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# Apiarist's Advocate

News, Views & Promotions – for Beekeepers – by Beekeepers


## Sunrise or Sunset?

Apiculture New Zealand members give the industry body a stay of execution. Will there be a new tomorrow?

**Image:** Southern Alps Honey

# Members Grant ApiNZ a "Stay of Execution"

While the Apiculture New Zealand (ApiNZ) Board had the industry-good group – with roots in the National Beekeepers Association (NBA) going back 112 Years – seemingly destined to be dissolved and assets transferred as they entered a March 25 online special general meeting, some influential members had other ideas. A stay of execution was earned and the ball put back in the board's court, for now.

**Seemingly set on a path to death, the group – which has been operating since 2016 as 'Apiculture New Zealand' when Federated Farmers Beekeeping Division joined with NBA – entered the meeting of 76 participants with four resolutions on the agenda, designed to ensure a smooth dissolution.**

Only one made it past a vote of members though, that of allowing memberships and director roles to continue on indefinitely, or at least to a date considered applicable by the board. The other three remain figuratively sitting on the ApiNZ table as life member Allen McCaw moved a procedural motion, which then gained support of 85% of the vote, to have the key resolutions tabled to be addressed at a later date. The date is to be determined by the board.

Three days after the SGM a date for the board to meet had not been set, according to a statement from chair Nathan Guy.

"As a board and management team we appreciated the vote of confidence but recognise there is a job ahead of us, along with the membership, to consider how the organisation could be re-shaped to meet membership needs for the future. And importantly how that can be supported with a sustainable funding model," Guy's statement says.

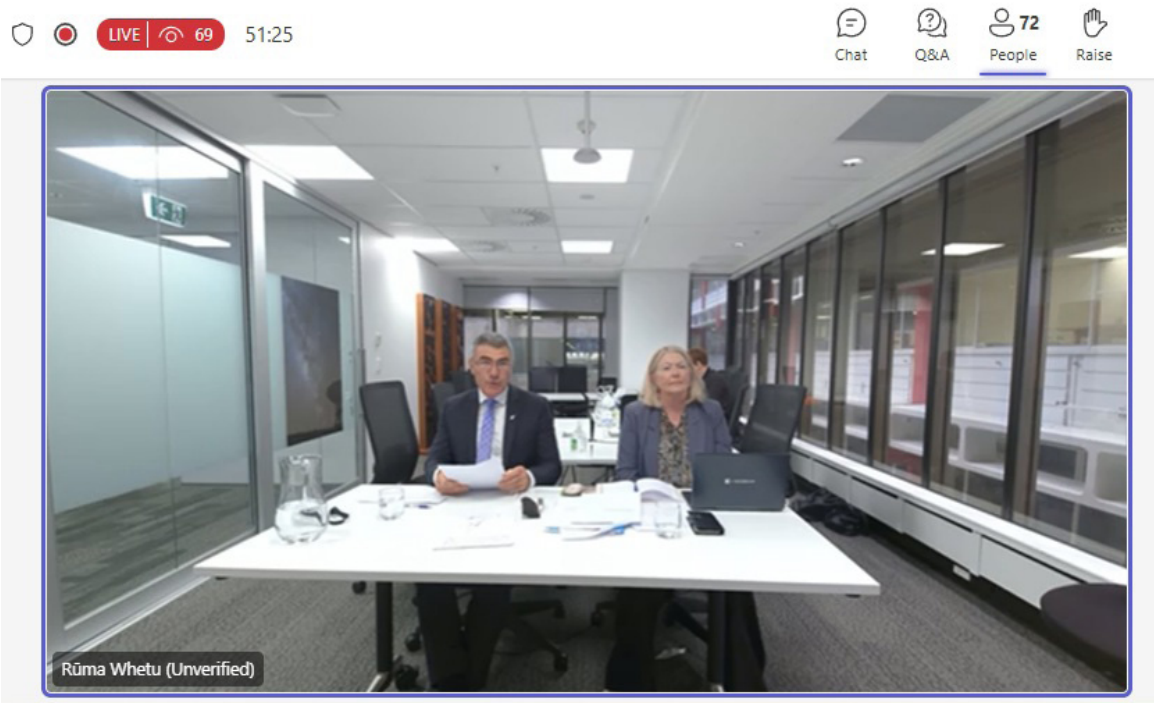
He confirmed that the board had been made aware, ahead of the meeting, that the procedural motion was to be raised.

McCaw's address to the meeting included his understanding of the board's position as membership dwindles.

"The board's decision to put the resolutions forward was clearly based on the need for fiscal responsibility to be taken and they had little alternative to present that to us. I personally feel – and others do too obviously – that there has been insufficient time to explain or examine any alternative," McCaw said to the meeting.

The now-retired Otago beekeeper said the recent failure to secure "partnerships arrangements" was not adequate reason to wind up the organisation. Unique Mānuka Factory Honey Association members voted against constitutional changes which would have acted as a merger of sorts with ApiNZ following a **controversial SGM on February 28**.

"People from all aspects of the apicultural industry, laboratories, universities, beekeepers, packers, exporters, service organisations, we have a very wide representation. To my mind it would be a




*Held via online video stream, the ApiNZ AGM on March 25 was chaired by Nathan Guy who was flanked by chief executive Karin Kos. Guy says the board was aware, ahead of the meeting, that a move by life member Allen McCaw to delay a decision on dissolving the group would be made.*

travesty if that structure that has been put together was to just disappear overnight, essentially," McCaw said.

"We definitely need to reexamine the constitution. There are many good parts in it, and many parts that need to be worked on. In the lights of the industry situation and the economic circumstances we are dealing with here, clearly there is a need to look very closely at funding options."

McCaw said a vote in support of the motion would "demonstrate that the current situation is recognised, but that we as members wish to give further consideration as to the future of ApiNZ Incorporation within the New Zealand apicultural sector". The membership's overwhelming support followed.

Arataki Honey director Pam Flack seconded the motion and called the ApiNZ structure "good but complex".

"I believe something more simple can move us forward, but we need some more time. I think we need to concentrate on the grassroots," she said.

Earlier in the meeting life member Ricki Leahy had expressed concern that an online meeting in the beekeeping season was not an adequate setting for such pivotal decisions. Flack supported that sentiment.

"If we can find a format to move through for at least three months I think it will give a better time for beekeepers to be talking… beekeepers have very specific seasons where they can sit down, have a yarn and make decisions," Flack said.

Life member Barry Foster also spoke in favour of the motion saying, "to go ahead with rushed decisions without adequate discussion from members, you can end up in a place you really don't want to be and would take a lot to recover from".

Long time board member Sean Goodwin, CEO of The Mānuka Collective, explained that the decision of the board had not come about at short notice.

"It is a little bit disappointing to hear the rhetoric that beekeepers don't have time to consider these issues. This is material and has been happening for a long time and we have seen the direction of travel by the membership. There has been a relatively small and decreasing group of supporters that have propped this (ApiNZ) up," Goodwin told the meeting.

"I think a three month extension makes sense, but it requires a real effort on behalf of members and those outside of us. We would need to increase membership in that time … we've got to use this opportunity if we have it, to corral the troops and get a mandate from a larger group of beekeepers and those on both sides of the drum to move the industry forward. Otherwise, it's a stay of execution.

"I think we can survive another three months, but it needs a collective will."

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It therefore looks likely that an in-person meeting will be held in the coming months to reassess the resolutions.

"The Board will want to take some time to consider and plan next steps and once we do that we will want to go back to our members on those plans," Guy's statement read.

What lights will be left on at ApiNZ on a day-to-day basis is unclear with the chair of the board not willing to elaborate further than "the exact make up of the staff is a board decision".

Another two life members, who also serve as executive members of industry-good group New Zealand Beekeeping Inc (NZBI), Jane Lorimer and Russell Berry, expressed a desire to make an amendment to the resolutions set out in the meeting agenda. However, McCaw, a former president of the NBA, called on his experience chairing such meetings to prevent the amendment being proposed.

"If this procedural motion is followed, no further discussion would take place on the affected resolutions," McCaw said.

Guy confirmed that was due process and Berry deemed it "a very bad outcome for this meeting".

"Whilst the intent of this procedural motion might be good, the fact that you are financially in a situation that you may not be able to continue, then the other resolutions need to be looked at and amendments accepted," Lorimer said.

Asked following the meeting what her amendment was, Lorimer expressed a desire to see a hard deadline of March 31 set to close down ApiNZ, rather than the more prolonged dissolution proposed of only when 'ApiNZ is no longer the management entity responsible for implementing the National American Foulbrood Pest Management Plan'.

"I see any prolongment of the organisation as wasting money," Lorimer explained post-meeting.

"I am pretty annoyed at ApiNZ frittering away all the money that the NBA had accumulated, via voluntary subscription, that was then passed onto them. The team around me at the time worked really hard to build up those funds."

The Waikato beekeeper served on the NBA executive from 2000 to 2006, leading the group as president for the last four of those years.

"I think that it is not fiscally prudent to continue the organisation when the directors have indicated it needs to be wound up," Lorimer said.

Closing remarks to the approximately hour-and-a-half-long meeting typified the perilous situation faced by ApiNZ, with Berry raising concerns about the incorporated society continuing to trade if it became insolvent.

"We absolutely understand that as directors, it is the highest priority for us," Goodwin retorted.

"But it you have any thoughts on the sustainability of the organisation going forward, feel free to engage with the board on it. We will be taking it under consideration over the next short period, as directed by this meeting."

It no doubt stands as an open invitation.

## Where does the AFB PMP Stand?

The resolutions that were proposed by the ApiNZ board and subsequently tabled were always going to allow ApiNZ to continue to exist until such time as they were no longer named in legislation as the management agency for the AFB PMP. Who the named agency is to be will be decided by the Minister for Biosecurity, Andrew Hoggard, with a new, independent incorporated society a possibility. When questioned on the matter, he had this to say.

"I'm considering options for the appointed management agency. Apiculture New Zealand will continue to be the AFB management agency with the current delegation of this role to their subsidiary Board until any new appointment is made. The decision for Apiculture New Zealand not to dissolve at this time has removed some of the urgency in making a decision on the appointed management agency. However, it has not fundamentally changed the options I'm considering, and I still intend to make a decision as soon as possible to provide certainty to beekeepers.

"I will make an announcement following a cabinet process.

"I have considered the proposals that were made on the review of the Biosecurity (National American Foulbrood Pest Management Plan) Order 1998. Once Cabinet has confirmed the amendments to the pest management plan, I will inform the management agency and wider industry."

# NZBI Convene Industry Roundtable Meeting

With matters of apiculture industry representation up in the air, New Zealand Beekeeping Incorporated (NZBI) are moving to gather key industry personal in Wellington on April 10 to determine a roadmap to beekeeper solidarity.

**"This is a time to forget politics and look towards the future, to build a better future for our beekeepers," NZBI president Jane Lorimer outlined in a widely circulated email to the beekeeping industry on March 24.**

The following day Apiculture New Zealand (ApiNZ) members voted to delay their group's planned dissolution. Regardless, plans for the April 10 meeting are forging ahead Lorimer says.

"Whatever happens, we need open discussion on options for the future that are affordable for the industry," Lorimer said following the ApiNZ meeting.

While the call to "forget politics" is easily made, it has proved harder to implement. There have been many disagreements between the two groups over the years and both hold worryingly small beekeeper membership in an industry that routinely generates over NZD400million in honey exports a year.

Board chair of the Management Agency American Foulbrood Pest Management Plan, Mark Dingle and national compliance manager Niha Long have both confirmed they plan to attended on April 10, as has Southern North Island Beekeeping Group president Frank Lindsay. Senior personal at the Ministry for Primary Industries were also sought out, but at this stage will not attend the meeting chaired by NZBI advisor Ian Fletcher.

Participants from "existing active groups, both national and regional" are to be invited the NZBI email states.

ApiNZ had only very recently been invited and were still considering whether to attend when contacted.

"Once we have had this initial meeting, we shall then have a second meeting with interested parties to further discuss points. We shall share our ideas at this meeting to ignite discussion. But as always, we want to hear others' views too. A level of consensus around the issues is needed, and which has been lacking. That is our first goal," Lorimer's email states.


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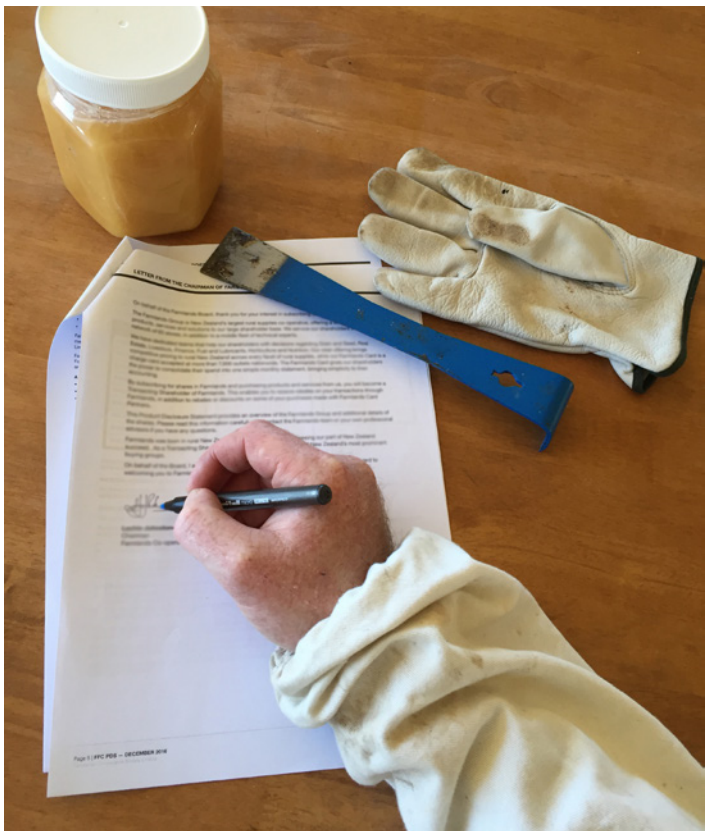
# Seller Beware – Predatory Honey Buyer Has Beekeepers Seeing Red

With beekeepers desperate to sell honey during a market downturn, predatory honey buyers are taking advantage and one South Island buyer has racked up millions of dollars in honey debts which are past due. Some of those caught out speak up about how it has left their businesses in the mire, explaining what they would do differently in future and how they believe honey buying practices need to be improved to protect all involved.

**Dishonest honey buying is nothing new to the New Zealand beekeeping industry, with veteran beekeepers able to provide anecdotes of dishonest behaviour from years gone by. However, with the boom of the mānuka honey industry the cash changing hands – or not as the case may be – is now far greater than historically.**

One South Island honey 'buyer' alone (who *Apiarist's Advocate* has chosen not to name) is currently responsible for at least $1.7million in unpaid honey bills according to beekeeper reports, all at a time when beekeepers struggle to keep their businesses afloat during a mānuka honey downturn.



*A South Island honey buyer has left beekeepers up and down the country out of pocket, still owing at least $1.7million dollars and with others having suffered payments that were years late in coming.*

It's that situation which the latest predatory buying behaviour is capitalising on, say several of those who have had honey collected from them, yet are being denied payment.

"A lot of beekeepers are stressed out and wanting to sell straight away," explains one North Island beekeeper, owed more than half a million dollars from the buyer and who his considering legal action to try and recover it.

"The amount of guys I have talked to and this guy says the truck is coming tomorrow so they are rushed to get it on, thinking it is a deal worth hundreds of thousands of dollars, which they are desperate for. Then he doesn't sign the contract or changes his tune, while the beekeeper is out of pocket."

As well as that complete non-payment there are beekeepers up and down the country who say the South Island buyer has taken honey from them, without full payment and without honouring terms.

"The only reason we have kept dealing with him is he was the only one who has kept buying and offering good money for the honey," says another North Island business owner who is also considering legal action.

"We have had problems in the past when it has been 18 months since the contract commenced before we were fully paid by them. Right now, we are still owed nearly $400,000."

After supplying the company honey in 2022, Catlins Honey in Southland finally got their last payment in March this year, despite payment terms supposedly being over 12 months. Owner Grant Hayes says it left their business on the brink of collapse.

"We had to take out loans with the bank and extend all our mortgages right out. At that point we estimated he owed us half a million or more. We were having to pay interest on that at commercial rates, extend the mortgages, the whole works. The amount we have lost in interest and costs on all the money we owed has been horrendous, at least $120,000," Hayes says.

"What really hurts is having to pay late filing fees and penalty interest to the IRD on money that you have not even received yet."

Those effected share similar stories as to the modus operandi of the company taking the honey. Payment terms are not met, with

the offending buyer often retroactively deciding the honey does not meet their requirements. No offers have been made to return the honey to the beekeepers though.

One South Island supplier was told four months after the more than half a million dollars in honey was collected that tests had deemed it not fit for purpose, so they would not be paid. Further investigation into the honey's whereabouts by the supplier showed it had been blended with other honey before the testing took place.

"People miss payments, I get it, we work it out. But, when they say they are not paying me because my honey has caused a problem, I get pissed off because they are lying to me," the North Island beekeeper in the hole for over $500,000 says.

While beekeepers have taken legal action against the South Island buyer, and more are preparing to do so, most have concerns that if they push these efforts to the limit it will result in collapse of the company "and then no one gets paid".

## WHAT TO DO?

While the behaviour of dishonest honey trading may not be a new occurrence, the size of the numbers are. That's just one part of a changed industry says long-time beekeeper Philip Cropp, owner of Nelson Honey.

"Historically, if you got honey at a good price you didn't dare say anything about it and if there was a bit of wax on top you just put it through a filter, a bit of rust on the drum, people didn't worry. Now, buyers are getting more fussy. They pick up something that is wrong and complain about it," Cropp says.

Given that environment, the North Island beekeeper half a million out of pocket believes honey buying practices need to change, to ensure fair trading.

"If you are genuine about buying a million dollars' worth of honey, or even 50 grand, it is really the sort of situation where the buyer needs to meet you in person and go through the test results with you. We need to knuckle down where the passing of risk happens. It should be immediately upon receipt that they retest and weigh. They can't come back and complain six months later," he says.

He also believes swifter payment terms need to be used and "the bank-of-beekeeper" practice of many honey buyers should be recognised for what it is, as businesses like his are forced to pay for lending while they await payments for honey that left their control long ago.

"You should definitely put in a clause regarding if payments are missed there will be penalties," says Jane Lorimer.

The New Zealand Beekeeping Inc president has long advocated for beekeepers and has learnt the hard way of the need for late-payment clauses, with her own Hillcrest Honey business having suffered at the hands of late payments from the South Island buyer.


***Beekeeper Philip Cropp believes the honey industry needs a credit rating system to help protect honey producers from dishonest buyers, with one South Island honey buyer currently racking up huge debts to a range of beekeepers up and down the country.***

"There were contracts drawn up by their company that we agreed to because they were better prices than others were offering at the time," Lorimer says.

In Southland, Hayes believes the industry needs more standardised contracts, or at least clauses, to assist fair honey trading.

"It is about time we had a standard contract, including a late payment clause. I think that should be put to the honey buyers and have them asked, 'don't you think this is fair and reasonable? Yes? Then you will all adopt it no problem.'," the Catlins Honey owner says.

"If any of us are delaying payment with another company we will surely have to pay interest on any money owed. So, why can't they do that? We are already giving them free credit on our money while they are paying off the honey taken."

However, even such clauses are not a guarantee for success. A North Island business owed nearly $400,000 says they have used them, and the interest is racking up due to late payments, and yet they still wait. All the while paying their own extended overdraft fees.

"A contract is only worth what you are willing to spend to enforce it," Hayes points out. "You are better to know who you are dealing with," he says, suggesting the alternative of "asking around".

"Everyone should have a beekeeper or two who they know and can speak to about honey buyers. However, it doesn't mean the two of them won't make the same mistake," the Southland apiarist says.

"You have to talk to people and see who they recommend and who they don't, but a lot of people wont because, if you have a good buyer paying good money for your honey, you don't want everyone selling to them otherwise you may not get that good money anymore."

Perhaps beekeepers should be more willing to ask honey buyers for references, "like they are applying for a job, because it is a lot of money at stake," Hayes suggests.

In Nelson, Cropp believes a credit rating within the industry would be helpful.

"We have an agency up North that does credit ratings and if anyone gets behind in their payments with us we just send it off to them and they put it in their database. Beekeepers could start doing that, so they tell a firm of their honey dealings and we would know who is up to date with payments and who isn't. A credit rating, and beekeepers could choose who they want to deal with," Cropp says.

Many of the beekeepers effected by the South Island honey buyer have been communicating with each other, but it is already too late for many as overdrafts and loans rack up and future payments look at severe risk of never landing. While the money side of the dealings is troubling, the time and pressure of dealing with an unsavoury trade is also telling.

"It's like dealing with a 12-year-old," one put-out beekeeper says, while several others owed money have been riled upon learning that the honey buyer with big debts has been travelling the world with his family.

Hayes says his years of chasing the honey buyer saw a range of staff at the company get thrown in between. "No one can talk to him. He is insulating himself from talking to anyone, until he wants to do a deal."

And that goes to the crux of the issue, there may still be deals to be had as beekeepers clamour to sell their honey, and without stricter controls in place predatory trading could easily continue. Even Hayes, whose business was pushed to the point of breaking over several years, says he would still make a deal with the buyer, so as not to cut off his nose to spite his face.

"My job is to sell honey. I potentially would sell to him again," Hayes says. It would be forgiving, not forgetting though, as he adds "It would certainly be cash up front".

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# Southland Beekeeper Wins AFB Compensation Claim

George Bell's first thought when he discovered American foulbrood (AFB) in his hives was not to gain compensation from a neighbouring hive-owner, but that was the eventuality following a terse interaction. Now, having gone through the process of detailed record keeping, identifying source of infection, and making a claim, the Te Anau beekeeper wants to warn non-compliant beehive owners about the risk their hives pose, while demonstrating there is a course for recompense.

**It could have been "a different story" Bell says. He refers to the nature of his interaction with an offending neighbouring hive owner, but it is equally apt that the story might never have even started with better beekeeping practices.**

"If he was a bit more reasonable and heard me out when I tried to explain how it had effected us, and allowed me to provide a bit of education, it could have been a different story. However, he was not at all reasonable. The Agency said he was horrible to them too," Bell says.

The Agency is the AFB Pest Management Plan Management Agency, who provided a letter of support to Bell, having inspected all known neighbouring hives within a 1km radius following an AFB outbreak in his Southern Lakes Honey business.

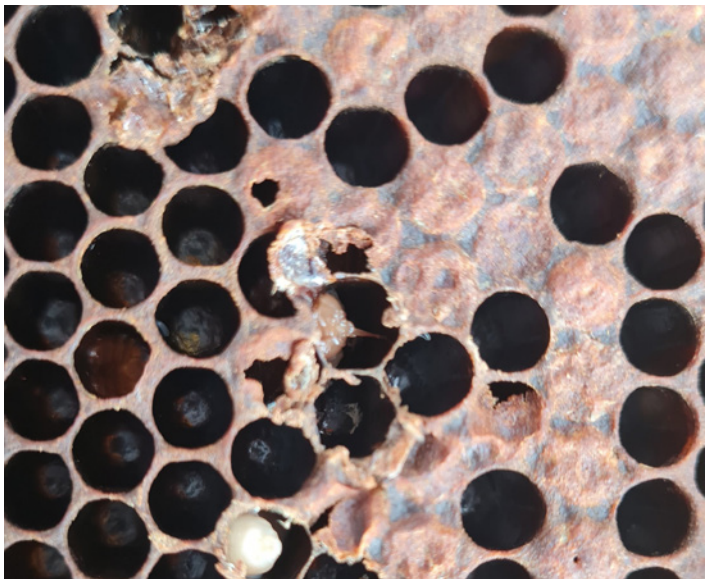
Bell says the business, which has about 600 hives total and he took on in 2017, had been AFB-free under his management, and dating back 30 years according to the previous owner. However, in February 2024 an AFB spore count of 155 per gram was detected in a honey sample from 90 hives that season. Bell calls the count "very low", but still a warning signal in an otherwise AFB-free business.

"I couldn't find clinical AFB when I put strips in after the honey season. Then when I took the strips out, I still couldn't find it. I did my last round the first week of April and no sign," Bell says.

Come spring though, it was a different story.

"The first spring round was August 15 and I found nine cases of AFB and then five more September to November. All up 14 hives."

Once confirmed, eradication and determining the source of infection were the next steps. Detailed record keeping, via management software, meant Bell knew the group of hives that had been on mānuka sites together during the previous honey season, despite them having spent winter and spring elsewhere.



*One of 14 cases of AFB which Southern Lakes Honey owner George Bell found in his hives in spring 2024, and subsequently received compensation for.*

*A Southern Lakes Honey apiary in Te Anau. Beekeeping in Southland can be tough enough in spring as it is, without having to deal with an AFB outbreak delivered by a non-compliant and aggressive nearby beekeeper.*

"I wanted to make sure it didn't come from within my own 90 hives that were together. I was pretty sure that it hadn't, but I am part of the Southland Beekeepers Discussion Group that has used the Foster Method successfully so knew how it could help."

The Foster Method is a form of environmental-DNA or qPCR sampling of hive entrances using a swab sample, invented by New Zealand lab dnature. When samples submitted to the lab from the 90 hives came back negative, the search moved beyond the Southern Lakes Honey hives.

"I asked around the farmers to find out if they had seen any hives and some had been seen at a group of lifestyle blocks. So, I got the binoculars out and found some pretty quick. I reported them and they were unregistered."

The Agency carried out inspections and determined the presence of an AFB-infected hive that had been "robbed out" by nearby honey bees. Given the other registered apiaries within a 1km radius did

*The next generation of Southern Lakes Honey beekeeper, Nina Bell, keeping a close eye on operations.*



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not have AFB, the Agency concluded, in August 2024, the outbreak originated at this unregistered apiary and written notice of this was provided to Bell.

By this time, the Southland beekeeper says the infringing hive owner had acted aggressively to his approach, and the Agency's attempts to enter his land to inspect, all while making no acknowledgement of his offending and illegal keeping of beehives. All beehives in New Zealand must be registered with the Agency, as set in law by the Biosecurity Act 1993.

"I asked a few beekeepers about it and spoke to the Management Agency to get advice. I was advised that the disputes tribunal was a valid option because he had broken the law by not registering hives and having a DECA (Disease Elimination Conformity Agreement) approved inspection. Complete negligence. Next step was legal advice and my lawyer thought it was pretty clear cut and recommended the disputes tribunal," Bell says.

It never got as far as the Tribunal though. Bell and his lawyer drafted up a claim for costs of almost $20,000 made up of the value of infected hives destroyed (to that point), lost honey income for the upcoming season due to hive destruction, a batch of honey downgraded on price due to AFB spores, and the cost of hive testing.

"He came back pretty quick recognising he was wrong. I assume his lawyer told him he didn't have a leg to stand on," Bell says.

The final amount agreed on for compensation was just over $16,000. If business disruption and legal costs could be valued it would be much higher though, Bell says.

"It cost us more than that. Well over 20 grand when you consider the extra checking I have been doing, then I was hesitant to split the hives. It is hard to value."

He also says the offending hive owner is lucky the batch of honey with AFB spores detected wasn't of higher value mānuka honey.

With vigilant inspections this past beekeeping season, sound record keeping, and the help of the Foster Method of hive testing Bell believes he has stamped out the AFB outbreak in his hives and thus the ordeal has come to a close.

While he was initially hesitant to undertake a compensation claim, he recommends that other similarly impacted beekeepers consider it, especially when the offending hives are unregistered. Bell also thanked the Agency for their efforts to locate the source, destroy the hives, and support his claims.

"I was a bit nervous about it. I would hate to have it happen to me. It is not a nice thing to have happen," Bell says, adding, "I did not enjoy it, but it is for the best for the industry."

NZ COLONY LOSS SURVEY

# SUMMARY 2024

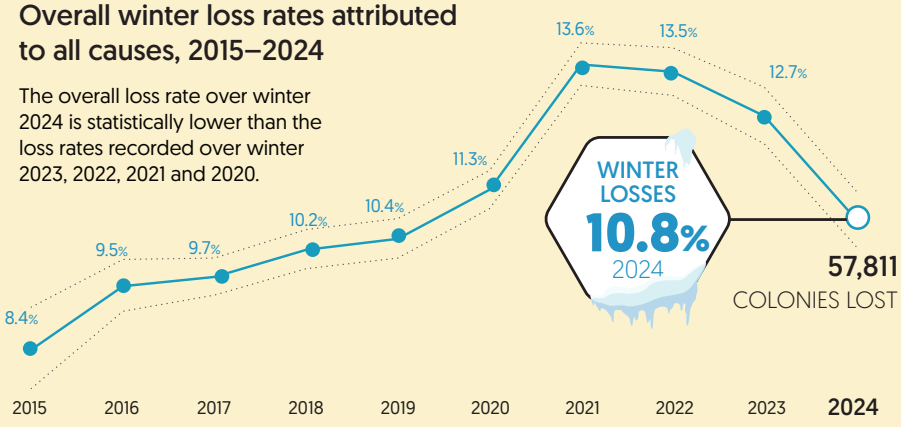
NZ COLONY LOSS SURVEY

This is an online survey of beekeepers that aims to quantify winter colony losses. The survey has been conducted annually since 2015. The questionnaire is based on the international COLOSS survey and has been adapted to include topics of specific interest to New Zealand beekeepers.

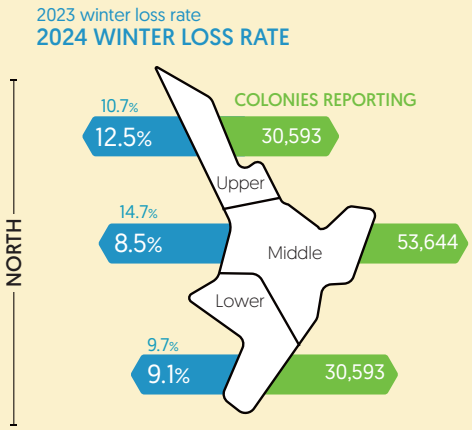
## Winter losses

### Overall winter loss rates attributed to all causes, 2015–2024

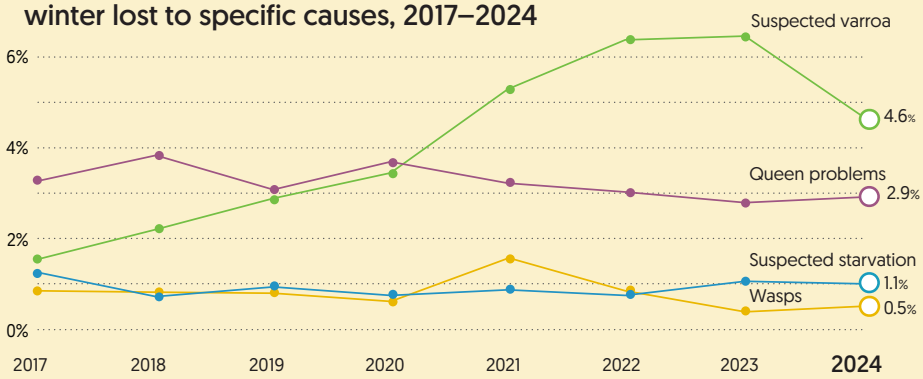
The overall loss rate over winter 2024 is statistically lower than the loss rates recorded over winter 2023, 2022, 2021 and 2020.

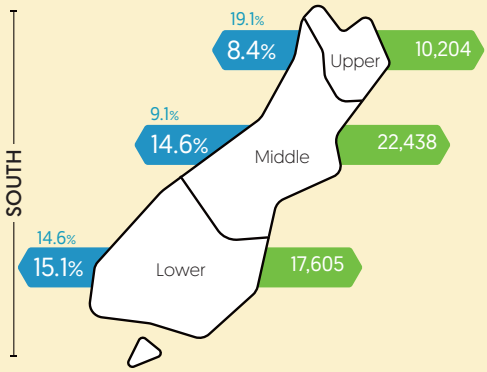



### Estimated regional loss rates 2024



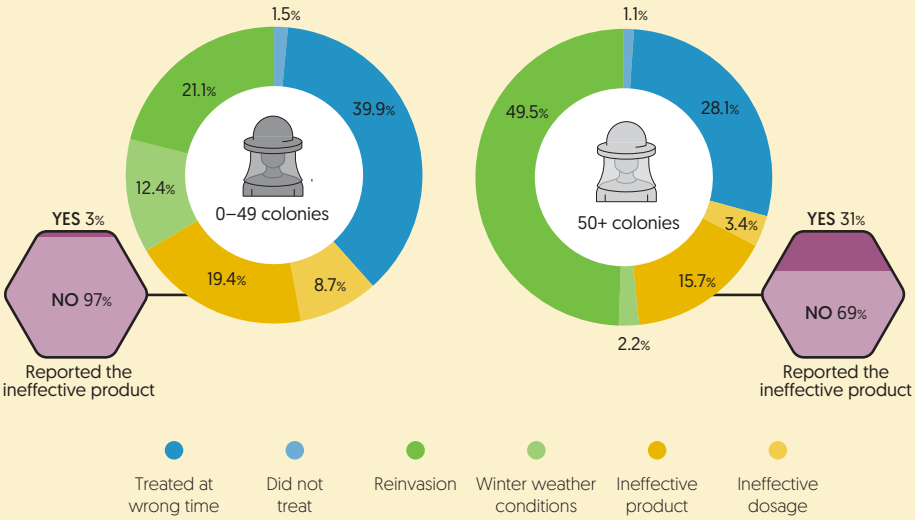

### Estimated percent of all living colonies entering winter lost to specific causes, 2017–2024



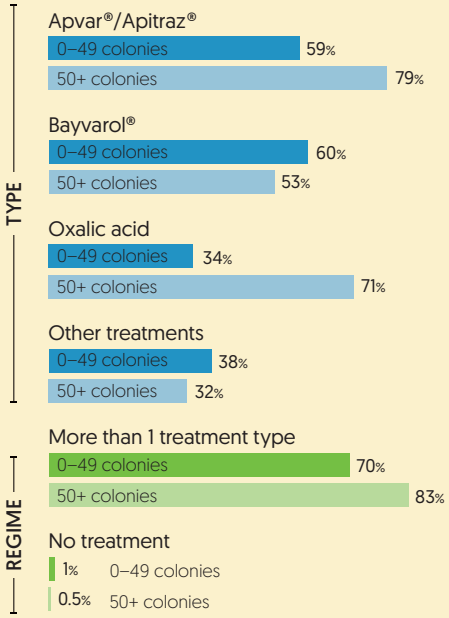




## Varroa

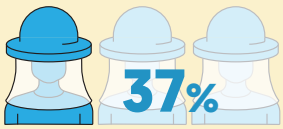
### Reasons for over-winter losses to varroa



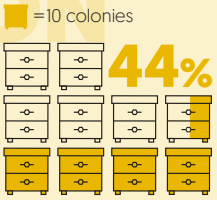

### Varroa treatments used



## Pollination services



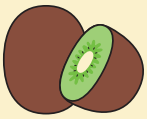

of beekeepers with 50+ colonies provided commercial pollination services




of their colonies were used for commercial pollination

= **102,466** colonies providing commercial pollination services

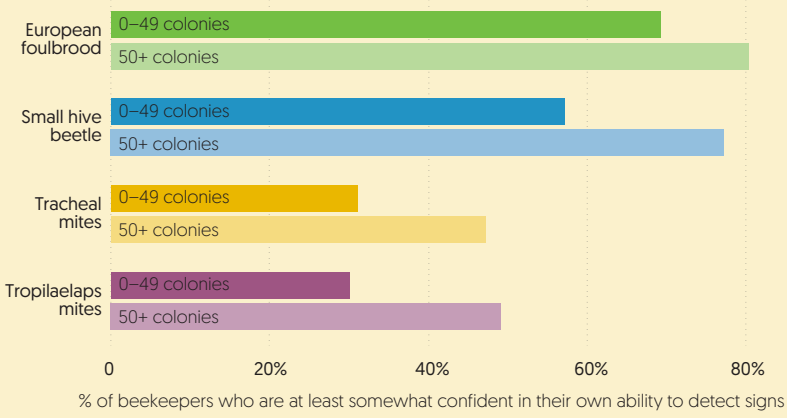
The average colony commercially pollinated...



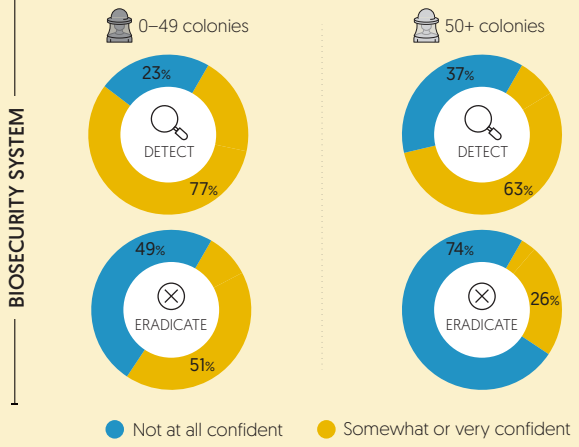
**1.5 crops**

## Biosecurity

Beekeepers generally had more confidence in being able to identify signs of European foulbrood or small hive beetle, which may be because these have more obvious visual signs in beehives.



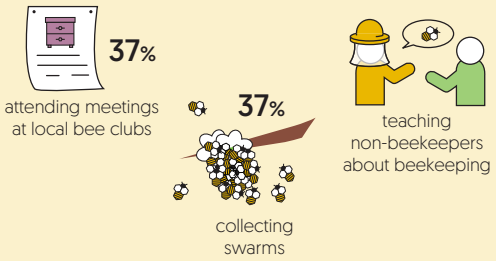

Beekeepers are somewhat confident that the biosecurity system could identify new pests and diseases and not at all confident that the biosecurity system could eradicate them.



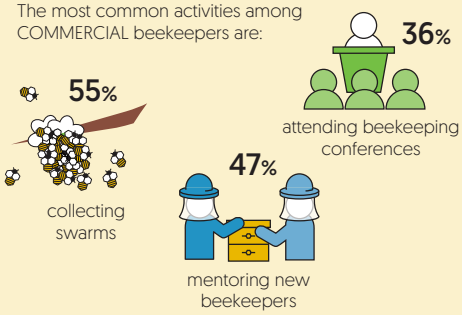

## Industry practices

27% of non-commercial beekeepers and 11% of commercial beekeepers are essentially solitary.

The most common activities among NON-COMMERCIAL beekeepers are:

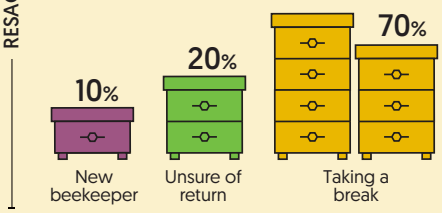



The most common activities among COMMERCIAL beekeepers are:




**10%** registered beekeepers have **0 colonies**

Beekeepers with no colonies were asked why they are registered.




# OVERVIEW

## In a 'queen cell'

We surveyed 2,828 beekeepers, who collectively had 153,856 colonies. We estimate that 10.8% of New Zealand's colonies were lost in New Zealand during winter 2024. This means 57,800 colonies died over winter, from a total of 535,185. It is the second year in a row where winter loss rates have fallen, and reverses a long trend of increases. Loss rates were lower this year because varroa did not kill as many hives. Only 4.6% of all colonies died from varroa during winter 2024 compared to 6.4% during the previous winter.

Commercial beekeepers (those with more than 50 colonies) represent approximately 10% of all registered beekeepers and manage approximately 94% of all registered colonies. However, the majority of beekeepers are non-commercial (1–49 colonies). About 10% of registered beekeepers do not currently keep any bees, although most plan to return to beekeeping.

Non-commercial beekeepers said the main reason they lost colonies to varroa during winter was that they had applied varroa treatment at the wrong time. The main problem commercial beekeepers had with varroa was reinvasion of their hives. Even though beekeepers generally considered their varroa treatments were effective, 19% of non-commercial and 16% of commercial beekeepers said they lost colonies over winter because the products they used were ineffective. If a product had failed, most beekeepers said they did not report it to anyone (e.g. authorities or manufacturers).

Questions about beekeeper perceptions of biosecurity were new in the 2024 survey. Most beekeepers were at least somewhat confident that they could identify the signs of European foulbrood or small hive beetle. However, beekeepers were less certain that they could identify the signs of tracheal mites or tropilaelaps mites. Overall, beekeepers had some confidence that the biosecurity system (described as a collaborative effort in which every New Zealander has a role to play) could detect exotic pests and diseases, but beekeepers were much less confident that these exotic pests and diseases could be eradicated.

Pollination was an important activity for commercial beekeepers. More than 102,000 colonies were used for commercial pollination during the 2023/24 season, with each colony pollinating an average of 1.5 commercial crops.

Manaaki Whenua Landcare Research

Biosecurity New Zealand
Ministry for Primary Industries
Manatū Ahu Matua

View additional results at:
www.landcareresearch.co.nz/bee-health

Data summary commissioned by
Ministry for Primary Industries

# New Global Mānuka Trademark Launched in Seven Markets

The Mānuka Charitable Trust (MCT) has filed wild-card mānuka honey trademark applications in New Zealand, Australia, China, Europe, Singapore, United Kingdom, and United States. Bruce Roscoe has reviewed the filings and draft regulations for the three proposed marks. He concludes that it is unclear whether MCT has embarked on a course of honey industry partnership or separatism. Whichever prevails, a share of the cost of the likely years-long relitigation will be drawn from the kitty from which beekeepers are paid.

**BY BRUCE ROSCOE**

**MCT has breathed new life into the trademark quest, proposing not a word mark but an arresting, beguiling, and intelligent tohu design accompanied by only the word "mānuka".**

The tohu is intelligent because it knows that to include the words "Aotearoa New Zealand" or "Aotearoa" would imply acknowledgement of mānuka honey production offshore. The design itself speaks to provenance without making that self-defeating concession.

The MCT trademark application filings in China and US were made on 11 December 2024; in Australia and UK on 5 December 2024; and in Europe, New Zealand, and Singapore on 11 June 2024. There are three marks — the *tohu* alone and the *tohu* followed by "mānuka" written with and without a macron. Use of one or two of the marks depends on the country of filing. All applications were for the "certification" trademark type except in China where a standard type of trademark is sought. If the failed MCT application for the word mark "mānuka honey" filed in Australia on 4 October 2022 is counted, four trademarks have been proposed.

MĀNUKA

*The certification trademark image applied for by the Mānuka Charitable Trust in key honey markets around the world, sometimes with a macron and sometimes without. It's the latest in years-long struggles to protect mānuka honey by the industry and government.*

A certification trademark (CTM) is administered by an independent certification body that permissions use of the mark according to a set of regulations. MCT proposes itself as that body. A draft of the regulations accompanies an application for the mark. CTMs sit at the midpoint of a standard trademark and a "geographical indication" or "GI". Registration of a standard trademark can be achieved in a number of weeks, a CTM in months or even years, and a GI in decades. Owing to the potentially enormous commercial value such marks can bestow, applications can meet equally enormous opposition. MCT's endgame is winning GIs for mānuka honey.

In common with the UMF™ trademark, the proposed CTMs could be applied to mānuka honey and products containing mānuka honey, but in a departure from UMFHA practice could also be applied to mānuka oil. A larger difference is that the CTM could be used equally on "multifloral" and "monofloral" manuka products.

## PREMATURE LAST RITES

Researchers could be forgiven for believing that last rites had been administered to the mānuka honey trademark effort on 22 May 2023. On that day, the Intellectual Property Office of New Zealand (IPONZ) released a 171-page ruling that sided with Australian opposition to New Zealand's audacious and troubled campaign that had spanned nearly eight years since the UMF Honey Association (UMFHA) had filed the first trademark application with IPONZ on 18 August 2015.

Audacious because the trademark was a "word mark" that comprised only the words "manuka honey", and troubled because the final rejection was preceded by an earlier rejection (4 September 2015), a notice of intention to reject (8 June 2017), and opposing filings not just by the Australian Manuka Honey Association but also by Te Rūnanga o Ngāi Tahu.

## TREATY OF WAITANGI PROTOCOL

UMFHA transferred the initial filing to the Manuka Honey Appellation Society (MHAS), a separate but mirror identity, for regulatory reasons. MCT, created by fiat of the Ministry for Primary Industries (9 August 2019) in consideration of Treaty of Waitangi partnership protocol and registered by Ngāi Tahu (12 February 2020), has assumed the roles of trademark administrator and certifier that were intended for MHAS.

"Many people were willing to lay down their pens and their tools but we said 'no, no, we need to continue this (trademark effort)'", Te Pitau (MCT's operating arm) chair Kristen Kohere-Soutar told the trust's six-monthly update hui via zoom on 17 March. "We have (also) become responsible for the authentication of mānuka. By that we mean a series of science projects which speak to the distinctiveness of mānuka".

Mānuka honey labels seem more cluttered than ever with "certification" marks, as though betraying a loss of confidence in the power of mānuka honey itself. Examples are "Certified B Corporation", "Glyphosate Free", and "Non-GMO Project Verified", to which we can add various catchphrases worked into emblems that give the false impression of distinct "certification". Also, many if not most UMF™ labels show both UMF™ and MGO values. Will UMF™ and MCT trademarks share the front of labels or will one mark be chosen over the other?

## LEVY COMPARISON

MCT proposes to charge levies for trademark use. A comparison of these amounts and actual levies charged by UMFHA is set out in the table accompanying this article.

A substantial saving could be made by use of only the MCT mark. Moreover, the sanctioning of "multifloral" mānuka honey in the MCT regime will appeal to major UMF licensees, such as 100% Pure New Zealand Honey and Egmont Honey, which have argued vigorously for the UMF rating system to accommodate the "multifloral" category.

**MCT and UMF™ Levy Structure Comparison (a)**

| | Levy amount (b) | |
|---|---|---|
| | MCT | UMF™ |
| < UMF5+ or < MGO 83mg/kg(c) | 0.06 | -- |
| UMF5-9+ or MGO equivalent | 0.06 | 0.26 |
| UMF10-19+ or MGO equivalent | 0.12 | 0.52 |
| UMF20+ or MGO equivalent | 0.15 | 0.65 |

**Notes**
(a) Manuka Charitable Trust proposed levies and UMF Honey Association actual levies for trademark use.
(b) NZ dollars per kilogram.
(c) UMFHA limits its trademark use to grades of UMF5+ and above. UMFHA also requires a one-time NZD40,000 payment from licensees.

**Sources:** MCT and UMFHA documents

Disappointingly, the MCT draft regulations in large part are a restatement of those first conceived by UMFHA. The identical wording "produced in New Zealand" (as opposed to bottled or jarred in New Zealand) greenlights bulk exports. It is difficult to see how this concession can be consistent with acting as a kaitiaki or guardian of the taonga or treasure of mānuka. Blanche Morrogh, a director of Te Pitau Ltd, assured the 17 March hui that bulk mānuka exports would be conditional on offshore packers meeting the same MCT standards required of New Zealand packers.

## A PARTNERSHIP OF TWO CREATIONS

The *Apiarist's Advocate* editor and this writer were excluded from the publicly advertised 21 February MCT hui held to discuss views about the proposed new honey industry body. Our exclusion flew in the face of MCT's first "core principle", which the trust promotes on its website as "Te Kotahitanga — inclusivity, taking everyone with us as an expression of, and commitment to, the public good".

MCT also employs language redolent of separatism. The trust states its second core principle as "Kaitiakitanga — stewardship, protection in perpetuity (by Māori/iwi) derived from a genealogical paradigm".

Lynell Huria, a longstanding director and "legal chair" of Te Pitau, speaks of "by Maori for Maori" in her self-introduction video posted to a website linked to that of Kāhui Legal, her employer. Kāhui Legal is a Treaty of Waitangi claims specialist which replaced Buddle Finlay as lead law firm for the mānuka trademark

cases in November 2022.

Partnership stands on firmer ground. As New Zealand's native species of bee are solitary, non-social creatures that do not produce honeycomb, no claim can be laid to a pre-colonial honey story. "Mīere" and "honi" in Te Reo Māori are loanwords from the French "miel" and English "honey". The production of honey is traced to the 1840s after the introduction of hives by Mary Bumby, a British missionary, in Northland in 1839. The bee strain introduced was *Apis mellifera*.

The genesis of honey production in Aotearoa New Zealand is a partnership of two creations — the European honeybee and the indigenous mānuka flower.

Mānuka

*A colour version of the CTM mark, as designed by renowned tā moko artist Sir Derek Lardelli, and in use by Mānuka Charitable Trust.*

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# Honey Sellers Report from the "El Dorado" of Natural Products

In March at least half a dozen New Zealand honey marketers put their best foot forward at one of America's biggest trade shows, Natural Products Expo West in Los Angeles. At a tumultuous time for the United States of America and their trading partners, we check in with three Kiwis in attendance to get their feel for New Zealand honey's most important market.

**Accounting for NZD100million in trade value for New Zealand honey, the US market made up almost a quarter of the industry's export value of NZD414million last year. It's growing too, more than doubling since 2018 on the back of year-to-year increase in all but one year through that period.**

Honey exporters scrap for retail space and online sales in the key market, with competition coming from both abroad and fellow New Zealand honey sellers. Then there is also a busy health food products market to contend with, as New Zealand's honey exports to the US are almost entirely centred on mānuka. Natural Products Expo West is a chance to form and solidify relationships with those making or influencing buying decisions, and just generally be seen.

"You've got people coming from everywhere. It is the biggest natural products show in America and no-doubt one of the biggest food shows. Somewhere between 65,000 and 75,000 people attending, 3,200 exhibitors. The scale is phenomenal," says Unique Mānuka Factor Honey Association (UMFHA) marketing manager Campbell Naish, who attended the March 4-7 expo, along with chief executive Tony Wright.

*Among the 65,000 attendees to Natural Products Expo West in Anaheim, Los Angeles in March were a handful of New Zealand honey sellers promoting mānuka honey.*

"It's very busy. It's quite an undertaking," says Taylor Pass Honey Company chief executive Hadleigh Galt, whose company exhibited and has had a presence at the Anaheim Convention Centre-based event for the past four years.

"It's an opportunity to understand what some of the US trends are and who the main players are within respective segments."

However, Naish says there is a mood of "utter confusion" in America given the political and economic turmoil President Trump's regime has delivered.

"The 'overwhelm' strategy that is being thrown around politically is having a major effect on everybody. Investment in businesses is slow over there. Investment from venture capital funds and the innovation and growth pipeline has gone quiet because no one knows what is going on," the UMF marketing manager says.

Egmont Honey is a leading honey exporter to the US and chief executive James Annabell says the expo was once again inspiring as to the potential of mānuka honey in the market, but that it is getting a bit "same, same" and there were some notable absentees.

"We don't go there to attract business, we go to put the brand out there and to catch up with our retailers," Annabell says.

"It is typically a very well attended show by retailers. We caught up with a bunch of key customers, but in saying that some of our biggest customers and therefore some of the biggest buyers in the US were notably absent."

Despite that, the CEO says the mānuka honey market is strong. Egmont Honey product now retails through major retailers Costco, where they will hold a 50% share of all the mānuka honey shelf space from May, Walmart and – thanks to a recently inked deal – Albertsons.

The UMF team also explored the wider marketplace by visiting about 20 supermarkets. Naish calls Los Angeles, and Anaheim in particular, "the El Dorado for natural products".

"Every supermarket had mānuka honey in it, and that was not the case two years ago," he says, referring back to his last visit to the city.

"Across the board there is New Zealand packed mānuka honey for each tier of the market. Slowly but surely more mānuka honey is going into the market."

There is more in the dietary supplements section of retailers too Naish observed. There, mānuka is the standalone pure honey product, but with plenty of competition.

"Our real competition is the other natural products in the categories which mānuka honey plays in. Probiotics, botanicals, mushrooms – different varieties for different occasions – are massive in the US, berry extracts and even echinacea still sits prominent. Ayurvedic traditional Indian medicine is becoming popular too."

High end mānuka products, UMF20 or more, only make up a "small sliver" of the US mānuka honey market he says, something they see in their licence fees and was prominent in the market place.

"America has never been a high-end market and you have to listen to the market, we can't make it do anything.

"There are a range of high-end retailers where the high-end honey gets traded, but most US buyers shop at Costco, Ralphs, Kroger, Albertsons, and they go out every day and say 'where is my cheapest food and local'," Naish says.

Demand for high quality natural products is strong in the US though, and events like Natural Products Expo West are the tip of an iceberg as far as consumer education into our honey goes, according to Galt.

"Consumers continue to seek high-quality natural products and that is where New Zealand is in a fortuitous position, especially in the honey industry. There is still an enormous amount of education to be done in the market. Despite it being a big market, there is still awareness that needs to be built. It is early stages of educating what good quality honey looks like," Galt says.


*A photo taken by UMF Honey Association marketing manager Campbell Naish of the natural products selection which mānuka honey competes in at a 'midlevel' supermarket in California.*

While there might be more education to be done to maximise potential, if the trend in honey export growth to the US continues, more of New Zealand beekeepers' sweet stuff will be sought by their honey buyers.

"While my opinion on this years' Natural Products Expo might be a bit down on previous years, that doesn't reflect my excitement for honey in the US in general," Annabell says, adding "It is only looking up and for beekeepers that means we will need more of their honey, and buying season is now".

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# John Berry on Wintering Down

BY JOHN BERRY

As with all things related to beekeeping, there are many right ways to do things, but this is how I conduct my wintering down of beehives. It has worked for me and my family for over 60 years.

**Over the summer I have the hives four full-depth boxes high with an excluder above the second box. If they fill up, I normally then run them with just one honey super which, if you're lucky, will be filled again and occasionally even once more.**

Pre-varroa, it would often be getting well into April or even early May before we got the last of the honey off, but these days I try and get the hives down to two high by early March at the latest to facilitate varroa treatment. Having only one honey super means you can shut down a lot more hives in a day.

There was a time when we were running a thousand hives per person. You had to work fast and work efficiently, but we didn't have that pressure from varroa.

Having the hives with only one super also meant you could get through the apiary faster at a time of year when robbing is often prevalent. The hives also tend to store more honey in the second box whereas, when they were re-supered to four high, you would often end up with fairly full supers but nothing in the brood nest. This means you have to either feed a lot of sugar or drop down a lot of honey. I regularly do both when I have to, but what I am always aiming for is for them to have sufficient stores in the brood boxes to last them the winter and, most of the time, that is what happens.

Feeding sugar does have some benefits, especially if you want to stimulate late breeding, but it also can be a cause of robbing and no matter how careful you are often leads to the loss of the odd hive.

Dropping down frames of honey means that you have to take out frames that are probably full of pollen and the bees have put it there for a reason.

Feeding is obviously better than leaving hives to starve, but it does come at a cost. I like to leave the hives about 15kg, which is equal to about six heavy frames of honey. Just remember that pollen that is in the brood box is often covered in honey so you can't really see it. I heft the hives to estimate the weight of honey. Pollen and brood weigh less than honey but, with experience, you can get pretty accurate estimates by using both visual and weight gauges.

*Needs a mow? Probably, but that might be one of those jobs the bees will survive just fine without you doing this winter advises John Berry.*

You can leave them less than six frames of honey, but in my experience hives tend to dwindle down to the level that they think they can survive the winter, based on the amount of feed they have available. I would rather have them come through as strong as possible. These days they tend to come through weaker than they used to anyway, probably because of varroa.

If you do need to feed the hives I prefer to do this in April rather than March as the robbing seems to be less. Before varroa, if we were taking the last of the honey off and the hives had plenty of stores then that was it until the spring, even if it was in March that we were doing it. Nowadays I need to do a final visit to remove my varroa treatments and I like to do that as late as possible in April or, heaven forbid, early May. Remember that when working hives at this time of year if you accidentally kill the queen then the hives will not survive the winter.

Provided an apiary has no history of AFB this is the one time I don't do a brood inspection, especially if it is cold and the bees are clustered. My hives will have already had an average of about 10 inspections that season and there will often be very little brood if any to check, plus I do not believe in breaking up the winter cluster.

I am only removing the strips at this stage, however, should I need to remove something from a hive or swap something between hives, I would still do a brood check. Any apiary with a history of AFB would also get one.

If you leave it till the end of the season to remove your honey you make it very difficult to control varroa and also leave your hives open to attack from both robbing bees and wasps. The hives will be stronger, but you will also get less honey because they will have consumed quite a bit more to stay that way.

There are a lot of articles about how you should shut the hives down to the point where the bees cover everything, by perhaps removing the bottom brood box or even using follower boards. This may be beneficial in really cold countries, but I don't think it's necessary in New Zealand. As it gets cold the bees will cluster and they will only heat the bit they are using.

Trimming the grass back is probably a good idea, but for most of my beekeeping career we never had time. As I've said before, bees are remarkably adaptable creatures and often survive despite what we do rather than because of what we do.

You have controlled the varroa. You have shut the hives down with enough feed. You have controlled wasps where necessary and maybe even cut the grass.

Winter is upon you and winter is the time for doing all those maintenance jobs on the frames and boxes and doing a tidy up (I don't think I've ever seen a beekeeper's yard that didn't need at least a little tidy). Go for a holiday, you probably need it.

Winter is not the time to be bothering your bees.

***John Berry is a retired commercial beekeeper from the Hawke's Bay, having obtained his first hive in 1966, before working for family business Arataki Honey and then as owner of Berry Bees. He now keeps "20-something" hives.***

# A Visit to Betta Bees Part 2 – More than Meets the Eye

While instrumental insemination of queen bees is one of Betta Bees Research's main points of difference as a honey bee breeding programme – as Maggie James described in *A Visit to Betta Bees* last month – there's more going on besides at the Otago business. This month in part two of the profile, we explore how they manage varroa alongside breeding for resistance, including their management of the male side of the equation – drone populations.

**BY MAGGIE JAMES**

**My education into instrumental insemination having taken a big step forward thanks to the detail provided by Betta Bees owners Frans Laas and Rob Waddell, our discussions turned to their attempts to 'control the neighbours' during my recent visit.**

"Not far down the track in our breeding programme an isolated area where we can control drone populations will be essential," Waddell says.

With virgin queens willing to travel up to 7.4 kilometres to mate (90% of matings take place in under this distance, with 50% within 2.5km according Jensen et al. 2005), finding an area where a drone population can be controlled is very difficult in New Zealand. As we learned last month, instrumental insemination of bees is a labour intensive and delicate process though and complimenting the practise with open-mated bees is required.

"We do have a 15km open area in Central Otago, but unfortunately this site is frozen solid in winter," Waddell says.

The Invermay Farm where Betta Bees is located is 1500ha in size and so they have the ability to "swamp" the area with their drones, if not control them entirely. One nearby beekeeper is provided queen cells to try and further regulate the genetic offerings.

They are exploring other isolated areas of five to six square kilometres, which they hope will be suitable to hold ten frame 20-40 full-depth nucs each.

## VARROA PROGRAMME

The isolated mating areas are desired to help progress advancement of Varroa Sensitive Hygiene (VSH) traits in their stock. VSH sees worker bees detecting via smell and then uncapping reproductive varroa-infested cells, three to four days prior to bee pupae emergence (pink eye stage). Discarding of pupae and mite follows, thus interrupting the mite's breeding cycle. How Laas and Waddell treat their colonies for varroa therefore piqued my interest.

We learned last month, following their instrumental insemination runs, that Bayvarol is inserted into hives in February, which is also post-honey harvest. After that Apivar is used to treat hives in late May, a period of major re-infestation in Otago when a lot of feral

*Betta Bees partner Frans Laas in the home apiary at Invermay Farm, Otago. They flood the area with their own hives and drones, but finding more areas where they can control the drone bee population and thus genetics influencing their breeding programme is a challenge. Note the much-loved ride on lawnmower obtained 2025 – a real time saver! Photo: Maggie James*

colonies collapse. After that, Betta Bees do not treat in spring. This is a time to watch varroa infestation growth-rates by practising alcohol washes.

"We measure mite levels in December with alcohol wash and, if necessary, use Formic Pro. In February we again use alcohol washes, and these levels on average are the same as December," Laas says.

"Over winter, May to June, we use two Apivar strips per box. However, we need to be aware that bees move away from Apivar and that winter cluster moves to the sunny side of the box."

The pair are not fans of oxalic acid treatments, believing it not as effective as a single control method as some beekeepers maintain. They also worry oxalic acid has a negative effect on colony growth rate, slowing the rate of buildup, potentially to one less frame of brood per brood box. They consider it a nasty chemical for bees and humans, but agree oxalic acid is a useful adjunct if users understand what it can and can't do.

Where you have honey bee colonies growing in strength, you will also soon have honey and – despite its focus on breeding and genetic improvement of their bees – Betta Bees harvest around three tonne of honey each season from 120 hives extending from Invermay to Balclutha, and Central Otago. Contract extraction is undertaken by Blair Dale in Middlemarch with viper's bugloss and high-grade clover the predominant varieties.

It's selling queen bees that they hang their hat on though and, despite a major downturn in the apiculture industry, they are encouraged thanks to some loyal customers and interest from new clients looking to tap into their queens' potential and get 'Betta Bees'.

## Betta Bees as a Potential Education Base

Driving away from my visit to Invermay and Betta Bees my mind turned to eight weeks fulltime practical study in the field at Telford Rural Polytechnic in Balclutha two and a half decades ago, as part of the yearlong Certificate in Queen Bee Rearing. The on-site block study included queen rearing techniques, drone production, genetics and reproduction, breeding programmes, instrumental insemination, plus re-celling and re-queening hives. At the time, it was the only such course in the world, and from memory it only ran three years. Being the oldest student on campus, I boarded at the old ex-hospital with meals provided. I see great potential further down Betta Bees business track to perhaps offer educational qualifications or courses with appropriately skilled tutors. The Invermay base is beautiful, and the Mosgiel township is handy for accommodation.


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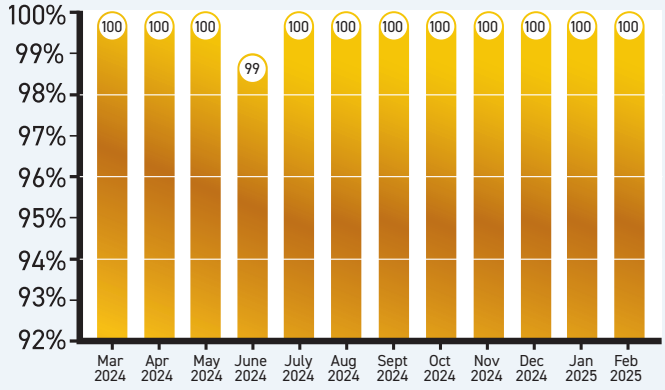


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# Magnetic Entanglement

It's all around us, all the time, and as humans we have come to rely on Earth's magnetic field for navigation. Is it the same for bees, a creature for which navigation is so vitally important?

BY DAVE BLACK

**It's taken as common knowledge that honey bees, like ants, migratory birds and sea creatures, are sensitive to the planet's magnetic field. That they should be was first suggested at the end on the 19th century, but the first convincing evidence wasn't produced until 1965. A research group in Frankfurt that included Wolfgang Wiltschko demonstrated that migratory European Robins could detect the geomagnetic field as a directional compass. But just exactly what did being 'magnetosensitive' mean?**

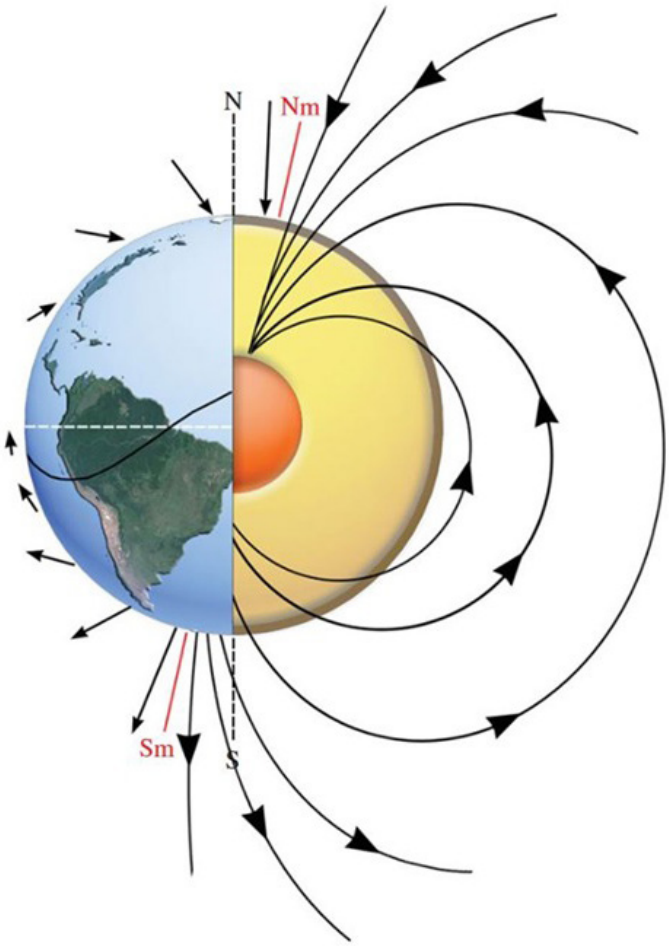


*Fig 1: Diagrammatic representation of the Earth's geomagnetic field detailing the main components thought to be available to animals for magnetoreception. Lines of magnetic flux (shown on right), emanate from the Earth's iron core at the south magnetic pole (Sm) in the Southern Hemisphere (S) and travel to the north magnetic pole (Nm) in the Northern Hemisphere (N).*

Since then, despite not knowing exactly what animals were sensing, or how, or indeed when they paid attention to the sense itself, it's now accepted that many animals are known to be magnetosensitive, including bacteria, honey bees, cockroaches, newts, turtles, rodents, lobsters, fish, bats, and many birds. While 'affected by' or 'sensitive to' do not automatically mean 'use', detecting and orienting yourself with respect to the Earth's magnetic field could potentially be done equally well in the atmosphere, in the deep oceans, and on the ground. The magnetic field appears to be more universal and constant than any other navigational cue, so using it to get around seemed an obvious use.

## WHAT'S IN A FIELD?

Finding evidence for any organs or structures that might be involved in detecting the properties of the field and explaining how it provides information that is acted upon still proves to be very difficult. It was not a simple job either to anticipate just what kind of information could be obtained or how useful it could be. If you imagine the earth as a giant magnet then the most obvious bit of information is polarity, in our terms, a 'North' or 'South' direction. Direction though, is not location. [See Fig 1]

Two other features of the field might help. As the field curves around a globe, parallel to the surface at the magnetic equator but perpendicular to the poles, the other piece of 'positional' information is the angle the field makes relative to the Earth's surface. We call that the 'inclination'. The intensity or strength of the field also varies, but not by much, and not in any systematic way. So, while there might be some local 'character' that might allow you to learn to identify a unique place it's difficult to image how field strength might be used to get you to that place. [See Fig 2]

So that's a long way of suggesting that animals (who do not share the same needs), may be sensitive to different features (or combination of features) of magnetic fields. They may use the Earth's magnetic field in different ways AND therefore use different 'apparatus' to do it. For instance, Robins apparently, sense the field inclination, and not polarity.

## BEE-ING SENSITIVE

In 1972 Martin Lindauer published a paper[1] describing how the orientation of honey bees' combs and their foraging dances could be altered by manipulating the magnetic field they could sense with a device called a helmholz-coil[2]. Subsequent research (based on evidence from bacteria) suggested that an iron oxide (magnetite), which could be found in all sorts of animals, would react to a magnetic field and could therefore be the basis of some sensory structure. Theoretically, if the iron could be found,

somewhere close by there ought to be some link to the nervous system that would enable perception[3].

The problem is that iron is an essential omnipresent component everywhere in biological cells and, since the body is transparent to magnetic fields the candidate cells could be anywhere. Worse, experimenter's labs were awash with magnetic material, contaminating their work and confounding their results[4].

## SO, DO HONEY BEES POSSESS THIS IRON IN THEIR MAKEUP?

In honey bees two possible sites lead the field as potential locations for their magnetic 'sense', the anterior dorsal region of the abdomen, where evidence suggests magnetite particles are present, and in the ventral abdomen where there are iron granules in cells in the subcuticular fat layer. Few studies, or *none* if you want to be critical, have produced robust evidence that the presence of iron is functional in a navigational sense.

It has been suggested that exposure of live bees to an intense magnetic field alters the magnetization of the ferromagnetic particles in their abdomens so that, unlike comparable control bees, they failed to respond to an anomaly in a controlled

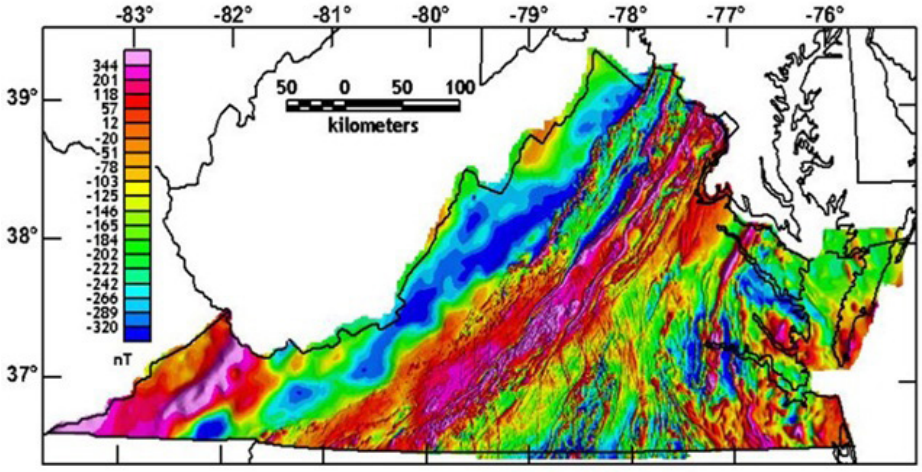


*Fig 2: In this merged aeromagnetic anomaly map of the state of Virginia, USA, the colour scale shows deviations in the strength of the Earth's dipole field. Although some long-distance migrants evidently extract positional information from the general dipole field, minerals in the Earth's crust often generate local field anomalies (such as this map shows). Thus, it is unlikely that bees would use dipole strength as a navigational aid.*

magnetic field that signalled a sugar reward. These studies, ten or fifteen years later, are still debated and lack support; do the iron particles just represent stored dietary iron? Are the associative learning choices they faced ecologically relevant, and can the results be reproduced? At the moment magnetite-based reception is hypothesis, not theory.

## IRRELEVANT NOISE?

The other research problem, especially but not just for honey bees, is that so often the ability to sense a magnetic field appears somewhat irrelevant. Some animals that do appear to respond to changes in a field do so very slowly. Despite its ubiquity, very few animals appear to rely on our magnetic field completely, if at all. If they do refer to it, its status appears relegated to 'backup' or 'supporting info', while celestial data, way-points, path-integration, image-matching and so on take centre-stage. Testing the ability in a laboratory, with all sorts of creatures, is frequently far from conclusive and needs scale and repetition.

Maybe that shouldn't be surprising. The Earth's magnetic field is, as far as energy goes, a pretty weak phenomenon. Thermal and electrical energy are orders of magnitude larger, and there is no obvious way in which the 'signal' could be amplified above the energetic 'noise' by something analogous to eyes or ears[5]. As long as they are there, there are plenty of alternative clues to your whereabouts that are faster and easier to use than a tiny magnetic field. If you are a night-migrating song bird, or an ocean-going sea turtle the world is very different and there's no alternative, but we have to ask if a magnetic sense in honey bees, if it is employed at all, is just an obsolete vestigial ability with very little contemporary ecological relevance?

***Dave Black is a commercial-beekeeper-turned-hobbyist, now retired. He is a regular science writer providing commentary on "what the books don't tell you", via his Substack Beyond Bee Books, to which you can subscribe here.***


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# Wasp, Did You Say?

It's out of honey harvest and into pest control for second-generation beekeeper 'Aimz' as the seasons turn in the Bay of Plenty...

**As sweat beads off my eyebrows and funnels down my chin, the penetrating sunshine cooks. Steaming 6ft tall grass engulfs the truck, let alone the site of forty-eight hives, tin lidded mushrooms barely visible as the humidity peaks.**

The last of the summer sites have been dealt with, the challenge of temporary placings over for another year. Near vertical driveways, check. Caving holes into netherworlds, check. Locals, logistics and loyalties – absolutely.

Pests abound. The mite load has been pretty substantial. Apistan has gone into hives, being our big gun to tied the hives over until they can be serviced closer to home.

Wasps have been surprisingly absent at some sites. Made noticeable by the innumerable hoards at others.

One site was a shamble of destruction, with only ten hives surviving out of twenty-four. On arrival the number of wasps working the site was alarming. Inspection of brood frames showed noticeable mite damage, scattered brood, and baby bees dead in the process of emerging from their cells. Frame after frame of devastation. Why were perfectly normal bees dying after breaking through their cappings? Chillbrood? The answer came clear as I witnessed a wasp grappling with a hatching bee, biting it and stinging it to death. The predator engrossed, I watched for several minutes and showed the guys, then ground that vespid scum into the comb with my hive tool.

Savagery aside, my mum tells me tales of a wasp nest she poisoned at a local school many moons ago. The nest was excavated and found to be the size of a small car.

With a colony producing hundreds or even thousands of queens over a season, there is a real need to keep a check on these feral populations, for both social and economic reasons. Nothing puts you off summer like getting a wasp in a mouthful of cold beer.

Wasp stings are a different protein to bees, causing an over-reaction in some beekeepers. I found myself itching for days after copping a couple at that last site. It's possible, after talking to a few beekeepers, the more immunity you have to bees, the harder you fall to wasps.

Fortunately our wintering sites are close to home, allowing us to manage the population with Vespex. Finally, the change of season.

Next steps will be putting wasp guards on everything, knocking all the weaker hives down to one box and resuming regular feed runs. Winter beekeeping seems so romantic after the fast-paced action of the last few months.

Cold weather will bring days indoors sorting the organized chaos of the honey shed. Wax moths and their larvae are another pest that I have noticed from time-to-time. Grotesquely rising up out of the substrate like a miniature of that '90s movie "Tremors". Their time in the sun is limited however as all our supers are stored in the coolstore, breaking their life cycles.

Once upon a time, wax moth repression was more complicated. Methyl bromide was very effective, fumigating hive-ware on site. Our own containers would be sealed and gassed, and with little concern of residue, seemed ideal. At some point regulations changed due to concerns about ozone depletion and toxicity, and consequently methyl bromide was deemed an unsuitable control. Another method was using paradichlorobenzene, a form of mothballs, situated to the top and middle of a stack of boxes. The fumes are heavier than air and would settle into the boxes below. Ultimately, we now have the ideal form of control - no chemicals, no double handling, just freeze the little maggots.

While those moths meet with an early winter, I am not quite ready for hibernation. My pores still bleed honey, although the end is in sight. My beekeeping mileage is clocking over, with

*Decimation by degrees and end of season peril. Packing the truck with dead-outs before we even begin taking honey.*

the etching of a hive-tool plain to see in my calloused fingers. A testament to a kick-ass season. Soon enough I will be wearing a hoodie under my bee suit, and the cyclical urgency of our occupation will fade like the summer. Until you hear from me again I will be making the most of the warm days and enjoying the wind down.

I hope you are too.

Aimz.

(**Editor's note:** when it comes to controlling wax moth, there's now an organic product on the market, B402, Certan, from Vita Bee Health and available through Ceracell in New Zealand).

***Aimz is a second-generation commercial beekeeper in the Bay of Plenty who took up the hive tool full time at the end of the 2024 honey season. Formerly a stay-at-home mum to four kids, she has now found her footing in the family business.***


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# Leaving our Wounded Behind

How can we improve the lot of all New Zealanders? It's obvious really, argues Ian Fletcher, so why are our politicians not doing it?

**BY IAN FLETCHER**

**It's hard to write this sort of column in 2025 without making it about Donald Trump and his consequences. I'm going to avoid that, and instead focus on social cohesion in New Zealand – the subject of a disturbing report this week published by the Helen Clark foundation. Whatever you think of Helen Clark, we need to deal in facts, not personalities, and this is both important and urgent.**

A word of context. Regular readers (I'm grateful to you all) know that I see New Zealand's core problems revolving around chronic economic underperformance (i.e. the failure to tackle productivity seriously or intelligently), institutional sclerosis (government by clots), with serious consequent shortcomings in local government finance, health, education, and physical infrastructure. I wrote earlier this year about the resulting 'doom loop' as many people give up, and move to Australia. That analysis holds, I'm told.


*Whatever you think of Helen Clarke, the recent findings of the Helen Clark Foundation must be taken seriously says Ian Fletcher. That being, that the level of inequality in New Zealand society is wide-ranging and "quite frightening".*

This week's report apparently both supports that analysis and qualifies it in a sobering way. The report's author says that inequality shows up as a "quite significant variation in almost every dimension. Everything from feeling safe to a sense of participation, financial comfort, sense of worth… it's all related. It's quite frightening." Crucially, the author argues that on the same dimensions, Australians live more cohesive lives.

This is consistent with what Australian politicians have told me, that when they visit New Zealand they see that well-off New Zealanders live just like well-off Australians, but they see less well-off New Zealanders living in much worse circumstances than they expect. The former Education Secretary, Lesley Longstone, once described schools in New Zealand as having unusually wide variation in attainment, with the gap very stark between schools serving affluent communities and those serving less well-off communities. That was over ten years ago, but the current debacle over school lunches reinforces her point: there are just too many kids in families that are too poor to provide for their kids.

Other recent research points to policies of 'wage suppression' being followed in New Zealand since the 1980s, to keep wages low in the mistaken belief that it would make the economy go better. Instead, it's taken pressure off employers to improve productivity, reduced savings, kept people out of the housing market (which has inflated for other reasons), and immiserated many.

Looking ahead, we need to take this seriously. The wider context is one where many working people face a relatively bleak future. Global research points to the growing role of inheritance in setting lifetime earnings, and to the impact of AI on the jobs of many – the first solid evidence of this was reported in the Financial Times this week, as demand for software coders and people who handle correspondence for insurers and similar service providers has started to drop inexplicably – the very areas where AI adoption is most advanced. There's also evidence – anecdotal so far – of skilled people preferring to work with machines than to train their own successors. In the future, you really won't be able to get a plumber.

If we don't take it seriously, what happens? Firstly, people who feel unheard – that their story and their needs don't matter – get angry. That doesn't help get sensible governments elected, nor issues debated. Emotions tell us what's important, but not what to do about them. Secondly, we lose access to the skills of the

alienated and disaffected. Maybe they drop out, or buzz off. In a world of falling populations (the world we're heading into), hanging on to skills is a strategic necessity. We need to acknowledge that intelligence and ability is pretty evenly distributed through the population: poor people are poor by circumstance, not choice. We need to help them get engaged and stay engaged. Social mobility and cohesion are strategic assets.

And finally, our values. I want to live in a community where everyone is valued, where opportunities are available, and where appropriate support is on hand for the less fortunate. I don't want to leave our wounded behind. This matters to me. Social cohesion is a buzz-word, with unfashionable woke connotations. But a decent life isn't woke. It's just common decency.

The solutions are ones we know, or can see from others: higher wages supporting higher taxes (including on capital gains), means-testing and lifting the age of National Superannuation, juicing up KiwiSaver so we all save more, using that money to put the public service on a decent footing, reforming local government finances. Then the productivity agenda can be tackled, with money for education, infrastructure and support for science and genuine innovation.

So, why don't we do it? An ex-boss used to talk about what he called the political game of "After you, Claude" (it's a quote from a WW2 radio show), where no one wants to be first, because it looked like a losing position. In New Zealand, no one wants to say "lets tax capital gains and means test Superannuation" though those two steps alone would probably give us the resources for a decent health service, a fleet of Cook Strait ferries, three-course school lunches and more besides.

I have to conclude that our politicians are weak, and deeply tactical. Australia is often called "the lucky country"; the full (rather more insightful) quote is "Australia is a lucky country run mainly by second rate people who share its luck. It lives on other people's ideas…". Well. We don't even have the luck; we do, however, have a bumper crop of second rate politicians. We deserve better.

***Ian Fletcher is a former head of New Zealand's security agency, the GCSB, chief executive of the UK Patents Office, free trade negotiator with the European Commission and biosecurity expert for the Queensland government. These days he is a commercial flower grower in the Wairarapa and consultant to the apiculture industry with NZ Beekeeping Inc.***

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EDITORIAL

# Welcome to Our Words

BY BRUCE ROSCOE

The Red Heart company of Kobe, a port city southwest of Osaka, has trademarked "Kia Ora" as a logo for its "Back to Basics" range of cat and dog food products. The pet food is imported from New Zealand in processed form and packaged in Japan, a Red Heart staffer advises.

**"Kangaroo" is the standout product in the Red Heart range, which includes "Lamb and Liver" and "Grass-fed Beef & Salmon" offerings. "But there are no kangaroos in New Zealand", I advised the helpful staffer, who replied, "The manufacturer imports the kangaroo meat from Australia". Kia Ora to kangaroos.**

The Japan Patent Office asked, "Why not?", and granted the Kia Ora trademark in January 2015, only 20 weeks after the application was filed in September 2014. Red Heart has also trademarked "Haere Mai" for its pet snack products. You're welcome. The company's website identifies the Māori origin of both greetings and explains their meaning.

"Kia Ora Piggery PTY. LTD" is among 51 entries that use "Kia Ora" revealed in a search of Australian trademarks. The earliest of 32 uses of "Kia Ora" in UK trademarks, filed in 1901, was for goods listed as "Australian wines none being for export".

The Australian piggery trademark, accepted as soon as 15 days after filing, was renewed unopposed in May 2019. The UK example for the protection of Australian wine was active for 108 years.

Opposing marquee cases such as that of Air New Zealand's now abandoned Kia Ora trademark ambition is one thing. A relentless block-and-tackle effort to oppose inappropriate trademarking of Māori words in all markets in which applications or renewals are filed should begin yesterday.


*Kia Ora® Kangaroo dog food in the 400g size, which is packaged and retailed in Japan by Red Heart Co. Ltd from pet food imported from New Zealand.*

More would be won than headlines. A global education purpose would be served to the benefit of future generations and the goal of securing trademark protection for words such as mānuka and other language taonga in Aotearoa New Zealand's favour would be in closer reach.

Can Kāhui Legal — which advertises Māori intellectual property and trademark strategy and protection as a specialty — lead this language haka?

## Thoughts, feelings or other input you'd like to share?

We'd love to hear it.

Email your 'letter to the editor' to editor@apiadvocate.co.nz

# Letters to the Editor

## DON'T BEE A NUISANCE

**At our recent Executive meeting it was brought to our attention that some beekeepers are not thinking too much about the placement of their hives to ensure minimal public nuisance are caused by our bees.**

The hives in question had been placed relatively close to a very busy highway. It was also a large apiary site.

The person concerned said that they had passed through this spot twice over the weekend and had at least what seemed like 100+ bees hit the windscreen of the vehicle on both occasions. This appeared to be a robbing situation going on and the person was concerned that it could result in a person being stung and killed e.g. motorbike riders.

We ask that beekeepers always be mindful of safe placement of beehives for all situations and for all times of the year. Situations like that detailed above end up giving beekeepers a bad name.

*Jane Lorimer, president, New Zealand Beekeeping Inc.*

## KICKSTARTER HELP NEEDED

Dear Editor,

My name is Dr. Melissa Oddie. For the past ten years I have researched ways to help our honeybees combat *Varroa destructor*. My expertise and doctorate degree, lie in developing natural behavioural traits in bees that can counter varroa infestations, reducing losses and improving productivity. We now know there are many beekeepers around the world that have managed to breed varroa resistance into their bees, and that this is likely possible for any stock of Western honeybees, kept, feral or wild.

For the past five years, I have been running a breeding program in Norway, testing the simple methods of breeding bees based only on commercially-desirable traits and the ability to keep autumn varroa counts low. Our results are very promising and, armed with this example, as well as the experience of beekeepers and scientists alike, I will be writing a book, cataloguing and analyzing varroa resistances around the world. At my side, are two of the world's top specialists in varroa research: Professor Marla Spivak and Professor Stephen Martin, who have investigated varroa resistance in largescale commercial settings and across many different environments.

All that is required is a small amount of funding to help produce the book:

On March 10th we launched a Kickstarter campaign to raise the money needed for research and writing, and I humbly ask for your help: please share the link to our campaign so any who could benefit from a book like this can participate in its creation.

I believe it is truly possible to tame the varroa mite, some already have, all we need to do, is spread the word.

**https://www.kickstarter.com/projects/resistingvarroa/resisting-varroa**

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For more information or to make a booking, email **advertising@apiadvocate.co.nz** or phone **Patrick 027 383 7278** or **Laura 021 130 7446**.

Booking deadline is the second to last Friday of the month prior to publication and artwork must be supplied by the final Friday of the month.




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