

ISSUE 03, OCTOBER 2019

APIARIST'S ADVOCATE

News, Views & Promotions – for Beekeepers – by Beekeepers

Up in Smoke

KIWI HONEY RED CARDED FROM APIMONDIA



Jody Mitchell's photo of
Ralph Mitchell, which won
bronze at the Apimondia
Bee Awards.

Fighting for the Right to Partake



A first-time trip to Montreal and Apimondia to showcase New Zealand honey on the world stage turned to high frustration for beekeepers Jody and Ralph Mitchell recently. Three of their four rewarewa and tawari samples were denied entry to the World Bee Awards due to failed lab tests. They joined about 40 percent of the honey awards entrants who were also “red carded” – putting a spotlight on wider concerns around international honey testing.

“Horrendously frustrating,” is how Jody Mitchell describes her dealings with Apimondia honey awards organisers.

“I was that pissed off. Through the whole conference we got treated as cheaters and adulterers.”

The Mitchells travelled to Canada representing their Bay of Plenty based family business of about 2000 hives, Kaimai Range Honey Ltd.

The September 8-12 conference saw more than 6000 people from 80 countries descend on Montreal.

Once there, the Mitchells were informed, via a red card at the honey display table, that three of their four honey samples had failed the testing stage.

This year’s conference was the first time chemical testing was used to screen samples submitted to the global honey awards, with the recently developed Nuclear Magnetic Resonance (NMR) method used for some tests.

The results raised eyebrows at the conference, with around 40 percent of honey samples from around the world failing at least one of the various tests and therefore denied entry to the awards.

The Mitchells were not informed of what test their honey failed, or why, until the last day of Apimondia when they met with organisers and representatives of testing agency Bruker.

“They made it so that if anyone had a complaint it was too late to find out what the issue was and to do anything about it,” Jody Mitchell says.

The uncertainty only added to the Bay of Plenty beekeepers’ frustrations over the five-day conference.

“OK, if it has failed then tell us why, because if we have made a mistake fine. If it is something else, then we want to know what the heck it is.”

At the final-day meeting it was revealed two samples had failed their diastase tests — a method commonly used to determining if a honey has been heated or aged and which is recognised as part of the Codex standard. The samples did pass their HMF tests though, proving the honey had not been manipulated Mitchell says.

A third sample had not been tested, without explanation, and was therefore red carded, according to Mitchell.

The requirement for honey to be accepted was a reading of eight or higher on the diastase test and the Kaimai Range Honey samples tested between three and five.

The Mitchells are yet to get to the bottom of exactly what caused the low reading, but Jody believes it is likely due to the Bruker lab’s lack of understanding of New Zealand honey or potentially a mishandling of the samples, being that one appears to have been lost.

She says the honey was harvested during the 2018-19 season and was submitted in May or June. It likely then travelled to Canada, before being moved on to Germany for testing.

Analytica Laboratories research and development manager Dr Terry Braggins was attending Apimondia and accompanied the Mitchells in their meeting with organisers and Bruker, where they had some of Kaimai Range Honey’s samples.

“One of their samples was a duplicate and one appeared to be darker than normal,” says Braggins.



*Ralph and Jody Mitchell,
owners of Bay of Plenty
beekeeping business
Kaimai Range Honey Ltd.*

"This suggests it has been sitting in warm temperatures for a period. The only logical explanation they had for that was that during storage or transportation it had somehow been subjected to a higher temperature."

However, Braggins says the diastase results are potentially indicative of a wider problem with that form of honey testing.

"The criteria they used have been generated many years ago, mainly using European honey. The honey industry has changed significantly globally where more non-European countries are now trading honey – New Zealand with a lot of manuka, but also in South America and Asia. Perhaps it is warranted that some investigations or studies are done to really look at the levels used in these criteria such as diastase, HMF and other enzyme levels."

When the Mitchells finally got to meet with the honey awards organisers, Jody says they were complimented on the honey submitted.

"One of the world honey science specialists said, 'your honey is fantastic, it is so clean and has passed everything [else]. I want to congratulate you on how amazing this is.' So from what I can see they have messed up," she says.

They were encouraged to enter the world competition following years of top three performances in the New Zealand Honey Awards. Rewarewa and tawari were submitted in an effort to promote New Zealand honeys aside from manuka, but the "palaver" in Montreal has denied them that opportunity, Mitchell says.

"The whole point of it was to get the rewarewa named on the world honey stage, to help boost the price of it."

Gold and bronze medals were awarded in the creamed honey category, but no silver. Mitchell says she feels like the silver could have been theirs had the samples been accepted.

The couple didn't come away from the trip empty handed though, with Jody's photo of Ralph earning a bronze medal in the photo competition. Even that included a hiccup though, this time at the awards ceremony.

"I got up and they said, 'Jody Mitchell, Australia'. I said, 'actually, no. Jody Mitchell, New Zealand. Just call me Phar Lap or Pavlova,' and walked off the stage. It was like, you have to be kidding."

Back home and back in the hives now, Mitchell says they continue to hold out hope the testing issue will be resolved, more so for the greater good of the New Zealand honey industry than their own recognition.

"We feel like we have been cheated and yes it would be nice if we could fix the awards, but it is now about fixing the bigger issue of our honey being recognised. At the moment I think we have an opportunity to try and get them to do something about it, but it is going to take a bit of time and energy by the sounds of it."

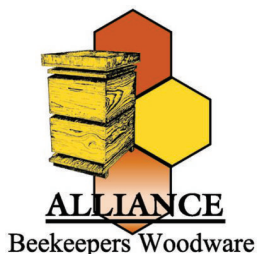
It is not without precedent, with Braggins saying there are some honey varieties from around the world which are identified as having a wide variety in allowable enzyme levels.

Despite the Montreal disappointment, Mitchell says they will continue to promote New Zealand honey and potentially submit to Apimondia 2021.

"Initially I was so over it. Now, my attitude is get mad, get even and actually we are going to fight for it. It is not a personal thing, it is for the industry. We have an amazing opportunity to get something out there."



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Not So Sweet Results



False-positive honey readings are more common than just at the recent Apimondia Honey Awards. So much so that Apiculture New Zealand and Analytica Laboratories are seeking funding for research into what is causing some New Zealand honeys to fail common chemical tests, and be denied entry to important markets.

International honey laboratories are struggling to understand certain qualities of New Zealand honey and, among Kiwi beekeepers, there is a lack of understanding regarding what testing demonstrates says Analytica research and development manager Dr Terry Braggins.

"Generally speaking some beekeepers are unaware why these tests are done and, on top of that, even fewer would understand that the levels can change due to various reasons," Braggins says.

A number of the commonly conducted honey tests can provide readings out of the ordinary, especially when it comes to New Zealand varieties Braggins says.

Because most beekeepers around the world are seeking immediate cash flow they sell honey quickly. Whereas, in New Zealand, honey is regularly aged over periods of years to grow out desirable qualities in manuka honey. This means the honey from New Zealand is more susceptible to the various time and temperature tests, Braggins theorises.

That period of years can lead to a number of changes in the chemical makeup of the honey.

"The diastase levels can go down, the manuka pollen DNA goes down, C4 sugar levels go up. HMF will rise.

"HMF has always been considered mainly a measure of temperature abuse, whereas HMF increase is time and temperature dependent. So, you can make it happen over a short period of time with high temperature or it can still happen over a long period of time with low temperature.

"Similarly enzymes and C4 sugar levels change. So you have those natural changes occurring, but it is an anomaly compared to the world and histories of honeys. These sort of things need to be taken into account."

Internationally, these factors are not commonly being considered though.

"It is an issue. Honeys are being rejected in Europe because of low diastase levels and we don't really know if it is natural variation in manuka honey, or if it is MGO levels, or due to temperature and time," Braggins says.

More research needs to be conducted into New Zealand native monofloral honeys to gain a better understanding of their qualities. That is why Braggins' lab and Apiculture NZ are hoping to undertake their project.

Once armed with an improved understanding of the honeys, New Zealand scientists and marketers will be better positioned to educate internationally – something which has begun already according to Braggins.

"There is more and more of an understanding that something peculiar is happening with manuka honey.

"The more the overseas testing laboratories see these talks and the more we see them on a one-to-one basis the more they understand there is an issue. We really need to identify what is causing it though so that we can change the test or get a better understanding amongst overseas regulators." 🐝

Protection Plan



Three years into their journey to protect the term “manuka honey” the Unique Manuka Factor Honey Association (UMFHA) was struggling financially, until a \$5.7 million funding announcement late last month. There is now opportunity to show the way to New Zealand’s primary industries, provide beekeepers a foundation for marketing, and be a leader in industry-iwi collaboration, says one insider.

The journey to protect the term “manuka honey” began in 2016 with the UMFHA, a body funded by New Zealand beekeepers and honey traders to the tune of approximately \$2 million. However, following three years of attempts to gain trademark over the term in major international honey markets, the UMFHA was nearly tapped out.

They established the Manuka Honey Appellation Society (MHAS) to enable industry participation and support. Through this society, an application to the government’s Provincial Growth Fund (PGF) was made.

Regional Development Minister Shane Jones announced on September 25 that the application was successful and \$5.7 million would be set aside to aid the efforts of the two industry groups.

Karin Kos who, as chief executive of Apiculture New Zealand has worked closely with both groups, is pleased with the funding announcement.

“Funding is always an issue in this industry and to have the backing and support of the government, you can’t underestimate that on the international stage,” Kos says.

“It has taken a number of years for the MHAS to get to this point and it is a huge boost to have the funds to support the research and the certification journey, which is a long one.”

The application for funding was based on the need for work in three main areas. Research into the unique characteristics that confirm manuka honey is from New Zealand and which supports the definition for manuka honey, establishment of certification trademarks for manuka honey, and consultation with Maori and industry over use of the resulting intellectual property associated with the term, will now be undertaken.

John Rawcliffe is on the executive of the UMFHA as well as the board of Apiculture New Zealand, and he believes the funding boost could make the honey industry a leader among the country’s primary producers.



"We have a responsibility to get this right, make it happen and show what you can do by identifying, describing and protecting the unique values of the New Zealand environment," Rawcliffe said on the day of the funding announcement.

Manuka honey is akin to Scotch whiskey in terms of the connection between product and place and a number of primary industries in New Zealand could benefit from defining and marketing that connection, with the honey industry now primed to show the way, Rawcliffe says.

THE UMFHA earned trademark over the term manuka honey in the UK in 2017, but that has since been challenged by Australian honey producers. China and the US loom as major markets in which the UMFHA will continue to seek exclusivity over the use of highly-valuable title.

The UMFHA's work is about maintaining New Zealand honey producers' unique position and the value it adds to their product, Rawcliffe says.

"The main message to beekeepers is, we are protecting the manuka honey story for them. They will then be able to add value on top of this position with their story, their land, their family.

"I know beekeepers that do business-to-business with China and Japan. They have personal relationships which have been built up. This will protect the core position to advance from, however they want to progress. It does not tell them what to do."

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Three Tasks Outlined in the application to the Provincial Growth Fund

a.

Consultation with Maori and other beekeeping/honey industry stakeholder groups to ensure the establishment of an enduring long-term framework for the ownership and management of the proposed portfolio of 'Manuka Honey' IP. This process will respect and reflect Maori interests throughout and will be supported by Te Puni Kokiri as well as honey industry and sector groups.

b.

Continued investment in the science and technology used to define and attribute manuka honey to New Zealand. This work, designed in collaboration with MPI, will allow the industry to meet offshore filing expectations around the industry's ability to demonstrate both the origin and quality of New Zealand manuka honey. This work will build on existing government and industry research.

c.

Establishment of certification trademarks and, where possible, geographic indicator for manuka honey. PGF funds will be used for research into market structures and related legal requirements, preparation of materials to support trademark filings, and administrative proceedings.

The funding announcement highlights an improving relationship between government and the apiculture industry. That relationship had been setback when a honey levy was voted down by beekeepers in February.

Rawcliffe says there was a perception from inside the government that beekeepers were "cowboys", but the decision to back the industry-funded UMFHA and work collaboratively in protecting the term manuka honey proves otherwise.

"This shows the industry is able to work together for the greater good. I think it is a strong message to the government on how we have grown up."

The ability to work alongside Maori regarding the intellectual property of the term manuka honey will provide a further challenge. However, Rawcliffe believes this is an issue in which the honey industry can also show the way.

"It is also about recognising and respecting Maori ... Recognising the Treaty, understanding our responsibilities and then working in partnership. That is quite a mature perspective.

"Just like the beekeeping industry, it is pretty fragmented at times, but if you get the right messaging and get things right there is the possibility of bringing it all together." 🐝

Banking on Change



Banks get to see first-hand the pressure that tough operating circumstances can put a business under. Two of New Zealand's leading agribusiness lenders, ANZ and Westpac banks, say, despite adverse conditions in both the market place and the field, most beekeepers are adapting and surviving – for now at least.

Diversification, adaption and consolidation has helped many Kiwi apiarists keep their businesses afloat over the past year according to agribusiness leaders from both ANZ and Westpac.

"Our beekeeping customers are well aware that maintaining cash flow is very important to any business and have made moves in their business to keep a focus on that," explains Westpac NZ senior agribusiness analyst David Whillans.

"None of our clients have been forced to leave the industry in recent times, however there appears to have been some consolidation in numbers of hives. Some beekeepers have taken on other roles to help supplement income where honey sales have been slow."

The standards for manuka honey introduced last year unsettled the industry and ANZ commercial and agri relationship manager David Wilkinson says this has put pressure on their non-manuka honey producing clients in particular.

"[They] are finding the selling of it as their biggest challenge. This is because prices are below the marginal cost of production for many popular varieties of honey, including honey dew, bush honeys and clover.

"The changes made by the Ministry for Primary Industries to manuka honey classification have made a clear distinction between non-manuka honey. This has protected manuka honey, but has also created the clear challenge for New Zealand producers of these varieties to either develop new markets or change their operations significantly. In this regard, our traditional markets of Japan and Europe, which were neglected during the boom years of 2010-2015, will take time and effort to re-establish," says Wilkinson.

He also identifies newcomers to the industry as more likely to be in a vulnerable position.

"Established businesses with strong balance sheets, lower debt and low

cost structures are faring best. More recently established businesses with substantial capital investment, combined with high operating cost structures and a lower mix of manuka honey in their sales, are finding the current environment more of a challenge."

In addition to this, Whillans says Westpac clients with variation in their operations are better placed to ride out the current adverse operating conditions.

"Having a diversified line of revenue streams, such as not being tied to one product, or having different markets to sell into, has definitely helped some businesses.

"Many of our customers run another business in addition to the beekeeping, such as farming, horticulture or contracting, which helps reduce their exposure in a downturn."

Much of the borrowing from beekeepers is short-term at both banks, with reliance on seasonal honey payments to make good on overdrafts or short-term loans.

"Producers have typically used some debt to finance investment in fixed assets like plant and equipment, including hives, with profits enabling debt repayment. While using some working capital finance to fund their costs ahead of harvest or sale, they would typically achieve a positive closing cash balance ahead of repeating that cycle. However, bad harvests clearly will put pressure on this model," says Wilkinson.

While the banks' commentary does not paint a rosy picture for the industry, both ANZ and Westpac suggest that operating conditions in the next season or two will likely determine business viability for many beekeepers.

"The industry has held up fairly well until this point, but consecutive poor harvests have been tough on beekeepers in recent years. If that continues, then clearly we may see the need for change in the seasons to come," warns Wilkinson. 🐝



David Whillans,
Westpac senior
agribusiness
analyst



David Wilkinson, ANZ
commercial and agri
relationship manager

Mite Monitor, Might Not



Two Mid Canterbury beekeepers are seeking to take the guess work out of managing varroa and they want to get apiarists from all around the country on board – saying the proposed program will have benefits for all, from hobbyists to commercial operators.

“As beekeepers, what we do has an effect on other beekeepers. So this project is trying to influence everyone,” says Martin Laas, who along with Rae Butler is the driving force behind the Mite Monitor mobile app and database.

Still in the concept phase, the long-term aim of Mite Monitor is for beekeepers to be able to use the app in the field to organise data gained from monitoring mite levels and pool it with data from other beekeepers. This would help a beekeeper understand the wider context of how their mite levels compare to surrounding apiaries.

Laas and Butler (whose breeding program to tackle varroa was detailed in last month's *Apiarist's Advocate*) are seeking expressions of interest from beekeepers who would be willing to provide data on mite loading in their hives. Once armed with a list of interested beekeepers, the project will likely seek funding from the Ministry

for Primary Industries' Sustainable Farming Fund to progress the concept to a one-year pilot study.

Laas, Midlands Apiaries' research apiarist, says the Mite Monitor will aim to take the guess work out of tackling New Zealand beekeepers' most devastating pest.

“I want to get a bit more data behind varroa management so we are not going in blind like beekeepers have done. That has been alright because it has worked, but I don't see it working that way in the future.”

There are numerous benefits to establishing Mite Monitor, such as identifying trends in varroa infestation levels, helping determine the effectiveness of varroa treatments and creating a base of information which could be essential in determining mite resistance towards treatments, say both Laas and Butler.

Identifying trends could save beekeepers time, money and resources Laas explains.



"We have noticed, from our sampling in recent years, that we are getting historical geographic trends coming up. So after five years of gathering that data you can say the apiaries in this area are almost guaranteed to have high mite levels because reinvasion has been happening. So, rather than carrying out the same treatments across the whole business, you can focus on specific areas."

The Mite Monitor app could educate beekeepers on how to monitor the varroa levels, what the levels of varroa indicate and

how to deal with the outcomes. This will result in more skilled and knowledgeable operators, Butler hopes.


A similar program running in the USA called Mite Check is managed by the Bee Informed partnership, and Laas says that could be used as a blueprint for Mite Monitor.

"In terms of data collected it could be very similar, but in terms of how we display that information it could be very different in the New Zealand context. We can go more in depth because New Zealand in so much smaller, geographically, than the USA," says Laas.

Confidentiality of location of hive sites is important to many beekeepers. Coming up with a system that has enough detail to determine geographical patterns of infestation without giving away exact apiary locations is an important balancing act for the project, and one both Laas and Butler fully understand.

The Mid Canterbury duo are seeking support from beekeepers from all over New Zealand who would be willing to undertake mite-load testing and contribute information.

"The more beekeepers that get on board with such a system the better, but at the moment the system doesn't exist. I am thinking long-term for this thing, it is not going to happen overnight," says Laas, adding, "The main goal of this project is to benefit all beekeepers."

To express your interest in the Mite Monitor project contact Martin Laas, martin.laas@midlands.co.nz, or Rae Butler, runny.honey@xtra.co.nz. 

A Mite Monitor Example

The beekeeper's treatments have just ended their time period and are taken out of the hive, but varroa is still visible and the levels are high. How do they know if there has been a treatment malfunction, mite resistance to the treatment, in-house management issue or a varroa mite reinvasion? By entering their data from an apiary site and comparing to a varroa level heat map, the beekeeper will see if the varroa levels are high or low around that site. If they are high, then this indicates reinvasion. This example shows how the Mite Monitor app and database will assist in the steps to take for determining if there was a treatment malfunction, resistance or misuse.

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An Adaptable App



Our second story in a series on management tools available to beekeepers features BeeApp from the team at Bee Intelligence – software which not only aims to help beekeepers and honey traders make better and smarter decisions, but offers the flexibility required in a fast-moving industry.

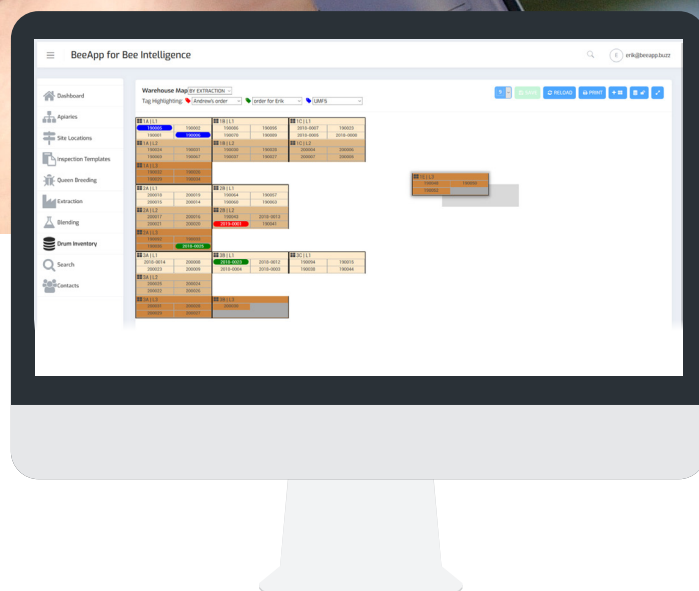
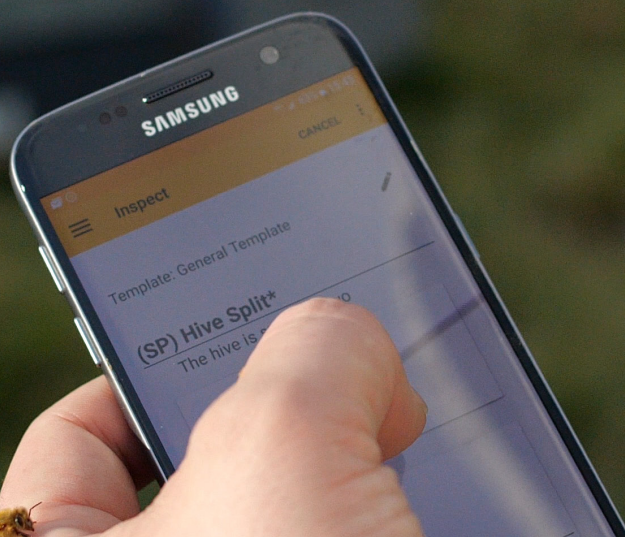
Since diving into the apiculture industry five years ago, BeeApp managing director Erik Bast has been on a steep learning curve, but he has listened, learned and his product has developed along with his beekeeping knowledge. It is this continuous growth and adaptability that allows the software to add value to a range of beekeeping businesses, he says.

"We want to be close to our customers and support them and that means listening to them and understanding what features they need. That is really important because we can only make sure we exist as a business if our customers love our products. The only way they will continue loving them is if they continuously improve," Bast says.

This has seen BeeApp evolve from an app for managing hives to a complete end-to-end software package which includes four modules covering commercial beekeepers, queen-breeders, extraction sheds and honey traders.

"We have done that because it is not just beekeepers out there," Bast explains.

"There are also beekeepers who store their own honey, or who run their own extraction. Then if a beekeeper changes their



business, be it to contract extraction or more queen-breeding, we don't want them to have to change software. We want them to have one software application they can use to manage their business from end-to-end."

Users can easily add modules or drop them as they require and the registration price reflects what is being used. That way, businesses only use BeeApp where it can truly add value.

The scope of the software also allows flexibility around management of beekeeping operations, with apiary, hive and even box level tracking available depending on the user's needs.

"Some who are just starting off or who are larger in terms of hive numbers prefer apiary level – because it is easier to manage. There are businesses who want to understand true hive profitability and performance, so they go down to hive level to determine what hives make money and which don't. Our system also allows individual hive box tracking therefore enabling end-to-end traceability of honey from the hive to the jar," Bast says.

Bast, who was born in Germany, has lived in New Zealand for the past 10 years. In 2015 he and fellow technology specialist Christian Stresing, who is based in Berlin, teamed up with their first beekeeping customer to create BeeApp.

Bast says they kept their initial customer base small to early adopters while the software developed. This was to ensure it was robust and delivered what it promised. Now that the end-to-end solution has been tested over multiple seasons, they have the confidence to expand within New Zealand and overseas.

One of those clients is Extraction Greytown who have used the extraction and honey trading module for the past year. General manager Hayden Moore says BeeApp has provided savings in time and therefore money.

"Previously we were doing the same thing a lot of people did, Excel spreadsheets," Moore explains.

"Having everything in one place where you can have one app to access everything you need to know is the main thing. Linking everything, harvest declarations, test results, all to the one drum, getting all the costs that are involved right there in one place.

"Anyone who uses spreadsheets will understand using different tabs and sheets for all the test results. Now it is all one easy click away. It is good. It saves time definitely."

An interactive warehouse mapping setup which allows a forklift operator to drag and drop drums or pallets via a mobile device has simplified managing inventory and filling orders, Moore says. That is something which is key for his business as they extract, buy and sell thousands of drums worth of honey each year, across multiple sheds.

Bast says that, along with the cost savings involved with implementing BeeApp, a major benefit to businesses is the reduction in risk it offers. A tool for gaining, storing and displaying

information – rather than relying on a single person – reduces mistakes and provides staff flexibility.

Out in the field, Blenheim-based Putake is using BeeApp to manage a queen-breeding and rearing operation – having recently diverged their business from honey production.

Bast says the software assists all types of operation, with honey producers getting a better understanding of their apiaries and hives' production levels and queen-breeders tracking performance and reducing losses from grafting to caging.

"It is about making capturing data in the field easy, taking away pen and paper, then using that information in a meaningful way."

For queen rearers/breeders that means offering an efficient tool to drill down and determining what caused a loss, be it a poor breeder queen, grafter, mating unit or microclimate of the apiary.

Bast takes pride in his businesses' ability to constantly challenge the industry and believes it is this mantra which sets Bee Intelligence and therefore BeeApp apart.

"We want to be the technology advisor and provider for commercial operators in the industry. We do that by building software like BeeApp for doing the basics, but it also comes down to responding to individual requests of our customers."

In Greytown, Moore has experienced that first-hand.

"We have had a few times we have said 'can we do this differently?' and these guys take that on board and make the changes that need to be made," the contract extractor says.

That philosophy is one that is here to stay, BeeApp's managing director says.

"We don't want to drop an off-the-shelf software into your business that may or may not work. We want to understand how we can configure something to work well for you." 🐝

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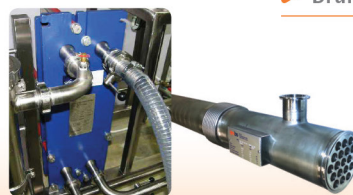


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The Organic Way



While beekeepers often refer to their honey as “organic” there are few who are certified as such. We take a look into the certification process with a BioGro auditor to find out what it takes to truly be an organic honey producer.

Prior to 2000 it was a lot easier to be an organic beekeeper in New Zealand.

However, the varroa mite brought with it a range of headaches and many previously organic beekeepers opted for synthetic mite treatments, meaning compliance with standards were no longer met.

Now there are six organic beekeepers in New Zealand, registered through BioGro or AssureQuality.

They must ensure their hives are at least three kilometres from conventional cropping or horticulture, on organic hive sites, using approved wax and able to produce residue free honey.

BioGro auditor Joy McLeod says some criteria are objective while the requirements in other areas are more subjective. Assessing all the requirements of organic honey production is her job.

“There are a few tricky bits that you have to understand,” McLeod says.

“It is quite a different process that you go through compared to other forms of agriculture. In some ways it could be easier, in that you only have a year to convert, but it is a matter of making up your mind that you are doing it and working out your timing.”

A beekeeper has a year to start manging to organic and export market standards, during which they will be visited by an auditor to assess hive sites and their extraction facility. During this period all wax in the hives must be converted to organically-approved beeswax.

McLeod says sourcing BioGro certified wax sheets for wooden frames is currently very difficult due to the scarcity of organic beekeepers in New Zealand, so plastic frames with wax wipes are more common. Even the beeswax used in this process must be certified though, meaning cappings wax from beekeepers who have harvested honey during the one-year conversion period, but are yet to become certified, can be considered.

Following the conversion year, honey is tested to assess residue levels and determine whether the required standards have been met.

On top of wax there are requirements around sugar feeding and from where queen bees are sourced to take into consideration as well, McLeod cautions.

Sugar feeding must be approved before use and may not be consented for some export markets. It is only allowed for emergency feeding purposes and with organic sugar only.

All varroa control treatments must be approved and very good record keeping maintained.

Queens must be sourced from approved beekeepers, meaning most organic operators carry out the task in-house.

Unlike with pastoral farming, the grazing patterns of the beekeeper’s livestock cannot easily be controlled. This means the practices of properties within a three kilometre radius from apiary sites are assessed during an auditor visit to determine if the site is fit for organic honey production.

“It does not mean they have to be on certified areas, but it does mean they can’t be using herbicide directly around the hives. It

is the hives that have to convert and it is the hive sites that we have to approve. The sites don't have to convert exactly, but they have to be approved as being acceptable for organic production," McLeod says.

That means hives can be located on farms with conventional farming practices, yet still achieve organic status. The host property would generally be an extensive farm in this situation.

"If you look at Canterbury, you would have to assume anything on the plains is out. But, if you go in to the high-country you are relatively safe there," the auditor explains.

Most organic hive sites are on bush blocks to avoid the sprays used in more intensive farming practices. This also aligns with the increased value generated from the honey produced at such sites – primarily Manuka honey.

McLeod says in her 24 years experience as an apiculture auditor for BioGro she has seen beekeepers go from being able to sustain business models where honey was exported in drums to now having to add extra value through packaging prior to export. This is due to the more intense management required to organically treat for varroa, which drives up cost of production.

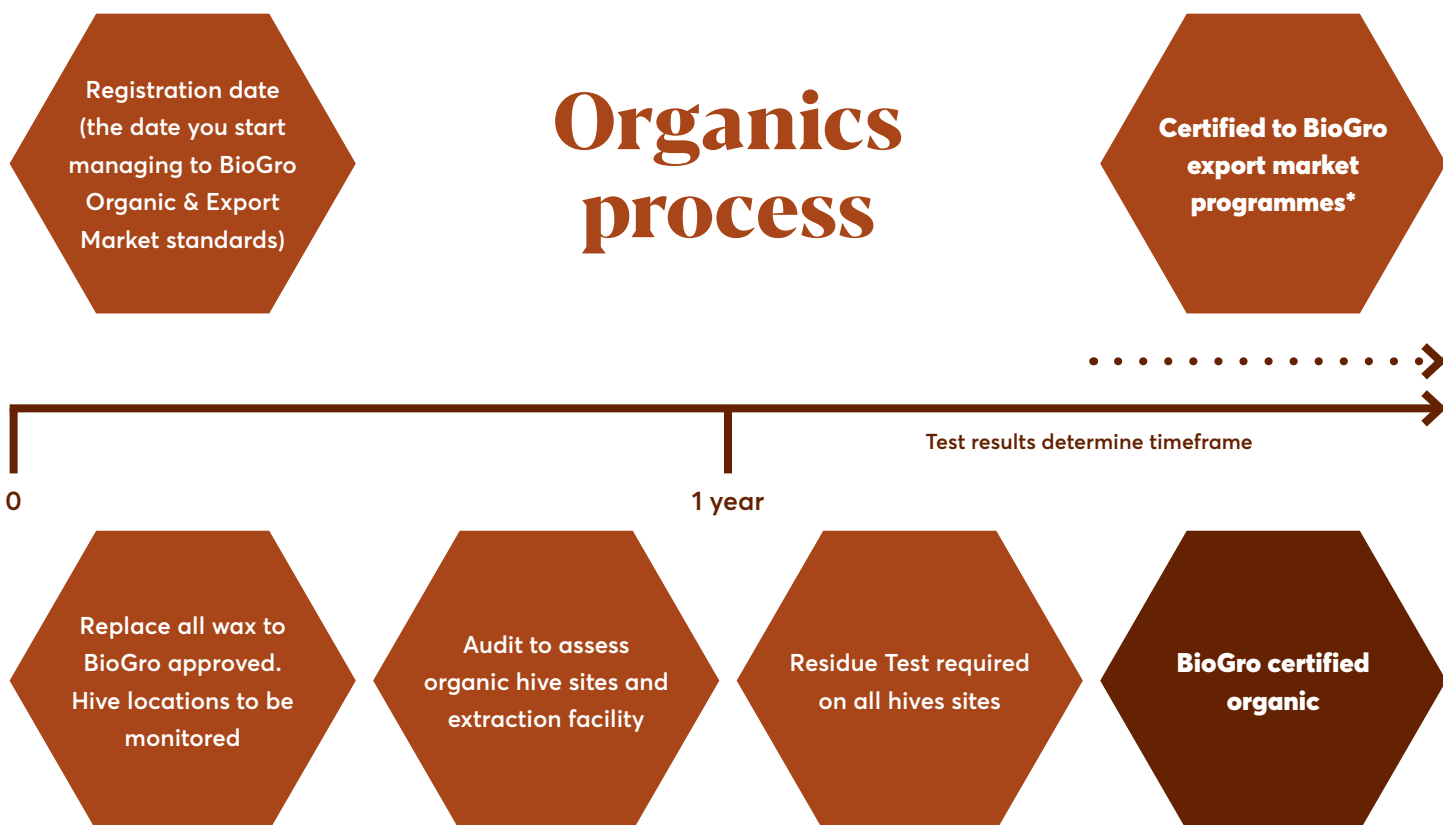
For any beekeeper who wishes to explore organic certification, McLeod says consultation with auditors is vital, from go to whoa.

"You need to be in the BioGro system well before you have an organic honey flow – you can't expect you have ticked the boxes without having us there. You could spend a lot of money and do it incorrectly." 🐝

Significant requirements of a BioGro organic beekeeper

- Ensure your hives are at least 3km from conventional cropping or horticulture and possible contamination sources or urban areas
- Collect land-user statements within a 3km radius around all hive sites which disclose pesticide use within the last 12 months and planned subsequent 12 months
- Hives should be managed on organic hive sites or wild natural areas
- Replace all wax to a BioGro approved wax
- After 12 month conversion, it is possible honey collected after this timeframe can be labelled as organic although we require residue tests of all hive sites. Clear results lead to full certification.

Organics process



*Only applies to products included in the scope of accreditation and/or market access regulations.



Practical Beekeeping in New Zealand (5th Ed.)



The Definitive Guide
ANDREW MATHESON & MURRAY REID

For more than 25 years *Practical Beekeeping in New Zealand* has been the bible for New Zealand beekeepers. The only comprehensive guide to keeping bees in New Zealand, it provides both amateur and professional beekeepers with details on honey bee management throughout the year, advice on handling hive products and information about many other beekeeping subjects.

Each month *Apiarist's Advocate* will run a small extract, tailored to the beekeeping calendar. This month we have selected a section regarding making a "top nucleus" or "top split" from chapter 10: *Dividing and Uniting Colonies*. For further reading, the full Definitive Guide can be purchased from Exisle Publishing.

MAKING A TOP NUCLEUS

The basic method for making up a top nucleus is as follows. First check the hive for American foulbrood. Find the queen and put the box containing the queen on the bottom board. Make sure the upper box contains several frames of capped and emerging brood, and a couple of frames of stores, and that the remaining space is filled with empty combs. You should shake the bees off several more brood frames to boost numbers in the top nucleus, as flying bees will return to the bottom box. Remember not to shake the frame with the queen.

Frames of brood taken for divisions should always contain brood that is sealed, and preferably starting to emerge. The brood should not cover more than half a comb on each side of the frame, as the new colony may not have enough bees to cover a full frame of brood and prevent chilling — especially if the nucleus is left in the original apiary where there might be more loss of bees through drifting. Frames with more brood can be selected if the nucleus is to be moved to a new apiary, as such units retain all their bees.


Separate this top box, which is your new nucleus, from the parent hive by a division board, with its entrance facing to the rear. Block the division board entrance to minimise the loss of bees (as described below under 'Dealing with drift').

Put a mature protected queen cell (described in Chapter 12) or a caged queen bee into the new nucleus — either immediately, or after a couple of hours, but never leave the top queenless for more

than 24 hours. If all goes well the new queen will emerge and you will have two queenright units.

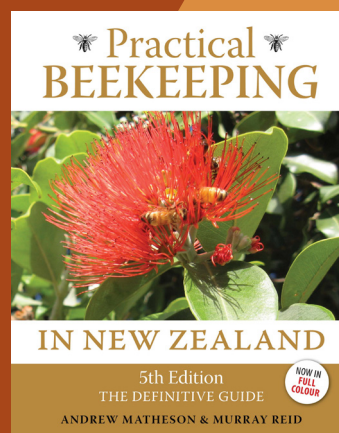
When you simply split a hive in this way the bottom unit may need another box to accommodate all the flying bees, making the hive three storeys high. So, it is quite common to make a top nucleus by bringing another box containing drawn combs to the apiary.

Make up the top by removing from the hive the two or three frames of emerging brood (without the queen), and two of honey and pollen stores with adhering bees, and putting them in the other box with enough empty combs to bring the total up to 10. The remaining drawn combs are put into the parent hive to replace the frames removed for the top. The parent hive consists of two boxes, and the top of one.

Be very careful not to let robbing start while you are dividing hives. Weaker splits or nuclei are much less able to defend themselves than are strong hives. 

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Myrtle Rust Delegates Meet



Scientists, central government and representatives from groups working to combat myrtle rust were among those gathered in Auckland over two days last month to discuss solutions to the invasive fungal disease.

Almost 100 delegates attended the September 9-10 Myrtle Rust Science Symposium, which was organised by Biosecurity New Zealand with support from the Department of Conservation (DoC) and the Myrtle Rust Strategic Science Advisory Group (SSAG).

First detected in New Zealand in March 2017, myrtle rust has the potential to impact New Zealand's honey industry through damage to plants of the myrtle family – primarily Manuka. It has now been detected over much of the North Island and the north and west of the South Island.

The findings of more than 20 research projects funded by Biosecurity New Zealand, with the aim of better understanding myrtle rust and limiting its impact, were presented.

"These ranged from novel surveillance techniques such as unmanned aerial vehicles to scan the forest canopies for evidence

of the disease, to the potential for microbes living in myrtles to inhibit the rust, and the importance of partnering with Maori in both the research and management of myrtle rust," says Ministry for Primary Industries' science policy manager Naomi Parker.

The research reports, which are being published on the myrtle rust in New Zealand website, were identified as priorities by the SSAG, which recently released a science plan to guide research for managing myrtle rust.

Ken Hughey, the SSAG chair and DoC chief science advisor, says an important focus of the symposium was how the science could be used by groups on the ground working to manage the disease, including DoC.

"There is no silver bullet when it comes to myrtle rust, but the symposium was a fantastic opportunity to discuss progress and future priorities, and to strengthen the community of stakeholders who are committed to combating this disease," Hughey says. 🐝



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I'm a Blenheim-based chartered accountant, hobbyist beekeeper, and business partner with all of my clients. What's important to me is understanding my clients' business and bringing that personal touch. Please contact me confidentially and without obligation if you'd like to discuss how I can assist you and your business this year.



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Editorial



I have really enjoyed putting together our first three issues of *Apiarist's Advocate* and have learnt plenty about our industry over the past three months. We have tried to convey as much of that to the reader as possible and I hope we have been successful in doing so.



There is plenty of room for improvement though and on that we want to work with you, the reader, whether you are indeed a commercial or hobby apiarist, working in the wider apiculture industry or just someone with a thirst for knowledge.

I have some ideas for how we might be able to do that and some ideas have been submitted to me by readers. In our inaugural issue I suggested a letters to the editor section, but I think we can expand on that. Below are a list of ideas, feel free to respond to any of them or send any more my way.

STORY LEADS

There is plenty going on our fast-moving industry, but we don't see it all from our base in Marlborough. Don't be shy in dropping us a line if you think there is something that needs to be covered and we will do our best to investigate.

It could be a newsworthy happening or an upcoming event, and I really enjoy talking to businesses or beekeepers who are doing interesting things. Our industry attracts people from a wide range of backgrounds, so if you know a beekeeper with an interesting past, present, or story to tell then let us know, whether they have a couple of hives or a couple of thousand.

If it is of interest to you, then they will likely be of interest to others.

Q AND A

Other forms of beekeeping media often feature inquisitive beekeepers asking questions and seeking knowledge. If you have any queries relating to beekeeping or related industries then we can help seek out experts to respond to them, be it a question regarding hive or honey management, compliance, new technologies, history – the list is probably endless.

LETTERS TO THE EDITOR

Don't be afraid to send in a response to any stories you see if you think you have something valuable to add to the discussion. Beekeepers are generally rather opinionated, so I encourage our readers to contribute to the conversation, or even start up a new one.

ADVERTISE YOUR SERVICES

Unfortunately we can't write about it all, but we offer advertising from \$40 and go out to over 500 subscribers, and growing, the vast majority of who are beekeepers. It is an opportunity to promote your products or services big or small, to the industry they target.

GIVE US YOUR FEEDBACK

We are always looking to improve the product we offer so let us know if we are doing something wrong or, even better, if we are doing something right.

These are just some ideas of ways you can get involved, if you have any more I am happy to hear from you.

editor@apiadvocate.co.nz 

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