June 2011, Volume 19 No. 5

The NEW ZEALAND BeeKeeper

Pollination security

- Top bar hives
- Farewell to David Kay
- Passive surveillance
- Synthetic brood pheromone

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Front cover: AsureQuality sampling for IAPV in the King Country. Photo: Fiona O'Brien.

Pollination security and value

By Frans Laas, NBA President

On 12 May the NBA made an oral submission to the Local Government and Environment Select Committee regarding the problem of pollination security in New Zealand.

Along with Vice President Barry Foster and Linda Newstrom-Lloyd of Landcare Research, I spoke on the NBA's behalf. Barry has written a detailed account of this meeting in the journal.

Preparing a presentation to a group of politicians is quite an interesting exercise in how to gain the maximum impact and give the key messages with only a few statements. After a considerable amount of work, we were able to put together a succinct 10-minute presentation. The Select Committee were quite interested in what we had to say and asked some pertinent questions. We now have to prepare a more detailed briefing paper to reinforce and expand our points of view. It is pleasing that the Select Committee wants to hear further evidence from other parties and will hold another meeting on 9 June, which is open to the public. At least the politicians are taking note of the beekeeping industry's concerns and want to go further.

While we were preparing the talk, I looked at the problem of pollen resources in New Zealand. In some areas there is good evidence to show that bees are not able to gather adequate quantities of pollen or sufficient quality pollen. Some of this is related to a very zealous 'weed' control effort or species-poor agricultural areas (the 'green desert'). I decided to look at the substitution value of pollen in this country. This is where all protein and mineral requirements had to be fed to bees from artificial sources (mainly from imports), in order to arrive at an estimated economic value of the pollen sources in New Zealand. Based on the cost of substitution ingredients, known annual hive consumption of pollen and the cost of getting it into the hives, we can derive a monetary figure. The value that I calculated is very large and my estimate appears to exceed the total export earnings of all bee products combined. As this is currently a 'back-of-the-envelope' calculation, I will not give an estimated value, as we might get into a rather animated discussion before a robust value can be calculated. This information can be used in any discussion to support arguments that will benefit the status of the bee industry.

Barry also pointed out to the Select Committee that the honey production sector actually subsidises the pollination sector to some extent. Clearly there are a number of points here that the industry needs to ponder upon. If the honey industry is subsiding the pollination sector, why are we involved at all? Or are we grossly undercharging for our services, considering the added risk to the hive's probability of survival and its ability to generate income as a honey production unit?

> "If the honey industry is subsiding the pollination sector, why are we involved at all?"

Commercial beekeepers, like any other industry, are in the business of making money and by default a useful profit. I have talked to a number of beekeepers about this aspect and we all seem to agree that if there was no healthy and profitable honey sector, then there would be no reason to stay in the industry. That is, would you enter the industry to provide pollination services exclusively? It's an interesting point to discuss, and food for thought for politicians if we are looking at pollination security as part of the national interest. Honey imports threaten that security as it deliberately adds further risk pathways into the system.

Top bar hives

This subject is becoming an emotive issue at the moment. I have written an article in the journal wearing my AFB NPMS Chairman's hat. My intention is to explain some of the reasons why moveable comb hives are a problem and to propose a solution.

The Management Agency has obtained a legal opinion that reinforces the MA's view that only moveable frames, as defined in the Strategy Order, are permitted to be used in beehives in this country. While this may upset a number of people, the bigger picture needs to be addressed here.

The end is nigh

As I write this report a certain individual has predicted the world will have ended. I am still writing this so he must have got his dates wrong. However, this will probably be my last President's report for the journal. After four years in the hot seat, it is time to catch up with some other work that has sat around for a number of years while I have assumed the Presidential duties. It will also get me away from the monthly nagging by our Editor. She's a great person who is only doing her job so I can't be too critical of her. *[Editor's note: I think we'll both be happy to claw back some time on the weekends! Enjoy a well-earned break.]*

Industry reunification and restructuring will be high on the agenda over the next year; in effect, the end is coming for the way we have been doing things. Hopefully this will be a relatively straightforward and successful process, as the beekeeping industry will be facing new challenges in the future. The GIA process is a big one. If it proceeds as per the Government view it will mean a radical reshaping of this industry, possibly in quite unexpected ways.

What's the NBA been doing for us?

By the NBA Secretariat

A draft strategic plan for the Association has now been sent to all NBA members for comment.

Federated Farmers BIG members have also received a copy of the plan (we touched on the background to this in the last issue).

While there have been a handful of detractors, initial feedback from members has actually been very positive. It seems that many members are pleased to see some action being taken on developing a plan that will deliver some direction and value.

The trick now is to keep things moving and to have a good discussion about the plan at conference. The goal there is to get some indication from the majority of members that we are on the right track and that we have members' approval to proceed.

By the time you read this, we will have Bee Week up and running. It's a time-consuming process getting things ready, but in just its third year, Bee Week is now a national event that generates considerable public interest and manages to attract lots of media attention to the industry.

Speaking of media attention, the whole issue of CCD and neonicotinoids made the headlines in May. Some of the media got the wrong end of the stick and started suggesting we had CCD and we moved quickly to shut that down.

We wrote a personal letter to a range of industry stakeholders like the Minister and opposition MPs, Federated Farmers, Horticulture NZ, Zespri etc. outlining our key messages, which are:

- there are some anecdotal reports of unexplained losses that concern the NBA, but it's impossible to link these losses to any one cause
- we have received reports from the USA, the EU and the UN about the impacts on bees of neonicotinoid-coated seeds
- there is no direct evidence to suggest that neonicotinoid-coated seeds kill bees. But there is some evidence that this type of pesticide has what's called 'sub-lethal' effects on bees
- the use of these neonicotinoid-coated seeds does concern beekeepers in New Zealand
- the NBA's view is that it would be irresponsible not to investigate further the whole matter of neonicotinoids. A thorough analysis of this problem will provide answers, one way or another, that are important to beekeepers and to the wider agri-business sector.

We are therefore continuing to work with ERMA to lodge an application to see if there are grounds for a review of the use of these seed coatings.

Daniel attended a day-long meeting of the BPSC. The range of topics discussed was interesting. One thing the NBA did ask for and receive from the BPSC was a formal position on the prevention of honey contamination. This was raised because of the continuing debate about Manuka Booster and NBA wanted the Standards Council to issue a ruling. The BPSC's ruling is in the Journal. *[Editor's note: please see the final paragraph of this report on page 13.]*

The NBA made a presentation to the Local Government and Environment Select Committee. We were invited to share our views on the threats facing bees as a major pollinator, and the solutions we felt should be in place to protect bee populations.

The Committee was extremely positive and requested a raft of additional technical information. This is all grist to the mill when it comes to making sure officials and politicians prioritise bees when making policy.

Daniel and Pauline are trying, when time and budgets permit, to get out of the office and out to the coalface. Daniel was in Hamilton for the Waikato Branch's AGM and Pauline attended the Southern North Island Branch's AGM in Palmerston North.

We are putting together a submission on the National Policy Statement on Indigenous or Native Biodiversity. Our concern is to ensure that there is sufficient and appropriate forage for bees. There is a risk that our diverse flora, which is so important for bees, is at risk. Lack of diverse forage is thought to be behind large colony losses overseas.

So that's the month in review. We've also spent a lot of time preparing for conference and the AGM (Notices of Motion are flooding in!) and we'll look forward to seeing you all in Auckland.

Left to right: NBA Vice President Barry Foster, NBA President Frans Laas and Landcare Research scientist Dr Linda Newstrom-Lloyd in Parliament House, where they presented their submissions to the Local Government and Environment Select Committee. Photo: Pauline Downie.

Bee Losses Survey—a reminder

Thank you to all those who have completed the survey and returned it to the national office.

The information we are gathering as a result is of great importance and will be extremely valuable in building cases to ERMA, MAF and AGCARM for re-evaluating a range of pesticides and for raising the bar in horticultural application practices. Both ERMA and MAF have expressed their interest in the results of the survey.

We appreciate this is a very busy time for you all, but if you have experienced bee losses for whatever reason we would encourage you to take the time to complete the survey and send to us.

If you would like further copies of the survey, please email pauline@nba.org.nz

A copy is also available on www.nba.org.nz

Pollination security in New Zealand

By Barry Foster

The NBA Vice President reports on the NBA's oral submission to the Local Government and Environment Select Committee, 12 May 2011.

During 2010 the United Nations Environment Programme (UNEP) published a report entitled *Emerging Issues: Global Honey Bee Colony Disorder and other Threats to insect Pollinators.* The report concluded that while current data and knowledge suggests no conclusive evidence of a general global decline in pollinators and therefore a resulting decline in global food production, there is evidence of localised declines, largely in Europe and North America, mainly through a mix of human activities and their environmental impacts.

This report came to the attention of Parliament's Local Government and Environment Select Committee and as a result the National Beekeepers' Association, amongst others, was asked to submit on it.

Left to right: Landcare Research scientist Dr Linda Newstrom-Lloyd, NBA Vice President Barry Foster and NBA President Frans Laas and Landcare Research scientist Dr Linda Newstrom-Lloyd on the steps of Parliament, where they presented their submissions to the Local Government and Environment Select Committee. Photo: Pauline Downie.

The NBA Executive decided that this was of sufficient importance to submit both orally and by written means. After a lot of preparation NBA President Frans Laas, Dr Linda Newstrom-Lloyd of Landcare Research and I spoke to the select committee convened in Parliament House on 12 May.

We started off with a Powerpoint presentation and each of us spoke to various slides. The total time allocated for our submission was 45 minutes, including at least half of that time as question time. As it turned out the select committee gave a time extension for added questions, which suggested to us a valuable concern and interest from the MPs present in what we were saying. This certainly showed in the number of questions levelled at us after the Powerpoint presentation was finished. We submitted that there are four main threats to honey bees:

1. incursions of new pests and diseases plus those currently in New Zealand
2. pesticide overexposure and mishandling
3. removal and decline of pollen sources and their diversity
4. multiple pressures on beekeepers; i.e., the cost of disease control, biosecurity issues with honey imports, increased pesticide poisonings, and a decline in volume and diversity of pollen sources.

Following that, we concluded with possible remedies to each threat:

1. don't raise risk levels of further exotic pests and diseases by importing honey, but improve and enforce control of existing diseases
2. the HSNO Act needs to work better in practice, as currently it effectively is not workable for beekeeping once poisonings occur. It would improve with better enforcement with regard to pesticide use, including adding in wetting agents as being bee toxic. We suggested the licencing of spray applicators with potential removal of licenses for serious breaches
3. we need to find and increase the abundance and diversity of lost pollen sources as well as have backing by local and central Government legislation to preserve what sources remain
4. there needs to be greater public and policy awareness of the issues and remedies to a potential pollination crisis in New Zealand, particularly as land use intensifies. Two ways to begin to raise awareness of this issue would be (1) an economic analysis of the true role of beekeeping and its contribution to the national economy, and (2) an ecological analysis of the true role of beekeeping, bringing within that analysis the recent Chatham Islands example after honey bees were re-established in greater numbers on those islands. The significant expansion in the number of honey bee colonies on the Chatham Islands has provided noticeable improvements in fruit and vegetable production, as well as changes in pasture species composition near colonies.

I'm sure the MPs and others listening took on board some of our key messages. Frans Laas spoke on honey bees being able to be built up to "provide industrial strength pollination services" with no other like species available for this task. Unlike in other countries, there is no fallback position for New Zealand should honey bees be compromised by some means in the future.

Linda Newstrom-Lloyd spoke of her personal belief of a looming pollination crisis in New Zealand, in part stemming from the decline and diversity of pollen sources. We can see it coming and have a choice now to avoid it. There is a trend towards more 'green deserts', as far as pollen resources are concerned, now appearing in New Zealand as a result of more intensive land use.

I said that "honey production subsidises pollination", and anything that lessens honey production would see dramatic rises in pollination costs to farmers.

There was quite a bit of discussion on pesticides including neonicotinoids, and I reiterated the need to balance all threats to pollinators in concert rather than focusing on just the neonicotinoids. The cost of reviewing the registration and uses of neonicotinoids through ERMA is beyond the NBA's financial means and this needs to be considered by Government, as new overseas-based research concludes on their possible effect on pollinators. Meanwhile the NBA is to begin the early stages of a review with ERMA so that new information from overseas can be built into a full review if necessary at a later date.

Many select committee members expressed genuine concern about the issues raised, and the committee gave its sincere thanks for providing such a valuable submission.

Australian EFB study tour (part 3)

By Allan J Richards

In September 2010, eight beekeepers from the Southern North Island Branch set off on a study tour to southern New South Wales and Victoria to look at European foulbrood (EFB).

Monday 20 September

Neil Farrer and I flew from Melbourne to Canberra, where we collected a rental car and drove to Queanbeyan, NSW, where we met up with Des Cannon.

From there we all went out to Noel and Barbara Bingley's plant/headquarters about 20 minutes to the northwest of Queanbeyan. Noel, his wife, sons and grandson operate a business of 2500 hives. They chase all the flows for honey and get up to six flows a year, which they extract and sell in bulk.

We spent two or three hours looking at their plant, its operation and talking about EFB and how they dealt with it. The Bingleys blanket feed oxytetracycline (OTC) to all hives when necessary. OTC masks AFB and controls EFB. The bees from hives that are seriously infected with EFB are shaken out onto clean combs before the gear is removed and taken back to base. All the gear from deadouts and anything with AFB and EFB hives are stored and chilled in a container and when they have a truckload, they take it to be irradiated with cobalt-60, which kills everything. The irradiation plants are in Sydney and Brisbane, which takes a couple of days travelling.

Hives being treated with OTC for EFB.

We travelled back to collect Des's vehicle, and did a bit of sightseeing around Canberra before continuing to his place, where we stayed the night.

Gear sealed and ready to be irradiated.

Tuesday 21 September

Neil and I had a two-and-a-half hour trip northwest in the rental car, in thick fog, to meet up with Tony and Lois Thomas. This husband and wife team runs about 1200 hives. They chase the same crops as the Bingleys, but on a slightly smaller scale. They extract their own honey but don't pack it. We met them out in the field for some hands-on beekeeping. We discovered that they have single eight-frame full-depth brood boxes, and then a queen excluder. The honey boxes go on top, no more than two high. They are continually removing boxes of honey whether they are full or not, and replacing with empty stickies.

Every now and then they inspect for disease, usually when they are making sure there are two frames of foundation in the brood box to give the bees space and something to work on. They lift capped brood up into the honey boxes, or put it aside to use it in a weak or dead hive to make up a new hive. Sometimes they buy queens, but often they leave the bees to requeen themselves.

We saw two yards with about 120 hives in each site. The hives are moved continually from site to site to follow the flows. We saw no AFB or EFB, some sacbrood and chalkbrood, some good hives, some not so good, a few deadouts and some drone layers.

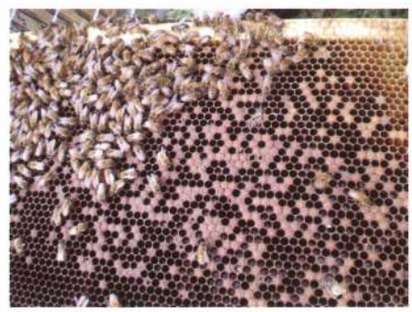
We travelled to Temora for the night, where we booked into a hotel. By chance we ran into some local beekeepers, Pat Roberts and his sons, who run 4000 hives. Also there was Dr Doug Somerville (Technical Specialist Honeybees, NSW Department of Primary Industries). He and Michael Hornitzky, a research scientist, were taking samples out of Pat Roberts's hives, looking for *Nosema ceranae*. We went out for tea with them and a big chat at the local RSL. Pat offered to show us around his plant in Temora.

Wednesday 22 September

Early start to meet up with Pat outside the hotel: five minutes later we reached his plant on the outskirts of Temora. He does his own extracting and packing, and packs for the supermarkets. They have an organic status. All they have to do is wait 21 days after treating with OTC, putting to one side any honey produced in that period, after which they could once again revert to organic status. The honey put aside was used for commercial grade baking; e.g., food products and biscuits.

Australian extracting and processing plants have to comply with a food processing standard (Hazard Analysis Critical Control Points, or HACCP), but it is nowhere near as stringent as the NZFSA RMP Code of Practice. They thought New Zealand regulations were ridiculous.

From there we went and looked at one of his yards nearby. He had 240 hives (a truckload). We then went back to where we had left Tony and Lois Thomas the night before, and finished that yard, then moved on to another site 50 kilometres southeast, where we continued to work the hives, looking for AFB, EFB and small hive beetle. →



A frame with EFB.

We said our goodbyes from there and drove two hours east to Goulburn, where we booked into a motel for the night.

Thursday 23 September

We met up with Doug Somerville as planned. We went back to his place, where we had to wait for the weather to improve before looking at hives. We had a cup of tea and a discussion about bee diseases.

We walked to some 20-odd hives in his backyard, where he had found an EFB hive the previous Sunday. He hadn't treated it because he knew we were coming, so he had something to show us. It was in a very advanced stage of EFB, a very good learning curve. We went out to his experimental research yard, about 20 minutes out of town. There were 92 hives in the yard, and we were helping him to do a spring check and feed, and to assess suitability for pollination. We hit the jackpot—we found five with AFB, seven with EFB, some sacbrood, some chalkbrood, some good hives and some not so good or poor hives. These results are not unexpected as these hives are quite often used for research and experimental work.

I was quite surprised with the attitude taken towards AFB. When I asked what they did for sterilisation of tools and gloves after finding AFB, and before opening another hive, Doug's comment was "very low risk, just carry on". All AFB hives were marked for dealing with at a later stage. The EFB hives were in various stages, from very beginning low-level signs to quite advanced infestation. The low levels were not treated; the advanced stages were treated with OTC.

Normally it would have taken Doug all day to do his 92 hives, but Neil, Doug and I had it all done in two-and-a-half to three hours.

We went back for a late lunch and another big chat. We then travelled back to Des Cannon's place for the night.

Friday 24 September

We drove two hours to one of Des's yards, of about 120 hives on canola, to inspect, check etc., arriving at 11 am. This provided another good lesson, as we found two AFB and at least five EFB hives. The hives were treated with OTC and marked. By the time we had finished and were driven two hours to Des's home, it was 6 pm. We spent the night with them again, with plenty of discussion about bees. Des later emailed us to say that he had introduced a load barrier system to stop AFB spreading to his other hives.

Saturday 25 September

We took a flight back to Melbourne, where we met up with Frank Lindsay and Kevin Gibbs at the airport. The four of us travelled back to our hotel accommodation, arriving just before lunch, where we met up with the ladies. After a quick bite to eat, we took the train out to Bendigo to meet up with the rest of the group. We then visited John Bowland, an extracting plant manufacturer, to look around his premises. We all visited another beekeeper nearby who was building a new extracting facility, before returning to Melbourne by train.

Sunday 26 September

The group headed back to the airport and flew home.

> "We were able to see EFB in all stages from very early to advanced full-blown EFB."

Summary

AFB: I can see why they have a problem with it. Some have a very casual attitude towards AFB when finding it. Beekeepers don't sterilise hive tools, gloves, smokers, and other gear. They just carry on working the next hives. They have also been informed that it has to rope out 30 mm, and if it doesn't rope out 30 mm they don't think it is AFB, which is totally wrong. This means that they don't always even recognise that the hives are infected. The key with AFB field testing is that it will continue to rope (no matter what length). PMS will not rope more than twice.

EFB: Personally, of all the groups I think Neil and I were the luckiest. We were able to see EFB in all stages from very early to advanced full-blown EFB. To find EFB in the early stages, all bees need to be removed from the frames in order to see in the cells. You need good light and good eyesight, because you are looking for that corkscrew of the very young larvae in the cells. It is not easy to see, and takes practice and training to become familiar with symptoms. The latter stages are easy to identify by the shotgun pattern effect on the frames of the capped brood. The bees are removing the diseased larvae and there are more diseased larvae than healthy live larvae. When you start looking from there you will see the yellow corkscrew larvae and the perforated cells.

Conclusions with EFB and talking with Dr Doug Somerville: EFB is a spring stress disorder, associated with shifting hives, poor pollen (protein deficiency) and lack of feeding of hives. The hives we were looking at with EFB had honey on left over from the last crop, but the bees found it difficult to use. (Too hard or indigestible?)

I think EFB is a management issue. Removing the last honey crop completely, feeding sugar syrup and supplying pollen substitute would have a huge beneficial return. I am not sure, with varroa also in New Zealand, whether EFB would be a bigger problem; that is, whether having varroa as well as EFB would create even more of a problem in the spring, with the hives already under stress from weather and food shortages.

OTC: some of the beekeepers we visited seemed to have a very blasé attitude to the blanket treatment of EFB with OTC.

Small hive beetle: we were too far inland to experience seeing much SHB. Neil saw three beetles in one apiary and one beetle in another.

[Editor's note: part 2 ran in the April 2011 issue.]

Southern North Island study group members. Photos: Allan Richards.

Top bar hives: what's the problem?

By Frans Laas, Chairman, AFB NPMS

Over the past few years there has been a resurgence in the number of beekeepers.

However, this increase has been almost entirely in the hobby sector, where the largest category of hive owners (there are 2100 beekeepers who own five or fewer hives) contributes to only about one percent of the total hive pool in New Zealand.

Some sectors of the hobby community have moved towards using moveable comb technology instead of the more common moveable frame systems. This has raised a considerable number of eyebrows and a flurry of communications from concerned beekeepers through the country.

As a consequence the NBA asked the AFB NPMS Management Agency (MA) to clarify the legal status of hives such as top bar and Warré. The MA sought a legal opinion on the interpretation of the definition of a moveable frame as listed in the Strategy rules.

The legal opinion did affirm the definition of a moveable frame. Quite clearly the word "in" is the critical factor. Top bar hives have their combs hanging "on". The opinion also stated that there would have to be a good reason for a judge to accept an argument from the MA that a prosecution under Section 154q of the Biosecurity Act could be justified.

Why, then, was this rule instigated in the first place?

At present the hobby beekeepers in this country live in a very benign AFB environment. Many new entrants to the community are probably completely unaware as to the reason, and most will never see the disease in their hives. We need to look back into the past to understand why the current situation exists.

History of AFB in NZ

Around 120 years ago AFB first became apparent in this country and very quickly spread throughout the land. By the early part of the 20th century AFB was becoming a problem that seemed intractable. Then along came a gentleman by the name of Isaac Hopkins, our first Apiary Officer appointed by the government of the day, and an Apiaries Act was created around that time as well.

Looking at what was written at the time by Hopkins and his contemporaries, it was clear that they would have a difficult road ahead of them. In many areas hives either displayed clinical symptoms of AFB or were soon to do so. In some localised areas every hive was destroyed by burning because infection was so severe. In many instances beekeepers shook-swarmed, cut out infected brood and applied chemicals such as "isol" and other pretty nasty substances, all to no avail. In one paper I looked at, Hopkins declared he had a clinical infection rate of only 5% and he thought he was the cat's pyjamas. In today's world the MA would be coming to visit him, revoke or significantly amend his DECA and may have also ensured that his hives were inspected by an independent person. How the world has changed.

"... the MA is currently seeking a way forward to resolve the issue..."

It was also becoming apparent to Hopkins that the root cause of the seemingly intractable problem of AFB was the use of hives that did not have moveable frames in them. At the time anything went as far as hive construction was concerned. There were log hives, box hives, skeps, kerosene tins and top bar hives and other rather interesting contraptions, all of which were an impediment to the rapid diagnosis of diseases in hives. By today's standards it was a complete mess.

Time progressed and things really did not improve a lot. After World War II the situation was getting bad and extensive shook-swarming was required to maintain some semblance of control. The Apiaries Act of 1948 came into being and it allowed for the first time a strong mechanism to deal with AFB. Among the major tenets to this Act were the compulsory destruction by burning of hives displaying clinical symptoms and later the banning of the use of antibiotics (the best thing we ever did), as well as reinforcing the requirement to use moveable comb frames in the hives to allow for the rapid and unimpeded examination of hives.

The implementation of this Act quickly brought down the rate of clinical infection to comparatively low levels throughout the country. In 1993 the Biosecurity Act was enacted, and by 1998 the AFB NPMS was signed into existence and the beekeeping industry was responsible for funding and enforcing the Strategy on its own. The rate of reported infection continues to decline.

We want to hear from you!

The current success of the Strategy is based on a few very sound principles, one being the use of moveable frames. A deviation from that principle could be seen as a retrograde step.

At the last MA meeting the legal opinion was discussed at length. Quite clearly the two sides of the discussion are quite emotional and somewhat forceful in their views about this point. However, the MA is currently seeking a way forward to resolve the issue without causing too much grief. The MA needs to do a bit more investigation on the subject. As stated earlier, we need to find ways to allow the use of alternative technologies that clearly do not violate the principles of the Strategy and undermine its effectiveness.

In the April issue the MA asked for top bar beekeeping groups to come forward so we can discuss the problem face to face and create solutions. This response has been somewhat disappointing, so we reiterate that we need some constructive engagement from the proponents of top bar hives.

Email AFB NPMS Manager Rex Baynes on rbaynes@ihug.co.nz if you wish to provide feedback.

News from ERMA

Following is some selected information from the latest newsletter from the Environmental Risk Management Authority.

EPA Bill passed into law

The Environmental Protection Authority (EPA) Bill was passed into law last week, formally establishing the EPA as a standalone Crown agent from 1 July 2011.

The new authority will streamline and strengthen national environmental regulatory functions currently spread across Government.

The EPA will be responsible for all of ERMA's current functions. It will also process matters of national significance under the Resource Management Act, administer the Emissions Trading Scheme and Registry, undertake permitting and exemption functions under the Ozone Layer Protection Act, permitting functions relating to the import and export of hazardous waste, and advise on the development of National Environmental Standards.

From 1 July, you'll see us using the EPA name and logo. We will look different but we will continue to provide the same functions, with the same high level of service to all our customers.

HS decisions on applications

Decisions were made by the Authority of ERMA New Zealand on the following applications:

ERMA200690 by Adria New Zealand Limited, to import or manufacture Avia, containing bifenthrin, for use as a synthetic pyrethroid insecticide for the control of various pests in domestic and commercial structures
Application decision: Approved with controls
Decision notified: 12 April 2011

HS decisions on applications—delegated authority to the Chief Executive

The Chief Executive of the Environmental Risk Management Authority, acting under delegated power from the Authority, reached a decision on the following applications:

ERMA200772 by Connovation Limited, to manufacture in containment Experimental Bait containing Imidacloprid for Controlling Wasps and Experimental Bait containing Imidacloprid for Controlling Ants as insecticides to carry out laboratory and field trials
Application decision: Approved with controls
Decision notified: 4 April 2011

Publications available

The following ERMA publications are now available. For more information on their availability, please contact publicationinfo@ermanz.govt.nz
Methyl bromide fumigations - Post-reassessment guidance for fumigators (May 2011)

Source

Environmental Risk Management Authority. *The Bulletin*—Issue 131, March 2011 ISSN: 117-3619.

(Abridged from an email from ERMA New Zealand, 19 March 2011.)

PGP funding positive sign for industry

A successful bid by a Manuka honey industry consortium for Primary Growth Partnership funding is a sign the industry has the potential to grow significantly, says Agriculture Minister David Carter.

The Primary Growth Partnership (PGP) is to fund half of a $1.7 million research programme proposed by the consortium to increase the reliability of supply and volume of medical grade Manuka honey.

Mr Carter has welcomed the approval of the proposal which lifts the total government-industry commitment to PGP programmes to $477 million over 18 months. The Government has contributed more than $218 million.

"The Government's investment in this latest proposal is what the PGP is all about—a commitment to significantly boost economic growth through research and innovation right across the primary sector.

"I congratulate this consortium on meeting the robust approval process and I wish it every success in its bid to expand into a billion-dollar industry."

Mr Carter says the nine programmes approved for PGP investment since 2009 represent the largest investment by Government in primary sector innovation in decades.

Source

New Zealand Government website. PGP funding positive sign for honey industry. Media Statement from Agriculture Minister David Carter, 10 May, 2011. Accessed May 12, 2011 from http://www.beehive.govt.nz/release/pgp-funding-positive-sign-honey-industry

[Editor's note: for more information about the PCG, its members, the programme and its benefits, refer to a press release from Comvita NZ Ltd: http://www.comvita.co.nz/news-media/general-news/funding-investment-for-manuka-honey-research.html]

BPSC report

By Dr Jim Edwards, Chair

The Bee Products Standards Council met in Wellington on Wednesday, 4 May 2011.

The meeting was attended by Jim Edwards (Chairman), John Hartnell, Peter Bray, Allen McCaw, Steve Lyttle, Mary-Anne Thomason, Young Mee Yoon, Jim Sim, Sheryl Tuck, Mike Clear and John Reeve. Visitors were Daniel Paul and Malcolm Garnham from CatalystNZ. Apologies were received from Philip Cropp and Jane Lorimer.

The Council reviewed the financial report for the 12 months ended 31 March 2011. It was noted that Federated Farmers had contributed $3,937.50. FFNZ beekeepers, through the wind up of the South Island Varroa Group, also provided a further $5000.00, which was distributed via the Honey Industry Trust to avoid any taxation issues. The Honey Packers Association had paid $10,000.00, and the NBA had contributed $4,917.43 and has indicated that they will continue to provide financial support, but would like to see the budget forecast and indicative work programme for the year. The Council was reminded that the purpose of the BPSC was to have interface with NZFSA (now part of MAF), and did not necessarily have a specific work programme.

Reports of the meetings had been sent to the NBA and no feedback had been received. The Council also noted that reports were published in *The New Zealand BeeKeeper.*

The current MAF amalgamation may see some changes in approach. There was concern that loss of the regular forum could see loss of control and influence on government decisions. There had been questions about the accountability of the BPSC. There was a discussion within industry organisations about industry structure, with the key problem identified being a lack of unity, and commitment to drive positive change. This must be achieved, as MAF needs to know that the people sitting at the BPSC table represent the industry.

It was agreed that the BPSC should make a presentation to the NBA and BIG conferences and that the NBA joint Chief Executive Officer should attend the BPSC.

Darren Clifford will replace Steve Lyttle from the next meeting. The Council members expressed their appreciation for the work done by Steve Lyttle.

The Council noted the continuing interest to rate non-peroxide activity versus methylglyoxal and noted that from a scientific perspective, a correlation was useful, but it was not perfect. It was agreed that the correlation needs to be finalised within an acceptable range, to determine a standard with either marker for manuka honey.

The BPSC agreed to encourage the Technical Advisory Group to work together collaboratively to strengthening the correlation with more data and that this needs to be published in a reputable peer-reviewed publication, preferably before the end of 2012.

> "... MAF needs to know that the people sitting at the BPSC table represent the industry."

The Council considered reports of the effects of methylglyoxal in the human body. The BPSC noted that there are a number of publications identifying the risks of honey and the toxicity of methylglyoxal to patients with a number of disease conditions, including diabetes or a predisposition to diabetes, and that care should be exercised. It agreed that there needs to be serious caution about the maximum permissible methylglyoxal level and that a maximum safe level should be established. The Council was clear that methylglyoxal should not be added to inflate the levels in honey. The Council agreed to advise industry that it was investigating the risk profile for the safe use of honey.

MAF was consulting on a minor wording change to the Tutin standard. This was to clarify the option and expectation for the harvesting of honey by 31 December.

There had been feedback from beekeepers who thought that they were not at risk or that they should not have to disclose the location of their hives. The Council agreed that the information about risk areas was important and that there was a long-term benefit to have the information. The BPSC would not be seeing the location data or Tutin test results, only the conclusions.

There were concerns about the costs of transferring the laboratory information at $15 per sample. The Council noted that AsureQuality Limited have records in their database which could be used to assist with reporting locations.

There was discussion about the requirements for the use of and recording the identity of drums. There was reluctance to impose more record keeping. The Council noted that there was a need for a clear understanding by Risk Management Programme (RMP) holders of the requirements under their RMP and Code of Practice documents. If there is any dispute, verifiers should show where the compliance requirements are documented. The requested requirements for expiry dates, which had been insisted by some verifiers, had now been dealt with.

If treated town or rural supply water is used in RMP premises, then no annual water testing is required. Of key importance is that notification from Councils is given when water needs to be boiled before use after some problem has occurred.

The Council discussed Vipers Bugloss honey research.

The Council considered the potential of feeding practices that may lead to contaminants in bee products. It agreed that the New Zealand honey standard should be publicised to the industry and that care should be exercised to prevent violation of the standard.

Passive surveillance: bees

By the Ministry of Agriculture and Forestry

Passive surveillance is defined as "Any surveillance activity based on the spontaneous notification of cases or suspected cases of a disease."

There are many passive surveillance activities going on throughout the country every day and, for the most part, these remain invisible and unnoticed by the communities they are operating in. For example, in the case of the Painted Apple Moth outbreak in Auckland in 1999, a person working in the office of an industrial site noticed strange caterpillars, wondered what they were and sent them to an entomologist for identification.

Suspected cases of disease should be immediately reported to the Ministry of Agriculture and Forestry Pest and Disease call centre on 0800 80 9966. This early gathering and reporting of information allows the early detection of exotic or emerging disease as well as the monitoring of trends.

In 2010, fifteen bee-related investigations were undertaken at the MAF Investigation & Diagnostic Centre (IDC) at Wallaceville near Wellington.

What happens during an investigation?

Following a report received, the Pest & Disease Call Centre staff contact an Incursion Investigator, who discusses the case with the beekeeper and/or the Apiary Officer. In some cases samples will be submitted by the beekeeper for testing; sometimes an Apiary Officer will visit the site and collect sample(s).

A MAF investigation focuses on whether an exotic disease is the cause of the event, but the process will often involve testing for pests and diseases known to be in New Zealand to exclude these as a cause.

A testing regime will be selected based on the clinical signs shown by the colonies and discussions with the beekeeper and Apiary Officer.

Case Study example

Small Hive Beetle

A beekeeper contacted an Apiary Officer with a list of problems in his hives, which included weak hive activity and blackish brown debris consisting of both beetles and beetle larvae in the bottom of the hive. The honey produced by the hive was slimy and fermented.

"Suspected cases of disease should be immediately reported to the Ministry of Agriculture and Forestry Pest and Disease call centre on 0800 80 9966."

The beekeeper was asked not to remove any hives until a site visit could be made and the Apiary Officer notified the Pest and Disease 0800 number of the call. The Apiary Officer then made a site visit to check the hives and discussed sample collection and submission of the samples to the MAF Investigation and Diagnostic Laboratory (IDC) at Tamaki (Auckland) and Wallaceville (Wellington).

One pottle of adult bees were collected for mite identification, another pottle of adult bees was collected for viral and fungal testing. Blood samples were collected for bacteriology, and a further pottle of beetles and larvae were collected for identification purposes.

After examining the hive the Apiary Officer was able to establish that Small Hive Beetle was not present in the hive, but while carrying out his examination the officer noted the hive had a lower number of adult bees than would be expected, and an area of honeycomb that appeared to be infected with sacbrood virus.

Testing was carried out to detect **diseases known to be in New Zealand** including:

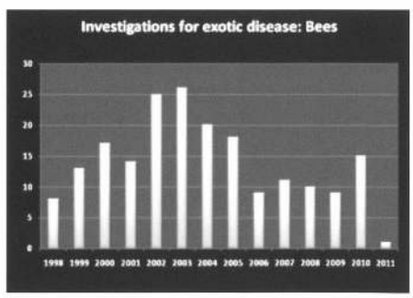
American foulbrood (*Paenibacillus larvae*), *Paenibacillus alvei*, deformed wing virus, Kashmir bee virus, *Nosema ceranae, Nosema apis* and sacbrood virus.

The Apiary Officer was able to confirm at the site visit that the beetles were not Small Hive Beetle by:

- the distribution of the beetles and no larvae detected in the combs
- confirmation by identification at IDC Tamaki that the beetles were members of the Nitidulid family of the genus *Haptoncus*.
- examination for Tracheal mite (*Acarapis woodi*) at IDC Tamaki which proved negative
- PCR testing for IAPV at IDC Wallaceville which proved negative.
- culture and PCR testing for European foulbrood (*Melissococcus pluton*) which proved negative.

The beetle samples taken were also tested at the IDC entomology lab at Tamaki. Results confirmed these as members of the Nitidulid family of beetles of the genus *Haptoncus*, known to be present in New Zealand. Examination carried out for tracheal mite was negative.

The hive tested positive for *Nosema ceranae* and Nosema apis as well as sacbrood virus.



Synthetic brood pheromone evaluation

By Barry Foster[1], Neil Foster[1], Willie Kaa[1] and John McLean[2]
[1]Tawari Apiaries Ltd., Gisborne [2]Retired entomologist, Gisborne (jands.mclean@gmail.com)

This paper evaluates the efficacy of SuperBoost synthetic brood pheromone in a commercial apiary operation.

SuperBoost release devices were placed in 20 test hives and parameters for the hives were compared with a matched set of a further 20 hives that served as controls. A hive index was determined for each hive that gave a weighted measure of the bees and brood. SuperBoost treated hives produced 23.5% more honey and made six more splits than the control hives. A benefit/cost analysis is presented. An addendum is included on our experiences in a separate experiment where SuperBoost was placed in hives at the time they were set out for pollination of kiwifruit.

Introduction

The brood pheromone for the honey bee *Apis mellifera* L. was first identified by LeConte et al. (1990). It is a complex mixture of the methyl and ethyl esters of linoleic, linolenic, oleic, palmitic and stearic acids that are produced by larval salivary glands (LeConte et al., 2006). The non-volatile brood pheromone has many roles in the ecology of the beehive; see review by Slessor et al. (2005). The brood pheromone is picked up by the nurse bees during their feeding of the larvae and then spread throughout the hive as the nurse bees go about their duties feeding the queen, the drones and in trophyllactic exchanges with forager bees.

Researchers have shown, in four frame observation hives treated with brood pheromone, that queens lay more eggs, were fed longer and were less idle than in untreated hives. Workers also spent more time cleaning cells and the increased tempo of brood rearing behaviours resulted in more brood being reared (Sagili & Pankiw, 2009). In addition, treatment with the brood pheromone decreased forager turnaround time by 72% and increased the ratio of pollen to non-pollen foragers entering the hive (Pankiw, 2007).

The brood pheromone is passed along in the hive by the nurse workers as they move throughout the hive after feeding the larvae. The SuperBoost brood pheromone release device developed by Contech Enterprises Inc. in Canada releases the synthetic esters at the same rate as has been recorded for test hives (Pankiw et al., 2010). The release devices last for five weeks. Early tests with package bees also involved supplementary feeding with protein/pollen patties.

> "We have clearly had increased yield and additional splits from those hives that were given SuperBoost ..."

Our objectives were:

1. To determine if early season application of SuperBoost in standard overwintering Langstroth hives with two full-depth brood supers would increase hive production, especially honey production, as compared to untreated hives. The hives were not used in contract pollination services during the trial and were sited well away from any potential affects from the applications of agrichemicals on horticulture or arable farms that might disrupt the trial.
2. To assess the benefit/cost of using brood pheromone supplementation alone without supplementary pollen/protein (normal sugar feeding only was done).

Methods

Test hives were selected from four overwintering apiary sites during the first hive check for the current season on 27 August 2010. All hives were scored for their rows of bees when viewed from above and on the underside of each super. The numbers of brood combs were also counted (Figure 1). A hive index was calculated as (the total number of bee rows/2) plus the number of brood frames. All hives checked were then ranked and the top 40 were assigned alternate treatments of a SuperBoost release device in the bottom super or no treatment as a control. All hives were treated for varroa mites at this time using Bayvarol strips. The hives were arranged in groups of four on a pallet to facilitate mechanical lifting. Two controls and two SuperBoost treated hives were on each of 10 pallets, which we then monitored for the rest of the season.

The number of pollen-carrying bees/5 minutes was counted for all experimental hives on 15 and 27 September 2010. Bayvarol treatments were removed in early October, rows of bees and brood combs were recounted and the hive indexes recalculated. Candidate hives for splitting were identified on the basis of beekeeper assessment of the strength of the hives and the two brood supers of these hives were separated with a queen excluder. Splits were established on 6 October with a new queen. SuperBoost release devices were replaced and each split was assigned the same treatment as its parent hive.

On 6 November, all hives were set out to collect manuka honey in the Ruatoria area. Pre-weighed three-quarter honey supers were added at this time. Hives were checked periodically and additional honey supers added as required. A pollen bee count of the majority of the original hives and the parents of splits was made on 6–7 December 2010. Honey supers were weighed as they were collected in February and March 2011.

Data were entered into spreadsheets and a benefit cost analysis was completed for the test hives.

Continued on page 17

SENIOR BEEKEEPER

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Honesty, integrity, punctuality and striving to produce quality work are important values to us.
Initial term from 1 Sept 2011 to April 2012 but likely to become permanent to right applicant.
For employment package and more information email Mark at: clarenceharvest@ihug.co.nz
Applications close 20 June 2011.

Continued from page 15

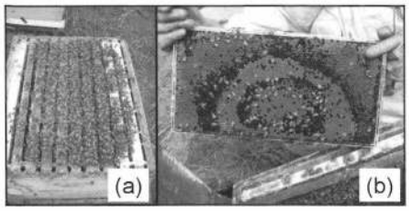

Figure 1: Measurements taken of each of the two brood supers of the hive. (a) The numbers of interframe rows of bees. These were scored for the top view of each brood super, as well as the number of interframe rows of bees seen on the underside of the frames. (b) The numbers of brood frames: each side would count as one half when well distributed brood cells, larvae and eggs were seen.

Results

The 40 hives selected for this evaluation had August 2010 hive indices ranging from 8.25 to 19.75. The averages for the Control and SuperBoost treated hives were not significantly different. The low value for the underside bee count for all the hives reflects how the bee cluster had settled more in the upper brood super (Table 1). The re-measurement of the hive index in early October shows the mean index for the control hives increased by 48.3% while that for SuperBoost treated hives increased 40.4%. Hives during this period had been fed only with sugar syrup. Pollen bee counts/5 min were a little lower for the control hives on 15 September but were fairly similar in control and treated hives by 27 September 2010.

Splits

Best hive improvements were in the order of 10 units. The beekeepers were able to split three of the control hives and nine of the SuperBoost hives. All the split hives now had the added challenge of collecting the stores for a second brood super as well as collecting honey. On 6 and 7 December pollen bee counts were made on all accessible original parent hives. The trend for higher pollen bee counts for the SuperBoost treated hives was not statistically significant.

Honey production

There were some hive failures. Four of the control parent hives and three of the SuperBoost treated parent hives were lost, most due to queen loss. Honey production tallied as means for parent hives, splits and combined hives is given in Table 1. The total honey collected in control hives was 713.9 kg while the SuperBoost treated hives yielded 881.6 kg, a 23.5% gain. The control hives produced three splits while the SuperBoost treated hives produced nine splits, six valuable additions to the apiary. Hive production was demonstrated to be significantly related to Hive Index 2 measured in October. Regression analysis showed for the control hives Total honey yield = 0.65 + 2.09 x October Hive Index ($r = 0.57$, $F_{1,14} = 6.70$, $p < 0.022$).

For the SuperBoost treated hives Total honey yield = 12.95 + 2.08 x October Hive Index ($r = 0.52$, $F_{1,14} = 5.33$, $p < 0.037$). This result emphasises the importance of hive care during the early season period.

Benefit/cost analysis

The SuperBoost release devices cost $5 Canadian ($C5) each. Twenty were used at initial set up and 20 + 9 for the splits were used in October.

The 49 release devices cost $C245 = $NZ330 (@0.75) +freight $NZ50 for a total of $NZ380. (All figures from here on are in $NZ.)

Honey Gain (Table 1) = 167 Kg @$10/Kg = $1670

The six additional splits (two full brood supers) were valued at $150 for the bee component. Thus value gain on the 20 SuperBoost treated hives is $1670 + $900 - $380 = $2190 net (or $44.70 for each SuperBoost release device used compared to their cost of ~$7.75).

Discussion

We have clearly had increased yield and additional splits from those hives that were given a SuperBoost brood pheromone release device in late August. The correlation of the October hive index with the honey yield reinforces how important it is to look after the hives early in the season. Supplementary feeding in this study was limited to sugar syrup feeding as per normal practices. Earlier evaluations of the SuperBoost release device have also involved concurrent protein/pollen supplementation (Moeri et al., in press). In our experience, without the protein supplementation, we have obtained lower increases in production compared to Contech claims on their product website at http://www.contech-inc.com/products/SuperBoost.

There was a trend towards greater number of pollen bees/5 min in SuperBoost treated hives; brood comb increases were similar in the order of 40%+ in both the treated and control hives; the adult population as indicated by TBEES (Table 1) increased by 50% in each treatment; the number of splits was three for the untreated hives and nine for the hives with the SuperBoost release devices; and a 23.5% gain in honey production was recorded.

It remains to be demonstrated if SuperBoost has more marked effects when protein supplements are also added at the same time, especially during the spring build up of the hives. This past honey production season was a very challenging one with inclement weather during the honey flow reducing yields. More favorable weather during the honey flow may show greater percentage production increases using SuperBoost.

Addendum. In a separate experiment, a group of 48 hives were placed in a kiwifruit orchard for pollination on 13 November 2010. Half of the hives were untreated controls and half had SuperBoost release devices inserted. Pollen traps were placed under half of the hives of each treatment. The weight of pollen collected per day (in grams) was 0.31 x pollen bee count/5 min; $r = 0.82$, $F_{1,47} = 96.6$, $p<0.001$ (regression forced through 0,0). Our results recorded no tangible benefits of an increase in kiwifruit pollination, as inferred by our pollen bee/5 minute count data and the weights of pollen collected across treatments, or later honey collection from treated as compared to untreated (control) hives. We conclude that application of SuperBoost to hives at the time of kiwifruit pollination as opposed to early spring provides no obvious pollination or production benefits, as it was too late to gain a positive effect on the worker bee population. →

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Send us your questions!

Do you have a burning question about beekeeping? Are you worried about your beeswax? Mystified about moths moving in? Well fear not, help is at hand. Every keen beekeeper has a list of questions they'd love to know the answers to. Luckily, the NBA has our local beekeeping brainboxes on hand to answer any beekeeping-related queries, from giving your hives a helping hand to sussing out your swarms. Whatever your question, simply email it to editor@nba.org.nz and we will post the answers in the next issue of *The New Zealand BeeKeeper.*

Table 1: Comparison of mean hive characteristics of 20 regular (control) hives and 20 hives with a SuperBoost release device added to the lower brood supers in August and replaced in October 2010. Splits assigned same treatment as the parent hive.

Hive Characteristic	Control Hives (n=20)	SuperBoost Hives (n=20)
Hive Index #1 (27 August 2010)	13.19 [8.50 – 19.00]**	13.74 [8.25 – 19.75]
Rows of Bees* UT	5.62	5.35
UU	4.78	5.08
LT	5.20	5.03
LU	1.09	1.39
TBEES	16.68	16.99
TBROOD	4.85	5.25
Pollen Bees/5 minutes		
15 September 2010	49	68
27 September 2010	82	90
Hive Index #2 (5 October 2010)	19.56 [6.60 – 30.50]	19.29 [8.25 – 29.00]
Rows of Bees UT	6.97	6.97
UU	6.33	6.41
LT	7.59	7.39
LU	3.75	3.88
TBEES	24.02	24.08
TBROOD	7.55	7.25
Pollen Bees/5 minutes		
6 December 2010 (parent hives)	21.07 (15)***	30.69 (16)
Honey Production – mean (n)		
Parents	38.31 (16)	32.29 (17)
Splits	33.65 (3)	36.85 (9)
Parent with own split combined	40.12 (17)	50.95 (17)
Total Honey	713.91 kg	881.55 kg

* Rows of bees indicated as U – upper brood super, T – top of frames; U – underside view of frames, L – lower brood super.
**Numbers in square brackets are range data [minimum – maximum].
***Numbers in parentheses indicates the number of hives (n) in the sample.

In memoriam: David Kay

By Ian Berry, NBA Life Member

David Kay passed away on 17 April 2011, aged 90, after an 18-month battle with cancer.

His death, so soon after the death of Ivan Dickinson, means we have recently lost two of the original three trustees of the Honey Industry Trust Funds set up on 1 June 1983.

David's involvement with our trust funds stemmed from his appointment to prepare a report for the Minister of Agriculture and the beekeeping industry at the time of the de-commissioning of the New Zealand Honey Marketing Authority. His 'Kay Report' was the catalyst for the formation of the two industry trust funds, The Honey Industry Charitable Trust and The Honey Industry General Trust. The trusts were administered by three trustees: Ivan Dickinson, representing the South Island, Russell Berry representing the North Island and David being the trustee completely independent of the honey industry.

David was Chairman until his retirement in 2004. With his background in accounting, it was inevitable that his main area of responsibility was the financial side of the trusts. This he did with great skill and the trusts prospered under his leadership. The amount of capital grew steadily, while at the same time money was made available to many different projects of benefit to the honey industry. David believed in sticking strictly to the rules and using common sense when investing. His policy of safe, sound investments helped ensure the capital was not lost even during times of recession.

> "His 'Kay Report' was the catalyst for the formation of the two industry trust funds..."

In 1998 I was appointed as the North Island trustee. I soon found I really enjoyed working with David and Ivan as they were both always very helpful and good to get along with. We had our meetings at David's workplace in Wellington and because of the flight times from Napier I would usually arrive far too early. David would come and meet me and provide the morning newspaper to fill in time until the meeting. If we finished earlier than expected, he would often drive me out to the airport so I could catch an earlier flight than I had booked. David wrote up the Trust minute book by hand and whenever it was appropriate he hand wrote his letters as Chairman of the trustees. He not only found this more convenient, but he said it saved the Trust's money as typists were expensive!

Traditionally one of the trustees has given a report to the annual conference of the National Beekeepers' Association and David did this when he was available. He had a very good understanding of our industry and when delivering the report he was not afraid to make a few controversial comments on the state of the industry as he saw it.

David has occupied a notable place in our industry's history. With his Kay Report and his long period of work as Chairman of the trustees he has had a significant impact upon beekeeping in New Zealand. He worked with skill, commitment and humour and is remembered with respect.

Wildflower-Bee Rescue Fund established

Bee Week has raised the profile of our industry but we are woefully devoid of funds to continue this work. Maureen Maxwell has decided to establish a "Wildflower-Bee Rescue Fund" to assist this work. You can help build donations for this fund by selling packets of these bright and cheerful easy-to-grow wildflower seeds for $5 per packet. All proceeds will go to the NBA Wildflower fund. See the ad on page 16 and go to www.wildforage.co.nz for more information. Special terms for NBA Branches and Bee Clubs for bulk orders.

FROM THE COLONIES

Auckland Branch

What a change in the weather! In the last month we seem to have had no end of rain and I am seeing my bees going through their stores of honey already. Visiting other beekeepers I also note colonies are small going into winter this year. Queens have closed down their laying rapidly and there seemed to be several queenless hives about. Let's hope we don't have a very cold winter or any more wet, wet, wet.

Last month I didn't mention that beekeepers in Auckland have been seen trying different varroa treatments other than just the chemical strips. I would like to remind beekeepers not to under-treat hives with chemical treatments: this is not helping the bees or the resistance to varroa.

The Auckland tornado passed by only just up the road from my home, and moments later we saw the result—trees crushing parts of houses, trampolines and fences smashed, and 'Batts' spread everywhere. I know of one beekeeper who lives only metres away from the path the tornado took, and thought of the bees that may have been out foraging at the time: what would have happened to them?

Conference is just weeks away now, and I for one am looking forward to hearing the overseas speakers, seeing displays, viewing products to help in beekeeping, mixing with and meeting like-minded people. There is so much more to mention.

It's not too late to register to attend—see you there.

-Kim Kneijber

Like Kim, I look forward to seeing you all at conference and enjoying judging your fabulous unique honey and hive products. (See NBA website for latest news, entry forms and confirmed programme.) Don't be shy, join the fun.

- Maureen Maxwell,
Northern Ward representative

Hawke's Bay Branch

As I write I am yet to hear of any hive losses due to the flooding but undoubtedly a large number of hives will have been destroyed. The only good thing was that it was remarkably coastal: a few miles inland there was little or no damage in most areas. I heard of one place that had 750 millimetres in two days: our average rainfall around here is about 800 millimetres for the year. Fortunately I had all my hives wintered down before the rain, but those people involved in exporting package bees have had a bit of a tough time in the last week.

Wasps are worse than normal this year and I have killed several nests in the area. It's not that I mind killing them; it's just that people always think that wasps are the local beekeeper's responsibility and that we probably caused the problem in the first place.

The message about protecting our bees is getting through to people. The last two swarms I went to collect both turned out to be wasp nests, but even when I convinced the people that they were not bees, they still wanted me to remove them to a place of safety rather than kill them (yeah right!).

- John Berry, Branch President

Otago Branch

One of Otago's most well known and respected beekeepers, Ivan Dickinson, passed away this March. Ivan was a mentor to me and half the beekeepers I know, and many of us have purchased his distinctive hives. I bought some on site many years ago and still admire the immaculate fencing and bee equipment that was his trademark. For Ivan, if a job was worth doing, it was worth doing well. We will miss him but be gently reminded for the rest of our careers as we handle those silver three-quarter-depth boxes.

This year the poor midsummer meant the Otago honey crop was lower and many will have been lucky to average 25 kilos per hive. Good quality clover especially is in short supply, so at least beekeepers are getting good prices for what they have. March and April were better months and in places topped up hives with a welcome late flow.

Preparing hives for winter has been easy in good conditions though wasps have been a problem in some yards. Now into May the weather isn't so great, with cooler northeasterly winds bringing cloudy skies and showers a lot of the time. The grass is still growing and farmers can't believe how green the paddocks are, but they too have missed the sun.

Over the last two months varroa is starting to be found further into the South, with it now well established in much of Central Otago and just recently found south of Oamaru. Here around Dunedin no one has found it yet and we wonder from which direction it will arrive first.

Looking at hives in April as part of the COI defaulter's inspections, I found very few colonies around Dunedin still containing brood. Great timing for oxalic acid, I thought, and I plan to use it myself with a practice session coming up soon with other commercial beekeepers in Central Otago.

Central Otago hobbyists group

The Central Otago hobbyist group met in April and they are planning to meet informally from now on. If you are a new beekeeper in Central and wish to find out more you can contact Nick Loughnan at loughnan@actrix.co.nz.

New Ward rep sought

With Frans Laas soon stepping down from the NBA Presidency and as our Southern Ward member on the Executive Council, the region is now seeking a new representative. Frans's hard working and forthright style will be a hard act to follow in both jobs. Southern NBA members will miss their easy access to our industry leader and we sincerely thank him for his dedicated work on our behalf. In particular, from my own perspective, I have appreciated Frans's dedication to AFB control. Along with others in the Pest Management Agency and the Manager Rex Baynes, Frans has not let AFB slip off the radar just because varroa has threatened to steal our attention. I am pleased to hear he is willing to continue representing the NBA in that role.

Happy hibernation.

- Peter Sales, Branch Secretary

Reflecting on the season

By Frank Lindsay, NBA Life Member

The autumn rains have started and beekeeping is drawing to a close.

At this time of the year most commercial beekeepers take a break and attend the NBA conference to catch up, and perhaps pick up a good idea and plan for the coming season. Conference can be expensive to attend but one good tip could pay lasting dividends, making the actual attendance cost well worthwhile. When I was a hobby beekeeper, I would take annual leave to attend conference and branch meetings to suck up knowledge. I learned more in the lunch breaks talking or just listening to older, experienced beekeepers . Then you come home and try and put the ideas into practice. Some will fail, others may work as everybody's areas are different and micro-climates come into play as well.

Once you know what you are doing, beekeeping is fairly easy: follow the rules, get hives building, put on supers and let the bees do the rest. But we tend to learn more during a poor year. This last season wasn't very productive, although those hives that were strong early brought in a reasonable amount of early bush honey.

This happens quite often in the Wellington area, in that hardly any honey is produced after Christmas. The hives then have to live on what they have brought in and come February I start removing the honey, leaving enough (I hope) for them to winter over on. Sometimes this works out just fine, other times the bees brood up and convert the honey into bees, leaving the hives short of stores to winter over on. This was one of those years and it especially hit some of the splits I made in November. In a few sites these splits didn't make it through to April—they starved, so what's the cause? Neglect by me in one case, but more importantly, I (and the surrounding beekeepers) have steadily increased the number of bee hives in their sites. A couple of areas have become overstocked to such an extent that during this bad season, they just didn't produce enough stores and died even though they were strong three-super hives at Christmas. Perhaps it's the type of bee I use. The ones I use (Italian crosses) don't shut down when the nectar flow stops.

Selecting apiary sites takes experience. In a dry year, look for the green areas—those that don't dry out. Either they are in a rain shadow or the land remains slightly damp. These areas often produce when others are dry. I tend to put my hives on farmland that is close to a river (surrounded by willows and other pollen and nectar-producing weeds) or near to bush areas. With dairying predominating now on most farmland, we no longer get a clover crop. Rotational grazing means the cows eat the flowers just as they are coming into bloom and three weeks later when they have recovered, they are eaten off again. The same goes for irrigated farms. Clover produces nectar when stressed, so no clover is produced on the irrigated farms in my area now.

> "...bone up on and experiment with alternative mite treatments as resistant mites are coming."

Other lessons

I just didn't get around to producing enough queen cells this autumn and to my surprise I have a 10% queen failure in one area. The hives produced supersedure queen cells or swarmed, but the new queens failed to make it back to their own hive so the hives died out. How can you tell? There is an enormous amount of pollen stored in the bottom two supers, no capped brood cells and just a handful of dead bees on the bottom board. Next year I will do a quick inspection In February, mark failing queens and get a cell into them. Most commercial beekeepers put a protected queen cell in every hive rather than being selective as this is more cost effective, but I'm looking for bees that survive and produce well.

Most are reporting that mite levels are low in their hives this autumn but I have found a few areas where numbers are high, and have even found PMS in an area where there was a lot of swarming. The lesson: controlling swarming makes for low re-invasion levels late in the autumn.

I have also left a couple of apiaries untreated for a couple of years. These are now down to the last few hives but those remaining are booming. They got a 30-second burst of oxalic acid vapour in February so they have been treated, but these bees must have something to protect them. They have just had strips put in them to see what their mite population is. Perhaps it might be that they are clear of viruses. Again, what is a little surprising was the amount of queen failures. I had expected to see the majority of these dead hives with a spotted brood pattern, PMS or perhaps the odd drone layer. I saw all of these things, but quite a few were simply empty except for the pollen frames. Whatever the case, I will breed some queens from these survivors in the spring.

Sit down and plan for the coming season. Make a budget. For some commercial beekeepers, it's going to be a difficult spring financially. Whatever you do, don't skimp on feeding hives. Order everything you require early so you are not caught up in the rush for gear once the season starts. Read a few books. Most importantly, bone up on and experiment with alternative mite treatments as resistant mites are coming. When this happened overseas, beekeepers lost a third of their hives until treatment methods were sorted out. We are very fortunate as we have an arsenal of different treatments we can choose from.

Things to do this month

Make up and prepare equipment for replacement or increase of hives. Check hives after storms. Drop the odd honey jar into farmers as you are passing. That honey pot on the table will remind them to ring you if they notice hives knocked over.

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