

June 2025 Newsletter

Next meeting | Wednesday 4th June 2025 Where | Johnsonville Community Centre Editor| Jane Harding janeh@xtra.co.nz

Beginners session: Upstairs at the JCC – Prepping for the next season, tools, equipment, etc.

Main meeting; 7.30pm in the Community Hall

Mark Wendelken will deliver a Climate Change presentation entitled " The Bigger Picture"

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## **From the President**

Note from the President – June 2025

I have been deep in house renovation research for the past few weeks so I haven't got much to report on the beekeeping status. My bees have been on their own and to be honest they're probably happier that way. The hive that I moved into Technoset boxes seems to be doing extremely well, they don't appear to have slowed down at all which may not be a good thing come spring. Luckily I have heaps of stores, both frozen, and stored in plastic rubbish bags (feeding the super ant colony) in the garage.

I don't envy anyone involved with the overturned truck in the US State of Washington recently which was carrying roughly 31,750kg of bees. That's a lot of bees and no doubt involved a lot of collateral damage. I pity the emergency services called to that crash but it is heartening to see that "over two dozen" beekeepers turned up to assist.

I recently organised for my roof to be cleaned but had to re-schedule when the workers turned up to do the job and one of them was allergic to bee stings. He wasn't keen to run the risk of upsetting them with overspray and to be fair it was quite windy that day and their flight path was directly over the roof to be cleaned. I probably should have considered this earlier but am now wondering if the spray they use is toxic to bees, as well as that the bees might be toxic to the sprayers.

Looking forward to seeing everyone at the next meeting and hoping that some new members will volunteer for the committee in the next year and maybe even take on an admin role.

Janine



# AGM Coming Up

As mentioned in the last newsletter, our AGM will be held at our July meeting, as usual. What's different about this meeting is that we will also be voting on a new constitution for the club. We need to have this new constitution in place before April next year in accordance with the new Incorpaorated Socieites Act. We will do this at the commencement of the AGM. Please familiarise yourself with the new draft constitution which you can find here: <u>https://www.beehive.org.nz/new-constitution/</u>

## **Treasurer Wanted**

In line with the proposed new constitution, our longstanding Treasurer, John Burnet, has decided to stand down. John has been doing this job for 27 years, he certainly needs a break. So, we are looking for a new person to take on this role. The key aspects of this role are as follows:

- Club finances Responsibility for payment of all club expenses and monitoring of club income, bank accounts and investment accounts. Some familiarisation of Xero required – approx. 5 mins daily and 10 mins after each meeting depending on product sales.
- Financial accounts Production of annual accounts in June/July and annual filing of verified accounts with Companies Office – approx. 8 hours per year.
- Club membership records Hello Club (club management system). Regular access, maintenance and reconciliation with bank account – approx. one hour per week

As you will know, John does a whole lot more than this, if you're interested in becoming the Treasurer and perhaps taking on some of John's other duties also, the full JD is <u>here</u>:

## What's Happening Sciencewise – NZ Maps of Floral Resources – by Phil Lester

Work was published this month on national-scale mapping of floral resources for honeybees and other pollinators in New Zealand. The study was produced by Manaaki Whenua – Landcare Research and focused on the contribution of indigenous land cover types (McCarthy et al., 2025). The researchers described and mapped the plants contributing most to nectar and pollen production.

Unsurprisingly, they found that floral resource production across New Zealand was found to be highly seasonal. Both nectar and pollen production were greater in the summer months, when high-producing species were flowering. Annual production values of sugars (nectar and honeydew) ranged from 0 to a massive 1417 kg ha<sup>-1</sup> year<sup>-1</sup>. Low yields occurred in non-vegetated areas, while high yields came from honeydew-producing areas.

Within forests, floral production was found to be dominated by a small number of plant families.

Kamahi (*Pterophylla racemosa*), a widespread and abundant tree, produced the most nectar of any species listed by a mile. Other high producers included tawa (*Beilschmiedia tawa*) and horopito or pepperwood (*Pseudowintera colorata*). All three of these trees flower primarily in the summer months. Weeping matipo (*Myrsine divaricata*) was the highestranked winter-flowering species.

Species	Family	Total nectar (kg year <sup>-1</sup> ) × 10 <sup>-7</sup>	Total pollen (kg year <sup>-1</sup> ) × 10 <sup>-7</sup> Phenology	,
Pterophylla racemosa	Cunoniaceae	27.05	11.22	
Beilschmiedia tawa	Lauraceae	11.36	4.71	
Pseudowintera colorata	Winteraceae	10.05	4.17	
Griselinia littoralis	Griseliniaceae	9.65	4.00	
Melicytus ramiflorus	Violaceae	7.83	3.25	
Quintinia serrata	Paracryphiaceae	7.76	3.22	
Metrosideros umbellata	Myrtaceae	7.03	2.92	lo
Carpodetus serratus	Rousseaceae	5.23	2.17	
Ripogonum scandens	Ripogonaceae	4.44	1.84	
Hedycarya arborea	Monimiaceae	4.42	1.83	
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Figure 1. The top 10 plant species ranked based on their annual floral nectar (excluding honeydew) and pollen supply across New Zealand's mapped natural forests and shrublands. Kamahi is by far the most productive for both nectar and pollen, even with relatively short 3-month flowering period. From (McCarthy et al., 2025).

One of their most interesting findings was that, although indigenous land cover now accounts for just 49.5% of New Zealand, it still produces the vast majority of the country's floral resources available to pollinators. They state: "Almost half of New Zealand is covered by indigenous land cover types, but this area produces 92% and 85% of the country's nectar and honeydew, and pollen, respectively."



From this work, the authors produced maps predicting annual patterns of floral resource supply—both nectar and honeydew, and pollen—for honeybees in New Zealand.

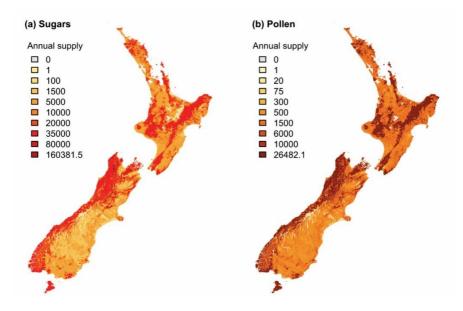


Figure 2. The predicted annual patterns of floral resource supply for (a) sugars (nectar and honeydew; kg ha<sup>-1</sup>) and (b) pollen (kg ha<sup>-1</sup>) for honeybees in New Zealand. From (McCarthy et al., 2025).

Beech forests that produce honeydew, mostly restricted to the northern South Island, were by far the most productive areas in terms of sugar production. Pollen production was highest in indigenous forests along the axial ranges of the North Island and the west coast of the South Island. Sheep and beef farms were found to have a slightly greater proportion of high nectar- and pollen-producing areas than dairy farms.



Their analysis and maps could be used to guide honeybee hive placement and stocking density, as well as to better understand how land-use changes might impact the floral resources available to bees.

### Reference

McCarthy, J. K., Richardson, S. J., Houliston, G. J., Etherington, T. R., McGlone, M. S., & Ausseil, A. E. (2025). National-scale mapping of potential floral resources for honeybees and native pollinators in New Zealand. Ecological Applications, 35(3), e70041. <u>https://doi.org/10.1002/eap.70041</u>



Kamahi flowers

## Environmental detection of Varroa

An article on the detection of Varroa in honeybee hives using surface swabs of the hives and analysis of the honey has just been published. Frank was involved with this Australian research and the WBA apiaries at Chartwell and Wingate were used. Here's the abstract from the research:

#### ORIGINAL ARTICLE 🔂 Open Access

### Environmental DNA Methods for Detection of *Varroa destructor* in Honey Bee (*Apis mellifera*) Hives

John M. K. Roberts, Richard J. Hall, Foyez Shams, Francisco Encinas-Viso, Florence Bravo, Jenn Soroka, Liz Milla, Natale Snape, Francesco Martoni, Antonette Walford, Dianne Gleeson... See all authors 🗸

First Published: 5 May 2025



The parasitic mite, *Varroa destructor*, is a worldwide problem for honey bees (*Apis mellifera*). Using a new species-specific qPCR assay, we assessed the detection of *V. destructor* eDNA collected in honey and surface swabs from managed bee hives in Australia, where *V. destructor* has recently invaded, and in New Zealand, where *V. destructor* is established. We showed that these eDNA methods provide sensitive detection for *V. destructor* compared with a conventional bee wash method and could be a powerful complementary tool for managing the spread of this pest to new areas and detecting future incursions.

Abstract Full text PDF References Request permissions

You can read the full article here: https://onlinelibrary.wiley.com/doi/10.1002/edn3.70109



# The Use of Plastics in Hives

And courtesy of the Waikato Beekeepers, here is an article written by one of their members on the use of plastic in hives.

Dr Dara Dimitrov Te Piringa, Faculty of Law University of Waikato

Beekeeping is well entrenched into the plastic age, however the regulations set by our governing body, Food Standards Australia and New Zealand (FSANZ), and the New Zealand Government seem to be lagging behind developing apiculture practices regarding the use of plastic. This article will cover the impact of plastic on the apiculture industry and the mostly unexplored consequences of using plastic with little to no regulation. It is evident that given the importance of apiculture industry to New Zealand's export industry, that the lag in the regulations may at worst impact the brand name of honey from New Zealand which could be devastating to beekeepers across the country.

Find the full article

here: https://researchcommons.waikato.ac.nz/bitstreams/4c705b61-8392-47d1-91f1-25190bc6ecc7/download

John Burnet has provided an AI generated summary of the article, as follows:

Overview: The document discusses the implications of plastic use in New Zealand's beehives, focusing on safety, regulations, and environmental concerns.

### **Use of Plastic in Beehives**

- Plastic has replaced wood in beehives, impacting the apiculture industry.
- New Zealand exported 10.2 tonnes of honey valued at \$425 million in 2019/20.
- Most commercial beekeepers use PET plastic frames for honey collection.
- There is a lack of regulation regarding the safety and toxicity of plastic components in beehives.

### Safety Concerns

- Research indicates hazardous chemicals can migrate from food-grade plastics into honey.
- The World Health Organization calls for more research on microplastics and food safety.
- Microplastics have been found in honey, raising health concerns.

### **Disposal Issues**

- Diseased hive components must be burned, leading to the release of harmful chemicals.
- Burning plastic components contradicts New Zealand's Climate Change Response Zero Carbon Amendment Act 2019.
- Approximately 25,634 hives are destroyed annually due to American Foul Brood disease.

### **Regulatory Gaps**

- Current regulations do not address the life cycle and disposal of plastic honey frames.
- Beekeepers face challenges in complying with biosecurity and environmental regulations.
- The need for specific guidelines on plastic use in beekeeping is emphasized.



## **Extractor for Sale**

Common Unity is a registered charity, operating in Lower Hutt, Wellington. One of the collectives we support is Beeple. Beeple have hives scattered around the Lower Hutt area which allows us to support the mighty pollinators and provide us with honey and beeswax.

A few years ago, a honey extractor was purchased with the intention of extracting our own honey, sadly this did not come to fruition. We are now looking to sell the A 4 frame, electronic extractor from SAF Natura.

It has never been used and is still in its original packaging.

- 4 Frames stainless steel extractor
- Plastic gate 40 mm
- Transparent plastic lid
- Knockdown legs for easy transport
- Reversible with speed control
- 30 volt DC

The extractor measures 62 cm wide and 67 cm high (without the legs)

If you are or any of your members are interested in purchasing the extractor please contact <u>admin@cupa.org.nz</u>

Ed: This extractor had been advertised on Trademe and did not sell.



## The Good of the Hive

If anyone has been in Timaru recetly, you may have come across this painting of a bee:



The artist is Matt Willey and he has painted this scout bee on the side of the ANZ building on Stafford St.

Matt is on a mission to handpaint 50,000 bees around the world, to publicise the importance of bees. You can read all about his project here:

https://www.thegoodofthehive.com/



## Who can I speak to?

President – Janine Davie <u>president@beehive.org.nz</u> Treasurer – John Burnet 027-4379-062 treasurer@beehive.org.nz Secretary – Jane Harding 027 421 2417 secretary@beehive.org.nz

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