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NB: No magazine in January

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(See page 2 for full details)

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President's Report

This last month has been somewhat busy for all members of the Executive Council as we have been tied up with the usual November madness that inflicts all professional beekeepers. I have just finished my first lot of inseminations for the season with nearly 200 queens done and can now find time to get in my monthly report, just in the nick of time.

Colony Collapse Disorder

Recently our CEO sent a letter to the Minister of Biosecurity regarding the suspension of the Import Health Standards (IHS) for honey and other bee products because of the uncertainty of the causes of Colony Collapse Syndrome in the Northern Hemisphere. The reply is printed on page 7 for the reader's benefit.

The Executive is extremely unimpressed with the reply. Since no one has been able to elucidate the primary cause of CCD then the Ministry should take a precautionary approach and suspend all importation of bee products until such time as the actual causative factor or factors is established. The letter suggests that the current IHS is adequate to deal with CCD. Since the cause is not known, how can the IHS deal with something that has not been factored into the risk analysis?

The general impression from this letter added to what has gone before leads the Association to one inevitable conclusion; that the present Government is not really interested in maintaining the integrity of the beekeeping/pollination industry in this country. The pork industry is facing similar issues.

Free trade regardless of the consequences

While the importation of honey provides both threats and opportunities to the beekeeping industry, the highly likely importation of EFB, and with it *Paenibacillus alvei*, changes the dynamics completely. The use of antibiotics to manage the disease as we have already discussed will impact our ability to export bee products at our current premiums, and will most likely kill off the active Manuka market. The management of the AFB NPMS will also be severely compromised. If the disease arrives and the decision not to use antibiotics is taken, then the recipients of pollination services will be significantly impacted as well. This has already been forcefully pointed out to Government but they have chosen to brush off our arguments.

Incursion response submission

The Association is currently putting a submission together resulting from the discussion paper "Joint Decision-Making and Resourcing for Readiness and Incursion Responses" written by MAF Biosecurity New Zealand. This paper outlines ideas around how industry and Government should respond to incursions of new exotic organisms that may affect New Zealand's economy, human health, etc.

The general impression gained from this document is that the Government wishes to devolve the management of exotic incursions to the affected industry or industries and that they should co-fund any response, which will give them a say in how the issue should be managed. Incursions involving human health and other significant issues will be fully managed by Government.

Another idea presented is that the victim should be held liable to pay for the costs of any exotic incursion rather than the exacerbator: this rankles a bit. The Government, by its own admission in the discussion document, is a major exacerbator of these issues. With over 200 exotic organisms arriving in this country over the last five years, the track record for border security is somewhat tarnished.

As far as this Association is concerned, the ability to fund the high cost of dealing with a new incursion is very limited due to our small size. However, the industry provides a pool of AP2s who are able to respond to any bee related crisis, such as with the two varroa incursions and the suspected EFB incursion in Nelson. No other primary industry can provide

this sort of expertise from within its ranks. The funding and management of the AFB NPMS by all beekeepers in New Zealand also contributes to the ability of Government to deal with bee-related exotic organism incursions. We as an industry are already contributing financially and in kind, so we should be able to have a say as of right in how these exotic incursions are dealt with.

Helicopter surveillance

On 1 November the pilot surveillance exercise was carried out in the Otago region. A significant number of anomalies were detected. These included unregistered sites, incorrectly located sites, a registered site that did not appear on the database (!) and registered sites that have had no hives on them for many years. At least three possible cases of unregistered beekeepers will need to be followed up.

Hives in people's back yards are quite visible and many sites can be detected from well over a kilometre away.

However, it was good to see that a good proportion of the sites that were detected by the surveillance and followed up were found to be correctly located and with their registration number displayed.

A few comments were raised about the photo on the front cover of the October issue (where I am seen standing in front of a large twin-engined helicopter) and assumed that this was the machine to be used for the surveillance work. In fact, a Robinson R22 was used as it is the smallest helicopter available for the job. I had received some comments that a helicopter was too expensive and that a fixed wing or a powered parachute could be used. The Management Agency had considered these options but found them to be unsuitable. The actual flight reinforced these decisions. The optimum speed for observation is around the stall speed of a fixed wing and there is a significant blind spot forward and below the aircraft. The plane can't hover over the site as well. The powered parachute option leads to a few problems with wind. During the flight we were flying in strong wind conditions, which meant that the machine was constantly being buffeted by turbulence. While attempting to mark one site, the turbulence was so bad that the machine felt like it was being flicked up and down like a weight on the end of a fishing rod. The pilot was using all his skills to keep the machine hovering over the site.

Another small informal survey done in the North Island found even higher rates of non-compliance. Due to the methodology it is not a representative sample, but the results can't be ignored.

Some people have been rather cynical about the surveillance process and its value. However as part of our obligations under the Strategy Order the Management Agency is required to audit a variety of parameters relating to beekeepers and apiary sites, etc. MAF Biosecurity New Zealand also have a vested interest in ensuring that the database is as accurate as possible for exotic disease surveillance and incursion response management. When AP2s go out on AFB or exotic disease audits, accuracy of site details is important to save time and money. In one exercise I was involved in, a site was about one kilometre from its official position, which was situated in a lake! Even the accepted 200m error is too far. On a NZMS 260 series map it is easy to get within 50m or less from the true location.

The advent of cheap GPS units now means that accurate location of apiary sites is not an issue. The cheapest handhelds are as accurate as the more expensive hand-held units, but have fewer features. Borrow one from someone if necessary. Make sure the unit is set to give New Zealand grid references, not Latitude/Longitude co-ordinates, which frustrates the Apiary Registrars.

A more detailed report will be presented once all the sites have been inspected and other anomalies have been verified.

Happy holidays

With the summer holiday season fast approaching, the Executive and Secretariat wish all members all a happy Christmas and hopefully a few well-earned days off. May the flow be with you.

- Frans Laas

Frans Laas at Apimondia.

Something for everyone: musicians at Apimondia.

Photos supplied by Frank and Mary-Ann Lindsay, and Fiona and Jeremy O'Brien

Issues under consideration by the Executive Council

Proving the origin of New Zealand honey

The Executive has approved a proposal to protect the reputation of New Zealand honey by contracting James Driscoll to investigate the development of a quality assurance programme. This is driven by the need to protect the reputation of our products in the international market. We have seen competitors using our reputation to sell their products.

Not only do we need to protect our reputation to maximise the export revenue back into our industry, but we may still have to protect our local products on the domestic market if the importation of honey is permitted to proceed.

Honey research

The Executive wants to ensure that there is continuing research into the properties and potential uses for New Zealand honeys. We want to continue to support the Honey Research Unit at the University of Waikato and have been discussing new research options with Professor Peter Molan.

Publications Committee

The Executive has appointed Lewis Olsen to the Publications Committee to maintain the principle of one Executive Council member on each of the NBA committees. The advantage to the Publications Committee will be that they can be kept more aware of issues and strategic direction, while the Council will have closer communication with the committee and its work.

Submissions

A number of submissions need to be made in December in response to Government consultation with industry. Biosecurity New Zealand wants industry partnerships for resourcing for readiness and incursion responses.

We need to ensure that we have a voice in decision making, but that requires that our industry contribute resources. If we do not, then we will be consulted the next time there is a disease incursion, but would not be able to take part in the decision-making process. We also need to respond to the NZFSA proposal to manage the evaluation of risk-based management plans.

Code of conduct

There has been international discussion on the placement of beehives and the Executive has also considered concerns raised by New Zealand beekeepers. It seems that a code of conduct may be needed to encourage beekeepers not to move their way into or very near sites traditionally occupied by other beekeepers. The Executive is concerned because of the potential for conflict over beekeeping sites and because too many hives in an area risks stripping out nectar sources.

- Jim Edwards,
Chief Executive Officer

Correspondence on Colony Collapse Disorder

10 September 2007

Hon Jim Anderton
Minister for Biosecurity
Parliament Buildings
WELLINGTON

Dear Mr Anderton

Request to protect New Zealand beekeeping from Colony Collapse Disorder

The National Beekeepers' Association (NBA) requests that you ask the Director General of the Ministry of Agriculture and Forestry to suspend all import health standards for honey, bee products and semen, pending reliable scientific evidence showing that Colony Collapse Disorder (CCD) could not be transmitted in honey or other bee products and bee semen.

New Zealand beekeepers have been seriously concerned about the major impact that CCD has had on beekeeping in the United States with the massive loss of bee colonies. The industry here can not afford this level of loss and the consequent impact on pollination services.

The NBA has actively followed the research work being done to determine the cause(s) of CCD. The reports that indicate that Israel Acute Paralysis virus is implicated in CCD heighten the concern that a new pathogen presents a real threat to New Zealand beekeeping.

Yours sincerely

Dr Jim Edwards
Chief Executive Officer

Response from the Minister for Biosecurity.

1 November 2007

Bio 07-117

Dr Jim Edwards
Chief Executive Officer
The National Beekeepers' Association of New Zealand
10 Nikau Lane
Manukau Heights RD1
OTAKI 5581

Dear Dr Edwards

Thank you for your letter of 10 September 2007, concerning the colony collapse disorder syndrome. You have requested that the Ministry of Agriculture and Forestry (MAF) suspend all import health standards for honey, bee products and bee semen until it has been confirmed that colony collapse disorder cannot be transmitted by these means.

Any suspension of trade of honey, bee products and bee semen by MAF would need to be based on robust scientific evidence that colony collapse disorder is caused by a pathogen which can be transmitted by these commodities. While a group of North American researchers have suggested colony collapse disorder is associated with a newly identified bee virus, there is insufficient evidence to confirm a causative link.

Presentations made by a number of respected scientists at the Apimondia conference held earlier this month in Melbourne suggested that colony collapse disorder is a multifactoral syndrome. *Varroa destructor, Nosema apis, Nosema ceranae,* Israeli Acute Paralysis Virus, other bee viruses and environmental factors have all been suggested as contributing to the syndrome.

MAF has published risk analyses for honey bee products and honey bee germplasm which assessed the risk posed by a range of pathogens including viruses. The measures in these risk analyses have been incorporated into the current import health standards. Based on current information, the risk of any pathogens which may cause colony collapse disorder being imported with honey, bee products or bee semen is adequately managed by existing measures.

I appreciate your members are concerned by reports of substantial colony losses in North America. MAF officials are following research on this topic with interest, and will consult the beekeeping industry if there appears any need to implement additional measures.

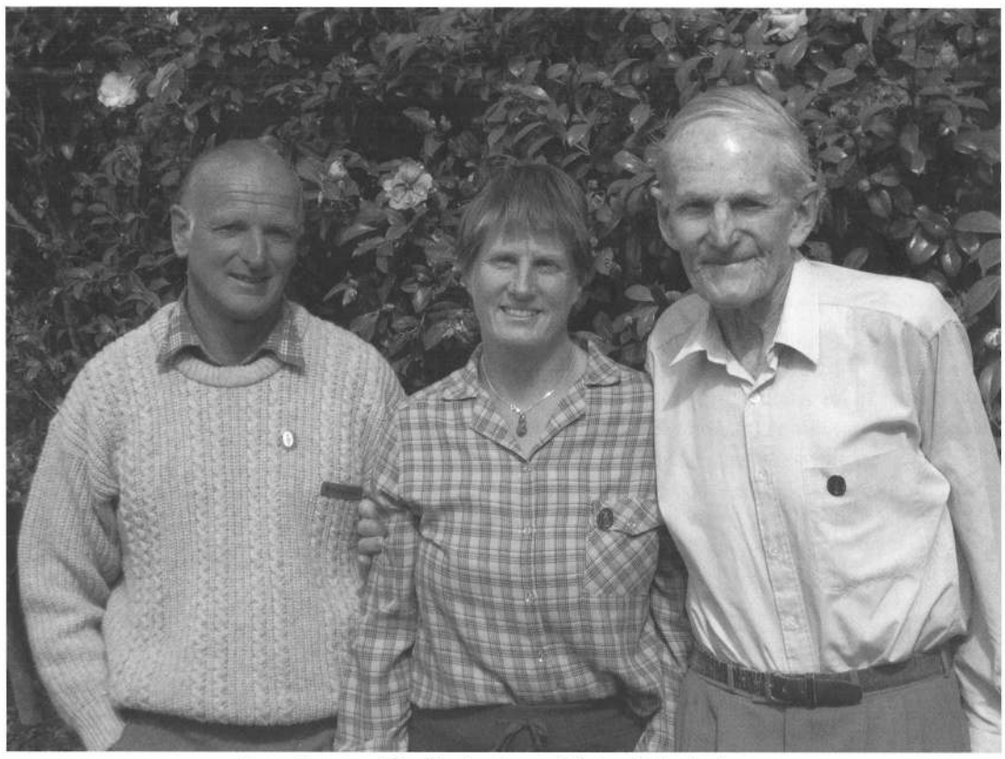
Yours sincerely

Jim Anderton
Minister for Biosecurity

All apiary sites that produce honey must be registered even if it's a pollination site.

Acknowledgements from the NBA Past President

It is now almost six months since I stood down from the role of NBA President. Since then I have had some involvement with the NBA Management Committee, and have got involved in another large project to raise $4,000,000 to upgrade the Hamilton Junior Naturalist club lodge at Te Kauri park on the way to Kawhia. So time has indeed slipped by at an alarming rate.



Tony, Jane and Dudley Lorimer. *Photo: Peter Lorimer.*

I have also now had time to reflect on my being given life membership at this year's AGM. Receiving it was a huge shock, and while it acknowledged my role in ensuring the NBA continued, it did not acknowledge the others who joined me on the Executive Council. If it were not for these people the NBA would have been likely to fold.

Bob Blair, Gerard Martin and Philip Cropp were willing to stand behind me to make sure that the NBA continued: if it were not for their help we would not be where we are today. The co-option of Don Stedman and Roger Bray to cover the South Island membership were extremely important steps forward, as was the appointment of Pauline Bassett as our Executive Secretary.

Without Pauline's experience, and willingness to put in 110% in those early days, we would have struggled to move forward. Pauline was indeed my 'right hand man'. We discussed issues, debated the best solutions, and ensured that everyone on the committee were included in communications.

We were also indebted to the Publications Committee who ensured the continuation of *The New Zealand BeeKeeper* journal, which is our main communication tool to all our members.

We ran the Executive on the 'smell of an oily rag', slowly building up some cash reserves for future projects. Conference calls were by way of three-way calling (even though there were seven on the call), where we would have to shout down the phone in order to be heard, and if you were the last on the line you would often only hear every third word said. It was not an ideal situation, but the Executive members were prepared to make do in order to ensure our success.

To everyone that was involved during that time, we made a very good team and I thank you all for your willingness to contribute to the Association. I would also like to thank the partners of the Executive, who often made sacrifices to help behind the scenes.

And to those that followed to the current Executive, with Jim and Pam Edwards supplying the secretariat, you all continued to build on what we had begun. I believe the NBA is in good hands, and I urge everyone to fully support you into the future by providing the funding necessary. United we stand … divided we fall.

Lastly, I have provided a photo of all three Lorimers who hold life membership of the Association. It is a very proud moment for our family, with Dudley at 92 still keen on his beekeeping. We have enjoyed serving the industry, and will continue to do so in the future where possible.

- Jane Lorimer

Destroying managed and feral honey bee (Apis mellifera) colonies to eradicate honey bee pests

Michelle A. Taylor, R. Mark Goodwin, Heather M. McBrydie, Harlan M. Cox

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Abstract

This paper reports on trials conducted to kill managed and feral honey bee (*Apis mellifera*) colonies to eradicate unwanted honey bee pests. The effectiveness of Pestigas-PTM (natural pyrethrum) for the destruction of managed colonies was assessed. Pestigas-PTM was effective when applied as a single 15-s spray into an empty three-quarter-depth super and across the top of the frames. This allowed the gas to filter throughout the hive. Piperonyl butoxide (wax = 42.28 mg/kg, honey = 0.34 mg/kg, propolis = 9.2 mg/kg, floor scrapings = 270.34 mg/kg) and pyrethrum (wax = 21.3 mg/kg, honey = 0.06 mg/kg, propolis = 6.8 mg/kg, floor scrapings = 172.4 mg/kg) residues were found in the hive but after 4 weeks these had no detectable effect on newly introduced honey bee colonies. Combined analyses of attractiveness, toxicity, and lethal time trials identified Ascend® 200SC (a.i. fipronil) as effective for depopulating feral honey bee colonies in New Zealand using poisoned baits. Ascend® 200SC is a slow acting stomach toxin. The effect of Ascend® on feral honey bee colonies was assessed in Canterbury, New Zealand in 2003. Nucleus colonies were placed between bait stations set out in a 4 km2 grid. The stations were pre-baited with sugar syrup which was replaced with sugar syrup containing fipronil (0.05 ml/litre) once 300 bees were foraging from a single bait station. In the autumn trial all 20 colonies died within 13 days of poisoning. After 6 weeks the effect of poisoned hives on the survival of newly introduced colonies was assessed. Five colonies were placed next to 10 poisoned hives in the original eradication area, five colonies were placed with 10 poisoned hives at least 4 km from the original area, and an additional 10 colonies were placed at least 4 km from the original area and 4 km apart. Introduced colonies are likely to die if they consume the stored fipronil in poisoned colonies. This persistent poisoning action increases the likelihood of a honey bee eradication attempt being successful, as the colonies that are not killed in the first round of poisoning may be poisoned by robbing honey containing fipronil from a previously poisoned hive. Fipronil remained toxic in honey for at least 26 months when stored at 0°C, 5°C, and 25°C.

Keywords *Apis mellifera*; honey bee; feral; eradication; fipronil

Source

Abstract from the *New Zealand Journal of Crop and Horticultural Science*, 2007, Vol. 35: 313–323 0014–0671/07/3503–0313 © The Royal Society of New Zealand 2007 H06062; Online publication date 11 August 2007. Received 26 June 2006; accepted 11 April 2007.

Abstract available at http://www.rsnz.org/publish/nzjchs/2007/036.php

http://www.rsnz.org/publish/nzjchs/2007/036.pdf (available to subscribers only)

Merry Christmas

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Book review: *Fauna of New Zealand—Apoidea*

How often, while outside eating lunch, working your bees or out walking in rural New Zealand, have you seen a dark-coloured insect and realised it isn't a fly but a bee because it has four wings, and decided it is a native bee and thought no more about it?

Well, now you can find out which native bee it is! Actually, there are 27 bees endemic to New Zealand of the 41 species present. Fourteen of these bees are actually new to science.

To find out more, Barry Donovan has written the book: *Fauna of New Zealand Number 57 Apoidea (Insecta: Hymenoptera).*

Why Apoidea? Because that is the superfamily that bees belong to under the Order Hymenoptera.

The book gives a very detailed description of each bee, where to find it, how it nests, and what plant it has been seen in association with, both native and introduced. There are colour photographs of the side view and head-on view of each bee, plus line drawings showing important aspects to help identify it.

Barry also gives us a little history of how some of the other 14 bee species arrived in New Zealand. In years gone by some of the bees from New Zealand have been collected and identified (albeit wrongly), and held in collections both here and overseas.

Some discussion on the economic value of the native bees is given, along with the environmental impacts of introduced bees. He also provides some interesting data, such as his statement that "honey bees are the most dangerous animal to humans in New Zealand". I'm not sure that I agree with Barry on this!

I also found out why beekeepers' ACC levies are so high. "Between July 2001 to November 2003 there were 13,133 people who made claims of $662,394.00 for losses caused by bee stings."

Don't expect this book to be a coffee table book: it is a scientific reference book. You won't learn any common names for the bees, as most have not been given one. Names are all given taxonomically, with their Latin genus and species names only.

If you had seen one of these bees collecting pollen on a Cabbage Tree, you would look in the appendix to see which bees have been known to associate with the Cabbage Tree to help identify which of the eight species visiting it might be. But if you do not know the botanical name for the Cabbage Tree, you will need to consult a plant book to find out as the common name of the tree is not given.

For those who are interested in finding out what native or exotic bee you have just seen while out enjoying the sunshine, this is an up-to-date reference book for you to use to satisfy your curiosity.

- Tony Lorimer
Professional Apiculturalist
Amateur Botanist

Fauna of New Zealand Number 57 Apoidea (Insecta: Hymenoptera), *is published by Manaaki Whenua Press (Landcare Research). $89.00, 295 pp, ISBN 978-0-478-09389-6.*

NIWA's climate outlook: November 2007 to January 2008

Over the early summer, mean sea level pressures are expected to be higher than normal to the south of New Zealand, with weaker than normal westerly winds across much of the country.

Air temperatures are likely to be above average or average in all districts. Rainfall is expected to be normal or above normal in the northern North Island, normal or below normal over most of the South Island, and near normal elsewhere. Normal or above normal soil moisture levels and stream flows are likely in the northern North Island; normal or below normal conditions are likely in the west, south and east of the South Island, and normal conditions elsewhere.

There is a slightly lower than normal chance of an ex-tropical cyclone passing within 500 km of New Zealand during November to May. Should such a cyclone approach New Zealand, the regions most at risk are the north and northeast of the North Island.

BeeSafe Agrichemical Group seasonal update

Unfortunately for the Bay of Plenty, the spring chemical applications have started very badly.

13.10.07: Stopped two spray applicators applying Lorsban (an organophosphate) on an unprepared orchard. A significant beehive dumpsite was in close proximity. If not for our intervention this could have been a very serious incident.

15.10.07: Beekeeper reported incident in a Maketu (Te Puke) orchard.

18.10.07: Incident reported by Te Puke orchardist concerned about bee mortality with hives placed in his orchard for gold kiwifruit pollination. He contacted BeeSafe Agrichemical Group (Neale Cameron) through the link on the Zespri website.

23.10.07: Beekeeper reported damage in Tauranga site; three beekeepers affected.

24.10.07: Beekeeper reported serious damage in Te Puke orchard.

25.10.07: Beekeeper reported serious damage in a neighbouring orchard to previous day's incident.

25.10.07: Beekeeper reported bee mortality in Katikati.

In all, nine beekeepers and over 200 hives were affected to varying degrees.

Action taken

- Samples taken and sent for residue testing.
- Investigation initiated.
- Appropriate authorities contacted.
- Meetings with horticultural company managers.
- Meetings with chemical companies and discussions about chemical recalls.
- Meetings with horticultural industry leaders to discuss the issue and proposed actions.
- Avocado field days held. As a result, the Avocado Industry Council has incorporated in the EMS (Export Market Strategy) that if an applicator is proven to have applied a chemical illegally onto an export avocado crop, that applicator will be banned from applying chemicals on to export avocado crops.
- Articles in papers and on radio interviews.
- Notice was placed in Kiwiflyers (which goes out to all kiwifruit growers). Letters were sent from a spray applicators association headed up by Craig Bettjeman to all their members and growers they are contracted to, highlighting the situation.
- Trial parameters involving suspected chemical have been increased.

Explanation for incidents

(NB: this is opinion only, as investigation is under way)

1. Very poor knowledge by the applicators about what their responsibilities are. The owners may be aware but the actual person applying the chemical may not have the same knowledge base.
2. Pressure on the applicators to service their client base.
3. Possible confusion regarding the toxicity of two chemicals. Both are from the same chemical family but have different chemistry: one is toxic to bees and the other is not (as far as we are aware).

We have to show a united front on this issue and maintain it with the industries involved in a manner that clearly states that we will not allow the bee industry to be affected by the horticultural industry in this manner, whether it is a breach of guidelines or a chemical that has been misrepresented.

If you are asked to speak to the media or to write an article regarding this issue please contact us, as it only takes one incorrect statement to discredit a valuable message. Our statements need to be as accurate as possible.

- Neale Cameron
BeeSafe Agrichemical Group
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Apimondia 2007

Warral Honey truck – Apimondia technical display

Apimondia 2007 – Down Under display

Photos supplied by Frank and Mary-Ann Lindsay, and Fiona and Jeremy O'Brien.

Disease recognition competency test, Auckland

Nearly 70 beekeepers gathered in the Ramarama Hall on Saturday 3 November to take the disease recognition course and test run by the Auckland Branch.

As trainer, I wish to thank our Auckland Branch President Ian Browning, PMS Manager Rex Baynes, Competency Test Administrator Mary-Ann Lindsay, Auckland Branch Treasurer Nola Lafferty, and Auckland Branch Proctor John Brookfield for all the work they did behind the scenes. I had my hands full with a muster this size.

These two photographs illustrate the impressive turnout; in fact, there were more participants on the stage and in the wings of the hall who are not shown in the photos.

- Bob Russell

In memoriam

We note the passing of Milton Jackson on Sunday 25 November 2007. Our condolences to his family.

Climate change and greenhouse gas issues for apiarists

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CATALYST™ R&D (www.catalystnz.co.nz) provides tools and services to sustainable businesses who want to increase the success of their investment in innovation.

The basics

Greenhouse gases (GHGs) make life on Earth possible. Without these gases, the surface of the planet would freeze as they absorb and re-emit infrared radiation from the sun. However, increasing the concentration of GHGs in the atmosphere enhances the greenhouse effect and causes the Earth to heat more and the climate to change. It is a delicate balance.

The GHGs of concern are:

- Carbon dioxide (CO2)—the balance of CO2 between the atmosphere and ecosystems is primarily controlled by uptake through plant photosynthesis and releases via respiration, decomposition and combustion of organic matter.
- Nitrous dioxide (N2O) is primarily emitted from ecosystems as a by-product of nitrification and denitrification,
- Methane (CH4) is emitted under anaerobic conditions in soils and manure storage, through enteric fermentation (e.g., cows, and during incomplete combustion while burning organic matter).

Methane and nitrous oxide are considerably more potent in terms of their global warming effect than carbon dioxide. Concentrations of GHGs in the atmosphere have increased to unprecedented levels and continue to rise. The atmospheric concentration of CO2 increased from about 280 ppm in 1750 to 380 ppm in 2005. This is of great concern because it exceeds the natural range over the last 650,000 years (180 to 300 ppm).

The increase in GHGs and the consequent climate change will have impacts on your business in two main ways:

1. increased costs from the international and NZ regulatory procedures that will be implemented to mitigate and reduce GHGs
2. direct effects on weather-dependent production systems.

New Zealand emissions represent a very small fraction of the global emissions, but are rising and we will find it difficult to meet our international commitments. Clearly, regulatory pressures on New Zealand and its businesses will remain and it will be important for businesses to adapt and find ways to reduce their emissions.

New Zealand Emissions Trading Scheme

In September 2007 the New Zealand Emissions Trading Scheme (NZETS) was launched. The Government has decided, in principle, that the objective of the NZETS will be to support and encourage global efforts to reduce greenhouse gas emissions. The detail that is available can be obtained from www.climatechange.govt.nz.

In summary, the position for agriculture/horticulture is:

- The Government has decided in principle to bring all agricultural emissions into the NZETS on 1 January 2013 with monitoring and reporting to begin in 2011, and not to introduce any other price-based measures in the interim.
- In 2013 the agricultural sector will receive a "free" allocation of New Zealand Units (NZU) equivalent to 90% of 2005 emissions. The mechanisms for this allocation have not been established.

It is likely that a consequence of the carbon regulatory environment is that energy will cost more. Ask the following questions about your business:

- how critical is energy to your operations?
- how would higher energy prices resulting from a carbon charge affect your profitability or viability?
- can you afford to have disruptions to your power or fuel supply?
- what energy services do you require and what fuels do you use to meet them?
- can you reduce energy intensity or meet demands more efficiently?

Climate change impacts on land use and supply chains

The likely climate change impacts for New Zealand are summarised below:

- higher temperatures, more in the North Island than the South
- rising sea levels (between 9 and 88 cm by 2100, compared with an average rise of 10 to 20 cm in the 20th century)
- more frequent extreme weather events such as droughts (especially in eastern New Zealand) and floods
- a change in rainfall patterns with higher rainfall in the west and less in the east.

This will clearly have a flow-on effect to land use activities and consequently to your production systems and supply.

Climate change effects on apiarists

Climate change, its weather-related impacts and responses to it will affect our entire business environment. You may identify possible impacts and response options by asking yourself questions such as:

- how will weather affect horticulture and indigenous ecosystems and what will be the flow on effects for apiarists?
- a warmer winter will mean less winter chill and reduced and later flowering time in perennial fruit crops. How will this affect your business?
- will there be increased bee diseases in warmer wetter conditions?
- are you vulnerable to flooding, drought, temperature extremes or storms?

In addition, some countries are considering the distance travelled from the producer to consumer—its "food miles"—as a cause of global GHG emissions. "Food miles" has attracted some attention in the media and hence may have some traction with consumers as a simplistic evaluation of environmental impact. This poses significant market risks since 50 per cent of New Zealand's exports are food and beverages, of which approximately a third go to European Union markets.

While it is often true that a basic food will cause fewer emissions if eaten locally rather than transported around the world, this is not always the case when the total emissions from farm to plate are included. Growing conditions and hence production systems differ from place to place, and it is production systems (not transport) that are the major contributor to the differences in GHG emissions and energy use. New Zealand is a highly efficient producer, and benefits from low emissions per unit of energy given a high proportion of renewable energy.

What you can do: measuring your energy use and GHGs

Annual Carbon Emissions (ACE) Calculator has been designed by CATALYST® R&D to help you estimate the GHG emissions arising from your energy use, working on the theory that "you cannot manage what you cannot measure". The calculator is free and can be obtained from www.catalystnz.co.nz

For each month data on energy use, including road and air transport, specific to your business is calculated. A carbon inventory based on the specifics of your business can also be calculated and benchmarked against industry standards where available.

There are a number of ways to manage and/or reduce emissions:

- energy audits can help to identify energy savings by avoiding waste and improving efficiency, and
- where emissions cannot be reduced directly, they can be offset e.g. through tree planting.

[Editor's note: keep these issues in mind as you are doing your business planning.]

Observations ...

Have you noticed that whenever you visit an apiary it appears that the activity reduces? Bees keep arriving, but fewer seem to leave.

After a while it dawned on me that as well as me looking at the bees, they in turn were watching me. If you don't touch the hives, very soon activity will return to normal.

It makes sense. If the hives are being disturbed there is little point in bees going out to gather a crop for a hive that could be destroyed on their return. Much better to accumulate forces for a possible attack.

Supering is another aspect that took me a while to fathom. Eventually it occurred to me that bees will only use energy cleaning up combs required. So if the bees are seen right across a new super a few days after it has been put on the hive (not the same day), then the bees expect to fill the super fairly soon. Likewise, if they only cover a few frames they are not expecting a heavy flow. What this means is if the bees are right across a super, then it would be worthwhile adding a second.

Obviously the bees have a better view of floral abundance than we do from our horizontal plane. Like us they sometimes make a mistake, as weather conditions change or animals may eat off pasture, etc.

Collecting pollen can also give you a new insight into your hive. When I first put on traps after keeping bees for 20 or so years, I came across brown pollen. It was only then that I realised that white clover had brown pollen. I always thought it was yellow.

What I find fascinating is that each hive seems to work quite independently of its neighbours. Hives often work different sources of pollen even though you think they are all working the same source. It must depend on what flowers the scouts locate. It emphasises that each hive is an individual in its own right.

Have you ever wondered why black bees seem more successful than Italian at applying stings to exposed anatomy? Apart from the basic temperament, their method differs. Italians usually grasp a hair to give leverage to sting. Feeling the hair being pulled, gives us the chance to kill or dislodge the attacking bee before it stings.

In contrast, black bees use the kamikaze method. They dive at full speed, using their speed to push the sting home.

In time, I believe that we will see that our bees have a basic intelligence that adds a great deal to their inherent instincts. In the meanwhile, take time to observe your bees as more as than just a source of income.

- Gary Jeffery

Originally published in Ecroyd's The Apiarist of New Zealand.

From the colonies

Auckland Branch

Well we're at that time of the year again with kiwifruit pollination just an expectant phone call away. The first of the hives are going in, probably tomorrow night. The weather has taken a turn with cold winds blowing hard and showers, so we're trying to get on with preparing hives for the green kiwifruit.

Swarming seems to be the bees' main priority at the moment so we are busily cutting out cells and supering up to give the bees room. We did this today between the showers of rain and hail as the heavens opened up at almost clockwork 10-minute intervals. We've had to do a lot more feeding this year late into spring as the cold, wet weather really diminished the nectar flow. Hives that have previously been left to their own devices have had to be fed to see them through.

Anyway, off to bed: it could be a long day and night ahead of us tomorrow.

- James Harrison

Poverty Bay Branch

It seems to be another one of these seasons with unstable weather: windy and changeable. Hope for the best but prepare for the worst. But I always try to think optimistically. Mind you, the native plants seem to know the weather in advance and plan their flowering accordingly. For example, the Manuka is late flowering and not all the plant is flowering at once, so it will be a long, drawn-out flowering due to cold wet weather still to come. The Northland beekeepers have had a poor Manuka crop this year.

The October issue had some great articles. Congratulations to Maureen Maxwell for the award. The article written by Merle Moffitt on a winter honey flow in Nelson was good; I remember my town hives experiencing the same winter honey flow in 2004 in Gisborne. I have said this before: once the ferals are gone your hives need less sugar feeding, which saves money and time as they get more stores after the honey is harvested in autumn. Then in spring they build up a lot quicker, needing less sugar but they swarm quicker, leading to reinvasion in the autumn as your own swarm dies out from varroa. So if you lose no swarms in spring, you have less varroa.

Hope everyone gets to enjoy God's free paradise with their loved ones over the festive season. Merry Christmas and a joyful new year.

- Don Simm

Hawke's Bay Branch

Our annual diseaseathon went off very well with large numbers attending. Unfortunately we did find some American foulbrood, but it is far better to find it before it spreads.

Parts of Hawke's Bay are getting very dry, thanks to incessant northwesterly winds; other parts have had some rain and are not looking too bad. As usual since the advent of varroa a lot of queens have been failing again this spring, but most hives appear to be in good order.

I have heard no reports of bee poisonings this year in apple pollination. This is partly due to increased grower awareness and education, and partly because a large percentage of the Braeburn crop was damaged by a late frost (no thinning with carbaryl required). The frost also affected a very high percentage of the stonefruit crop and in some areas, destroyed almost all of this year's grape vintage.

- John Berry

Waikato Branch

It is now almost impossible to speak to beekeepers in the region, as they are all busy preparing and delivering hives for kiwifruit pollination, and keeping ahead of swarming and honey production.

Already some good honey flows have been reported with kamahi predominating over rewarewa. Some of our kamahi trees are white all over. Manuka has started in the Coromandel area, although flowering appears to be patchy. The easterly storms earlier on may have contributed to this situation.

AFB surveillance is well under way. By the time this is in print the checking of hives should all have been completed.

- Pauline Bassett

Bay of Plenty Branch

The variable weather continues, although with less wind than last month. The cool nights are holding back the nectar flow and flower opening of green kiwifruit, which is currently running about a week to 10 days later than last year.

Spray damage continues to be an issue, especially in the Western BOP—see Neale Cameron's article *(page 12)*. Oil sprays on gold kiwifruit may also be causing a problem to field bees. This year the growers have not pruned their male flowers as quickly as previous years and needed to spray oil during the daytime. Any bees in the area seemed to be on the gold male flowers as little else was available to them. One orchardist put the oil spraying in layman's terms to me: the oil spray smothers both plants and any insects present and kills them; hence they spray during the heat of the day for quick drying. The plant can hold its breath long enough to survive but insects can't, so although the spray ensures an effective kill of unwanted insects, it will also harm wayward field bees foraging from outside the orchard boundaries. Hopefully a more satisfactory spray will be found which can be sprayed at night. Meanwhile, encourage male flower pruning before spraying during the day.

Swarms this year are a lesser problem than previous years and those that are around tend to be small. Disappearing queens seems to be more of a problem, with more than the usual number of hives going queenless for no apparent reason.

Have a wonderful festive season with happy Christmas events, and may 2008 be a good one for you. Cheers from the BOP team.

- Barbara Pimm

Nelson Branch

Early summer in Nelson continues to be difficult this season with unpredictable weather making the queens, bee strength and swarming all unseasonable. After rain nearly every day in October, November has seen everything from hot days to low snow falling on the surrounding mountains. Hives are slower to develop to a good strength.

Most beekeepers are feeding a lot more sugar this year than past seasons but interestingly there seems to be an unusual amount of swarming. We have found many black swarms settling into most stacks of supers that we have left at apiaries.

Most pollinators will have their hives into orchards by now and in the new year we will have another look at how far the varroa has spread.

I suppose the next 'From the colonies' will be full of reports and/or predictions about the honey harvest. Let's hope it is a good year for the honey to flow.

- Merle Moffitt

Otago Branch

Finally with some great weather bees are really able to forage and it takes some pressure off beekeepers. Well some will now just be flat out doing a different job, supering up, but that is the fun bit.

The coastal bush is firing up and a few swarms are about. In Central Otago the Cromwell and Kawarau gorges are loaded to the gunnels with bees right now. A recent trip through there yielded sufficient direct hits for a Thyme honey sandwich the next stop. Desperate times, eh, when you have to scrape the screen for supper.

In the high country there is a smell of Matagouri in the air. This pungent thorny shrub was delightfully described by an early explorer with a sarcastic wit as "a spineless wild Irishman". He was no doubt torn to sheds by its thorns as many have been since, but its tiny sweet white flowers provide a good early lick for the bees too, even a box of it in places some years. It competes with Thyme as the strongest flavoured honey out there and a smidgin can ruin a good drum of "clover", as I found out one year!

In the eastern high plateau country the next significant flowering plant found in damper places amongst the tussocks will be the native *Bulbinella angustifolia* or "Maori Onion". Yes it does smell of onion, but the bees get a run on it for a while before the clover takes over. This shouldn't be too long if it continues to warm up, as there is plenty showing on the roadsides already. Then maybe we will all be very busy if we are very lucky.

And somehow we will find a few days for Christmas and the family before the summer is over. When particularly frantic I am sometimes reminded, "you don't have to be a beekeeper you know". Which is a good thing to be told, as you can then assure yourself that all this is self inflicted as a matter of choice!

Why do we do it? Well, the other evening I was quietly working a yard in the sun in the middle of nowhere when a passerby stopped to watch, as they do, and show his little girl what beekeepers do. It was a very quiet hive and I took a frame over for them to see and for the father carefully place his bare hand on the young bees and brood to feel the warmth. (Yes, I do have adrenalin in the first aid kit.) They were totally amazed by the experience and the father commented that it was a dream job, and then, was it lucrative? What could I say? "Yes", and "sometimes".

I hope you all have a happy, hot and productive summer.

- Peter Sales

Southland Branch

It was an awful October in Southland for those of us that do spring cell requeening. Bees don't like being worked in the cold and rain as we all know, so it was really hard work. On checking hives in the second week of November, however, it was a pleasant surprise to find that matings are at about 70–75%, much better than had been expected given the October weather.

Some Southland beekeepers order mated queens from Canterbury; however, the weather there, while not as wet as in the south was very windy during October and early November so the orders were unable to be filled, making further difficulties for those southern beekeepers. November is looking a lot better weatherwise, although a lot of southern beekeepers will still be putting cells out later than usual.

Also due to the weather, pollen from the gorse was a bit slow but the broom is now flowering and pollen is pouring in. At last the hives are starting to make up for lost time.

- Doug Lomax

Wedding bells

Lottie of "Lottie's Queens" and Andrew Rayner were married at Gladstone on 24 Nov 2007. A beautiful Wairarapa day.

- Mary-Ann Lindsay

Hints on honeydew

In many ways honeydew production is very much like tropical beekeeping with a cold winter to confuse things. The bees are continually packing honey into the brood nest, particularly in the autumn, and in extreme cases they get weaker and weaker and may even die out altogether.

When we first started running hives on honeydew, we thought all that was necessary was to put the bees in a double brood chamber, put an excluder on top and honey supers above, then get ready to remove the full boxes at regular intervals. In fact, we had to rethink our beekeeping entirely.

First, the location of the beech forest affects when the flow will start and finish. Starting in the early spring, the honeydew seems to first start yielding nearer the coast and at low altitudes. Then as the season progresses the honeydew starts to yield further inland and up higher. During the autumn, the reverse happens. At very low altitudes, honeydew can be gathered all winter following frosty nights. It is also produced inland but is too cold for the bees to collect it.

When working low altitude forests you need to stimulate the bees to produce brood early in the season as they need to be at full strength by early September. As long as the gorse flowered in the autumn and again in early spring, persuading the bees to produce brood early is not too difficult. If pollen is in short supply, however, it becomes more difficult. As long as pollen is available a good syrup feed will often get things going.

Most areas probably require the bees to be at maximum strength by early October. Sometimes this can be achieved by moving hives out to willow sites in the autumn and back to the bush site in early October as the willow flow is stopping.

If there has been a good willow flow, excess above basic feed needs should be removed to avoid contaminating the honeydew with willow, which will affect the flavour and cause granulation.

Hive management is different in the spring to the autumn. In the spring we prefer to keep the queen in a single full-depth brood chamber with an excluder above and then one super. If the super fills, preferably extract it and put back but otherwise undersuper with another super.

Honeydew tends to be a very dry honey and you can often get away with extracting before it is fully sealed, but don't overdo it. Usually two-thirds sealed will do.

Honeydew tends to yield in northwesterly conditions but hives can easily starve in hot easterly weather. You need to monitor the feed reserves carefully in the October/November period. During this period hives may collect two boxes or starve to death just as easily depending on the weather. Of course gale force northwesterlies don't help much either.

When summer comes, you need to plan ahead and change your methods. Often over the summer it gets too dry for the honeydew to yield unless there is a period of overcast low-cloud type weather. Then a surprise amount may be gathered in conditions that you would think were too cold and miserable for bees to fly.

If on low altitude beech forest, it is often worthwhile moving hives out to clover from mid-November through to February. Moving back to the bush is best left until there has been heavy rain in February. When the next northwest period arrives, the honeydew should yield well.

Often hives are moved back to the bush earlier than this and all they do is create problems for those with permanent hives in the area as they rob any hive opened in the area within minutes of being opened. A portable robbing cage could be quite an asset, as in many areas hive density could be as high as anywhere in the world.

During the summer you need to plan for the autumn flow. In the past most honeydew was gathered in the autumn. Now because of wasps, most is gathered in the spring when wasp numbers are low.

If you want anything more than a little feed, you need to have an active campaign to rid the immediate area of wasps. After a few seasons you will start to know where most nests will be found. They like creek banks, and under flax and toitoi. Wasps seem to be mainly near the bush edge and in areas where there is a large amount of beech forest the bees can often outfly the wasps and reach honeydew further away.

During the summer, late January or February is the time to requeen. A young queen will keep the brood nest open for longer and every frame of brood will make a big difference to your crop. Old queens can become a liability so it pays to requeen each season instead of every second year, as is common practice on clover. I think the need to requeen annually relates to the queens laying for nearly the entire year and not getting a mid-winter break.

Requeening before moving to the bush will avoid trying to requeen and cope with robbing at the same time. Acceptance is better during the clover flow.

Autumn management

As soon as you move to the bush in the autumn you have to change your beekeeping from the spring management. First take off the excluder and put under the lid. Remove all surplus clover honey except for a good comb each side in the bottom box for a feed reserve. Reduce each hive to two boxes with the top box containing as dark combs as you can.

Then you start working the hives. After the first flow, reorganise any gathered honey to the side of the top box with empties in the centre. After the next flow hopefully the box will be full. Don't remove and extract but rather start to 'milk' the hive. If the bees are covering five frames in the centre, remove the five full frames and replace with dark extracted combs. If only covering three frames, remove three combs of honey. etc.

This may seem rather time consuming but it is surprising how much honey you end up with. It has the advantage that you basically have enough left in the top box for winter at all times. It also encourages the bees to move honey out of the brood box and keep the brood area large. If the queen lays into the second box it is more brood for increasing production, so no problem.

If the autumn flow is particularly heavy you can undersuper with more dark combs, but the bees will gather less overall than if you keep milking them. This can be demonstrated by an experiment we carried out a number of years ago.

We were operating double three-quarter depth hives. In one yard we ended up with 50 hives jammed solid in the two boxes, except for a small area of brood in the lower box. We took every third hive and took off the second box completely and replaced it with a fresh extracted box. The next third of the hives were undersupered with a fresh box. The final third were top supered.

We examined them a week later, and the hives with the top box replaced had gather six full combs of honeydew on average. The undersupered hives had gathered three and the top supered hives nothing at all and no change below, so had obviously stopped working altogether. What this indicates is that if there is no honey above the brood nest the bees will do their best to fill the gap. However, if white combs are used much less will be put upstairs. Spreading combs eight per box instead of nine will also reduce the crop. Being colder in the autumn, the bees obviously find nine frames easier to keep warm.

One other thing we found over the years is to always locate apiaries on ridges or hillsides rather than in hollows as the low areas can act as frost traps, preventing the bees from gathering any honeydew over the colder months.

The breed of bee has some effect on production. Generally darker bees do better in colder weather but lighter bees seem to do better in hotter weather, so overall you need to choose a bee that will maintain a large brood area as long as there is a flow in progress.

I realise that many who produce honeydew will be convinced that their methods are better than mine, but perhaps the 'proof of the pudding is in the eating'.

When extracting honeydew, it extracts best if only held in the hot room overnight. If left several days it loses too much moisture and becomes too sticky to extract properly. Always keep a good sample from each drum as you fill it, as a sample from the tank may not be as representative because the honeydew tends to layer into different types in the tank. If you have ordinary floral honey mixed with your honeydew it will cause granulation and make exporting difficult. Mixed lines are best sold for manufacturing.

- Gary Jeffery

Originally printed in Ecroyd's The Apiarist of New Zealand.

Manuka honey

Over recent years, we have seen many beekeepers benefiting from marketing their Manuka honey at a premium. Unfortunately it appears that some of the 'Manuka honey' was produced by bees that flew past a Manuka bush but never got closer. Consequently there has been a move to determine purity by using the percentage of Manuka pollen in the honey to establish the purity of the Manuka honey.

In the past I did pollen analysis of honey when I worked for the Department of Agriculture and would like to express my views relating to honey purity and pollen percentages.

It is obvious that extracting of our Manuka honey involves disturbing stored pollen in the honey combs and the more disturbed pollen, the lower the percentage of Manuka pollen.

Personally I prefer to determine purity by the jelly nature and flavour, but if you want a more reliable percentage scale, the only real system would be for someone to determine the average number of Manuka pollen grains per gram and then this number could be used to give the actual percentage of Manuka in the sample. Then it would not matter if other types of pollen are present at all.

At present the system of using the percentage really only assists the buyers to reduce the price paid for what might in actual fact be a very pure line.

- Gary Jeffery

Keep It Simple, Stupid (KISS)

With about 30 hives to go into the kiwifruit orchards each season, there has to be a simple way to feed sugar syrup every second day. The theory is that the bees don't get any nectar from these flowers, so one has to feed them syrup to get them to go looking for pollen and thus to pollinate the flowers.

The big boys buy syrup by the tanker load, then drive to the hives to feed the bees with a pressure hose nozzle.

For a small operation it is possible to measure out the raw sugar either by weight or volume, then add a measured volume of boiling water, heated in preserving jar water heater. One way is to mix the solution in a 20-litre pail, using a slow paddle in an electric drill, or just to stir manually with a clean wooden paddle. Once all is dissolved it can be poured into 10- or 20-litre plastic containers that are preferably opaque. These are readily obtainable as non-returnables of liquid chemicals.

If you carry these containers on a trailer or tray of a ute it is easier to clean up, rather than trying to clean up a van. If you tie or cover on the trailer, it saves going back to look for what has bounced off!

On site, having placed your hives to where you can drive to them, just ease the lid and inner cover over to expose your feeders. (This assumes you have positioned feeders, of watertight construction, to replace an outside frame.) Pour in the syrup until full. It is helpful to have a large funnel with the narrow end having been heated and flattened, to make sure your pouring is accurate.

By positioning your equipment on trestles or boxes it is easy to use gravity to make life easier. One finds that a honey valve is not the best to drain the hot syrup into the plastic containers, even using a big funnel. An old bath tap in a dedicated 20-litre pail might be the answer. If after a bit of use you find your feeders are leaking, pour in some molten wax to seal small leaks as it solidifies.

I hope this is helpful to those with small kiwifruit blocks who do their own pollination. I welcome any suggestions for improvement to this system.

- Ron Morison

Advertorial

FMG to be a sponsor of the NBA

FMG is proud to announce they have agreed to sponsor the National Beekeepers' Association from 1 November 2007, for the next three years. As part of this agreement FMG will be providing sponsorship for the Annual NBA Conference, to be held in the Wairarapa in 2008, and will provide a speaker on risk management.

As a member of the National Beekeepers' Association, some of you may be aware that you are registered on FMG's system as having nominated the NBA as your preferred agency. This meant that the NBA received a rebate relating to your FMG premiums (with the level of rebate depending on the FMG products that you hold).

After discussions with the NBA, FMG has ended this agreement and in its place has a new sponsorship relationship with the NBA, aiming to benefit all NBA members. FMG is looking forward to the opportunities the new NBA sponsorship will bring over the next three years.

For the small number of you who had registered the NBA as your preferred agency, please note that this change will not affect your relationship, policies or premiums with FMG.

FMG is committed to providing its customers with the products they need, the service they deserve and the reassurance that comes from being with New Zealand's largest rural insurer. FMG offers beekeepers a number of insurance options including:

- Cover for your contents including supers, combs, wax, honey and portable plant and tools
- Cover for your farm buildings, fixtures and fittings, with an optional policy to include beehives (including contents of hives, being bees and honey)
- Liability cover for accidental loss or a bodily injury that occurs in connection with your farming operation
- Cover for refrigerated goods
- Cover for business interruption due to the loss of farm buildings or contents (not the loss of beehives or the contents of beehives).

FMG's Client Business Managers (CBM's) are very experienced in providing specialist information and advice that goes way beyond a simple insurance policy. It may be just a small suggestion, based on what they've come up against before, that could save you a whole lot of money, time and hassle later on.

Our regional offices are based throughout rural communities in New Zealand. For more information about FMG's products and services, or to be put in touch with your local FMG office, call FMG on **0800 366 466** or visit **www.fmg.co.nz**

About the Apiary

This month I have put together some tips to assist hobbyists and slightly larger-scale beekeepers.

Keep your radiator and air filter clean

Between 75–80% of engine failures are caused by cooling system problems. Thistledown and grass seeds can quickly block your radiator. Use a hose or use compressed air to flush the radiator clean on a regular basis so your vehicle remains on the road.

Swarming

You catch a swarm and hive it but next day it's out hanging on a tree again. The swarm contains a virgin queen and they can be flighty. Take a frame of brood from another hive and put it into the swarm hive. Shake the swarm into the hive again and this time they should settle. Bees generally won't leave brood but not all bees have read the books, so sometimes they will take off again but not very often.

Combining swarms

It's possible to combine two swarms together to form one large hive. Shake both lots of bees on the ground and allow them to go back into the hive. Sometimes a little spray of air freshener over the bees will help to disguise the colony odour and assist them to combine.

Black and yellow bees cannot be combined into one hive using this method. They are two different races of bee and therefore will fight each other. If you want to combine them, allow the bees to set up in individual hives (on top of each other but divided by a split board) and when both queens are laying, find and dispatch the black queen (remove her from the hive) and unite both colonies with the yellow bee hive (the queenright hive) using the newspaper method to allow a slow merge.

Some beekeepers catch a lot of swarms but don't want to make increases. They simply put each swarm in a super and put them all on the same hive stand (one super on top of the other), using smoke to help them combine. The bees are left to sort out the queens. Four or five swarms combined will produce four or five supers of honey and at the end of the season you have a regular-sized hive which you requeen before winter. The most one beekeeper did (a few years ago—pre-varroa) was to combine nine swarms.

Comment: We have had varroa for six years now in the Wellington area but this year I am seeing a lot of small, dark-coloured swarms from feral colonies. Most will have varroa but at low levels. There are no registered beekeepers in the area where these swarms are coming from, so perhaps some of the feral hives in the area have survived the initial onslaught of varroa.

Bee warned!

Those moving hives out of pollination and on to flows in other districts are warned not to leave their hives on the road shoulder. Some of these backcountry roads are used for sporting events during the summer. Councils received several stinging complaints last year and the hive owner(s) could not be contacted as the hives were not clearly marked. Beekeepers doing this could find their hives depopulated by the local pest exterminator this year.

Supering hives

Don't wait until you see white wax on the top bars of the super before adding the next one. Put two supers on at a time. It might be a short sharp flow and you don't want to miss out.

Don't expect bees to move up into a super full of new foundation frames. Bees will move up if there are one or two drawn frames in the centre of the foundation super. The best position to draw out foundation frames is immediately above the brood nest.

Under-supering

(putting new supers on immediately above the brood nest)

The empty space stimulates the bees in collecting more honey but this is a lot of work for the beekeeper. Commercial beekeepers generally add additional supers on top as this is less work. In Canada where there are intense flows, four supers are added initially. A couple of weeks later these are removed for extraction and three are put back on. A week or two later these are removed and two put back and so on until the flow is finished. (Field bees live for four weeks or until they wear their wings out; that is, little bits are gradually worn off the ends of the wings until they can't fly home.)

When bees are working a honey flow, you can work using a minimum of smoke. The bees will hardly take any notice of you.

Sometimes commercial beekeepers leave the fully capped honey supers on the roof of a hive or on the truck deck while they inspect the hives for disease (AFB). During this time most of the bees will clear from the supers and fly back to the hive on their own accord, reducing the time and effort needed to blow the bees from the supers. Towards the end of the season, keep honey supers covered to reduce the incidence of robbing.

Robbing bees

Robbing usually occurs when the honey flow has finished. Bees look for other sources of nectar and a hive left open is

an opportunity not to be missed. Cover exposed supers when they are not being worked to reduce the chance of starting robbing.

If a robbing session starts in your garden hive because you left the hive open too long, close the hive, partially block the entrance with loose grass and turn the garden sprinkler on, close to the hive. The robbing bees will stop flying within 10–15 minutes or get knocked down by the water. Leave the hive a couple of days to settle down before working it again.

The best time to work an urban hive is early in the morning or late in the evening. That way your neighbours can work in their garden during the day undisturbed.

Cover your load

All loads of honey should be covered when transporting to prevent dust contaminating the honey frames. No longer is it acceptable to leave honey supers uncovered while transporting the load back to the honey house.

Use of bee escapes

Normally these are put on during the day and the honey is removed next morning. The few bees that remain can be brushed or blown out. Sometimes the bees will not go down through the escape—it could be blocked or the springs may not be set incorrectly (use a pencil as a gauge). Perhaps there is brood in one of the honey frames (bees will not leave brood). Put the frame down into the brood nest, or clean out the brood using a capping fork.

Sometimes the bees will not go down in hot weather because the brood supers are too full of bees. Add a new super above the brood nest, put on the escape board and then put the honey supers on top. Make sure all the cracks are sealed with tape or foam plastic, otherwise the bees will rob out the honey.

Extracting honey

Try and extract your honey as soon as it comes off your hives. It's still warm and will flow quicker from the frames. Don't leave the door open as the smell of fresh honey attracts bees. Sometimes it's better to extract at night if you are using the kitchen.

Honey is very sticky and tends to travel without your knowledge. Use plenty of newspaper on the floor and cover benches. If you make a mess, it'll be the last time you use the kitchen.

Make sure the honey gate is closed before turning on the extractor. Honey pouring onto the floor is very silent and can cover a large area before being discovered.

Use a sharp honey knife and don't force it. Keep your fingers on top of the frame away from the blade of the knife—experience tells you this.

Storing honey supers

A few supers of honey can be stored to keep them warm for a day or two until you are ready to start extracting. Place a 60-watt incandescent bulb in an empty super. Put on a queen excluder and cover this completely with oven foil. Place the honey supers on top and cover with a roof.

The oven foil helps distribute the heat from the bulb evenly through the super and prevents any runny honey dripping onto the light. Without the foil the middle frames will melt down on to the lamp and across the floor—very messy.

Returning wet supers

The residue of wet honey still in the frames excites the bees as they believe there is a fresh source of honey nearby. Hundreds will fly out looking for the source. All these bees flying around can be intimidating to your neighbours. The best time to return wet supers is late in the evening when flight activity has ceased. The bees will have cleaned up the supers by morning and will resume normal flight activity.

Bees tend to produce more honey if the fully capped frames are removed on a regular basis.

Christmas/New Year

Take a few days off during the festive season, relax, smell the roses and have some fun with your children. A few days either side does not count for much in the long run—the family does. All the best for a good crop and increasing world honey prices.

Things to do this month

Check feed. Check for failing queens, introduce nuclei to failing hives or for the experienced, just swap queens. A direct swap of laying queens onto the same spot that each came from will generally see them accepted straight off; i.e., the queens have the same pheromone level. Super hives. Prepare the honey house equipment—clean and sanitise. Undertake first honey extraction (in some areas). Check for AFB before any honey or brood frames are removed from hives. Continue swarm control in some areas. Control weeds around the hives—mow, do not spray. Fit foundation into comb honey frames. Monitor mite drop.

- Frank Lindsay

The Publications Committee wishes you a very merry Christmas and a happy and prosperous 2008!

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We've had a bountiful harvest of articles this year–thanks to you all for your support and enthusiasm in contributing to the journal.

Keep those articles, photos and letters flowing in 2008!

Trees and Shrubs of New Zealand

Cyathodes fasciculata
Cyathodes juniperina

Common name: Mingimingi
(or in the South Island, Mikimiki)

A member of the Heath family, the Mingimingi is a small tree up to five metres high with blackish branches. It has small rigid leaves, pointed and light green in colour. It looks very like a light green Manuka tree.

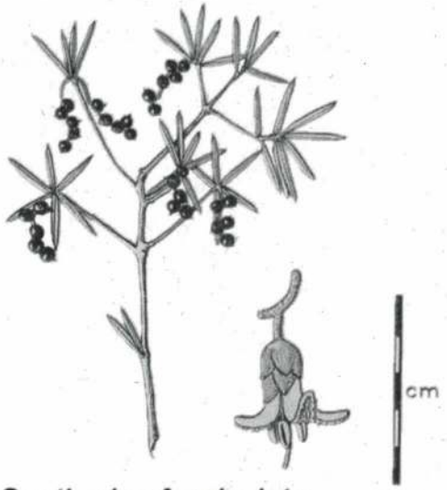
Cyathodes juniperina

The flowers are small and greenish-white in colour, and are not seen unless up close to the tree. In some seasons quite a large flow of nectar can be gathered, which extracts easily, a medium-amber colour, with a mild flavour. The Mingimingi flowers from September to December.

The Mingimingi is a useful tree to get a campfire going if there is no dry firewood, as the twigs burn well even when green.

The Maori used a pulp from the leaves to apply to the joints in cases of rheumatism and as a dressing for septic wounds. The boiled leaves were drunk to relieve asthma.

-Tony Lorimer



Cyathodes fasciculata