



"HELPING BEEKEEPERS KEEP BEES"

Monthly Newsletter

Issue: 216 March 2023

## Upcoming Events and Notices

This Club Day: 4<sup>th</sup> March

Next Club Day: 1<sup>st</sup> April

### Whareora Hall 10.00am

What to bring:

- Your **Membership card** to show at the door
- **Cash** for the produce table, **produce** for the produce table
- **Library books** you have borrowed
- **Bee suit** (Club has some for members to use also)

Directions: From SH1, turn off to *Kensington*. Turn left onto *Mill Road*, then right at *Whareora Road*. Keep on this road until it joins *Pataua North Road* and continue for a few more minutes.

The hall is on the right. Please **do not** park on the road, use the paddock adjacent to the Hall when the car park is full.

### Club Day March

Nick will give us an update on what is happening in the hives at this time.

We will have the usual "Member's Talk Time" so come with your buzzing questions about beekeeping!

We are always on the lookout for some Nic Nacs to share – bring along your latest idea or new piece of equipment to show members.

### Kitchen duty on club day.

Heather has stepped down from organising food items for club day. Thank you, Heather, for all your work with organising food for us hungry members.

A huge thank you to Sue Young who will be purchasing the Milk & Biscuits & Lorna Child for taking over the Pizzas and they will jointly run the kitchen on club day with help from other members.



### Club Day Duty Roster

Set Up Hall From 9am	Club members
Set up in Kitchen 9am & Set up Lunch	Sue Young & Lorna Child
Wash up Kitchen from Lunch	Club members
Pack up / Clean Hall From 12-30	Club members

All these jobs are easy and require very little time and effort, please sign up on the roster at Club Day. A big "THANK YOU" for your help.

Apiarist's Advocate  
February 2023

# News from last Club Day

Suzie Scourfield gave a presentation on the different jobs that bees do in the hive, with several short video clips from YouTube and Adrian Tonks gave a presentation on Multi Colony Hive Format.

### Honey bees

Here are some interesting videos that I share with my students to give them some information on honey bees

*'Helping Beekeepers Keep Bees'*

1

### Time lapse from egg to bee

2

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### How Do Honey bees Get Their Jobs?

3

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### How bees turn nectar into honey

4

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### How bees collect pollen

### Bees Making Wax

### The life of a Queen bee

The life of a Queen Bee

### Inside the Bee Hive what honey bees do

### Catching a swarm

5

### What to Do - February

In the Hive:

- The colony's growth is diminishing. Drones are still around, but outside activity begins to slow down as the nectar flow slows.

Beekeeping Tasks

- Little chance of swarming. Watch for honey robbing by wasps or other bees.
- Test for Varroa mite levels and treat if necessary.
- Harvest and extract honey before applying varroa treatments, leaving 20-30 days to get bees through the winter.
- Check all brood frames for AFB.
- Check for wasps.
- Check that your bees have a good water supply.

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### Other things - VP

Still looking for someone to become the VP?

You don't need to be an expert just help to support and facilitate club days.

*'Helping Beekeepers Keep Bees'*

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### Hive Time

(when lunch is packed away)

- New to Beekeeping- Back of Hall (Empty Hive)- learn basics
- Active Hives- Outside behind container
  - Please take care with hazards
  - Wear protective clothing if you choose
  - Wails available upon request
  - We welcome children, but your children are your responsibility please

*'Helping Beekeepers Keep Bees'*

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### Multi Colony Hive Format

Colony - Queen & Bees  
Hive - the structure they live in

1

### Apiary & Experience

- 3<sup>rd</sup> Season
- NZ Cert in Apiculture

2

### Multiple Colonies

- Queen towers
- Partitions

3

### Multiple Colonies

- Queen towers
- Partitions

4

### Working Hive

- Small beginnings
- Bee beard
- Adding boxes

5

### Working Hive

- Small beginnings
- Bee beard
- Adding boxes

6

### Working Hive

- Small beginnings
- Bee beard
- Adding boxes

7

### Working Hive

- Small beginnings
- Bee beard
- Adding boxes

8

### Working Hive

- Small beginnings
- Bee beard
- Adding boxes

9

### Working Hive

- Small beginnings
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10

### Pro's

- Queen's - spares and selection
- Honey and drawn comb
- Brood - increase without affecting production colonies
- Stability to multiple levels
- Not seeing issues with swarming

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12

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### Con's

- Entrance positions
- Partition laps / gaps
- Second story brood box in winter
- Migration of bees to queen right
- Silent robbing?
- Late season mating?

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### Recommend??

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## NIC NAC Section from Club Member Deon Ogden. Many thanks Deon

Just a little something folks might find of interest... disclaimer... I originally saw the idea as a post on facebook.

I have in the past used the typical 10L bucket stainless double strainer, and the disposable nylon 10l paint strainer, but always found after a short while the strainers become clogged and slow.

this facebook post suggested "hops spider" which I found available online from HB Malt Station [click here](#)

Delivery was quick 24hrs.

Being tall and immersed in the bucket the wax etc floats allowing the honey to flow out below, I would tip out the basket contents every second bucket. it started too slow by the end at about 6 ½ buckets ( but so was I )

The filter handled a small amount of crystallised honey from over winter in the frames, and some but not as much thixotropic kanuka this year, but a good result from two hives of over 80kg and another box not quite ready to process yet.

Really happy with the hops spider as a honey filter at 300 microns. It turned out its handles fit nicely on the honey gate for draining at the end of each bucket, much better than the standard filters I have been using.

some photo's below...

Deon



### Hives for Sale:

Stuart Hamilton has some hives for sale

Ph: 021 488 770

[stujhamilton@xtra.co.nz](mailto:stujhamilton@xtra.co.nz)

### FRAME CLEANING

Tai's Frame Cleaning Service \$1.50 per frame.

For more info contact Tai Pullen 020 415 815 64

[taipullen9@gmail.com](mailto:taipullen9@gmail.com)

516 State Highway 1 Otaika Whangārei

## **Club Member, John Beauregard has written this article on Fred Drake's Queen Bee rearing method. Many thanks John**

**Fred Drake**, a retired commercial beekeeper, was a club member in the late 1970s. The following pages record his method of queen rearing. Two additional sources of information amplify and clarify Fred's work:

**Queen Bee: Biology, Rearing and Breeding** David R. Woodward, Northern Bee Books 2014

ISBN (10): 1904846351

**Better Queens**, Jay Smith, 1949, 100pp, self-published. (The club's library copy was donated by the Alec Gordon family)

Club members considering using Fred Drake's queen rearing method should pre-read: **Better Queens**, Jay Smith and **Beekeeping at Buckfast Abbey**, Brother Adam. Both titles are in the club library

Drake's method employs two separate hives plus a source of newly hatched eggs, destined to become new queens. This source is called the donor hive.

### **1. Donor hive: any hive of more than one storey having a queen with superior qualities.**

Larvae destined to become queens are either grafted into queen cells or from cells using Jay Smith's no-graft system. Smith's system requires at least one wooden frame with a wax (not plastic) foundation.

### **2. Starting hive: a medium strength hive of one or two storeys that is strong with young worker bees.**

The bees are made queenless, eggless and with no young larvae. The hive is then given a few young larvae from the donor hive. The bees will frantically, but imperfectly, begin the work of making at least one new queen.

### **3. Finishing hive: a very strong hive of two storeys.**

The queen should have been over-wintered and be at least one year old. A young queen produces too much pheromone (queen substance) for the workers to sense the need to replace her.

## **Overview**

Starting hive: queen cells from the donor hive are given to the starting hive for 24 hours, then transferred to the finishing hive.

Finishing hive: the bees of a queen-right hive sense their queen is failing. They will actively feed queen cells with a super-abundance of pollen, honey and royal jelly throughout the larval stage. The principal source of royal jelly is young worker bees. Older workers produce much less royal jelly.

## **Drake's process begins two weeks before larval introduction**

### **Day -14**

Finishing hive: begin ongoing feeding with 1:2 (one part sugar, two parts water) sugar solution to simulate a strong honey flow.

### **Day -10**

Give the finishing hive 10 frames of capped brood so that by Day +1 it is very strong in young worker bees.

### **Day -9 to Day -1**

Worker pupae developing in the finishing hive.

## **Day -7**

Finishing hive: place the queen below an excluder. With less room for egg laying the workers sense their queen is failing. Some sources state no further feeding or else the bees will store the sugar solution in cells that are meant for egg laying.

### **(Day -6 or Day -5, if using Jay Smith's no-grafting method)**

Donor hive: place the queen below an excluder. In the centre of the upper storey place one frame of darkish (but not black) drawn comb for the bees to “polish”, flanked by uncapped brood. This frame must have a wax foundation, not plastic, because sections of it will be cut from the frame on Day 0.

### **(Day -4, if using Jay Smith's no-grafting method)**

Donor hive: remove the excluder or else relocate the queen to the upper storey. She will lay in the pre-polished frame. These eggs will hatch in three days.

## **Day -1**

Starting hive: feed with 1:2 warm sugar syrup to simulate a strong honey flow.

Finishing hive: place an empty third storey on the hive within which is placed a large tub or pan filled with drained capping's or else feed with a 1:2 warm sugar syrup. Fred Drake stated there was a certain “something” on the underside of capping's that was highly beneficial when fed to developing queen larvae. Drake's queen rearing method was developed before modern extractors were introduced. It is possible the club's extractor will produce capping's that are too compacted for the workers to easily penetrate. Perhaps stirring the capping's up with a garden trowel would help.

## **Day 0**

Starting hive: find the queen and relocate to a nucleus. Remove all eggs and uncapped larvae. This will focus the bees' entire attention on the queen cells, to be given later. Force the hive down to one storey with perhaps as few as six frames and should be vastly overpopulated, especially with young worker bees. Leave space in the centre for the addition of a top bar, flanked on one side with a frame of capped or uncapped honey including pollen and on the other side with a frame of emerging workers. Some sources state the space in the centre should be flanked with frames of uncapped larvae that are too old for the bees to make into queens. Wait for at least one hour to make certain the bees sense they are queenless then give queen cells from the donor hive. Ensure there is plenty of 1:2 sugar syrup.

Finishing hive: In the storey above the excluder create a space in the centre for the later placement of the top bar bearing the queen cells. The flanking frames should have capped honey, pollen and emerging worker bees. Continue feeding.

## **Day +1**

Remove the top bar from the starting hive. Brush (not shake) the workers off and relocate into the space provided in the finishing hive. Return the starting hive's queen from the nucleus. (If the beekeeper has enough hives and wants to produce a large number of queens then the preceding steps can be repeated for up to seven days after which the bees begin to lose interest.)

## **Day +4**

Check the finishing hive throughout for rogue queen cells which must all be destroyed. Some sources suggest feeding should now be stopped.

## **Day +5**

Queen cells capped.

**(Fred Drake's queen rearing method ends at this point.** The following timeline is principally adapted from Woodward.)

## **Day +6**

Distribute capped queen cells to hives and nukes that have been made queenless for at least one hour. It is better to distribute cells early because if the finishing hive runs short of food the bees may destroy queen cells. Some sources state it is okay to leave the cells in the finishing hive until the time approaching emergence. The cells become well-propolised and less susceptible to jarring as well as making it easier to check for Black Queen Cell Virus.

## **Day +10**

Candle for Black Queen Cell Virus, looking for a black ring around cell tip. If found discontinue use of the finishing hive for queen rearing.

## **Day +13**

Virgin emergence. Ascertain, then do not disturb. Emergence may be delayed by up to three days and is temperature dependent. Orientation flights after three more days.

## **Days +17/+19 to Day +19/+23**

Mating. Mating may be delayed due to the weather, principally low temperatures and high wind. Egg laying begins 12 hours-3 days after mating. Most mating will have occurred after two weeks of good weather. Best weather: >18C; wind < 18kph.

## **One additional week**

Conspicuous egg-laying.

### **Reasons for failure to accept queen cells:**

1. Finishing hive queen is too young. She is producing too much pheromone (queen substance) and her workers are uninterested in replacement.
2. Finishing hive worker population too small resulting in too much pheromone per worker bee.
3. Starting hive not supplied with "primed" cells, that is, cells not given to the hive on Day -1 or Day -2 for "polishing": cleaning, warming and re-waxing.

### **Problems:**

1. For the hobbyist with only one or two hives Fred Drake's queen-rearing method may not be feasible.
2. Fred Drake's queen-rearing method is labour-intensive and time-sensitive therefore may not be suitable for everyone.
3. Commercial queen rearing has become so specialised that few queens are now tested for actual honey production, ease of handling, disinclination to swarming and parasite resistance. The club library has a copy of *Beekeeping at Buckfast Abbey* which provides an excellent model for queen rearing that is tested for production within a commercial honey operation.
4. Drone control. Even the best virgins provide only half of the equation. In the absence of isolation it is not possible to control a virgin's mating. How many commercial artificial insemination operations test drone stock for the desirable characteristics of honey production, ease of handling, disinclination to swarming and parasite resistance?



**APICULTURE**  
NEW ZEALAND

### Bug of the year 2023

The native bee Ngāro Huruheru (Leiproctus fulvescens) has been crowned New Zealand Bug of the Year 2023!

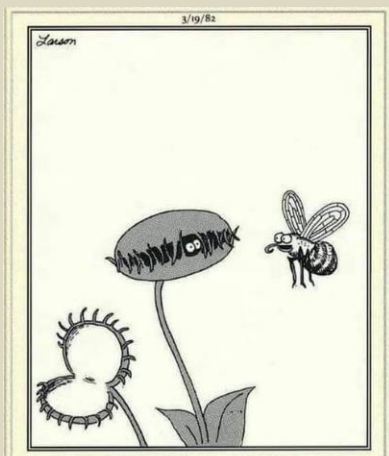
Read more about NZ's native bees [here](#)

### Welcome to the ABAte Project!

Active Bacteriophages for American FoulBrood Eradication

The ABAte Project is hosted at the Hendrickson Lab in the School of Biological Sciences at the University of Canterbury.

We are working towards discovering and characterising a set of bacteriophages that can be used to destroy American FoulBrood, a disease of honeybees that is caused by the bacterial pathogen *Paenibacillus larvae*.



"I don't mean to be callous, Earl, but can I have your stereo?"

### Study probes whether Chatham Islands honey has special properties

Scientists at the University of Waikato are testing honey from the Chatham Islands to see if it has unique properties.

The government is backing the project with \$61,000 of funding from the Sustainable Food and Fibre Futures fund.

Chatham's beekeeper and owner of Go Wild Apiary Kaai Silbery was the first to sell honey from the island commercially. She said she knows the honey is special but wants to prove it scientifically.

"We are one of the few places in the world that has disease-free bees. British black bees were first brought here in the 1800s, then in the 1960s, '70s and '80s.



### Otago Polytechnic – Apiculture courses

- New Zealand Certificate in Apiculture (Level 3) Starts in August
- New Zealand Certificate in Apiculture (Queen Bee Rearing) (Level 4) starts in September
- Both courses based in Whangarei (Maromaku School)

Click on links to find out more

# Financial Statement

Whangarei Bee Club Incorporation

Opening Bank Balances as at 20 January 23

Operating Account	40,127.36
Savings Account	406.99
<b>Total Funds</b>	<b>40,534.35</b>

**Plus Income From**

New Members	310.00
Interest-01	1.15
	<u>311.15</u>
	<b>40,845.50</b>

**Less Expenditure**

Bank Fees	0.80
RWT-01	0.52
Web Site - OnLine designs	48.30
Whareora Hall Hire	80.00
H Rye - Club Day Exps -Milk Biscuits	141.38
	<u>271.00</u>
	<b>40,574.50</b>

Total Balances as at 20 February 23

Operating Account	40,166.88
Savings Account	407.62
	<u>40,574.50</u>

# Other News and websites to check out

[Rise in urban beekeeping may be crowding out native bee species](#)

[1080 and bees](#)

[Mānuka boom and bust stings beekeepers](#)

[Scholarship opens up opportunities for ambitious young beekeeper](#)

[Inferior overseas honey being passed off as mānuka – new research](#)

[Welcome to Hiveworld NZ](#)

[Varroa mite emergency zone moved, leaving beekeepers on NSW Mid North Coast frustrated](#)

[Honey yields expected to see significant drop - Apiculture New Zealand](#)

## Call for contributions

All you budding writers out there, we are looking for contributions to the monthly newsletter. It can be a one-off article or an ongoing piece. If you have something to add, then please email it to [wbccommunication@gmail.com](mailto:wbccommunication@gmail.com)



Thanks to all contributors of the Newsletter



Thanks to our sponsors for their support of the Honey Competition at Whangarei Bee Club:

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