

# BEELINES

NEWSLETTER OF THE BEEKEEPERS CLUB INC

January 2018



Christmas Party



Apiary Inspection

## Upcoming Events

### Club Monthly Meeting

Honey Extraction Demonstration presented by Don Muir

Commercial Beekeeping presented by Paul Davies

18th Jan 2018, 19:00

Doncaster Secondary College,  
123 Church Rd, Doncaster (Melway 33 G12)

### February Beginners Course

10th Feb 2018, 09:30-16:30

Lower Hall, St Johns Anglican Church, 1 Burgundy St, Heidelberg 3084

### Club Apiary Hive Inspection

A routine hive inspection will be held at the club apiary for any new or interested members. Bee suits and gloves will be available to borrow.

Saturday 20th Jan 2018 11:00 AM

St John's Anglican Church,  
1 Burgundy St, Heidelberg 3084

Please register (free) on club website so we know expected numbers.

### Intermediate Workshop: Improving your beekeeping

10th March 2018, 09:30-16:30

Lower Hall, St Johns Anglican Church, 1 Burgundy St, Heidelberg 3084

## Committee Contacts

President	Mat Lumalasi
Vice President	Helmut Huber
Secretary	Amanda Lamont
Treasurer	Stuart Stone
Training Facilitator	Andrew Wootton
General Committee	John Treloar
General Committee	Lyndon Joss
General Committee	Dan Milic
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# Apiary Open Day Report

**Don Muir**

On Saturday 9th December 2017 the club held an open day at the apiary which was very well attended.



Participants had the opportunity to work through hives under the direction of Andrew and John, giving them a good idea of issues involved and important practical hands on hive management experience. Afterward there was a time for questions over coffee and biscuits answered by Andrew, John and Mat with a little input from myself.



These open days are being well supported by club members and it shows the benefit of having this apiary asset available for newer bee-



*What happens when you leave a couple of frames out, this comb build up occurred within 5 or 6 days*



keepers for teaching and hands on experience.

The month of December saw a flurry of activity at the apiary. In addition to the hive opening on the Saturday, we ran a honey harvest training event on December 23rd which was attended by some 34 members. Each group of 8 or 9 members, under supervision of a team mentor, removed frames from the hives and practised the art of honey extraction. Questions and discussion on alternative extraction methods were discussed at each session.



*Using drones to practice marking a queen*

So I am pleased to report that in addition to the open day, honey harvest and using the site for our very successful Christmas meeting the Apiary is getting good use and is proving a valuable asset.

## December Meeting

Our December meeting was held on the grounds of St John’s on a near perfect night for an outdoor social event. The club invited the Community gardeners and again it showed how well our two groups get along together. Well in excess of 100 members and the gardeners attended a informal night which included a lot of bee talk, garden talk and very adequate catering supplied by the bearded hipsters in a food truck serving a menu of chicken, beef and pork sliders, salads and desserts. I did not hear of many complaints.



The only club business conducted was a review of the year by President Mat and an outline of the committee plans for the future including events and meetings. Mat also outlined the subcommittee ideas and invited those members who wish to be involved with the club at a higher level to consider offering their time or expertise. We have become a large club and I wholeheartedly support the notion of the sub committees and spreading the work load and endorse Mat’s request for further participation.



Later in the evening a short question and answer session gave members the opportunity to bring up concerns they have on their hive management and of course get a multitude of answers.

## Community Garden

### Corrie Heslop

Community Gardeners bottling the rewards of their harvest. Extraction took place in December. The extraction was done by Mat at Roof Top Honey and the gardeners got together and bottled it at the Hall kitchen just prior to Christmas.



Congratulations go to the St John’s Riverside Community Garden on their achieving First Prize from Local Food Connect organization for Community Garden of the year!



*Making sure that quantity is just right.*

This is great for the gardeners as the garden has only been operating just short of three years.

The addition of the club’s hives has added another dimension to the garden and both Bee Club and Garden members can be proud of this award.

## Chalkbrood disease

Some newer members have asked me what chalkbrood is and how do they know if they have it in their hives. I thought the following may be of assistance to those members who have just gone through their first season with a colony. It is a copy of the article I wrote in Beelines December 2015.

### What is Chalkbrood disease?

Chalkbrood disease is caused by the fungus *Ascosphaera apis*. Spores of the fungus can be eaten by honey bee larvae and germinate in the honey bee's gut, ultimately causing the larvae to die of starvation. Chalkbrood disease is present throughout Australia and its incidence is generally higher when the colony is under stress due to cool wet weather or poor nutrition. It is more common in the spring when the brood nest is rapidly expanding and a smaller honey bee adult workforce cannot maintain brood nest temperature.



*Brood combs should be regularly checked for signs of pests and diseases.*

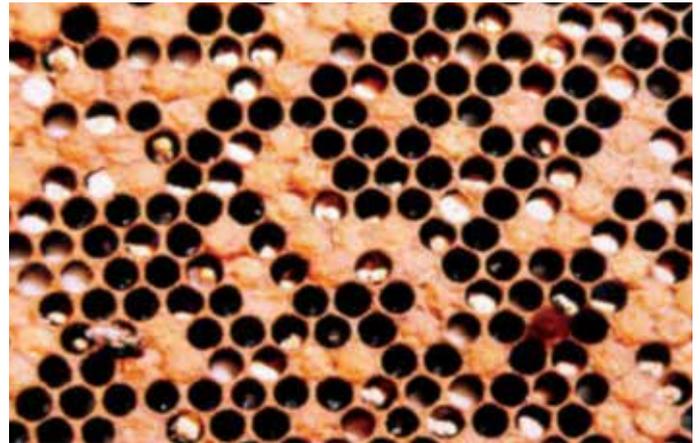
### What should beekeepers look for?

Infected hives show a scattered brood pattern with perforated cappings. Larvae infected with chalkbrood disease usually die after capping and the fungus grows to fill the cell. The larval body dehydrates creating diagnostic 'mummies' – hard, shrunken and chalklike. The fungal mycelium infiltrating the larval tissue and fruiting gives it a white-grey colour.

The cappings of dead larvae may be chewed away by the honey bees and the mummies removed to the hive entrance, or dropped to the bottom board.

### How does it spread?

Chalkbrood disease can be easily spread between hives through the drifting behaviour of drones and worker bees, as well as the robbing behaviour of worker bees. Once inside a hive, fungal spores are quickly spread throughout the hive from mummies. It can also be transferred between apiaries on contaminated equipment, pollen and in water. The chalkbrood spores may remain viable for 15 years.



*Comb infected with Chalkbrood disease showing a scattered brood pattern with mummies in cells.*

### How can beekeepers protect their hives from Chalkbrood disease?

Beekeepers should replace diseased combs which can act as a reservoir for chalkbrood disease spores, as well as cleaning away mummified larvae from the bottom boards and around the entrance of the hive. These activities will remove the main source of infection within a hive, and prevent the spread of the disease. Hives should also be placed in a well ventilated, dry area with the sun facing the entrance of the hive to reduce conditions that favour the disease.

Honey bee stocks differ in susceptibility to chalkbrood disease, so beekeepers should replace the infected colony's queen bee with one supplied by a reputable breeder. This variation in susceptibility is due to differences in the hygienic ability of the honey bees to uncap and remove diseased brood. By selecting queen bees or obtaining honey bees from hives that show this trait, the effects of chalkbrood disease can be reduced.

**Transmission**

Spores are highly infectious and are carried in contaminated pollen by infected foraging bees with spores left at floral and water sites, by queens, drifting bees, and drones. Shifting bees on trucks with an open entrance causes drift and hence spreads disease. Spores remain viable for up to 15 years or more in equipment and soil. Use of contaminated sites and old equipment could lead to infections. Interchange of equipment by the beekeepers also spreads the disease.



Dead larvae in cells that have turned white due to fungal growth

**What can it be confused with?**

Chalkbrood disease symptoms of scattered brood with perforated cappings could be confused with either American foulbrood (AFB), European foulbrood (EFB) Sacbrood virus or even white pollen. However, the presence of mummies in the cells, the hive entrance and bottom boards, together with no ropy thread when conducting the ropiness test, would suggest chalkbrood disease is the cause.

**Stress**

A change in brood-nest temperature can trigger chalkbrood disease; when nurse bee numbers become insufficient to cope with weather extremes (cold clustering and heat fanning), the brood may be left unattended. Usually the first larvae affected are those around the edges of the brood where the brood temperature may be higher or lower. Stress of any kind can cause the signs of the disease to become apparent. Common causes of stress can be:

- high and low temperatures
- wet or dry conditions
- poor nutrition
- failing queen
- poor hive management
- moving hives

<b>Condition</b>	<b>Symptoms</b>
Chalkbrood	White and mouldy Hard larvae White or grey/black mummies in cells, on the floor, or at the front of the hive
American foulbrood	Discoloured through to dark brown Unsealed or with perforated sunken discoloured cappings Ropey larvae Hard to remove scales
European foulbrood	Twisted around cell wall White through to discoloured Yellow to dark brown Watery, granular larvae occasionally ropery
Sacbrood	Discoloured yellow through to black, gondola shaped in capped cells or under perforated caps, easily removed

## Inspection Frequency – two views

### Minimal intervention is the best policy

**Don Muir**

How often should hives be inspected? An inspection is a home invasion, if you are going to do it you better have a good reason.

I can certainly understand new beekeepers wanting to open their hives and inspect the colony frame-by-frame every second day. Many think it is the best way to learn about the social structure of a colony, and ensure the hive is working well and healthy and see the physical layout of brood, pollen and honey.

However I believe it is easy to over inspect and the integrity of the colony should not be compromised any more than necessary. In fact what you are doing in most cases by excessive and unnecessary inspections is running the risk of damaging your colony's performance. You may roll bees and kill the queen, delay the queen laying or chill brood, all kinds of things can occur! I strongly believe that every time you open a hive you set it back 2 or 3 days.

Speaking for myself, I seldom open brood boxes more than twice a year for a full frame by frame inspection, and/or to conduct the AFB test and sugar shake for arthropod pests. Plus every 5-6 weeks for a quick look in the honey supers but generally I just test honey yield by hefting. If heavy then open, otherwise just leave alone.

Learn to observe your hive by less intensive disruptive methods. I check my hives 2 or 3 times a day without any disruption to my healthy bee's activities. Look at the entrance and landing boards, this is your best method of hive inspection. Are the bees acting normally; good traffic movement, is it clean no excessive dead larvae, listen to the sound the hive is making is it normal, how does it smell, is pollen going in, are there signs of robbing; all these things give you a good indication of hive health.

I realize it takes time to develop a feel for what is going on inside a hive. But I urge new beekeepers to strive for that. Compare what you see on the outside to what you find on the inside until you develop an intuition, in the long run I am sure you will have a better hive, productive and peaceful bees.

### Learning by Inspecting

**Andrew Wootton**

Although many experienced hands suggest that inspection sets back a hive, I have always advocated new beekeepers should inspect frequently. By going into the hive you build experience in handling your bees and learn what a (hopefully) normal brood nest looks like. Once you recognise this, you will be ready to identify problems.

I was concerned that the purported set back was dogma rather than evidence based. After fruitless Google searches for any scientific papers on the topic, I asked a forum (Bee-L which discusses research and biology and is frequented by some very eminent beekeepers). Back came a paper with the answer "The Effect of a Disturbance on the Social Behavior of the Honey Bee Colony" (S Taber, American Bee Journal August 1963 Volume 103 No. 8 Pages 286-288). During a strong flow this showed an inspection cost of about a kg of weight gain on the day of inspection but no difference in weight gain between inspected and control colonies the next day. A fairly trivial penalty especially for the hobbyist. Furthermore, there were numerous comments from experienced beekeepers suggesting that beginners should look often in order to learn.

There is a big difference in handling small colonies of bees compared to large booming (and frequently intimidating) hives. I'm not sure why, but presumably a small colony doesn't have the workforce to dedicate large numbers to guard and defence duties. It's good to get used to being in the battlefield under benign conditions, so get in early and often while the colony is establishing. You'll be better equipped and more confident later on.

Accordingly, I recommend beginners inspect frequently during the first few months of their career. Obviously you wouldn't want to go in every day, but weekly is fine, giving plenty of time for the hive to settle between visits. Even if you compromise your honey crop a little, the benefits of knowing what is going on under the hood will far outweigh this.

As a footnote, we have had a couple of instances of beginners setting up Flow hives with foundationless brood combs. Six months later, on first inspection, disaster! The bees had not followed the comb guides and instead built their own idiosyncratic architecture. This required what was effectively a "cut out" akin to a wild nest retrieval to realign the combs. Had there been more timely inspections, a little gentle straightening along the way would have sufficed.

*"The only time I ever believed that I knew all there was to know about beekeeping was the first year I was keeping them. Every year since I've known less and less and have accepted the humbling truth that bees know more about making honey than I do."*

***Sue Hubbell, A Book of Bees: And How to Keep Them***

## Extractor Hire

For those wanting to hire the club extractors they are now available for hire.

The hire cost has been set by the committee as:-

No charge for a maximum hire of 2 days. There will be a deposit of \$75.00 which is fully refundable, on a clean and timely return.

If the unit is returned late there will be a charge of \$5.00 per day thereafter.

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