area around your hives is kept free from vegetation to allow normal access.

Hives – moveable frames: you must keep your bees in moveable frame hives. Exemptions may be granted by the Management Agency for research, queen rearing, package bees and public display.

Unregistered/abandoned hives: please report them to the Management Agency Contractor (AgriQuality), who will take reasonable steps to find the owner of unregistered apiaries. If they are unable to locate the owner they may destroy the hives.

To ensure that the Pest Management Strategy works for the benefit of all beekeepers, the Management Agency may have to enforce compliance of the above obligations. This enforcement may take the form of any or all of:

- cancelling a beekeeper's approved status
- conducting the above obligations on behalf of the beekeeper and sending them an account for the work done, and
- bringing a prosecution under the Biosecurity Act.

You will have noticed that you may need to contact the Management Agency Contractor (AgriQuality) to gain permission for a number of things that you have been doing already (e.g., keeping bees in non-moveable frame hives, paraffin wax dipping, moving AFB-infected hives to a central location to deal with them, etc.). This is not a change, as you have always required permission. It was just that it wasn't enforced before so people didn't bother. The best policy would be for beekeepers to seek permission in writing early on: indeed, it is an integral part of the DECA agreements that most beekeepers have with the Management Agency. In most cases the permission will be granted automatically as part of your DECA, although the permission will probably be conditional.

So what do I have to do?

Don't be concerned if having read the information about the NPMS you are suddenly confronted with the prospect of breaching the rules and you are fearful of prosecution. The Management Agency is available to assist in a constructive manner and asks that you make direct contact with the AFB NPMS Manager, Rex Baynes.

For many/most beekeepers, you can expect a confirmation of acceptance of your DECA application within a short time, though more complicated DECAs may take longer. Please contact your nearest disease coordinator regarding AFB field days, and details of disease elimination courses and the tests.

All beekeepers will need to complete an Annual Disease Declaration form when it is sent to you next autumn.

Conclusion

The prospect of being able to keep bees in a country free of AFB is exciting. It will save the beekeepers of New Zealand millions of dollars, and much stress and heartache. Almost every beekeeper in the country has had to deal with this disease at some time or another.

We would love to see the end of it. It really can be achieved. So let's do it!

Additional information

If you require additional information on the National American Foulbrood Pest Management Strategy or AFB control, the following documents are available:

- the Biosecurity Act 1993 (available from bookshops that supply government publications)
- the Biosecurity (National American Foulbrood Pest Management Strategy) Order 1998 (available from bookshops that supply government publications)
- the Biosecurity (American Foulbrood – Apiary and Beekeeper Levy) Order 2003 (available from bookshops that supply government publications)
- the AFB Disease Elimination Manual (available from the Management Agency).

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VARROA AGENCY INC

Varroa movement control remains in place

Movement control regulations are still in force on bees and used beekeeping equipment coming from the North Island to the South Island.

There is a Movement Control Order in force for the South Island, including Stewart Island, under a Controlled Area Notice, Biosecurity Act 1993. This movement control from the North Island to the South remains in place, despite the current varroa bee mite incursion in the Nelson area. Every person who breaches movement control commits an offence under the Act.

Under this Act, it is illegal to transport bees and used beekeeping equipment from the North Island to the South Island.

Permits are legally required for transporting certain at-risk goods. Applying for a permit to move risk goods to the South Island is the responsibility of the person or organisation wishing to send or take the risk goods. Permits are issued to the shipper by AgriQuality Limited, which manages movement control for the Varroa Agency. Conditions of movement are listed on the permit form. Restricted goods are:

- bulk bee products such as honey, beeswax, pollen, propolis or royal jelly
- beekeeping vehicles and used beekeeping equipment other than that above
- bees or bee products as laboratory samples
- bulk wine grapes
- unprocessed logs
- buildings.

Bee products, like honey and royal jelly, packed for retail sale, are not affected by movement control measures.

Varroa movement control remains in place for South Island

The Movement Control Order (Controlled Area Notice, Biosecurity Act 1993) remains in force for the South Island.

- Movement of bees and used beehive parts to the South Island from the North Island is strictly prohibited.
- Permits are required for transporting at-risk goods to the South Island from the North.

For more information call an AgriQuality Limited apiculture officer, toll free 0508-00-11-22

VARROA AGENCY INC

BK 302

At present, the boundaries of the Buller District, Marlborough District, Nelson City and Tasman District territorial authorities, form the Controlled Area for the purpose of limiting the spread of the varroa bee mite.

Movement permits are also therefore required to move risk goods through the upper South Island Controlled Area. Picton is part of the Controlled Area, so beekeepers trucking hives from the lower South Island through Picton to be shipped to the North Island are transiting the Controlled Area en route, and therefore need a permit.

New controlled area boundaries in the upper South Island are presently being discussed with a view to reducing the area in size. The boundaries may be amended by Biosecurity New Zealand in the coming weeks.

For further information, please contact an apiculture officer at AgriQuality Limited, phone 0508-00-11-22.

NBA Library report

The first stage in the takeover of the NBA Library from Christine Taiaroa — whom we wish to acknowledge as being a knowledgeable caretaker of this valuable asset — has been completed with the relocation of the resource material from Waikari to Ashburton. A couple of truckloads of material dating back over the last 100 years is now in our shed waiting to be sorted. We are indeed fortunate that beekeepers over the years have gifted their old magazines and publications to the Library to be available as a reference for today's beekeepers. The Library comprises not only books and magazines but also other pamphlets and price lists, etc. At this stage the material is still in boxes, but work is progressing on building a self-contained library building that will be accessible by members. The magazine postings continue as before — members have the opportunity to receive five different overseas publications once a month for $1.00 rental and 90 cents postage, with three weeks to read them. We look forward to continuing the good work completed by our predecessors.

- Roger and Linda Bray
Librarians

AMHA Chairperson's Report 2006

[Editor's note: this address was presented at the Annual General Meeting of the Active Manuka Honey Association, 3 August 2006.]

Welcome,

It is my pleasure to welcome you to the AMHA AGM for 2006. It brings to a close another interesting year for AMHA and its committee. In writing this report it gave me time to reflect on what we had done over the last twelve months and see the incredible hard work the committee have put in. I thank you all sincerely for that.

Last year we established that the issues we would need to attend to would be: continuing to gain registration of the trademark in as many countries as we could, monitoring the trademark, establishing research projects, and developing within the group of AMHA a robustness that our systems and protocols could carry us forward.

The registration process has continued and today we have eight countries fully registered: New Zealand, Australia, Hong Kong, Great Britain, Germany, Singapore, Korea and Taiwan. We have the EU accepted and registration is expected. Japan and USA are under examination, awaiting re-examination. We anticipate acceptance in USA soon; however, we don't know when we will move forward with the Japanese application. I am aware of some breaches of the trademark in Japan that companies would like AMHA to act on; however, we will have to wait. There is a further group of three countries under examination and awaiting re-examination. One of these is China, which we made an application for last August. This brings the process to a total of about 43 countries we are involved with.

In November John Rawcliffe, the brand manager at that time, went to Singapore on AMHA's behalf to investigate and monitor the sales of UMF® honey in this country. It was felt that this would be a test case for AMHA to investigate an overseas market, and monitor how UMF® honey is sold. He was able to meet with and gain support from AVA, the regulatory body for the Ministry of Health in Singapore. From this visit we had a report, which indicated that there were breaches of the trademark. The report, along with honey that was bought back to New Zealand, was sent straight to AMHA's patent attorney Denise Tryer-Harding for action. No one on committee was able to see the notes made by John; we only received a summary of his report. This was deemed the most appropriate action, so that no one member of AMHA was to know of the outcome before another. There was, of course, potential legal action that could result from this report. The results from this were that 13 labels were considered: a total of five labels required further action to be taken. The labels required action because they were copies of labels of AMHA members and/or represented the product was from New Zealand and was Active or Manuka Honey. Three of the labels were Singapore-based parties and Pipers' Singaporean associates have been instructed to write to each of these parties in respect of their activities. An outcome for each of these is awaited.

One was a Malaysian party. Whilst the label did not reference the trademark, it did indicate it was Active Manuka honey. Pipers' Malaysian associates have been instructed to write to this party in respect of their activities and their product sold in Singapore.

One party is based in New Zealand, but supplies honey to Singapore bearing a label which claims to have a UMF activity rating of 10%. This party has more recently been contacted and a response is awaited.

This visit, and others that need to be done both here in New Zealand and overseas, prompted committee to consider that members are often our best 'eyes and ears' on the matter of protecting the trademark. To this end, a notice was sent to all licensees regarding establishment of a more cohesive system of UMF® trade mark monitoring procedures against illicit use of the UMF® trade mark overseas using appropriate industry groups, legal organisations and local and Government authorities wherever possible, directed by the Executive Committee, via the brand manager, in New Zealand.

It was proposed that the system could assist distributors by acting against illegal use of the UMF® trade mark and providing a vital part of providing security to AMHA licensees in respect of the use of the UMF® trade mark overseas. It was noted that distributors could provide quicker identification of illegal use of the trademark, simply by being there. It was indicated that we hoped to tap into this information network and provide a means by which licensees' distributors can advise us as soon as they identify illegal activities.

In order to ensure that any action taken by AMHA in such instances would not be directed against a bona fide distributor of a current AMHA licensee, the brand manager requested provision of distributor details dealing with AMHA licensees and products legitimately bearing the UMF® trade mark, so we can target those who are not.

There could be a time when the committee may need to employ someone or a firm to do more investigative work with potential breaches, and this may be a decision we make on a case-by-case basis.

It is the committee's hope that all members will support this initiative and see the benefits of this monitoring.

Research projects are an area of great need and focus for the committee. We have accumulated funds from the levies in the last 12 months that has given us a solid foundation in which we can confidently invest in research. Dr Peter Molan was approached and it was established that he would investigate the issue of inhibitory results we have all got in our honey tests. We wanted to know what was causing them and why, and what this really meant to us all, particularly when you are waiting on a clear result in order to pack out the vat full of honey.

The summary and recommendations were printed in the July newsletter. We have a CD and a full written report available

for all members; please contact our brand manager for this. Peter reported the following recommendations:

1. Most importantly, to educate everyone in the industry about the need to have truly representative samples. Peter commented that in most of the cases that he had been made aware of where people have had varying results from the testing laboratory the complainants have not had different results from the **same** sample (i.e., from a sample that has been completely homogenised, split in two, and the retained half kept in a sealed container refrigerator until sent for the subsequent test). The test result is only for the sample received, not for the drum of honey unless the sample and every kilogram of honey in the drum are identical. Only if a sample is taken when the drum is filled from a **thoroughly stirred** vat will it be identical, and it will only remain identical if stored under **exactly** the same conditions as the honey in the drum.

2. Where honeys are found to give partial inhibition, re-assay them blended 50/50 with a UMF 20 honey that has its activity known with certainty. That will give clear activity that is the average of UMF 20 and the true UMF activity of the honey that showed partial activity, thus true activity can be determined (e.g., if blending a 'partial' honey with a UMF 20 honey gave a result of UMF 15 then the true UMF value of the 'partial' honey would be 10, since the average of 10 and 20 is 15).

3. Use manuka honeys of known activity as the day-to-day standards for the agar diffusion assay, instead of using phenol.

4. For honeys that are above UMF 20, require that for a certified result they be re-tested with a 12.5% honey solution instead of the standard 25% honey solution so that the diffusion of the activity into the agar is of an extent that allows the activity to be measured accurately. (This will require numerous samples in the range UMF 17 to UMF 20 to be measured as 25% and 12.5% solutions to get the correct multiplication factor, as was done when testing as 50% solutions for honey below UMF 8 was first started.)

Ongoing research is needed here to complete some of these recommendations.

A further research project is about to begin, that of a comparative study, looking at the present honey test, the MIC testing system and a concept that Dr Molan has been working on. Committee will meet regularly during this research with everyone involved to review progress. There will be independent laboratories doing assessments of findings and to see if they can gain the same or similar results with the honey samples. The outcome of this study is that we hope a testing method will be identified as the one test that will deliver sound reliable repeatable results to a GMP standard. It is hoped that the two labs will indicate their interest in taking on this new system so that we are able to offer members options of different labs and a honey test system that will work. Once this is established there may be a need for further research to continue the robustness of the honey test, an issue we must constantly review if we are to have confidence in our results here and overseas.

In November, John Rawcliffe resigned from the position of brand manager, after finding other things to do such as being the CEO of Alpha Labs in Auckland. I would like to sincerely thank John for his time and efforts with AMHA. He helped get the committee going: we had regular meetings, he made things flow, provided a link between changing personnel, typed minutes, and implemented the first structures for us to move forward with. He was a great support for the committee and I thank you again for this. I know, John, that your life is richer for the time you spent with AMHA!

Over December/January period I took on the temporary role of brand manager, which proved difficult. It was soon established that the role of brand manager had evolved beyond that of one person, and that many skills were required.

Committee made an approach to Denise Tryer-Harding, our patent attorney from Pipers, to see if she and a team of administration people could take this role on. We did this as most of our work in the last year has had a legal base to it, and most administrative issues needed to be tied to the legal work Pipers were doing. Thankfully for me, Denise said yes to being our brand manager and over the last three to four months we have established systems in place for things to work well. If you phone Pipers, Janice O'Neil will most likely answer the phone, someone who has become a great admin person for us. This is still evolving. To give you some idea, a recent report from Pipers shows they are doing about 105 hours work per month for AMHA. This does not account for the volunteer time committee members put in.

The amount of work we are doing is increasing. When I first came onto committee we had about four meetings per year. This year to date, we have had meetings almost monthly and they are lengthy. There is a huge amount of information to process: many emails per day. I get a lot of calls and emails from members with inquiries. To spread the load each committee member has been allocated a portfolio of things to be responsible for.

Grant Young has the job of looking after the financial issues and working with Invisible Office to ensure all is well there. It was identified that all accounting issues and that of levy collection would be the work of Invisible Office, an accounting firm based in Tauranga. They have implemented good systems of sending out pro-forma invoices each quarter for levies, and member and licensee renewals each year. Committee has set up that membership and financial issues are to be handled by the brand manager and Invisible Office, and we will not be privy to this information. Each quarter we are made aware of the amount collected in levies, not by whom.

Grant has also contacted accounting firms for information on obtaining a UMF® brand valuation. This matter is aligned with determining an appropriate entry fee for any AMHA licence enabling use of the trademark by the licensee. We believe that soon we will need to review the fee structures to make sure we truly reflect the value of our trademark in the marketplace.

John Bassett and Barbara Bixley were in charge of reviewing the licence agreement, and chasing committee members for their thoughts on this. They were able to pull out of us all a document that we are looking at now. It covered many issues, checking that we are covering all aspects needed to give guidance of how to be a member and act according to our constitution. Our constitution has also been reviewed and updated to truly reflect our position today.

Neil Stuckey had a task of the publishing the newsletter, a task he found challenging, but he is underway with Denise's help. I am proud of the efforts so far and hope that we will continue regular contact with members through the newsletter.

Kerry Paul and I have the task of research projects and the management of these. It is a huge role, and we may need assistance with this on a more formal basis, as we have more and more research work on the go at once.

At this time I would like to acknowledge Barbara. She has been involved on committee for some time. Barbara has retired from Arataki Hawkes Bay after 20-plus years in the honey industry. You will be missed from our committee as you have huge amounts to offer, and no one can fault you on the history of some decisions made right back to the Honey Marketing days. Enjoy your retirement, Barbara, we will miss you.

Recently there has been a heightened awareness of the need to protect and promote other honey varieties in the market place. Companies have made applications for trade marks for honeys in different countries and regions. I was involved in an industry-wide conference call in mid-June to discuss this issue. This discussion was also bought up at the recent NBA conference. It seems that the industry has identified AMHA as a model of doing the promotion and protection of honey very well. It could be that our system will be replicated for other groups and other honey varieties. Nothing further has been decided yet; however, it seems that there will be meetings held in the next few months to discuss what role AMHA could have in assisting with this.

In summary it has been a very busy 12 months, a lot of time taken in reviewing and establishing best practice and systems that will operate for AMHA into the future. I feel confident that there is a great committee who bring diverse backgrounds and strengths to the table who are working hard to attend to members' needs and requirements. We still have a lot to do to continue with protecting and promoting the UMF® trademark here in New Zealand and around the world.

Please accept this report as a summary of the work done for AMHA throughout 2005–2006. Thank you.

- Moira Haddrell
Chairperson of AMHA committee
3 August 2006

Management Agency reducing numbers of levy defaulters

One of the more unpleasant tasks any manager has is to front up to those who are not prepared to pay debts owed. The AFB National Pest Management Strategy is no exception, with outstanding levies remaining at a disappointingly high level.

However, there is good news: the level is reducing as a result of letters and supporting statements (detailing debt history) being sent to defaulters, giving notice that if the monies are not paid within a certain timeframe the debt will be put in the hands of a debt recovery organisation.

I have stressed in the correspondence to defaulters that the Management Agency sees a need to be both fair and reasonable in the pursuit of the debt, and is prepared to discuss individual cases (as I am currently doing). Please do not ignore the correspondence if it arrives — the Management Agency is serious in its efforts to collect monies outstanding as it is required to do under the Order.

The fight against AFB should not be shouldered solely by those who comply with their obligations under the legislation.

- Rex Baynes
AFB NPMS Manager

Management Agency works hard on upgrading the AFB NPMS Operational Plan

Like most organisations, the Management Agency believes a fundamental component to running a successful pest management strategy is to have in place a fully functional and easily understood operational plan, in order to provide a level of consistency when implementing the day-to-day programmes of the AFB NPMS.

The purpose of the Operational Plan is to clearly define the policies pertaining to the AFB NPMS and outline procedures and guidelines, as well as explaining certain protocols.

In reviewing the existing document, the Management Agency must be sure to keep within the intent of the relevant legislation, as well as ensuring the policies adopted are both affordable and workable.

Operational Plan policies already developed and agreed to relating to dealing with AFB outbreaks. This year's surveillance selection criteria are provided on the next page for beekeepers' information.

- Rex Baynes
AFB NPMS Manager

Management Agency prepares for spring surveillance programme

Beekeepers will be aware of the stated policy that the Management Agency is required to both target and randomly survey between two and four percent of apiaries each year.

Given plans are again underway to commence another surveillance round, it is appropriate that I pay thanks to those of you who assist in the running of the programme, both from a disease coordinator's perspective as well as those of you who assist in lifting the lids.

It has been especially pleasing to me in the relatively short time I have been in the job to have received calls from a number of coordinators who, while not being afraid to express their views in a forthright manner, have also been constructive in their advice and support.

Again, as part of the review of the Operational Plan, the Management Agency has spent considerable time in updating the AFB Inspection Surveillance Specification/Criteria. I would stress at this point that we have, where possible, taken advice from disease coordinators who took the time to complete a survey questionnaire form.

I have heard through the grapevine that a number of beekeepers are, to put it mildly, annoyed as they see themselves being targeted almost annually. It is important to note that your apiary may be targeted each year, but it will not always be for AFB. The Exotic Disease programme requires regular inspections.

Selection criteria (specific)

The confirmed policy to be applied for the forthcoming round is as follows:

1) history of AFB incidence
2) previous positive results from testing of bees and/or honey
3) beekeepers who have increasing reported levels of AFB
4) new beekeepers
5) beekeepers who may have rapidly expanded their hive holdings, particularly from a hobby level to a semi-commercial/commercial status
6) consideration of local knowledge from disease coordinators.

Selection criteria (general)

7) geography must be considered in terms of travel
8) selection criteria to take account of all beekeepers having apiaries inspected within a 3–5 year cycle
9) those sites/beekeepers surveyed last year to be excluded from the sample for selection, unless they are in a high-risk category as above
10) if beekeeper surveillance conducted under other sections of the strategy; e.g., ADR/COI defaulters, then these beekeepers are to be removed from selection.

- Rex Baynes
AFB NPMS Manager

7 days ... to report AFB
7 days ... to burn AFB infected hives after being found
7 days ... one week!

AFB NPMS 2007–2008 Operational Plan: 1 June 2007 through 31 May 2008

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 2007–2008 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).

2007–2008 Operational Activities: The 2007–2008 operational plan is summarised below. The Management Agency (MA) intends that the following categories of work will be performed in the 2007–2008 period. *NB: some monetary figures are reported for beekeeper interest. These figures relate directly to the 2007–2008 operational budget consulted on with all beekeepers.*

a. **Beekeeper Education: ($15,000.00)** 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 (under contract); 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.

c. **Disease Elimination Conformity Agreement (DECA) Scheme: ($11,000.00**) DECAs are recognised as an important tool in the success of the strategy. The 2007–2008 plan is to have beekeeper DECA reviews based on AFB levels, AFB risk, and ADR compliance, and to have a significant number of DECAs reviewed. Beekeepers will need to complete a competency test before the DECA is approved and a COIE (Certificate of Inspection exemption) is given.

d. **Certificates of Inspection (COI): ($8,000.00)** COI will be managed in the same manner as the 2006–2007 operational period.

   - **Certificates of Inspection (COI) defaulters:** The 2007–2008 operational period and previous periods in the strategy have had a high number of COI defaulters. The 2007–2008 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): ($50,000.00)** ADRs will be managed in the same manner as was seen in the 2006–2007 operational period.

   - **Apiary and Disease Register:** The National Apiary Database will continue to be managed the same as it was in the 2006–2007 operational period.

   - **Annual Disease Returns** (ADRs) defaulters: A significant number of beekeepers each season default on their Annual Disease Returns (ADR) 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 beekeepers.

f. **X-coded Beekeepers**: A large number of beekeepers have departed the industry in the last two to three years. 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: the owner will be asked to re-register and pay back levies or the hives 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: ($25,000.00)** The Management Agency (MA) plans to increase the sample size for this programme. The random sampling of apiaries assists the industry to discover AFB concerns. It is a valuable service that will continue in the 2007–2008 operational period. It is planned that sampling and testing will be undertaken in a similar manner to that of the 2006–2007 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:** Beekeepers with AFB concerns will receive counselling to help them overcome evolving AFB problems associated with 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 Surveillance Programme: ($40,000.00)** Between 2% and 4% of apiaries registered in New Zealand will be inspected by Approved Persons Level 2 (AP2) appointed beekeepers. This process will be managed in consultation with AgriQuality and industry. National Beekeepers' of New Zealand (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: ($3,000.00)** A Strategy Review Committee will be convened and shall be responsible for carrying out an annual review of the operational plan of the strategy. This review committee will review the strategy as set out in the AFB NPMS Order in Council.

l. **AFB NPMS Account – Levy Management:** MYOB accounting software is used to manage AFB NPMS Levy records. Statements of accounts will be sent quarterly to beekeepers owing levy money and penalties will be charged. Furthermore, frustrated overdue accounts will be managed by a professional debt collection agency.

m. **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.

n. **Branch Visits: ($5,500.00)** The Manager (AFB NPMS) will visit 3–5 regions during this reporting period.

- Rex Baynes
AFB NPMS Manager

Management Agency concerned at possible numbers of unregistered hives/apiaries

I am advised that as a result of the varroa incursion into the South Island, AgriQuality located a significant number of unregistered hives/apiaries.

In addition, anecdotal evidence suggests that the problem may be more widespread than originally thought, although at this stage we can really only point to unregistered hives/apiaries reported by AgriQuality as a form of concrete evidence.

This finding must be of concern to all responsible beekeepers, particularly in terms of the fight against AFB.

This breach of the Order has been discussed over recent months at Management Agency meetings; however, I believe as AFB NPMS Manager I now have a responsibility to all registered beekeepers to demonstrate leadership in this regard by seeking approval to implement initiatives in order to resolve this problem, at least in part.

In the meantime, can I ask members of the beekeeping community to please give this matter some thought, and contact me should you have information or ideas on how best to combat this problem.

- Rex Baynes
AFB NPMS Manager

Beekeeper consultation on proposed AFB NPMS 2007/2008 Operational Budget, 1 June 2007 through 31 May 2008

Introduction

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.

Biosecurity (American Foulbrood – Apiary and Beekeeper Levy) Order 2003 – Payment of levy

– Section 16: Consultation on how levy is 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 with 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 year 2007–2008 operational period: 1 June 2007 through 31 May 2008.

The budget outlines how the Management Agency intends to spend levy income for the 2007–2008 period.

If the budget is approved, the levy will be set at $20.00 per beekeeper and $8.50 per apiary.

Rex Baynes
AFB NPMS Manager
PO Box 44282
Lower Hutt
Email: rbaynes@ihug.co.nz

PROPOSED AFB NPMS OPERATIONAL BUDGET

2007/2008

Category/Item		Budget 2007/08
Income		
- Levies (Beekeepers)		$54,000.00
- Levies (Apiaries)		$161,500.00
- Levy Penalties Received		$9,000.00
- Default Inspection Recovery		$3,000.00
- Interest Received		$9,000.00
Total Income		**$236,500.00**
Expenses – Administrational		
- Financial Accounting		$4,700.00
- Financial Auditing		$2,900.00
- Reporting to Govt/NBA/Levy payers		$5,300.00
- Legal Expenses		$2,000.00
- Levy Management/Administration		$35,000.00
Sub Total		**$49,900.00**
Expenses – Operational		
- Disputes Arbitration		$5,000.00
- Review Committee		$3,000.00
- Beekeeper Communication		$6,500.00
- Beekeeper Education		$15,000.00
- Branch Visits (Manager)		$5,500.00
- DECA Scheme		$11,000.00
- Certificates of Inspection		$8,000.00
- AFB Outbreak/Hotspot		$4,500.00
- AFB Counselling		$5,000.00
- Surveillance Programme		$40,000.00
- Audit Programme Contractor		$22,000.00
- Annual Disease Returns		$50,000.00
- Abandoned Apiaries		$2,000.00
- AFB Spore Testing		$25,000.00
- AFB Drug Investigation		$1,000.00
- Operational Meetings		$4,000.00
- Default Audits		$5,000.00
- Management Agency Honoraria		$6,000.00
Sub Total		**$218,500.00**
Total Expenses		**$268,400.00**

Important: If you wish to make a submission on the proposed budget then please do so in writing by 1 December 2006 to Rex Baynes (see contact information above).

Other AFB NPMS deadlines:

30 November 2006

- Submissions close for comment on "working towards the goal of the AFB NPMS Management Agency becoming a body represented by all levy payers" – *see page 33*

1 December 2006

- Submissions close for comment on the "proposed extension of the AFB NPMS Strategy for a further five years" – *see page 33*

Aggressive control/eradication of varroa in the South Island

Following the Government announcement that an official MAF eradication of varroa bee mite would not proceed, Nelson beekeepers formulated an initiative to significantly reduce varroa mites in the infected area with a possible eradication of varroa from the South Island.

From a meeting of beekeepers in Nelson a group South Island Varroa Control Group (SIVCG) was formed. Initially the committee was small, consisting of Matt Davidson (Chairman), Debbie Lavery (Secretary), Russell Berry, Philip Cropp, and Darren Clifford. Support continued from both the South and North islands, with many beekeepers and also those other industries dependent on bees coming on board with a view to eradicating the mite.

Through negotiations with Government, the Government agreed to support the beekeeper initiatives, mainly to oversee the programme and administer the legal powers of the Biosecurity Act if there was a need.

The plan involved the removal of approximately 1,000 managed hives from the infested area to the already infected North Island. The last load went on Wednesday 20 September.

To depopulate feral bees, bait stations have been deployed in strategic positions in the infected zone. At the appropriate time, poison will be placed in the bait stations for the bees to gather and return to their hives. The slow-acting poison will then kill feral bees in the area. There will be further monitoring for the presence of bees and also varroa in the area. It is envisaged that further poisoning of feral beehives will be undertaken in autumn, when robbing is easier to set off because of lack of nectar supplies.

Fortunately the infected zone has very little requirement for pollination of crops. The small amount of hives required has been donated by Mid Canterbury and South Canterbury beekeepers and will be destroyed upon completion of the pollination of the crop.

Whilst some are sceptical of the eradication attempt, many others have supported this venture with money to cover the purchase and relocation of hives, labour and transport for the baiting/poisoning programme, as well as supplying replacement beehives for those who chose to have their hives replaced rather than selling them to the North Island.

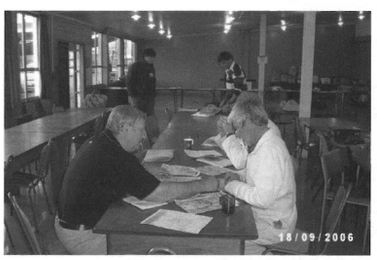
This process involves a joint effort by MAF/Biosecurity New Zealand and beekeepers, with assistance from the wider agricultural community, to at least have a dedicated effort at eradication of varroa. Movement of hives in adjacent areas will be conducted with conditions, and a monitoring programme is to be initiated to identify any further mites.

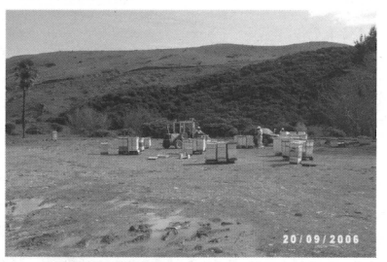
There is a chance that mites may escape the control procedures but there is also an equal chance that the process will work — a chance and a gamble that those who support the programme wish to take, for the benefits of a South Island free from varroa.

- Roger Bray

Top Row (left to right): Canterbury bees donated for Nelson pollination: Jeff Lukey unblocking hives. Arthur Day and Tristan Jones setting up bait station.

Photos: Roger Bray.





Middle row: Paul Newing and Allan Hill reviewing the day's baiting.
Ferals attracted to bait station.
Dumpsite of hives waiting shipment to North Island.

Bottom row: Dumpsite of hives waiting shipment to North Island
Philip Cropp loading truck for shipment to North Island.

The use of chemicals in beekeeping: a serious issue or a storm in a teacup?

The use of chemicals as an aid to effective beekeeping has been around probably for as long as beekeeping has been around — the Wikipedia website suggests beekeeping for food production may be more than 15,000 years old.

Consumer and international concern about the presence of undesirable chemical residues in food, including bee products, and particularly from human intervention is considerably more recent. Issues have been raised recently by some of our more important trading partners concerning some shipments of New Zealand bee products. As a result, NZFSA has been required to look more closely into bee product residues and how best to ensure product suitability for both export and domestic situations.

The laws governing use of chemicals in food-producing agriculture require certain chemicals to be registered and their use to be tightly controlled: antibiotics are a topical and important example. These same laws also recognise there are many chemicals that may potentially be used in agriculture for many different purposes, including uses handed down for generations largely unknown to anyone who has no direct knowledge of agricultural practices. Everyone knows cattle and sheep are treated with antibiotics when they are ill, but use of copper sulphate crystals for hoof problems in cattle is not so commonly known. Use of chemicals for agricultural purposes without any sort of regulatory controls under the law is called "own use".

As long as "own use" of a chemical does not lead to unacceptable levels — as specified under the Food Regulations and the Animal Products Act — of the chemical getting into the food (and a few other requirements not relevant to this article), then it is legal to use the chemical. When "own use" has been common practice for generations, but is now found to lead to unacceptable levels of chemical in food, something must change.

There are also legal (under the ACVM Act) limitations on "own use". A range of chemicals are prohibited from use for any agricultural purposes: DDT is one example. Some chemicals or usage practices require a code of practice to be put in place before own use is permitted; for example, chemicals prohibited for agricultural use by our trading partners.

Just about every chemical used in the beekeeping industry falls into the "own use" category. The main exceptions nearly all beekeepers will be familiar with are the varroa treatments, which are registered and have clear instructions for how they are to be used.

The standard for "own use" of chemicals, which every beekeeper who undertakes own use of chemicals needs to be familiar with, can be found at the following web address http://www.nzfsa.govt.nz/acvm/publications/other-standards/own-use/index.htm

Some specific examples of "own use" chemicals are: para-dichloro-benzene (PDB), used by a minority of beekeepers for keeping wax moth away from beekeeping equipment and comb foundation during storage; smoke, used extensively to calm bees for when hives are being handled; and methyl-bromide, another fumigant but not as commonly used as PDB. There are various other fumigants for managing pests and also a few chemicals used as bee repellents by some beekeepers.

All of the chemicals mentioned, if they come in contact with bee products intended to be harvested for food, may lead to residues of chemical in the bee products.

Certain chemicals have a long history of use in the beekeeping industry and have been used so universally without adverse health effects that it would be a poor use of NZFSA resources to assess the risk of ongoing use; an example of this would be smoke. Beekeepers are very responsible about the type of material they use to produce smoke; e.g., avoiding use of painted or treated wood. Unless someone produces absolute proof that there are food safety problems associated with the use of smoke, this practice will probably continue without regulatory involvement for another 15,000 years.

PDB

In contrast to smoke, para-dichloro-benzene (PDB) — a wax moth fumigant — is one of a number of chemicals with potential food safety risks, and it has been found in honey at levels unacceptable (to offshore markets) to allow the current situation to continue. PDB is prohibited as a fumigant in the bee industry in both the USA and EU. There is currently no code of practice in place that describes how to use PDB to ensure acceptable levels of residue are met. The combination of these factors in effect means that PDB can't legally be used in the bee industry in New Zealand. The ongoing use of PDB without a code of practice cannot continue. NZFSA, in consultation with the bee industry representative bodies, will be looking at how PDB levels in bee products (particularly honey) can be brought into compliance with food safety standards. It is the obligation of the industry or users, rather than NZFSA, to develop a code of practice for acceptable methods of use. If a code of practice is agreed upon as the solution for controlling PDB residues, then it will be up to the bee products industry to do the research and establish safe use practices.

The situation as it stands right now is: without a code of practice in place, PDB cannot legally be used in association with any beekeeping equipment or comb foundation. If the bee industry is unable to develop a code of practice and there is continued evidence of ongoing use, then NZFSA may be faced with having to formally prohibit the use of PDB and take regulatory action when residue levels are found to be exceeded. Given there are non-chemical alternatives to controlling wax moth, many people in the bee industry, from beekeepers through to exporters, wish to see the use of PDB eliminated from the bee industry. This means the likelihood of having a code of practice developed and established is quite low, and it does not even take account of the costs associated with the necessary research.

Continued on page 26

Continued from page 25

Other chemicals

Discussions with various people in the bee industry and some preliminary surveys indicate that PDB may only be one of many chemicals that are finding their way into bee products. Other fumigants, bee repellents, paint ingredients and wood preservative ingredients are all chemicals that may, like PDB, be found to be occurring at unacceptable levels.

For the other fumigants and bee repellents (some of which are also prohibited in trading partner countries), a process of assessment like that for PDB needs to be undertaken. Like PDB, any chemicals being used in an "own use" capacity right now, which are prohibited by any of our trading partners, should be removed from use.

NZFSA recognises there is a problem in knowing what is actually prohibited by any of our trading partners, so the recommendation is: if there is a non-chemical alternative then the chemical use should be stopped and the non-chemical method put in place. NZFSA will endeavour to notify the bee products industry of chemicals known to be prohibited by trading partners and which are possibly used in beekeeping.

There is increasing sensitivity around the world about the presence of undesirable or harmful chemicals in food. Honey is a special food in this context as it is specifically promoted as 'natural' and 'healthful'. Testing for ever-increasing groups of chemicals is becoming easier and cheaper. This means the likelihood is that chemicals not previously tested for in bee products may start to be tested. New Zealand, in general, and the bee industry in particular, cannot afford to be merely reactive to findings of chemicals by overseas companies or governments. We need to be rationally proactive. We need to know what chemicals are being used, and whether those chemicals are finding their way into the bee products people consume. Then we (i.e., industry and government) need to take the appropriate action to protect both domestic consumers and our export markets.

It is the conclusion of the NZFSA and bee industry representatives that chemical use in the beekeeping industry is indeed a serious issue and one that needs to be addressed.

NZFSA is currently working through the Bee Products Standards Council (BPSC) to assist the industry, as collective efforts are more effective than individual ones. As a first step, NZFSA recommends beekeepers advise the BPSC of any chemicals currently used that may fit into the categories mentioned in this article. This will enable NZFSA to get an appreciation of the trade and safety risks posed by such chemicals.

- Greg Zemke-Smith
Senior Programme Manager
Export Standards and Systems – Animal Products
New Zealand Food Safety Authority

[Editor's note: beekeepers are encouraged to raise issues regarding this article with their local and regional industry organisations.]

Alternative methods to control wax moth

The serious concerns raised by the Bee Products Standards Council of the risks that residues of PDB (para-dichloro-benzene) is presenting to the bee product market means that beekeepers who have a problem with wax moth will need to use alternative control methods. The following options are available.

Temperature extremes can be used as a non-chemical control measure for wax moth control.

Heat: all stages of the greater wax moth are killed at a temperature of 46°C for 80 minutes or a temperature of 49°C for 40 minutes. Be sure to allow combs to reach the required temperature before measuring the exposure time.

Caution is advised when heat-treating and the heat MUST be circulated to avoid hot spots that would melt the wax. Be careful not to expose honey combs to temperatures in excess of 49°C because combs softened at high temperatures may sag and become distorted. Heat-treat supers of combs only when they are in the normal, upright position. Provide adequate air circulation for the heat to be evenly distributed throughout the comb. Ventilating fans are useful for this purpose. Turn the heat off and allow combs to cool before moving the supers.

Cold: wax moths are also killed by low temperatures. The use of low temperatures can prevent the sagging problem that sometimes occurs when combs are treated with heat. Combs with honey and pollen can be treated by use of low temperatures without much danger to the combs.

Care should be taken when treating with cold because beeswax becomes brittle and breaks easily. The minimum temperature and exposure time needed to destroy all stages of the greater wax moth are shown in the following table.

Temperature	Time In Hours
-7°C	4.5
-12°C	3.0
-15°C	2.0

Once the combs are treated, store them where no adult wax moths can get to them. Inspect combs monthly for any signs of infestation, especially if temperatures rise above 15.5°C.

Carbon dioxide: CO2 at concentrations above 95% can effectively control wax-moth. For further information see Morse, R. A. (1978), *Honey Bee Pests Predators and Diseases,* Cornell University Press, London. *Please note that fumigation with carbon dioxide (CO2) is extremely dangerous, not because the chemical is inherently toxic, but because the user is at risk from suffocation. It is not recommended for the amateur!*

Wax moth trap: take a two-litre plastic soft drink bottle and drill a one-inch (2.5 cm) hole just below the slope on the neck, then add one cup of water, one cup of sugar, one-half cup of vinegar and finally, one banana peel. Wait a few days till it starts to ferment, then tie it to a tree close to the hives. This trap will draw the wax moth: they enter the hole, can't get out and drown in the liquid.

Storage: some of the worst cases of wax moth damage occur in stacks of supers. This appears to be the ideal environment for the moth larvae, which build up to large populations quickly.

When separated and suspended on racks under sheds and, thus, exposed to ventilation and light, the combs often suffer little damage. The environment caused by this storage technique apparently is not so conducive to wax moth build-up as when combs are stored in stacked supers.

Supers can be stacked at right angles to each other so the corners are ventilated and lighted to reduce wax moth problems. Although not applicable to every beekeeper's style, this storage technology, providing maximum ventilation and lighting, is one alternative to chemical fumigation that might be explored in the constant search for adequate wax moth control in stored comb.

Older comb is more susceptible than foundation or newer combs. This is another reason for embarking on a regular comb renovation program.

Another management technique that can help reduce wax moth in stored combs is to sort out all combs that have any pollen in them, and store these separately from other honey combs — preferably in a cool, well-ventilated part of the shed. The sorting can be carried out during the extraction process. These pollen combs can then be used when making splits in early spring, so are out of the storage shed early in the season.

- Jim Edwards
Chief Executive Officer

For the attention of beekeepers who pay their AFB NPMS levies on time, the Management Agency is now actively pursuing those that don't!

From the colonies

Auckland Branch

Spring has sprung, with the bees really stepping up a gear with the flowering of the willow trees. The bees are bringing in both nectar and bright yellow pollen. Most hives that were in two boxes over winter are getting a third box added now, although some are still a bit behind. Hives that are going into kiwifruit have been getting 10-frame boxes ready for splitting and bringing up numbers.

We've been requeening a few hives that didn't get requeened last season, inspecting the queens for their age, etc. It was quite noticeable that these hives were somewhat behind others. This season we're making up tops in a couple of Manuka sites, readying them for a two-queen unit. So it will be interesting to see how they pan out, as I haven't seen one in action yet.

The paddocks dried out quite a bit this week: we were able to get into almost all sites without the quad. Although as I write this it's pouring with rain so I wasn't able to get into my own hives this weekend.

It's amazing who you bump into out in the wop-wops. It wasn't just the bees making use of flying in the warm weather. I had a couple of paragliders drop into the paddock next to me, so I gave them a lift back to 'civilisation' (i.e. the Puhoi pub). We squashed into the cab of the ute while my dog Huia clambered over their knees.

- James Harrison

Waikato Branch

On 23 August we had our coldest frost, around -5 to -7 degrees C. It was bitter. The truck had been covered with a tarp the day before, which had protected the boxes from rain. Huge chunks of ice had formed overnight and didn't fully thaw the next day. The bees were not very happy either, with ice on their floor boards: another reason to tilt the hives forward in the autumn. The last week of August was supposed to be fine, and the rain that tapped the window just proved once again that the 'beekeeper' shouldn't listen to the weather forecast. Farmers have been break fencing, and the pastures show heavy signs of pugging.

Early September and the willows are starting to green up. The lovely tinge that appears on the tops of the trees when viewing from afar proves that spring is well on its way. In the paddock the beehives become a playground for the lambs to springboard over. The King Country has seen enough rain for this season and there is still water lying around from the rain a fair few nights ago. A few more days on and the wind ripples across the grass, showing the growth of a good warm week. Maize contractors must have had a good weather break as well, as the landscape is now dotted with orange pasture.

In our home garden the bees can be heard as they navigate through the weeds in the herb garden. There are also a lot more bumblebees here at our new place. It could be nature's paradise: a larger range of birds, so many ladybirds, even a stoat. You get the feeling that perhaps no one has sprayed or the land has not had the shock of current farming practices.

What's going on inside the hive; the smell of willow honey is present when opening up the hives along with pollen, other mentions are made of a dribble of heather and five finger. From our point of view the hives came through the winter well. Some beekeepers are saving a bit at the moment on sugar feeding costs as the hives don't need it; however, the comment is let's wait and see what the rest of the spring brings us. Raising cells is also well underway.

Pollination is all go with stonefruit and blueberries. Apples are up next, then into Gold kiwifruit, and next you know it will be Christmas.

Getting back into full beekeeping gear day in and day out is a little tough on the body, especially for hands in gloves. Often the ends of your fingers can dry out and crack. One tip that the 'beekeeper' learnt at the Mystery Creek Fieldays a few years ago was to use superglue on the end of your fingers (apply and let dry, don't do anything else until it has dried!). Superglue seals the cracks and keeps it dry. As the skin grows the superglue eventually just wears off. The only caution is not to be tempted to rub one finger against the other in the application process. This type of sealant apparently is used a lot in medical operations.

Thanks to Cambridge Bee Products for co-ordinating a few beekeepers to get together to sit our forklift licenses. Just another thing to tick off the regulatory list. A lot of beekeepers have also done the Farmsafe Agrichemicals/Approved Handlers certificate (www.farmsafe.co.nz, or phone 0800 545 747). As from 1 January 2007 there will be changes as to how you will be able to purchase chemicals and limitations.

Only thing for me to do now is to go and locate that Certificate of Inspection so the 'beekeeper' can check my two hives.

- Fiona O'Brien

Bay of Plenty Branch

Spring has truly sprung in the Bay of Plenty and the hives are generally in good shape. For many of our members the busiest time is all but upon us, with Gold kiwifruit pollination underway and Green coming up soon.

Our last meeting for the year will be 17 October at Buerta Park (Rimu Room), Vale Street, Tauranga, from 7.30pm.

Have a good season everyone, and see you all next year.

- Barbara Pimm

Poverty Bay Branch

Good day to you all — hope the spring is still springing with great gusto as it is here on the East Coast of the North Island after such a long harsh winter. This spring was the

best build-up I have observed in 20 years, thanks to varroa having knocked off the feral colonies. The hives are enjoying a smorgasbord of pollen and nectar. I cannot state enough that varroa is really not the big mitey monster that you may have been led to believe. I haven't lost a hive to varroa and I'm using purely organic methods as well. I say this especially with regard to our colleagues on the mainland. I hope and pray you achieve the desired result of eradication. Stay focused, and hope things go well.

- Don Simm

Hawke's Bay Branch

The weather for the last 10 days has been absolutely perfect, which makes a big change from the two months before that — in fact, we could use rain at the moment. Some early stonefruit may have had pollination problems, but later crops should be excellent as the weather has been perfect.

Beekeepers should spread the news as widely as possible that PDB has been found to leave residues in honey and that it should not be used. In Hawke's Bay this product is mainly used by hobbyist beekeepers to keep wax moth out of their stored combs. If you have used this product, please ensure that all combs are aired well before placing onto the hives, and I urge you not to use this product again.

The New Zealand Food Safety Authority is also looking into other products used in and around the hives, including Metalex, benzaldehyde and Ecowood. This is a much more serious issue and I don't know who opened this particular can of worms. We have to be very careful over some of these issues — just because some people don't use benzaldehyde (artificial almond essence) does not mean that it is not useful or even essential to other beekeepers. There would be very few beekeeping outfits in New Zealand that do not contain at least some boxes that have been treated with something. Most of these products have been used for 40 years or more. If good grounds can be shown why they should not be used, fair enough. However, many people here are concerned that the New Zealand Food Safety Authority is being asked to look into things by people who should perhaps know better.

I have had several reports that hive numbers required for pollination in both stonefruit and pipfruit have increased substantially this year, probably reflecting both an increase in orchard profitability and poor pollination due to insufficient bees last season.

- John Berry

Southern North Island Branch

Spring is here, and in many ways similar to last year as the hives have built up very strongly. Reports of up to 10 frames of brood in two boxes are not unusual. This of course creates its own problems, such as hive congestion and early swarming. Some members are splitting hives now to reduce the risks and also to prepare for pollination of pipfruit.

Nectar flows have been strong but on a stop-start pattern with the cold snaps. Pollen flows continue, particularly from willows and wattles. As a result, the amount of sugar and pollen supplement feeding required over the last month has reduced. Hobbyist beekeepers have reported good hive development and they are looking forward to starting to harvest honey sooner this year.

In the lower North Island many smaller beekeepers have reported hive losses due to varroa. Some assumed that varroa came and went, others did not treat correctly, or did not treat at all in autumn, and the result is always the same — dead hives. Those that have followed a correct autumn treatment and monitored the results report that their hives are strong and flourishing.

We have sympathy for the Nelson beekeepers, who are trying to overcome varroa invasion, and wish them well in their attempt at control and eradication.

- Neil Farrer

Nelson Branch

If one can put aside thoughts of the June 2006 varroa incursion in Nelson and all the months of surveillance and meetings to address it, we can say that Nelson has had a wonderful spring for hive build-up. It has been dry and warm, and the pollen is especially plentiful this year. As I write this, we are already trapping pollen to remove the surplus from our hives.

Most beekeepers say that their hives have good stores, and hives near the bush are getting five finger and early honeydew. Foundation is being readily drawn. I am certain that I will be

telling you about heavy swarming this time next month if it stays as dry as predicted.

Biosecurity New Zealand and affected beekeepers have held their second meeting to establish the control line for containing varroa to the current infected zone around Nelson city. The present line was originally drawn at the time of the varroa incursion and for expediency, coincided with local regions. A mediator facilitated our discussion evenings with Biosecurity New Zealand, where it was stated that the control line was to be decided by beekeepers, not Biosecurity New Zealand. It became apparent that wherever the line was drawn, someone and their hives would be affected. I am sure that most of the North Island has experienced this exact scenario, and might I say that the rest of the South Island should be anticipating that they too will go through this process in due course (except for Stewart Island, should they be the last to get this dreaded varroa!).

At the time of writing, the South Island Varroa Control Group (SIVCG) have initiated their plan to relocate all managed hives in the infected Nelson and Pelorus Bridge areas to the North Island. Following the completion of this project, SIVCG will work closely with MAF/Biosecurity New Zealand to implement a baiting program to kill feral hives. A recent information sheet has indicated that the aim of this private group is to eradicate varroa completely, and failing that, they will significantly slow the spread to the rest of the South Island.

The biggest bee in my bonnet at this point is to get some varroa education workshops established in the Nelson area. Biosecurity New Zealand has assured us that their management plan for education has been drawn up and we look forward to hearing about the time frame for workshops to begin. As the spring season gets under way, local beekeepers are already feeling that they are behind with their work after all the busy and stressful varroa happenings this winter. Better the devil you know ....

- Merle Moffitt

Merle and Neisha Moffit representing Nelson Ward, NBA Conference 2006. *Photo: Pam Edwards.*

Canterbury Branch

The Canterbury Branch meets on the second Tuesday of the month at the Hornby Workingmen's Club. All are welcome. Contact Roger Bray (telephone 03 308 4964).

On behalf of the Canterbury Branch, I would like to extend our thoughts and best wishes to our Nelson counterparts as they tackle the varroa outbreak. We South Islanders funded surveillance under the illusion that Government would fund an eradication attempt. How do these guys sleep at night after a back down of this magnitude? No wonder we become more cynical as time goes by!

Recriminations are too late now and we are best to start preparing for varroa. Thanks to the determination and selflessness of the Nelson beekeepers, we further south will have an extra couple of seasons. Because of this consider what you can donate to the cause, because our Government has let them down.

- Brian Lancaster

South Canterbury Branch

The heavy snowfall in June has not slowed down the onset of spring. We have had a lot of late-winter westerly weather, with some very warm temperatures much earlier than we have been used to over the past few years. As a consequence, the willows are almost two weeks early! This is maybe not a good sign though, as these are the same conditions that produce a dry season in Canterbury. However it is early days yet, and rain at the right time can produce a good crop even in a dry year.

Hive numbers have taken a big hit in South Canterbury with many having been sold to the North Island. Contrary to what some might believe, this is not all due to the varroa threat. Some beekeepers have reached retirement age; others have decided that they have reached a point in their lives where they do not want to work as hard, so have downsized accordingly. No doubt this will create some opportunities for others to expand.

With the varroa find in Nelson, and the fact that there are a lot of beekeepers who are not a member of either NBA or BIG, it was deemed timely to instigate a regular discussion group to try and encompass all beekeepers in the area and keep them informed about important developments in the industry. The first meeting was very successful with about 40 in attendance. Topics discussed included residues, varroa and the need to belong to a beekeeping group.

- Peter Lyttle

Otago Branch

As I write the equinoctial winds are howling: with the willows in full bloom they are right on cue. A series of alternating southerly fronts and nor'westerly winds is in force and for most beekeepers it is a case of grin and bear it and try to keep your veil on. Hives in sheltered areas will get a little nectar before the flowers are all blown off, but in this kind of spring the willow is a fleeting flow and honey gathered is soon

consumed. Thankfully most hives still have a fair supply of stores from last season; perhaps that early shutdown and long hibernation has helped.

The winds, however, are putting the soil moisture under pressure already and we are all hoping for some good rain from somewhere soon. On the bright side it is really easy to get about in the paddocks without having wet knees. But then I have just discovered closed-cell foam kneepads! They are great for spring beekeeping: beats the wet knees and the inevitable holes in the overalls, and kneeling rather than bending helps the back when doing those inspections.

We have our spring field day at Telford in a few weeks and are hoping for a large turnout. Perhaps by then we will have an update of the varroa situation in Nelson. For now most of us are in an information vacuum and can only guess the outcome of the control efforts. We hope that at worst we have a season or two before it arrives in our region and can, in the meantime, put our best efforts into preparation.

My own experiments with mesh-floored pallets this last winter have been encouraging. The hives are drier and despite the drafty southerlies, there's brood now right to the bottom of the frames in hives with a single brood nest. Now for the insulated lids.

- Peter Sales

Do's and don'ts of AFB control

[This excerpt is from the Revised [unpublished] AFB Elimination Manual by Dr Mark Goodwin and Cliff Van Eaton.]

Do

- Inspect your hives for AFB at least twice a year.
- Inspect hives before removing bees, honey or equipment.
- Carry out full frame inspections.
- Shake bees off frames before inspecting them.
- Train yourself and your staff in techniques to recognise and eliminate AFB.
- Report AFB to the management agency within 7 days.
- Burn infected colonies.
- Feed pollen substitutes rather than pollen.
- Feed sugar syrup rather than frames of honey.
- Use hive and apiary quarantines.
- Only use approved sterilisation methods.
- Use a thermometer and timer when paraffin wax dipping (10 min at 160°C).
- Treat hives to clear up parasitic mite syndrome (PMS) before checking for AFB.
- Become an approved beekeeper. Get suspect AFB samples tested.

Don't

- Don't feed drugs for control of AFB. Don't scorch boxes to sterilise them.
- Don't try to control AFB by removing diseased frames.
- Don't extract honey from infected colonies.
- Don't feed bee-collected pollen to colonies.
- Don't feed extracted honey to bees. Don't let hives be robbed out.
- Don't shook swarm.
- Don't let stock knock over beehives.
- Don't use steam chests to sterilise infected equipment.
- Don't split the equipment from dead hives between other hives.
- Don't allow colonies to die of varroa or any other cause.

Beekeepers: your thoughts please!

One of the resolutions passed at the 2006 Annual General Meeting of the National Beekeepers' Association (Inc.), held in Hamilton on 20 July, called on the Executive Council to work towards the goal of the AFB NPMS Management Agency becoming a body represented by all levy payers.

By way of background, the NBA is the government-appointed representative body responsible for running and facilitating the AFB NPMS.

Given the passage of this resolution, the Management Agency invites the wider beekeeping community to forward comment on this matter.

The deadline for comment is 30 November 2006.

Submissions should be addressed to:

Postal address:

Rex Baynes
AFB NPMS Manager
PO Box 44282
Lower Hutt

Email: rbaynes@ihug.co.nz

Extension of the AFB NPMS for a further five years

The Executive of the Management Agency has been in consultation with MAF/Biosecurity New Zealand over the five-year review of the AFB National Pest Management Strategy. MAF/Biosecurity New Zealand have sought legal advice as to the feasibility of extending the AFB NPMS for a further five years before the final review is undertaken. This would mean that the Strategy would be in force until 2011.

We have been told that this extension can happen, so the Executive is now seeking further submissions from beekeepers.

Submissions were sought on the discussion paper on the five-year review of the AFB NPMS (published in the October 2005 issue of *The New Zealand BeeKeeper*). Submissions received indicated that:

1. the objectives of the Strategy were still realistic to reduce the incidence to 0.1%. However, some submissions suggested that additional time should be given due to the presence of varroa during the acute phase increasing the AFB incidence.
2. those who made submissions were happy that the NBA remained as the Management Agency, or to maintain the lead role in the Strategy.
3. other changes that were suggested were more operational in nature where changes can be made in the Operational Plan.

Therefore, the Management Agency supports the extension of the Strategy for a further five years from the completion of the five-year review.

Beekeepers are invited to write submissions on this proposal by 1 December 2006.

Write to:

Rex Baynes
AFB NPMS Manager
PO Box 44282
Lower Hutt.

Email: rbaynes@ihug.co.nz

Food industry requirements and the implications for beekeepers …

Until recently, food being sold in New Zealand had to be made or processed in premises that were registered and inspected by local authority Environmental Health Officers (EHOs) and had to comply with the Food Hygiene Regulations 1974.

In 1996, an alternative risk management system was introduced under the Food Act 1981. This constituted a major reform for the food industry and was designed to replace compliance with the dated, prescriptive Food Hygiene Regulations 1974.

Today, food businesses in New Zealand have the option to develop Food Safety Programmes based on the Hazard Analysis Critical Control Point (HACCP) system, which provides exemption from the Food Hygiene Regulations 1974. The process is applicable to any size and type of food business.

The food industry is entering a new era of managing food safety risks to the consumer. The Domestic Food Review, currently being discussed, proposes that all local food businesses will be required to apply the principles of HACCP to develop a food control plan and have it implemented within five years of 1 January 2007.

At present it is not a mandatory requirement for all domestic food premises to implement a HACCP-based programme. If you operate an approved HACCP-based Food Safety or Risk Management Programme you are not required to register with, or be inspected by, the local council. Instead an independent New Zealand Food Safety Authority approved auditor must audit the business on a predetermined frequency.

The HACCP process involves documenting a food production process, the potential hazards, and controls to prevent the hazards from occurring. Monitoring of the controls and corrective actions for when things go wrong also need to be documented. When completed and implemented, each business has a comprehensive plan to follow on a day-to-day basis.

The Animal Products Act

The Animal Products Act 1999 also applies to beekeepers and those trading and processing bee products. The New Zealand Food Safety Authority is responsible for establishing regulatory requirements for the production and processing of bee products and for providing official assurances (export certificates) for bee products.

Bee products that are produced for export require official assurances (export certificates) to meet importing country requirements and must meet the Animal Products Act 1999. Bee products that are produced for domestic consumption only, or which are exported to countries for which there are no specific importing country requirements notified under the Animal Products Act 1999, may be produced under the Food Act 1981 or the 1974 Food Hygiene Regulations.

If you are electing to implement a HACCP-based Food Safety Programme or HACCP-based Risk Management Programme, there are some fundamental requirements to be aware of. One of the key factors is that the defined accountable person in charge of the HACCP-based programme must have completed training on the principles of HACCP, and also must have a suitably trained backup who is familiar with the principles of HACCP.

AgriQuality Training Solutions, a division of AgriQuality, hosts a number of training courses to cover everything from farm to fork. From basic food safety to the more advanced application of HACCP-based programmes for the meat, dairy, apiary, seafood, poultry, and food retail, manufacturing, processing and distribution industries. For further information, please contact AgriQuality's customer services team on 0508 00 11 22 or info@agriquality.com, or see our website www.agriquality.com.

- AgriQuality Limited

Investigation into accidental hive poisonings

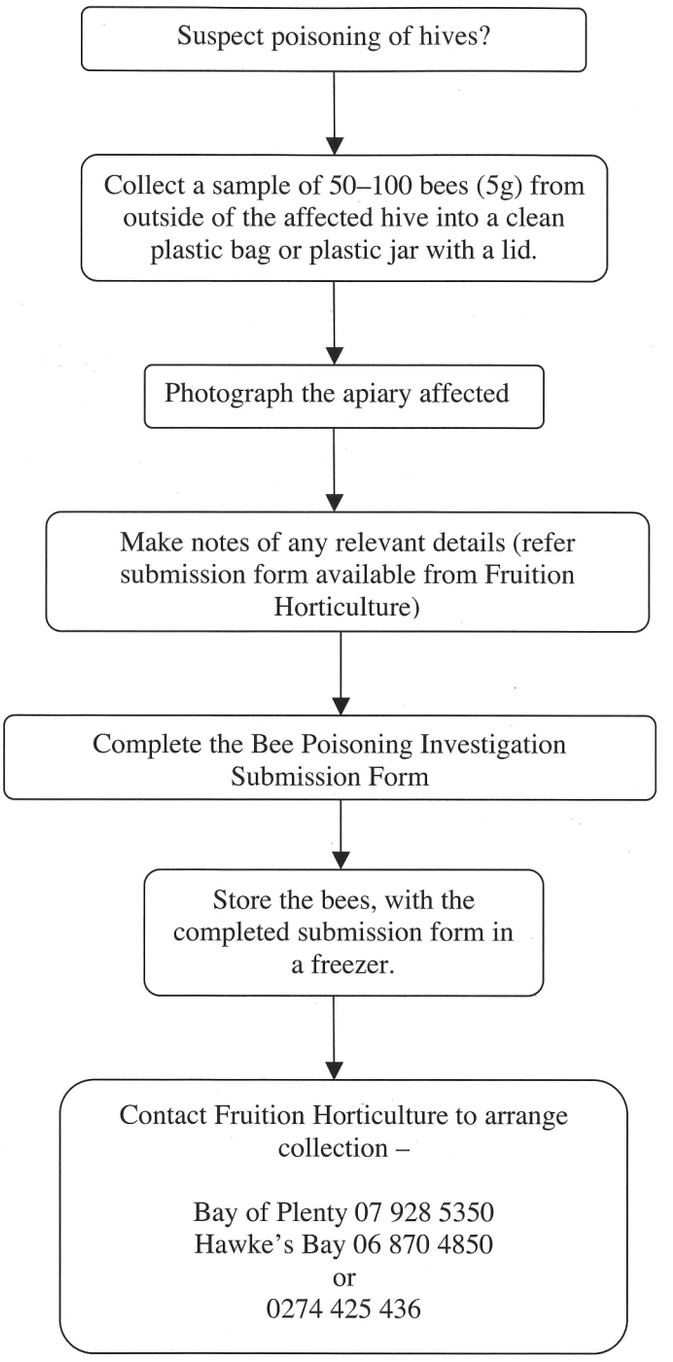
You may be aware that as a part of a larger MAF Sustainable Farming Fund project, a group of us are working to gather information about accidental poisonings of bee hives as a result of poor spray practice in and around properties where hives are placed for pollination purposes.

If your hives are in the Hawke's Bay or the Bay of Plenty and you suspect any of the bees from your hives, or hives you have hired, have been poisoned, we would like you to collect a sample of the bees so that we can send them to Hill Laboratories for a multiresidue analysis to determine if there are any traces of chemical on the bees. We have limited funds for this exercise and only hives suffering significant deaths will be included, up to a maximum of 20 samples for the season in each of Hawke's Bay and Bay of Plenty. These locations have been chosen because of the significant overlap in flowering crops.

The residue analysis is paid for by the project. We will advise you of the outcome of the test once the result is returned to us.

To discuss any aspect of this programme contact Sandy Scarrow of the Strategic Pollination Group, telephone 07 928 5350 or email sandyscarrow@fruition.net.nz.

The process for the collection and analysis of affected bees is provided below.



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1 to 49 boxes, 100 to 4900 pces = 4.80 each +GST
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Four weeks' annual leave entitlement commences 1 April 2007

The majority of the Holidays Act 2003 came into force on 1 April 2004. At present the annual leave entitlement is three weeks, however, from 1 April 2007 all employees will become eligible for four weeks' annual holidays on the date they next become entitled to annual holidays.

This is a minimum entitlement and will not mean that all employees who currently have four or more weeks' annual holidays will qualify for an extra week. Whether the employee will receive an additional week above the minimum requirement is a matter for negotiation between the employer and employee.

An employee who finishes with their employer after 1 April 2007, but before their next entitlement date, will be entitled to the following:

- payment for any annual holidays that they may have previously accrued at the greater of average or ordinary earnings; and
- payment at 8% of gross earnings for the period between the last time they became entitled to annual holidays and their termination date.

Employers need to plan ahead for how the introduction of four weeks' annual holiday will impact on their businesses.

Employers will need to budget for their employees' increased annual holiday entitlements as a future liability so as not to face unplanned full costs on or after 1 April 2007. Practically, this means employers need to start budgeting for the increase from their employees' anniversary dates after 1 April 2006, being aware that the entitlements do not actually vest until 1 April 2007.

For comprehensive information on what this will mean for businesses see the factsheet at http://www.ers.dol.govt.nz/factsheets/planning_4_weeks.html.

Examples of how four weeks' annual holidays will work in practice

Sian has an entitlement date of 27 November 2007. On that date she will become entitled to:

- four weeks' annual holidays. Sian will become entitled to a further four weeks' annual holidays on each entitlement date after that.

Ropata leaves his employment on 2 March 2007 (before the four week entitlement is effective) and the last date he became entitled to annual holidays was 1 February 2007. Ropata would be entitled to:

- payment for any annual holidays he has remaining (including the 3 weeks from 1 February 2007) at the greater of average or ordinary earnings; and
- payment at 6% of gross earnings for the one month period between 1 February and 2 March.

Ted leaves his employment on 12 May 2007 and the last date he became entitled to annual holidays was 12 April 2007. Ted would be entitled to:

- four weeks' annual holidays on 12 April 2007 and payment for any outstanding annual holidays that he has on 12 May at the greater of average or ordinary earnings; and
- payment at 8% of gross earnings for the one month period between 12 April and 12 May.

Moana leaves her employment on 1 August 2007 and the last date she became entitled to annual holidays was 1 November 2006. Moana would be entitled to:

- three weeks' annual holidays on 1 November 2006 and payment for any outstanding annual holidays that she has on 1 August 2007 at the greater of average or ordinary earnings;
- payment at 8% of gross earnings for the nine month period between 1 November 2006 and 1 August 2007.

[Source: Department of Labour website http://www.ers.govt.nz/holidays_act_2003/4weeks.html]

Annual holidays — general entitlements

The key for all employers and employees is:

- working out and agreeing what the entitlement to paid annual leave means for them; and
- ensuring the employee is correctly paid when they take annual holidays or their employment ends.

All employees are entitled to paid annual holidays

On each anniversary of the date of commencing employment, the employee is entitled to three weeks' paid annual holidays. *[Editor's note: entitlement will change to four weeks from 1 April 2007: see information above].* The leave can be taken at any time agreed between the employer and the employee. Employees must be given the opportunity to take at least two of those three weeks' leave continuously, if they wish to do so.

Under two circumstances, the date on which the employee becomes entitled to annual holidays is adjusted:

- when the business has an annual closedown period: this is covered on the fact sheet titled "Annual holidays — regular annual closedowns".
- when an employee takes unpaid leave of more than a week during the year: this is covered on the fact sheet titled "Annual holidays — the effect of unpaid holidays on annual leave".

Payment

Payment for annual holidays is at *the greater* of the ordinary weekly pay at the time the holiday is taken or the employee's average weekly earnings over the 12-month period before the annual holiday is taken.

When an employee is to take annual holidays, the first step is to determine what portion of the entitlement is being taken, taking into account any agreement of what a week means for that employee. This portion may be a period of weeks, or a period of less than a week.

For example, an employee works 3 days per week and has agreed with their employer that their three week holiday entitlement will be 9 days. When the employee takes a day off work this will be one third of a week of annual holidays.

In this case payment would be a proportion of ordinary weekly pay or average weekly earnings based on the period of leave taken, namely, one third of the greater of those weekly amounts.

Employees during their first year of service

During the first year of employment, three circumstances can arise that require the calculation of the payment due for annual holidays:

- the employee may seek, and the employer may approve, the taking of annual holidays in advance – see the fact sheet titled "Annual holidays — employees who take annual holidays in advance of entitlement".
- the employer may have a regular annual closedown of the workplace — see the fact sheet titled "Annual holidays - regular annual closedowns".
- the employee may resign or the employer may terminate the employment — see the fact sheet titled "Entitlements on an employee's resignation or termination".

When should annual holiday pay be paid?

Employees are entitled to receive their pay for annual holidays before the holiday commences, unless the employer and employee agree that the normal pay cycle will continue undisturbed by the time off work. This provision is designed to ensure that employees have money available to them to pay for the travel and accommodation expenses involved in a holiday, which often are required either at the commencement of a holiday or earlier.

If an agreement to pay the employee any annual holiday pay in their normal pay cycle is reached, it is advisable to record it either as part of the employment agreement or in writing on a case-by-case basis.

Employment agreements

The annual holiday provisions in the Holidays Act 2003 are deemed to be part of any employment agreement that is silent on the subject of leave.

Many employment agreements contain provisions that vary the provisions of the Holidays Act 2003. Such variations are often to the benefit of the employee — for example, by providing additional annual holidays, establishing a higher rate for annual holiday pay, or providing consultative arrangements about closedowns.

The Act does not prevent the employer providing the employee with enhanced entitlements. However, it is important that the employer and employee review such arrangements to ensure they are consistent with this Act.

In the past, the concept of "overall advantage" was sometimes used to establish whether variations in employment agreements were legal. This concept no longer applies. The Holidays Act 2003 makes clear that each component of holiday arrangements must be at least as favourable to the employees as the entitlements specified in the Act.

This means, for example, that an employer cannot provide an employee with an extra week of annual holidays in exchange for the employee giving up their public holiday entitlements.

[Source: Excerpted from Department of Labour website http://www.ers.govt.nz/holidays_act_2003/annual.html]

National Beekeepers' Association — bridging your knowledge gap

NBA CONFERENCE 2007 — ADVANCE NOTICE

Hosted by Otago–Southland Branches.
Location: Dunedin "Edinburgh of the South"
Dates: Monday 2 July to Thursday 5 July 2007
Venue: Kingsgate Hotel, 10 Smith Street, Dunedin
Phone (03) 477 6784; Fax (03) 474 0115
E-mail: dunedin@kingsgatehotels.co.nz
Room Costs: $100 per night (double)

Kingsgate Hotel is right in the centre of Dunedin City — one block from the Octagon under the watchful eye of Robbie Burns!
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Taking AFB audit samples of honey (minimum standards)

The Management Agency for the National American Foulbrood Pest Management Strategy (AFB NPMS) is required to regularly measure the success of the Strategy. One activity that forms part of this process is the collection and testing of honey samples. Each year the Management Agency arranges for sample bottles to be sent to approximately 250 semi-commercial and commercial beekeepers who are asked to fill them as they process their honey. These samples are sent to a laboratory where they are analysed for the presence of American foulbrood spores (*Paenibacillis larvae larvae*). Hobbyist beekeepers may be asked to submit adult bee samples.

Most beekeepers comply with this request, but a number of these honey samples are contaminated and have to be processed up to three times to get a result. This is an additional burden on the limited resources available.

The honey samples are analysed in the laboratory using what is known as a culture test. Honey samples are prepared and introduced onto a petri dish filled with agar. The agar is a nutrient-rich substance that allows bacteria to grow. The dishes are then incubated for 72 hours. At the completion of the allotted time, the dishes are 'read' by the laboratory staff. A sample is determined to be 'positive' if any *P. larvae larvae* colonies have grown on the plates.

The problem is that the agar that supports any potential *P. larvae larvae* is also ideal for many other types of bacteria. This means that any sample, which contains other bacteria, can contaminate the sample as they are often more prolific growers than *P. larvae larvae*, and can suppress the growth of any *P. larvae larvae* on the plates.

We have been told that nothing can live in honey as it kills bacteria by osmosis. While this may be true, it takes time to do this. Honey can become contaminated from the moment it is removed from the hive.

If loads are not covered during transportation, dust can contaminate the honey frames, and may be introduced through the cappings. Dead bees or areas of brood in the honey frames can also contaminate the extracted honey. As soon as the honey is extracted it comes into contact with free-floating spores, which are in the air. However, these are minor compared with the contamination that a beekeeper can introduce.

Your RMP states that your extractors should be clean without debris in the bottom. Most will be surprised just how quickly bacteria and mould grow in a damp environment and extractors can be a very fertile ground for their development. Keep them as clean as possible. Also, every time you touch honey, you introduce foreign matter.

So, when taking honey samples:

1) make sure no bees or brood go through the extractor
2) take the sample as close to the extracting point as possible. Try and take the sample as it comes out of the extractor and not from the cappings honey
3) put the top on the jar as soon as the sample is taken. Allow the honey to settle overnight and carefully remove any wax particles with a disposable clean spoon and then seal
4) ABOVE ALL, DO NOT USE YOUR FINGER TO TOUCH OR TASTE THE SAMPLE.

Beekeepers will be informed of the results of the honey testing by letter. If any of your samples are contaminated it will be so stated. If a sample was contaminated, look at your processing again and if you cannot determine where the contamination occurred, contact an Apiculture Officer for advice.

Remember, it is our goal to eliminate AFB from New Zealand. The better information we have, the more effective we can be.

- Frank Lindsay
(Peer reviewed by the AgriQuality National Apicultural Business Unit)

New Zealand pseudoscorpions kill varroa

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Introduction

One reason for varroa becoming such a destructive enemy of our Western honey bee, *Apis mellifera,* is that within our hives they have had no enemies of their own which might keep their numbers under control. However, perhaps some species of pseudoscorpions might fill the niche.

Pseudoscorpions are eight-legged arthropods with a body up to about eight mm long, and which have a pair of comparatively huge pincers projecting well in front. The 'pseudo' part of the name means 'false', and the name false-scorpion means that although the creatures look very much like real scorpions, they are not very closely related at all. In fact, pseudoscorpions have the same kind of relationship to real scorpions as they do to spiders, or mites and ticks; a relationship similar to that between bees and flies, moths and dragonflies. Apart from their small size, a major and very obvious difference compared to real scorpions is the complete lack of a stinging tail. In addition, there are a great number of smaller differences that altogether mean that pseudoscorpions make a well-defined group of about 3,000 species distributed worldwide. Seventy species have been identified from New Zealand (Beier 1976), and undoubtedly many more remain to be discovered.

Pseudoscorpions in beehives elsewhere

The great majority of pseudoscorpions around the world live in soil, plant litter and under loose tree bark, where they prey on small arthropods such as caterpillars and other small insect larvae, and insect eggs, springtails and mites. However, about a dozen species have been reported living in beehives, often mingling with the bees, and some of them clinging onto bees swarming to new nest sites. A recent review by Donovan and Paul (2005) found that historically one species occurred in Europe, six in Africa, and five in India, but the last report for the European pseudoscorpion in beehives was nearly 60 years ago. Donovan and Paul (2005) surmised that the pseudoscorpion was lost to European beehives because of a lack of small gaps and cracks as refuges and breeding sites in modern clean-sawn hives, and that this has resulted in a lack of knowledge of pseudoscorpions in modern western apiculture.

New Zealand pseudoscorpions in our beehives

Six years ago, Donovan (2000) thought that pseudoscorpions might have the potential to control varroa in New Zealand beehives, and a year later, in 2001, the late Richard Bensemann found one on a sticky board from a hive near Leeston in Canterbury (Donovan 2001). Early in 2006, a few pseudoscorpions were seen in several of 100 polystyrene queen-mating nucleus hives on pallets under pine trees near Katikati. The pseudoscorpions were on the top edge of the polystyrene hive body beneath the plastic hive mat (Figure 1). During routine examinations of the nucleus hives, usually up to a dozen pseudoscorpions would be seen, but later that summer the numbers began to increase until by April, 100 or more were present. Many were quite small, which suggested that these were juveniles. An occasional pseudoscorpion was even seen on the top edge of full-sized hives in other nearby apiaries. However, there was no sign of silken nests in hives, so the breeding sites must have been elsewhere. Pseudoscorpions were not seen among the bees, but varroa were present, although numbers were small.

Figure 1

Several of these pseudoscorpions were identified by Dr Brendan Moyle of the Albany campus of Massey University as belonging to two species that are native to New Zealand: *Maorichernes vigil*, and *Nesochernes gracilis.* Little information is available on any of the pseudoscorpions that have been recorded in New Zealand, but *M. vigil* is known to occur over most of the country, while *N. gracilis* has been collected from Norfolk Island, the North Island, and Marlborough and Westland (Beier 1978). Nothing is known of their life cycles, or what they prefer to eat, but what we do know is that in evolutionary terms they have certainly not co-evolved with honey bees because honey bees were not introduced to New Zealand until 1839. Their occurrence in beehives in good numbers is therefore very surprising.

New Zealand pseudoscorpions eat varroa

The presence of surprisingly high numbers of two species of native pseudoscorpions in hives raised the question:

can they eat varroa? To test their appetite, several of these pseudoscorpions were placed in a small depression in a piece of wood beneath a sheet of perspex, together with a dozen varroa. During the day the pseudoscorpions were rather inactive, but by early evening they began to move quite quickly, and when a varroa was encountered they seized it with one of their pincers, transferred it to their mouthparts, and 10–15 minutes later discarded the varroa, dead (Figures 2–5). One pseudoscorpion that was eating a varroa held another in a pincer, and a second pseudoscorpion ate three varroa in a couple of hours. Studies overseas have shown that pseudoscorpions have poison glands in their pincers with which they stun prey, and when the victims are first held in the pseudoscorpion's mouthparts, a digesting fluid is injected which dissolves the internal tissues, and the resulting 'soup' is sucked out. This mode of feeding appears to be just how the New Zealand pseudoscorpions fed on varroa.

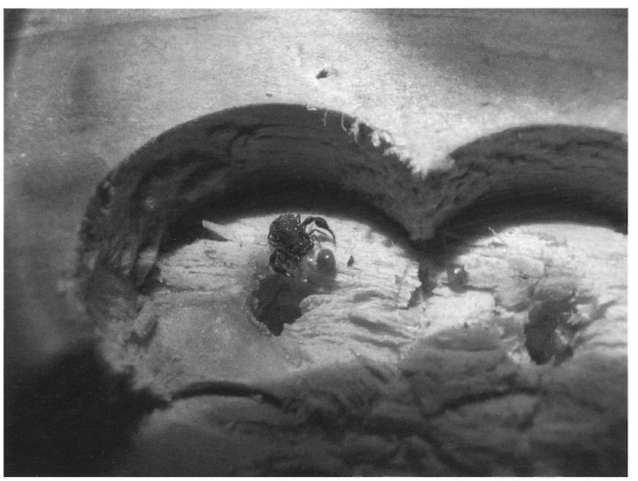


Figure 2

Figure 3

Figure 4

Figure 5

Bees ignore pseudoscorpions

Another major question was: can our pseudoscorpions move among bees without the bees attacking them? To determine this, the end was sawn off a polystyrene nucleus hive and a sheet of perspex was fixed in its place (Figure 6). A pseudoscorpion was then introduced into the bee colony through a little gap under the perspex. The bees ignored the pseudoscorpions even when they were right under their legs, and one pseudoscorpion disappeared among the bees for 10 minutes before reappearing, unharmed.

Can our pseudoscorpions be cultured?

By early winter the number of pseudoscorpions being seen in hives at Katikati had greatly decreased, but in early June several adult pseudoscorpions were found in cracks and cavities in pieces of punky wood among the pine needles around the pallets. It seems likely that the pseudoscorpions were more or less hibernating for the winter. These pseudoscorpions are now being held at the research centre at Lincoln, where at between 12–16°C they have fed avidly on larvae of the Indian Meal Moth. Whether they will start breeding remains to be seen.

The widespread testing of beehives with sticky boards for mites and other pests of honey bees has turned up another seven pseudoscorpions, but these have not yet been identified.

Figure 6

Continued on page 44

Continued from page 43

Indian pseudoscorpions in Eastern honey bee hives

Nearly all the information we have about the species of pseudoscorpions that live among honey bees comes from India. Beginning nearly 60 years ago, several Indian researchers began reporting the presence of pseudoscorpions in colonies of the Eastern honey bee, *Apis cerana*. This species of honey bee is very similar to our Western honey bee, and it is kept in similar hives, although both the bees and the hives are somewhat smaller. In an unpublished PhD thesis, Sudarsanam (1989) reported that the pseudoscorpion *Ellingsenius indicus* ate a range of pests of bees, including varroa, the mites *Euvarroa* sp. and *Neocypholaelaps indica*, the termite *Termes obesus*, booklice *Liposcelis* sp., and larvae of the wax moths *Gallaria mellonella* and *Achroia grisella*. Feeding by pseudoscorpions was described and some photographs were included, as was a suggestion that pseudoscorpions may have potential as biological control agents for some enemies of bees. Also, the detailed studies of feeding found that the pseudoscorpion did not harm adult or larval bees. Further, hives harbouring the pseudoscorpion had minimal infestations of varroa, and no wax moth larvae at all. Much the same information was published by Sudarsanam and Murthy (1990).

Indian pseudoscorpions in Western honey bee hives

Colonies of the Western honey bee were first taken to India about 40 years ago, and many now harbour varroa which transferred from the Eastern honey bee. In late 2005 Dr Flora Paul examined colonies of the Western honey bee in Chittarikal, Kerala State, South India, and found pseudoscorpions living in the hives. According to local beekeepers, most of their colonies of Western honey bees harbour pseudoscorpions. Silken tunnels made by pseudoscorpions were seen, but whether the pseudoscorpions were breeding is still uncertain. The fascinating aspect of this discovery is that pseudoscorpions have made the same "species jump" from the Eastern honey bee as did varroa (Donovan and Paul 2005).

In May this year, Dr Flora Paul introduced pseudoscorpions collected from colonies of the Eastern honey bee to nucleus colonies of the Western honey bee in Chennai (formerly Madras). Recently several colonies have begun spinning silken tunnels, which suggests that breeding may be imminent (Donovan and Paul 2006). If pseudoscorpions can breed, then Western honey bees in India may have gained permanent 'in house' protection from many of their arthropod enemies, and especially from varroa, just as does the Eastern honey bee.

Could pseudoscorpions damage bee colonies?

However, there is a report from South India that the weight of pseudoscorpions clinging to foraging bees caused the activities of the bees to decrease, so that a few colonies died (Subbiah *et al.* 1957). An interpretation of this is that the number of pseudoscorpions could only have reached high numbers if there had been a great number of enemies of bees in the hives for them to feed on, so perhaps the colonies would have died anyway?

Much promise, but lack of funding limits research

To summarise, to date we have tantalising evidence that both native New Zealand pseudoscorpions, and foreign pseudoscorpions that are specialised to live only among bees, have much potential for use as predators of varroa and some other pests of honey bees, such as larvae of wax moths and hive beetles. So where do we go from here?

Obviously we should launch a full-scale research effort on our native pseudoscorpions to discover whether they can live more or less permanently among bees and eat sufficient varroa to be beneficial, while also attempting to learn more about foreign pseudoscorpions that live among bees, and especially Indian species, because of their potential for importation to our hives. However, a major stumbling block has been — and is — the complete absence of funding for research. To date, seven applications for funding have been unsuccessful. These funds were the two Varroa Research Funds set up by MAF soon after varroa became established in New Zealand, the Honey Industry Trust Funds, the Sustainable Farming Fund, the Marsden Fund, the James Cook fund, and a United Nations fund. Without substantial funding, progress will be minimal. Now that varroa has reached the South Island, one possibility might be to change the regulations governing the expenditure of $730,000 being raised annually for the Varroa Agency Incorporated from South Island district and regional councils and beekeepers so that research can be supported. These funds are being raised 'painlessly' for 10

years to support an effort to maintain the South Island free of varroa, but with establishment more than likely, supporting research to control the mite would seem to be a logical move. Funding could be greatly boosted if North Island councils and beekeepers also contributed.

Pseudoscorpion management in our hives

If pseudoscorpions in sufficient numbers could control varroa, we would have a cheap, non-chemical and self-replicating means of managing Western honey bees, and also without the possibility of any of the pests developing resistance, because pseudoscorpions will be selected naturally to maintain pace with any changes in their prey. In fact, restoring pseudoscorpions to our Western beehives would once again provide our bees with the natural protectors against their enemies with which they co-evolved. Whether the pseudoscorpions were native or introduced, perhaps beehives might need to be modified to provide nooks and crannies secure from bees as protected refuges and breeding sites. Interior surfaces of roofs, walls and floorboards could be scoured with saw cuts, and even a frame could be replaced with a specially designed pseudoscorpion breeding frame. Such a frame would allow control of the numbers of pseudoscorpions and quick movement of pseudoscorpions among hives by beekeepers (Donovan and Paul 2005).

Another possibility might be to establish 'pseudoscorpion farms', where many thousands could be raised under controlled conditions for regular inundation of hives to clean out varroa.

But there will be no progress without substantial funding for research.

References

Beier, M. (1976). The pseudoscorpions of New Zealand, Norfolk, and Lord Howe. *The New Zealand Journal of Zoology 3:* 199–246.

Donovan, B. J. (2000). Could pseudoscorpions from South African beehives control our varroa? *The New Zealand BeeKeeper, 7(6):* 22–23.

Donovan, B. J. (2001). NZ pseudoscorpion find. *The New Zealand BeeKeeper, 8(1):* 14.

Donovan, B. J., & Paul, F. (2005). Pseudoscorpions: the forgotten beneficials inside beehives and their potential for management for control of varroa and other arthropod pests. *Bee World 86(4):* 83–87.

Donovan, B. J., & Paul, F. (2006). Indian pseudoscorpions kill varroa and other arthropod enemies of bees inside hives. *American Bee Journal*, in press.

Sudarsanam, D. (1989). *Studies on some phoretic pseudoscorpions.* Ph.D. thesis, University of Madras, India: 221 pp.

Sudarsanam, D., Murthy, V. A. (1990). Phoretic association of the pseudoscorpion *Ellingsenius indicus* with *Apis cerana indica*. *In* Veeresh, G. K., Mallik, B., Viraktamath, C. A. (eds); Social insects and the environment. *Proceedings of the 11th International Congress of IUSSI.* Oxford and IBH Publishing Co. Pvt. Ltd., New Delhi, India, pp. 721–722.

Subbiah, M. S., Mahadevan, V., & Janakiraman, R. (1957). A note on the occurrence of an arachnid — *Ellingsenius indicus* Chamberlin — infesting beehives in south India. *The Indian Journal of Veterinary Science and Animal Husbandry 27:* 155–156.

Figures

Figure 1. New Zealand pseudoscorpions on the top edge of a polystyrene mating nucleus hive. Photo: W. Hyink, Katikati, 15 April 2006.

Figure 2. A New Zealand pseudoscorpion about to eat a varroa. Photo: W. Hyink, Katikati, 7 April 2006.

Figures 3–5. New Zealand pseudoscorpions eating varroa. Photos: W Hyink, Katikati, 14 April 2006.

Figure 6. A polystyrene nucleus hive with the end of perspex through which native New Zealand pseudoscorpions were observed among the bees. Photo: W. Hyink, Katikati, 9 April 2006.

NIWA's climate outlook: September to November 2006

Atmospheric pressures are likely to be above normal in the New Zealand region, with a tendency towards weakened westerly winds.

Air temperatures are likely to be average or above average in all regions. Despite this expectation, cold outbreaks will occur at times.

Rainfalls are likely to be normal or above normal in the north and east of the North Island, normal or below normal in the north and west of the South Island, while near normal rainfall is the most likely outcome elsewhere. Normal or above normal soil moisture levels and stream flows are likely in the North Island, with normal or below normal soil moisture levels and stream flows likely in the South Island.

The varroa mite experience in 2000

From 24 June to 21 August 2000, I counted natural mite fall/day (nmf) through the mesh screen floor of my two hives on the Bucklands Beach peninsula. The average went from 60 to 480, and was doubling every three weeks. On 21 August, about five bees per square metre could be seen walking on the grass about four metres out from the hive. (Bees walking, well out from the hive entrance, is a symptom of a virus that can quickly kill a colony).

Two Apistan® strips were put in both hives and on the first day about 3000 Apistan® assisted mites fell (aamf). These were probably most of the 'walking mites' (wm), the mites not inside capped cells (cm). From day 2 to day 12 the aamf plateaued at about 1500 m/day, a total of about 15,000 mites. These 'capped mites' were breeding in the bees' capped cells (doubling every three weeks). So roughly 10,000 female mites were in capped cells at 21 August.

About one-third of the total population were walking mites (3000) and two-thirds were capped in cells (10,000) in these heavily infected hives.

A two-day Apistan® treatment would only kill approximately one-third of the total mite population but, more importantly, leaving two-thirds alive. The two-thirds would hatch and breed back to the original population in a couple of weeks (doubling every three weeks).

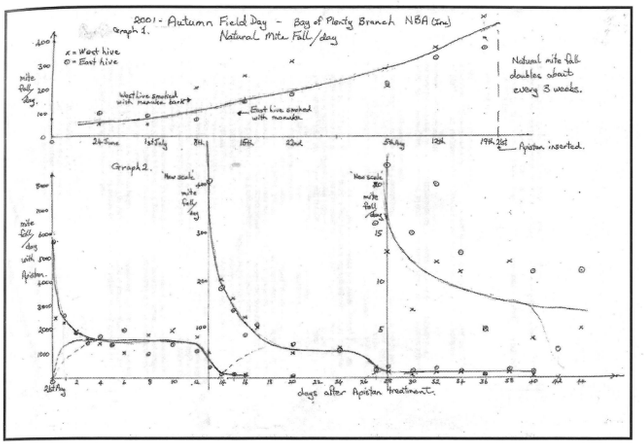
From day 16 to day 26 the aamf plateaued again, but this time at about 50 aamf (or m/d). These mites are the offspring of mothers who 'avoided' the Apistan® treatment and got into cells and bred. So 35 mothers of the 1500 that hatched each day managed to avoid poisoning and got into new cells, which were then capped, and they breed up to produce the 50 m/d counted. Roughly 35/1500 (or two percent) appear to avoid Apistan® death and breed after a 26-day treatment period. A 26-day Apistan® treatment leaves 35 mothers each day to breed: doubling every three weeks, these 35 become 1120 after 15 weeks. Or, in other words, back to the original mite infestation after four months.

From days 32 to 40 the aamf plateaued at about eight m/d. Applying the same sort of logic, say five mothers of the 50 that hatched from the 'lucky mites' 13 days earlier avoided death. Roughly five of 50 (or 10 percent) avoided death at the end of this breeding cycle.

On day 40 the two hives' aamf were zero and four m/d; on day 42 they were zero and three; unpredictably, on day 44 they were five and 11 m/d. The Apistan® strips were removed and counting stopped. The hives counted were on a peninsula with water on three sides, and all the hives on the land side were 'under-treatment' BUT no information was available on local feral colonies. Some of these mites, the five and 11 m/d, were most likely from inside the hive and some were so called 'reinvasion' mites. The 'bees walking on the grass' symptom stopped about two weeks into the treatment period.

The full 42-day Apistan® treatment appears to have reduced the 13,000 mite infestation to approximately five m/d. Five

m/d, doubling every three weeks, becomes 40 m/d in nine weeks, which adds two months to the four months and gives you about six months before mite levels return to those of the original infestation.



Graph 1: Natural Mite Fall/day through a mesh screen floor from 24 June to 19 Aug 2000 (without Apistan®)
Graph 2: Apistan® Assisted Mite Fall/day through a mesh screen floor starting on 21 Aug 2000

I see from my 2001 Bay of Plenty autumn field day notes that there were about 9000 capped bee cells in the hive at the time, so 9000/14 days = 650 bees hatched per day. About 1500 mites were hatching per day, averaging two mites per baby bee!

Apistan® mite falls in March 2001

I treated the hives again with Apistan® on 26 March 2001. I had tried formic acid but didn't get it right. The mite levels were not bad at the time. One hive was almost broodless (queenless), but the other was OK. This time I counted every two hours, then at longer intervals.

The mite counts in the hive that was OK (reached a maximum of 87 aamf/hr after six to eight hours, then dropped down to 10 aamf/hr after 24 hours and stayed at six to 10 aamf/hr (200 aamf/day). About 1000 mites fell and plateaued to about 200 aamf/d, or about 2000 capped mites (about one-third walking, two-thirds capped).

The almost-broodless hive reached its maximum of 86 aamf/hr after 10 hours, then dropped to one m/hr after 48 hrs, a total of 1360 mites.

- Paul Brown

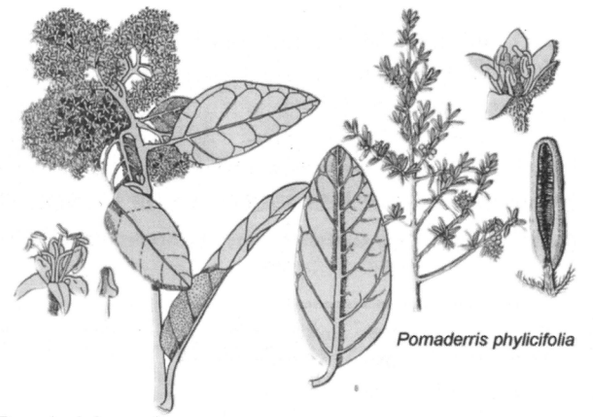
If you find an unregistered or abandoned apiary: report it ASAP ... it could be the source of disease that has plagued a beekeeper for a few years.

Trees and Shrubs of New Zealand

Pomaderris kumarahou

Maori name: Kumarahou

Common name: Gum diggers soap



Kumarahou is a shrub that grows from one to three metres high. Its leaves are shiny above, with white on the underside. The flowers are fragrant and profuse, and are mustard-yellow in colour.

The bees visit the Kumarahou from mid-September to October for nectar and pollen. The nectar is dark and pronounced in flavour. The pollen is creamy white.

The cousin of Kumarahou, Tauhinu (*Pomaderris phylicifolia*), also grows in the north of the North Island. It is often found in the same areas and produces honey that is strongly scented with a similar flavour to Hange Hange (*Geniostoma ligustrifolium*).

The Kumarahou was used as an indicator by the Maori to plant the Kumara tubers when the Kumarahou flowered. The flower heads were used by both Maori and gum diggers as soap: the crushed flowers, mixed with water, produced a soapy lather.

In the old days, the wood of the Tauhinu was used as an alternative to bone for fish hooks.

The leaves of Kumarahou and Tauhinu were boiled and used as medicine for coughs and colds, bronchitis or tuberculosis. Aunt Daisy, on her radio show, said the boiled leaves were good for rheumatism and asthma.

- Tony Lorimer

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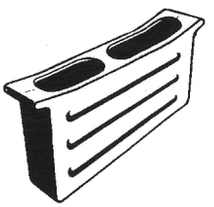

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Zespri pollination seminar

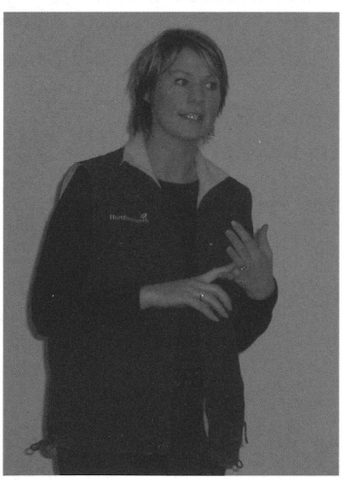
On 20 September Zespri, in conjunction with HortResearch, presented a pollination seminar at Havelock North addressing four topics:

1. Best practice pollination management for Hort16A (Gold) and Hayward (Green)
   (Dr Mark Goodwin, HortResearch)
2. Varroa update
   (Michelle Taylor, HortResearch)
3. Artificial pollination
   (Mark Goodwin, HortResearch)
4. Bee safety
   (Neale Cameron, Kiwifruit Pollination Association–KPA).

The seminar attracted a good turn out of growers and beekeepers willing to be informed.

Mark led off with an interesting exposition on timing, number of hives, strength of hives, positioning of hives, syrup feeding, number of visits by bees, timing of these visits and assessment of pollination. Relative numbers and positioning of male and female vines was an additional consideration. All present were impressed by Mark's depth of knowledge gained by practical research.

Michelle then gave the history of the varroa incursion, followed by a summary of the implications from the loss of bees. Costs for beekeepers had increased and this factor, coupled with increased plantings of kiwifruit, avocados and squash, has led to a need to take a good look into the future. It could be that artificial pollination will increase.



Mark then followed with the results of his research into the various methods of applying pollen artificially. These methods ranged from manual through to boom spraying, with things to be considered to arrive at the most cost-effective system for particular conditions. Some methods were unsuitable for wet conditions, some were labour intensive, some used excessive amounts of pollen and some were expensive. Again timing was an important consideration, with a marked difference between Hayward and Hort16A blossoms. He concluded that it was well worthwhile for the growers to check on pollination, and advised on various methods. At this time, the best practice is to use bees with artificial pollination as a back up.

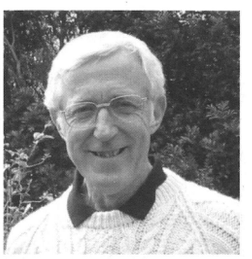
Neale then gave a very useful plea to growers and their contractors to look after the bees. He quoted examples of spray damage, stressing the need to read all labels, to spray at the right time of day, to be conscious of neighbouring crops and to appreciate just how far bees will fly when foraging. Dead bees don't pollinate.

An interesting aspect of this seminar was the changed attitude of growers in more recent times. They are now fully aware that if they are careless of bee mortality their business will suffer.

- Ron Morison

Dr Mark Goodwin (above) and Michelle Taylor (left) of HortResearch presenting at the Zespri HortResearch pollination seminar. *Photos: Ron Morison.*

Working for all beekeepers



The National Beekeepers' Association (NBA) works for its members, but there are spin-offs for all beekeepers. The NBA believes in good governance: that means working in the best interest of its stakeholders. What's good for the stakeholders who are not yet NBA members is good for those who are already NBA members. Of course, we do provide further benefits for NBA membership:

- a voice in the Association
- Branch membership and information sharing
- subscription to 11 issues of *The New Zealand BeeKeeper*
- access to the NBA Library
- access to more information on the NBA website: www.nba.org.nz
- preferential attendance at the annual conference
- professional administration of the Association.

The NBA is supporting a lot of research, including the development of control strategies for varroa and pollination. This has attracted significant financial support from the MAF Sustainable Farming Fund. The varroa work is benefiting all beekeepers in the North Island and will benefit those in the South Island too. The pollination work has strengthened the working relationship with the horticulture sector. Already it has highlighted the potential shortfall of hives available for pollination over the next ten years. This is enabling beekeepers and orchardists to work together to meet the demand.

The NBA is a strong supporter of the Bee Products Standards Council, which works with the New Zealand Food Safety Authority in the interests of human safety and market access.

Continued on page 52

About the Apiary

After a lovely summer holiday, mostly in western Canada and the eastern United States we are home again, having missed what I'm told was a very cold, rainy winter. The first impression in getting back into Wellington was how dowdy it looked. I had come from Perth where the motorways were lined with flowering shrubs and the gardens are all in bloom and looking beautiful in considerably warmer weather.

However, after sleeping off the jet lag, the next day was lovely and yes, spring was here. The little nuc in the garden that I'd put into a full-depth super before we left was bringing in lots of pollen. I checked the weight of it by lifting up the back of the super — it was still fairly heavy and upon removing the roof, I saw that the bees were covering the tops of most of the frames. It looked to be in good condition. Looking around I saw the Pussy Willow (*Silix capreaeal*) in full flower and there were small maroon flowers all over the Karo (*Pittosporum crassifolium*). Down the road were the bright yellow flowering Kowhai (*Sophora microphylla*), and in the waste areas Gorse (*Ules europaeus*) is also flowering but is not yet at its peak. Many spring bulbs and garden ornamentals also were flowering. Spring is here but perhaps New Zealand natives are not as showy as our Australian cousins.

Travelling around some of my apiaries, I noticed masses of weeds and shrubs in flower and the bees were working well, with most hives having very strong populations.

In some parts of the North Island the bees are now getting stimulated a lot earlier, because there just isn't the competition from feral hives any more. Drone production starts earlier (a result of good nutrition), and hives are stronger so they tend to swarm sooner if you haven't kept them under control. The answer is to give them extra room earlier so they put all their energy into brood production rather that swarm production. After a while you can see those hives that are likely to swarm (they are well ahead of the rest with large areas of drone brood): these should be split to prevent them swarming.

Some commercial beekeepers who normally feed hives in the spring now don't feed hives as much sugar syrup, so the bees are not storing it. It's a little like putting them on a partial starvation diet. They build up normally but can't bolt away, so they do not make swarm preparations. By the time they can, the flow is on and the bees then turn to gathering honey instead of reproducing themselves.

The majority of my hives are very strong. We had planned to be away for most of the winter so I had deliberately left a lot of honey on the hives (I normally winter in three supers to give me strong colonies in the spring because the bush honey flows in this region are early). I'd also left a number of extracted honey boxes on top for safekeeping. The bees in these hives must have been breeding all through the winter, as the best of them are now five supers high and are already storing honey in the top two extracted supers. Four frames had already been capped by September!

I had been lucky enough to latch on to a cancelled order of spring (over-wintered) queens so have been out splitting hives to prevent them from swarming. One hive I inspected (with the assistance of a fellow beekeeper) had an emerging queen cell along the bottom bar in the middle of the fourth super. (I had not done a lot of extracting during the summer, which I now realise is a health problem rather than a "couldn't be bothered" problem, so a lot of my apiaries still have last year's crop on them. I'll have to do some early extracting; otherwise these hives are not going to store any more honey.) The hive in the photo had four supers of honey on top so was split four and four as it had bees right up to the top super.

A strong hive split in half, with honey still on and thousands of flying bees. Pictured was my helper Amor Walter.

But there were also failures. I forgot to put strips into one apiary in February. I went to take out the strips and found I hadn't put any in, so when the hives finally got strips the varroa was well advanced. This apiary had been hit hard by the mites and is now down to the size of four-frame nucs before starting to come away again, although it is unlikely to become productive this year. In checking another apiary I found a very small hive with spotty brood. Upon closer inspection I saw that the bees were covered in mites, so diagnosed it as Parasitic Mite Syndrome. Yet the rest of the apiary had a low natural mite fall. Had I not put strips in this hive in the autumn or was the treatment unsuccessful? No matter: all the hives in this apiary got strips, as once you treat one hive you have to treat the rest to stop the mites spreading.

It's not until you do complete brood inspection in the spring that you find unusual things: some of the 'super strong' hives have had a strip inadvertently left in them which had slipped down into the frames and wasn't obvious from the top or bottom of the super. Maybe it's time to start writing on the roof of each hive how many strips are put in so all are removed. One thing I am pleased about: so far only one hive has AFB. But enough of my problems!

Just to recap: October/November are critical months in the beekeeping calendar. It's important to keep up the food supply

to the bees and to keep the queen laying, but don't allow them to swarm. All hives should continue to have a minimum of three frames of honey to give them enough food to cover a week-long period of inclement weather. (You should feed sugar syrup if the honey reserves fall below this point.)

Well, that's the theory but my hives are still full of honey, so my problem is giving the queens enough room to continue to lay in without stimulating swarming. A quick and successful method of giving room is to reverse the first and second brood supers so the majority of brood is in the bottom super. If your hives are like mine and the third super is still full of honey, intersperse the honey frames with drawn or foundation frames to create the illusion of free comb space above the brood nest. The idea is to keep a super of empty comb on top of the hive so the bees have a place to expand to. Often this means supering early.

Single super brood nests

Several beekeepers now only use one super for the brood nest and constrain the queen using an excluder. One of our queen breeders down south, who winters his hives two high, confines the queen to the bottom super but when the queen has filled the bottom super with brood (about now), he lifts up the queen excluder and puts it on top of the second super. Any frames of honey in the middle of the second super are either moved to the outside or replaced with clean empty frames so the queen has an unrestricted area to lay in.

On his subsequent inspection of his hives, he never allows the bees to put a band of honey between the brood covering and the top portion of the frame. If this happens he believes that the bees think that they have hit the top of the hive and will then start swarm preparations.

This tip works for all hives in the spring. If you have a confined brood nest and want the bees to expand up into the next super, you would normally lift a couple of frames of brood into the centre of the next super. However, this may disrupt the structure of the brood nest, so here's an alternative method. The idea is to remove the layer of honey on top of the brood in a middle frame so the queen can lay right up to the top bar, and then move upwards when there are enough bees to keep the middle frames in the second super warm. To do this, scrape off the honey 'cappings' above the brood area. The bees will use this honey for food, thus cleaning out the frame and allowing the brood nest to continue to expand upwards.

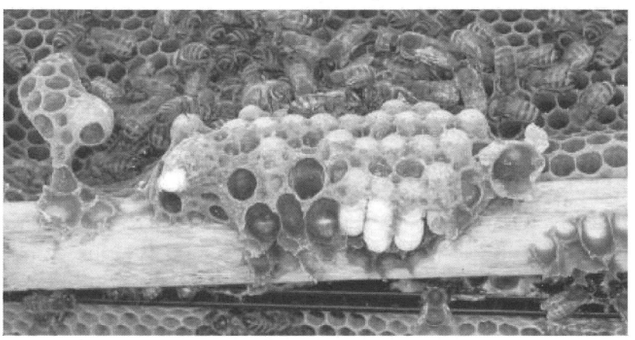
If you don't have any empty frames that were drawn out last year but have only foundation frames, intersperse the honey frames with the foundation frames in the upper supers so that the same 'empty' space is achieved. The bees will concentrate on building comb instead of making swarm preparations.

Back to the single brood nest operation. As soon as the honey flow starts, shake all the bees (including the queen) in the bottom super. Reposition the queen excluder above it and put on three honey boxes above the second super: one super for the bees to put in their winter stores and three for the beekeeper to extract. The results speak for themselves: this South Island queen breeder has only six or seven swarms out of 700 hives, but he doesn't have varroa yet, so it's normal beekeeping for him.

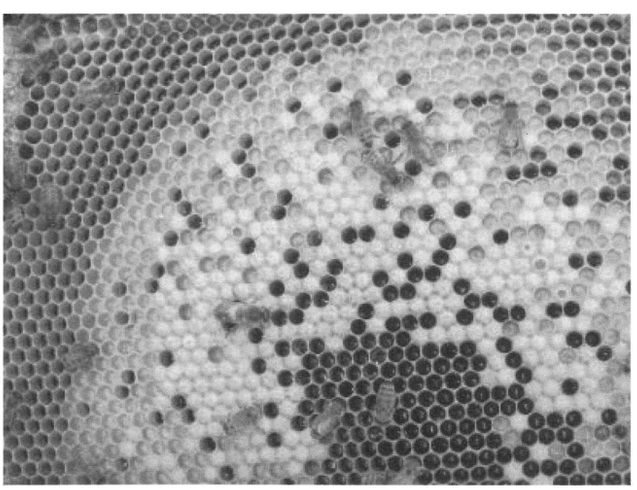
Queens

October/November is also a critical time for queens. It's best to have a one-year-old queen in your hive as they can sustain the pressure of continuous brood laying right up to the honey flow. Older queens often produce a good brood pattern early in the season but as soon as the pressure goes on to lay in a full super, they can't and the bees start to produce supersedure cells (which you think are swarm cells and cut out), or the hive just doesn't build up.

Some of these old queens stimulate swarming because there isn't enough queen pheromone to go around, so the bees start to build queen cells and then you are into a continuous round of checking for queen cells and removing them. A quick method to check for queen cell production is to split the hive and look along the bottom bars of the top super. Once you see a queen cell developing you have to inspect all brood frames for cells. (A tedious job. Better to requeen more often.)



Queen cells (young larvae on royal jelly on the ends). The cells in the middle had the caps removed when the super was split apart.



Spotty brood: the sign of an old queen. Note the number of missed cells and different aged larvae (i.e. some capped and others were not).

Spring inspection

Now that it's warmer it's time to do your spring AFB inspections. As you are doing this, cast your eye over the areas of uncapped brood — the larvae should all be the same size and age. Any queens that are not producing a good even pattern should be marked for replacement. Make a split by using a split/division board to make a nuc on top of your existing hives, or a four/five frame nuc (one frame of honey, one frame of honey and pollen and two to three frames of

sealed and emerging brood covered with bees, with pollen and honey in the corners. I prefer to use the frames from the outside of the brood nest as the brood area is smaller and you don't need so many bees to look after the brood).

It's important not to transfer the old queen into the nuc with the frames of brood. Generally the queen will be on a frame where there are emerging bees and eggs, so don't select these ones. For a new beekeeper it's often difficult to spot the queen. Generally attendant bees surround the queen, leaving a small clear space for her to move around. Look for gaps in the bees covering the face of the frames for the queen first off, then cast your eye over the whole frame. The bees move away from the light so don't forget to look in the corners and in the space between the bottom bar and the comb. Better still, have your queens marked so they are easy to find. (The international colour code for 2006 is white, and for 2007 it's yellow.)

If you are not good at spotting queens, or have dark bees that run when you smoke them, there's a more foolproof method of ensuring you do not get the old queen in your split, but you will need an another super and a queen excluder. Take out the frames you want for the nuc. Shake off all the bees. Fill the empty spaces in the hive with drawn frames or intersperse foundation frames, then put on the queen excluder. Put the frames for the nuc in the centre of the spare super and place this on top of the excluder and cover the hive. Within an hour or so the nurse bees will have come up to look after the brood. You can then replace the queen excluder with a split/division board (blocking the entrance with green grass to prevent any bees returning to the main hive below. Alternatively, you can pop this super on a new base, put on the lid, wrap it in shade cloth or block the entrance with grass and move it more than two kilometres away. When you get there, sprinkle a little sugar syrup over the top of the frames to give the bees something to do, and after taking out the candy plug from the queen cage, put the cage between the outer brood frame and the honey frame. Close it up and leave it for a couple of days, then check that the bees have eaten through the grass and are flying.

In two weeks, open the hive and check that the queen is out of the cage and laying (just look for eggs in one of the frames), remove the cage and close up the frames and cover. You now have a nuc colony to put on a weak hive after removing the old queen. This will boost it up to a production unit. Unite the colonies with two sheets of newsprint, or just keep the nuc as a new hive.

While doing your inspections, move any frames that have broken lugs, are dark (you cannot see through the wax when held to the sun) or have large areas of drone brood. Gradually move these to the outside of the super where they can be removed later.

Queen cage. Note how the cage is placed in between frames. The frames are then gently pressed together to hold the cage (once the candy tab is removed).

Things to do this month

Check feed, check pollen, check for AFB check, raise queen cells, super hives, swarm control, cull old frames (or at least move them to the outside of the super), fit foundation in comb honey frames. Check varroa mite fall.

Check the natural mite fall in a number of hives and from the *Control of Varroa* manual, work out when you should treat your hives. It is recommended that you shouldn't go any longer than 50 days between treatments, especially while your area is in the 'acute phase' of mite spread (i.e., before all the feral hives and the hives belonging to the 'leave them alone beekeepers' are dead); in this time 100 mites multiply to 1000 mites (the treatment threshold). Work out when you are going to take off your honey (as soon as the flow has finished) and work backwards 50 days. If there isn't a flow on at the time (like the November gap), treat your hives. Otherwise, treat hives early in the spring — but continue to monitor mite numbers.

- Frank Lindsay

Continued from page 49

We know that whatever our bees are exposed to may result in residues in honey and other bee products. Please make sure that only registered chemicals are used in your hives and that they are safe, not only for your bees, but also for humans.

We are now working on the promotion of our bee products to consumers. This is an exciting area because of the challenges to our bee products in the domestic market from imports and in the export markets.

Your continued support for the NBA is important for the whole industry. We will be sending out a request for 2007 subscriptions soon and look forward to working with you and for you again next year.

- Jim Edwards
Chief Executive Officer

Computerising your hive records the easy way

For those with a few hives, this simple computer programme is offered.

Number or mark all your hives, identify their location with a simple code and set up an Excel spreadsheet. The hive marks and locations stay on the left of the sheet, then a date is entered, with the next column for action or remarks. Earlier columns can be hidden, with the current columns printed out for annotation in the field. To check the history of any hive, just expand out the earlier columns.

In the spreadsheet below, numbers indicate varroa population after 24-hour natural drop. The letters W, M or S indicate weak, medium or strong hives. Dead hive 8 was replaced by a hive given by Corrine; but because there were so many bees left behind, a couple of frames of day-olds were introduced to a new box on the original site to try to start another hive.

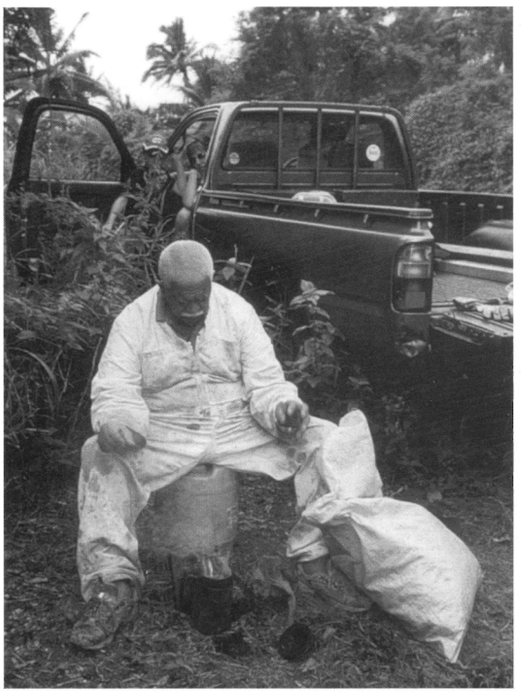
Hive 30 had no brood, possibly queenless (ql), so two frames of day-olds were added from Hive 16. Of course the obvious action is to get queen cells for the weak and queenless hives, and hopefully this will happen next week.

- Ron Morison

NO	LOCATION	DATE		DATE	COMMENTS	DATE	COMMENTS
1	CRABBE	31-Jul	-10	5-Feb	-10		
2	CRABBE	31-Jul	0	5-Feb	-5		
3	CLAY	31-Jul	0	4-Sep	-5		
4	CLAY	31-Jul	0	4-Sep	needs base -5		
5	CRABBE	31-Jul	0	5-Sep	-5		
6	CRABBE	31-Jul	0	5-Sep	-5		
7	CRABBE	31-Jul	-10	5-Sep	-5		
8	CRABBE	31-Jul	0	5-Sep	dead	9-Sep	X CORRINE
9	CRABBE	31-Jul	0	5-Sep	dead		
10	CRABBE	31-Jul	D	5-Sep	-5		
11	CRABBE	31-Jul	-10	5-Sep	-5		
12	CRABBE	31-Jul	D	5-Sep	dead		
13	CRABBE	31-Jul	0	5-Sep	-5		
14	CRABBE	31-Jul	-10	5-Sep	-5		
15	CRABBE	31-Jul	-10	5-Sep	-5		
16	CRABBE	31-Jul	0	5-Sep	S -5	9-Sep	2XF TO 30
17	CRABBE	31-Jul	0	5-Sep	W b ex 16 -5		
18	CRABBE	31-Jul	0	5-Sep	M -10		
19	CRABBE	31-Jul	0	5-Sep	S -5		
20	CRABBE	31-Jul	0	5-Sep	-5		
21	CRABBE	31-Jul	0	5-Sep	-5	12-Sep	DOB QCELL
22	CRABBE	31-Jul	0	5-Sep	-5		
23	CRABBE	31-Jul	D	5-Sep	dead		
24	CRABBE	31-Jul	0	5-Sep	-5		
25	ILA	31-Jul	0	5-Sep	S -5	22-Sep	FDB ADDED S
26	LEN	31-Jul	0	5-Sep	S -5		
27	LEN	31-Jul	0	5-Sep	S -5	9-Sep	2F to CORR
28	RON	31-Jul	0	5-Sep	S -5		
29	DEAD	31-Jul	D	5-Sep	dead		
30	CRABBE	31-Jul	0		ql 2xf ex 16	12-Sep	DOB QCELL
	CORRINE					12-Sep	DOB QCELL+B X 8

Coconut palm honey in the Pacific

Beekeeping is alive and well in the Cook Islands, and I again sampled the distinctive coconut palm honey during a recent visit to Rarotonga. The now-retired medical practitioner Dr Koe Koe John Mokotupu is kept busy looking after his 50 hives on the main island of Rarotonga.

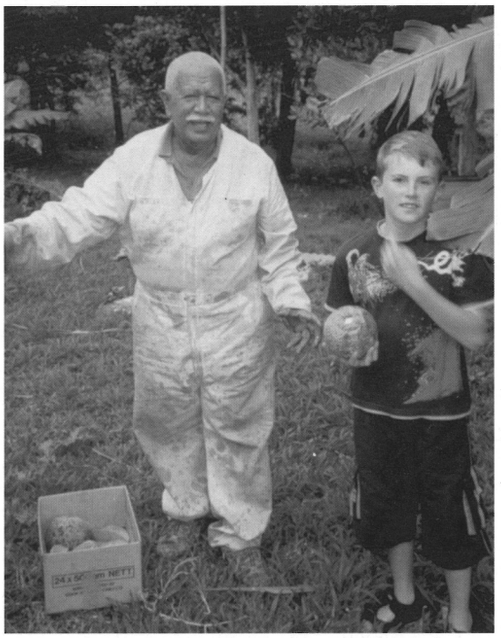


Koe Koe lighting the smoker with a coconut husk. *Photo: Stephen Tulley*

Many years back, with the help of New Zealand beekeepers and support from the New Zealand government, a number of small beekeeping operations were established in the Cook Islands. Today, Koe Koe is the only commercial beekeeper, and he believes there are no longer any beehives on any of the numerous outer islands that make up the Cook Islands.

I spent a day with Koe Koe looking at his hives. He is always keen to discuss the latest developments in New Zealand beekeeping, much of which he keeps in touch with through *The New Zealand BeeKeeper.* Not that his hives need improved management: they are in good condition!

The new queens he had purchased last year from Trevor Cattermole in Christchurch have been very successful and the hives are flourishing. He has his wax-coated plastic inserts for the honey frames ready to use in the summer during the main honey flow. With winter temperatures in the mid-20 degrees Celsius there is always some brood and honey in his hives, but the main flow gets under way in November when the coconut palms are flowering.



Koe Koe John Mokotupu and Christopher Tulley with some breadfruit. *Photo: Stephen Tulley.*

Koe Koe and his wife Moana sell all the honey they produce at the weekly cultural market in the main town of Avarua. Moana says the main customers are tourists. If you are in Rarotonga, make a point of calling in to see Koe Koe and Moana at the Saturday market for a chat. While you are there, you can purchase a 500-gram pottle of coconut palm honey for a mere NZ $6.00. *[Just don't try bringing it back into New Zealand! - Editor.]*

- Stephen Tulley
South Canterbury

Some of the hives of Rarotonga commercial beekeeper Dr Koe Koe John Mokotupu. *Photo: Stephen Tulley.*

Club Contacts & Beekeeping Specialty Groups

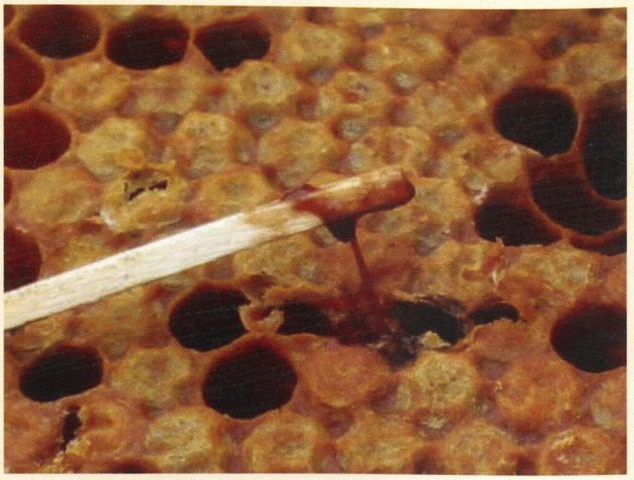
WHANGAREI BEE CLUB Meets: 1st Saturday each month (except January) Time: 10 am, wet or fine (we are keen) Contact: Mike Maunder Phone: 09 437 5847 Arthur Tucker Phone: 09 438 4283 Kevin & Melissa Wallace Phone: 09 423 8642 (Wellsford)	**AUCKLAND BEEKEEPERS CLUB INC** Meets 1st Saturday monthly at Unitec, 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
WAIKATO DOMESTIC BEEKEEPERS ASSOCIATION Meets every third Thursday at 7.30pm. Contact the Club President: Brian Fowles Phone: 07 8438 737 (evenings)	**HAWKES BAY BRANCH** Meets generally on the second Monday of the second month at 7.30pm, Arataki, Havelock North Contact: Ron Phone: 06 844 9493	**TARANAKI 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: Alastair Macpherson 25 Te Arakura Road, RD 5, Feilding Phone: 06 323 2563	**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	**SOUTH CANTERBURY REGION** 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
ACTIVE MANUKA HONEY ASSOCIATION (INC) Contact: Moira Haddrell, Chairperson P O Box 862, Cambridge Phone: 64 7 827 3286 Email: info@haddrells.co.nz or Denise Tryer-Harding, brand manager P O Box 19-334, Hamilton Phone: (07) 957 9999 or 0800 747 377 Email: dharding@piperpat.com	**NZ COMB PRODUCERS ASSOCIATION** Contact: John Wright Phone: 09 236 0628	**NZ HONEY BEE POLLINATION ASSOCIATION** Contact: Russell Berry Phone: 07 366 6111
NZ HONEY PACKERS AND EXPORTERS ASSOCIATION INC Contact: Allen McCaw Phone: 03 417 7198 Contact: Mary-Anne Thomason Phone: 06 855 8038	**NZ QUEEN PRODUCERS ASSOCIATION** Contact: Russell Berry Phone: 07 366 6111	

Is your group or Branch missing from here?
Please contact the National Beekeepers' Association – inside front cover.

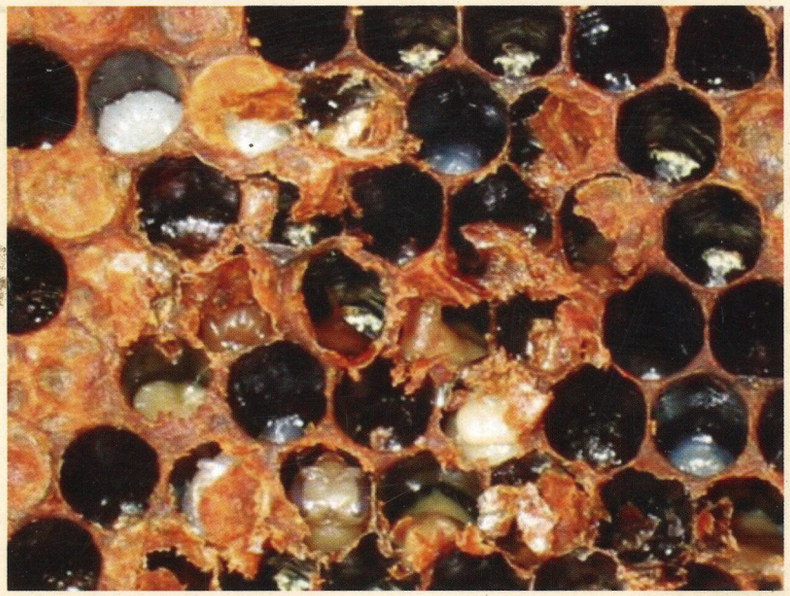
More photos of a hive heavily affected with AFB.

Photos: Frank Lindsay.

Single frame on top of the super.
Sunken brood can easily be seen.



'Ropiness' test for AFB.



Exposed cells showing various stages of AFB
(including tongue sticking up).

Close up of the surface of the comb.

An example of sacbrood.