

# BEELINES

NEWSLETTER OF THE BEEKEEPERS CLUB INC

APRIL 2019



*Paul Davies inspects one of his apiaries*

## Upcoming Events (see [website](#) for full details)

### Club Monthly Meeting

18th April 2019, 7:00—9:30 PM

NewHope,  
3 Springfield Rd,  
Blackburn North VIC 3130  
(Cnr of Middleborough & Springfield Rd)

### Honey Competition

Don't forget to bring along your honey, comb, wax, photos, mead and baked goods for judging. Prizes awarded on the night.

### Paul Davies

Heathmont Honey

***Transitioning from a Recreational to a Commercial Beekeeper.***

Regulations of a honey business for selling honey "Getting Certified"

### Victorian Beekeeping Clubs Conference

15 Jun 2019, 8:30 AM—5 PM

Hyatt Place Melbourne, Essendon Fields: 1 English St, Essendon Fields VIC 3041

We encourage all members to attend for what is shaping up to be a bumper Conference. Offering keynote speakers in plenary sessions, as well as three parallel beekeeping.

Take advantage of discount tickets when they are available.

For information and tickets:

<https://vicbeeclubs.com.au>



## President's Report

It was nice to see so many people make it to the new venue for the March meeting.

With careful planning from the committee it was a smooth transition to our new home in Blackburn North. Feedback from members about the venue was very positive and as always, the committee is directed by the feedback we receive, good and bad, as this helps us understand what the members want and need so let us know what more we can do to make your club better.

This month is our annual honey competition. The night where friendships are all put aside and the true rivalry comes out. We are hoping for plenty of entries to test our judges and to find out what areas and who's bees are doing good things.

We had our family day BBQ at Petty's Orchard on 30th March. A lovely afternoon for the people who attended with plenty of good food and conversation.

We had our club member, Alan Walton, taking tours of the orchard and a big thanks to the volunteers who helped with the event.

Mat Lumalasi  
President

## Team App

Team App is a smart phone app that shows club events, newsletters, allows chat and more. We have seen around 10% of the members sign up to the Team App platform since we launched it last month.

Already we have had new "chat rooms" created for the Intermediate Course attendees to allow for continued conversation after the course.

So far, the feedback has been that the platform is an easy way to communicate with other members and seek help when needed.

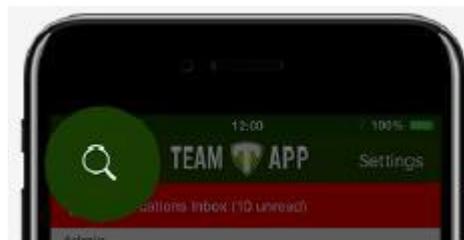
To set it up:

1. On phone or tablet, go to app store and search for **team app**. The app you are looking

for should look like this:



2. Once installed, open app and click on option to "Log In or Sign Up". Complete the sign up process using your own email address.



3. Once you have signed up, you need to join the Beekeepers Club: Tap search from the main screen.

4. Search for "Beekeepers Club Inc."

5. Tap become a member.

6. We'll do the rest from our end to complete the process.

For detailed instructions, click [here](#).

## Honey Competition

We are fortunate to have two highly regarded chefs judge the honey competition this year.

### Cameron Smith

Cameron has crafted a career throughout the hospitality industry for over 30 years. He has the longest running food program in Australia on Melbourne's RRR every Sunday from mid-day. He owned restaurants throughout the 80s and spent the late 90s writing food reviews for the late Mietta O'Donnell. Over the past five years Cam has worked as the Food Co-ordinator for Channel Seven's Iron Chef, and more recently has been a part of the production of Masterchef and has been a food presenter at the Melbourne Food and Wine Festival.

## David Moyle

With a career that has taken him all over Australia, David first made his name at St Kilda's Circa, The Prince, before heading up the kitchen at Pacific Dining Room in Byron Bay. Next stop was Tasmania, for the role of head chef at The Stackings, south of Hobart, winner Gourmet Traveller's Regional Restaurant of the Year award in 2013. Last year, David returned to Victoria to open his lauded new venue, Longsong above Longrain in Little Bourke Street.

## Audi's honey-powered car



While we joked about potato-power, our friends at Audi joked about honey-power and a new model called the 'b-tron'. Similar to Toyota's pie-van, the b-tron gets an on-board toaster and a hexagonal fuel cap. But apparently "early prototypes tended to attract scores of bees, typically around the fuel cap. One tester was swarmed by a hive that had settled in the glove compartment".

Released April 1st, 2019

## Training Update

It was pleasing to see so many people keen to improve their beekeeping knowledge and skills with both recent Intermediate courses booked out (60 attendees in all). Thanks to the participation of the other instructors: Mat, Corrie and Maureen both days were a great success.

We made the course as practical as possible and covered a wide range of topics:

- Harvesting honey
- Feeding and overwintering your bees



- Splits and making increase
- Swarm prevention and collection (including artificial swarming)
- Finding the queen
- Diseases and pests
- Equipment building and maintenance

Breaking into small groups of 10 and rotating through three presentations in each session, people were comfortable to ask lots of questions and get their hands dirty. It was great to receive some very positive feedback.

## Library Books

The club encourages members to take advantage of the wide selection of beekeeping books and periodicals it has in its library.

A reminder for anyone with outstanding books from the club library to please return them at the next meeting to avoid being chased up and fined. They are a valuable resource to share and we want all members to benefit from them.

## Welcome Club Newbees

We extend a warm welcome to the following members who have recently joined the club:

Mehdi Naimi	Doreen
Hamish Rodwell	North Warrandyte
Ellen Pascoe	Bayswater
Peter De Jong	Carnegie
Anne-Maree De Jong	Carnegie
Adrian O'Hagan	Forest Hill
Bruce Rodwell	Croydon Hills

## Chalkbrood fungal disease on the rise in Australian beehives — and poor nutrition could be to blame

ABC Central Victoria

By Emma Nobel and Jonathan Ridnell



*Jody Gerdts and her daughter smoke one of their beehives*

**Beehives around Australia are succumbing to the deadly chalkbrood disease at a faster rate than their overseas counterparts, despite having better hygiene practices.**

La Trobe University doctoral student and fourth-generation beekeeper Jody Gerdts has researched why Australian honeybees are so susceptible to the disease.

Chalkbrood disease is a fast-acting, spore-forming fungus which, after being ingested by bee larvae, takes just days to puncture the larvae skin and form a fungal mycelia on the outside of the baby bee.

"It affects the developing stage of the bee, so although it doesn't kill the whole hive, it can affect the number of bees that can go out and forage, bring home honey and help out with pollination," Ms Gerdts said.

The spores that infect the bee larvae are so small that they can travel on a single bee hair.

"It can form new spores and then become more contagious in the hive," she said.

With the help of beekeepers from all over the

eastern states of Australia, Ms Gerdts looked at the impact of hygiene, bee genetics and environment on the prevalence of chalkbrood, and has found there is a relationship between poor quality pollen and its prevalence in Australian honeybee hives.

North-east Victorian commercial beekeeper David Briggs breeds queen bees and runs between 400–500 hives.

He said nutrition was especially important for generalist foragers, such as honeybees.

"Like all livestock, if you've got the nutrition right, then you tend to take care of a lot of other pests and diseases. Bees are no different and, in fact, they are highly sensitive to that," Mr Briggs said.

"Nutritionally, they need to be able to forage across a wide range of plants."



*PHOTO: Jody Gerdts and her daughter check on their hives in Bendigo. (ABC Central Victoria: Larissa Romensky)*

### **Some pollen better than others**

Like humans, bees need a full, balanced diet to achieve optimal health, but Ms Gerdts said poor quality pollen lets down the foraging honeybees.

Access to forests was needed at different times of the year to ensure bees had a quality diet.

"It's shown that eucalypts, different species, some of the pollen isn't very good for [bees], it doesn't have the full amino acid profile that bees need," Ms Gerdts said.

"Bees that have a good nutritional back-

ground in mainly proteins, pollens, amino acids, have a more robust immune system."

Ms Gerdts said chalkbrood disease, caused by the fungal pathogen *Ascospaera apis*, was a big threat to the economic viability of Australia's commercial beekeeping industry.

"A hive that's chronically infected reduces production by between 20 and 50 per cent," she said.

"That's not 20 to 50 per cent less that the beekeeper is bringing home, that is the difference between bringing home something and bringing home nothing.

["It's everywhere, I would say 80 per cent of hives, at some point in time, will have chalkbrood."](#)

While crops such as canola, lucerne and clover were all good sources of pollen for bees, Mr Briggs said annual flowering herbaceous plants were best, including weeds farmers might get rid of.

"Most farmers would like to try and eradicate them from their properties, and those plants are in fact some of the greatest sources of high quality protein ... like Paterson's curse, heliotrope, and all thistles," he said.

["Just because a plant isn't valuable for a grazing animal, doesn't mean it has no value at all."](#)

But Canberra-based CSIRO research scientist John Roberts, who specialises in diseases of honeybees, said there was still more research to be done.

"From the current literature, we don't have a lot of clear evidence of how nutrition is influencing chalkbrood disease, but we know that, in general, nutrition is of key importance for creating healthy, more resilient colonies," Dr Roberts said.

"It's something that is definitely important, but how it's actually influencing the development of disease and, importantly, how we can focus on nutrition to reduce the development of disease, is still something we need a bit more work on."



*PHOTO: Bee larvae infected with chalkbrood disease. (Supplied: Jody Gerdts)*

### **Honeybee hygiene habits not a quick fix for chalkbrood**

With so many insect bodies in one hive, it is important to keep the space clean — including disposing of dying bees — to avoid the spread of germs.

Although Australian honeybees have better hygiene practices than bees abroad, Ms Gerdts said honeybees were still dealing with a greater prevalence of chalkbrood disease.

"Even highly hygienic bees still have this chalkbrood, whereas overseas, highly hygienic bees don't have this chalkbrood," she said.

The impact of hygiene bee behaviour has formed a large part of Ms Gerdts' PhD research.

Dr Roberts said the findings would be useful for commercial apiarists.

"Her research has been really valuable for the industry because, in the past few years, beekeepers have been reporting increased issue with chalkbrood," he said.

Dr Roberts said Ms Gerdts' research brought into question how bee hygiene impacted the prevalence of chalkbrood.

"She's showing that it's not as well correlated as we had perhaps thought, that hygienic behaviour doesn't necessarily mean that you won't have outbreaks of chalkbrood," he said.

### **Commercial beekeepers take notice**

Mr Briggs said Ms Gerdts' research would have real world ramifications for the industry.

"I think what Jody's research has shown is that, as far as chalkbrood is concerned, there are some bees that are more innately resistant to some strains of chalkbrood than others," he said.

"That's a clear signal for me that some really focused selection in breeding for bees that are displaying an innate resistance to chalkbrood is a clear path for people, like in my role in the industry, to go down and look more closely at that."

Victorian apiarist and president of the Australian Pollinator Alliance Inc, Benedict Hughes, manages 100 hives in the Victorian Goldfields. He said although beekeepers knew their bees, the science behind the insects was more complex.

"I think if you step back, a lot of us are just beekeepers ... we know how to manage our bees well, but we're not scientists. This research is really important to give us the science behind beekeeping," Mr Hughes said.

"I think it's really pleasing to know that we don't have a more virulent strain [of chalkbrood] in Australia."



*PHOTO: Australian bees are more hygienic than overseas bees. (Supplied: Jody Gerdts)*

Peter McDonald, Chairman of the Australian Honey Bee Industry Council, hoped the research would lead to a better understanding of the disease.

"This research will allow a greater understanding of the disease, which should hopefully lead to better management techniques and treatments to enable beekeepers to

maintain strong, healthy hives," he said.

To ensure bees have a balanced diet, Ms Gerdts said it was important to ensure beekeepers had access to a wide variety of flora — if they could not ensure that, they needed to consider other ways to feed their bees.

"It's so important that [commercial apiarists] have access to big tracts of forest that have different flowers blooming at different times so that they can move their hives around and have access to the full nutritional profile the bees need," Ms Gerdts said.

"If you're a commercial beekeeper or hobby backyard beekeeper and you don't see pollen coming into the hive, you might need to think about supplemental feeding."



*PHOTO: Hives need to be kept at a warm, stable temperature to ensure healthy bee larvae. (ABC Central Victoria: Larissa Romensky)*

## University Questionnaire

Luke McEvoy-Hughes, a University student in his final year of study in Environmental Sciences at the University of Brighton (UK), is carrying out an independent research project into beekeeping.

He is aiming to explore the different issues encountered by beekeepers as well as the strategies and methods of employed by beekeepers to ensure the health and prosperity of their colonies.

If you're willing to answer a short survey regarding the topics mentioned above, please follow the link below.

<https://goo.gl/forms/jOxv1kbFSvigsy1J3>

## Back to Basics

**Nicole Owens**

### Protecting Hives

It's that time of the year when wasps and other bees will be opportunistic and search out for hives close by to steal honey before Winter sets in.

A couple of steps you can take to reduce your hive being susceptible to robbing:

1. Reduce the entrance of the hive to 5cm. Use anything that will cover the height of the entrance. (Last year I used a 30cm wooden ruler, and used blue tack to keep it in place).



2. Ensure that the lid or roof goes on securely, and there are no gaps for any bees or wasps to sneak in there. They will be quick to tell their friends about a new source of honey.

**\*\*Also ensure you leave enough honey in your hives for Winter to ensure your bees don't wander to neighbouring hives and become the robbers. Nobody likes a thief. In Melbourne's climate, most agree on the equivalent of 4-5 full deep frames of honey.**

#### Extract from BeeAware

Whenever they have the opportunity, bees will forage from an unprotected source of honey or sugar. This includes entering weak hives that cannot defend themselves against

robber bees. Since this is a major way in which bees from different colonies come into contact with each other, it is also a major pathway for the spread of pests and diseases.



If hives are neglected or abandoned, they will most likely become weak enough to be robbed by other bees nearby and any pests or diseases they are carrying will be transmitted back to the hives the robber bees came from.

Similarly, any appliances or equipment that contain or come into contact with honey or wax could attract robber bees. This includes unused frames and supers. Any such equipment or appliances should either be destroyed or kept in a secure area that robber bees will not have access to, such as a shed or basement until they are needed again. If unused frames contain comb, it is a good idea to keep them in a refrigerator or cool room to protect them from wax moth as well as robber bees.

<http://beeaware.org.au/code-of-practice/protecting-hives/>

Biosecurity Code of Practice printed copies are available from the library to borrow, or download a copy here:

<http://beeaware.org.au/wp-content/uploads/2017/09/Australian-Honey-Bee-Industry-Biosecurity-Code-of-Practice.pdf>

## Bee Disease Diagnosis

### John Treloar

Bee diseases and their symptoms can be very confusing to the average beekeeper. Wrong diagnosis of American foulbrood (AFB) may mean the needless destruction of a colony and hive equipment.

Although the characteristic signs of AFB are quite distinctive, they can be easily confused with European foulbrood (EFB), particularly when there are multiple diseases present in a weakened colony.

Accurate diagnoses can be obtained by sending samples to a pathology laboratory, such as Gribbles or the NSW DPI Veterinary Laboratory. This is relatively simple to do and inexpensive.

### Larval Smears

Smears are preferred for the diagnosis of the bacterial diseases AFB and EFB. Smears are prepared from larvae, which are showing signs of disease.

Prepare smears as follows:

- Label a clean glass microscope slide with your registration brand and a number to identify the hive the sample will come from. Select one or two suspect larvae and place them on the slide. A match can be used to remove the larvae from the cells.



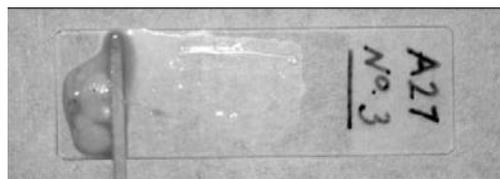
*Larva on a slide*

- With a match, crush the larvae. Spread the pulped larvae over the slide.



*Spreading pulped larvae*

- Push the excess material off one end, leaving a thin smear of milky liquid on the slide.



*Wiping off the excess*

Use a fresh match for each sample and leave the match in the hive or burn in your smoker to minimise spreading disease.

- Allow the smear to air dry out of direct sunlight.



*Allow the smear to dry*

Do not cover with a cover slip or another slide. If slide carriers are not available, wrap the slides individually in paper and protect with stiff cardboard or plywood before wrapping.

### Sending Samples

Include a note with the sample providing:

- Your name and contact details
- Beekeeper registration
- Date sample was collected
- Hive number and location (suburb)
- The disease you suspect

Post samples to:

Veterinary Sample Reception,  
Gribbles Veterinary Pathology,  
186 Dandenong Road,  
Clayton, Victoria 3168

For fees, contact Gribbles on 1300 307 190

NSW DPI Laboratory Services  
Private Bag 4008  
Narellan NSW 2567

Phone 1800 675 623

*This article is based on information provided by Agriculture Victoria and NSW DPI*

## In the Hive

### **Mat Lumalasi**

The nights are getting colder and the mornings are starting to see a bit of condensation on the windscreen. Winter is coming and we need to be thoughtful about what we need to do to prepare our bees for their Winter break.

If you are planning on feeding, now is the time to be getting thick syrup (2 sugar:1 water) into the hive so that the bees have time to evaporate the moisture out and store it before it gets too cold. The method you choose isn't too important as long as it's internal feeding as external feeding would be very frowned upon in suburbia due to the frenzy it usually creates, including robbing.

Robbing.... I have observed more robbing this season than in the past so this is also something to consider when feeding.

It is well worth closing the entrance of a hive down when feeding to enable the hive to guard the entrance more easily.

We also suggest feeding all of your bees at the same time to prevent robbing even when a hive doesn't need more stores, it is a distraction for them all and can prevent a strong colony going out to rob a weak hive.

One of the hardest parts of packing down is the logistics/planning. Working out which frames are staying, which are coming off, how many boxes to overwinter in, avoiding taking brood frames off the hive, feeding, storing equipment and how many openings to achieve all of this.

As it gets colder outside and pollen supply slows, the queen will naturally slow her laying to a minimum, meaning that the brood chamber of the hive will reduce to a much smaller size. Timing this and waiting is the natural way to avoid removing brood frames from the hive before Winter.

We recommend that half of the hive is honey

in preparation for Winter, so an eight frame box should ideally have the equivalent of four full frames of nectar/honey. Remember that leaving too much honey on your hive can be the difference between your bees living and dying and if they don't need it, you get it back in Spring.

Once you have managed to get the hive ready for Winter and you have your excess boxes and frames you need to prepare them for storage. Any frames that are going to be re-used on the hive need to be frozen for 24-48Hrs before they are sealed and stored. Small hive beetles and wax moth eggs are usually present in the hive and waiting for dark, bee-less conditions to hatch and wreak havoc on your frames. Freezing destroys these eggs and allows for safe storage of your equipment.

Now, after all of that, it's time to see what needs repairing and preparing for next season.

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