



THE BEE LINE

Newsletter of the Mid North Coast Amateur Beekeeping Association

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A VERY MERRY XMAS AND A HAPPY NEW YEAR to all members and their families !!!



Another year has passed and 2016 was again, a successful year for the club. Our membership has continued to grow and we have purchased some new assets for the club, including a trailer and 2 shade gazebos. New books have been added to the library, and we came 2nd in the ABA Col. Pulling competition.

In 2016 we had 10 meetings including our recent Xmas party.

We also elected a new President in Lou Schmidt and 2017 is assured of being a very successful year for the club. Thanks to outgoing President Marcus for his great work. He remains our Public Officer and is now a Vice-President.

We have plans to purchase a First Aid Kit, including an Epipen, and hopefully a flow

hive will be coming our way soon. We have submitted an application for a \$1000 grant for 2016 from the ABA.

Xmas Party

The weather and the venue was perfect for the Christmas party and 35 people were in attendance. The ham, sweets and liquid refreshments were most enjoyable. Thanks to Katrina for preparing the ham!

Lou thanked members for their support throughout 2016 and outlined his vision for the club in 2017. I gave a brief outline of the October and November treasury reports.



Good food and good company

New ABA payment system.

Thanks to the 34 members who have paid their 2017 capitation fees to the ABA, taking advantage of the \$45 'Early Bird' rate. Other than a few minor problems the system seems to be working well, and Sheila Stokes is doing a sterling job as the ABA's payment administrator and chief responder to queries. I'm not sure how much longer the early bird rate will hold for.

To those who have paid me I can assure you their money has gone through to the ABA, as a once only "arrangement" was made with the ABA secretary. In future it is hoped that each club will have its own Paypal account.

To those who haven't paid you can go online at beekeepers.asn.au, then click on the sign in button at the top right, create a password, receive a confirmation email and then go ahead with payment either through a credit card or a Paypal account.

New members can also enter their details, and after that info comes to me, as the membership officer, for approval, you then will be able to pay the 2017 fee.

Don't forget to consider the Insurance options, if required.

FRANK'S HIVE HINTS No 23 SMALL HIVE BEETLES

A few Small Hive Beetles can be seen in hives most of the time, especially if they are in the shade. This is not a problem as long as the colony is strong, but a beetle trap of some kind should always be used.

The problem starts when a colony's population starts to decline and there are not enough bees to cover the combs for a period of time. This can happen if the bees swarm or the queen is failing or if they dwindle from some other cause such as too large an entrance for a small population. New beekeepers particularly can experience these problems. Always keep your hive compact. Of all hive pests SHB can do the most

damage. Beetles invade the hive and lay eggs in an unpopulated area. When they start they are unstoppable unless the beekeeper cleans up the mess, gives new combs and compacts the colony. They are very prevalent in hot, humid weather and can fly with a swarm. In fruit growing areas beetles can breed in discarded fruit..

Steps can be taken to combat SHB. Various traps and screens are available. Placing hives on hard ground can help as larvae pupate in the soil in front of the hive. DVDs about SHB are able to be borrowed from our library.

LOVE THOSE BEES.

Bees In The Media

Could honey bee brood be the future of food?

Honey bee brood -- the larvae and pupae of drones -- has great potential as a food source. It is already eaten as a delicacy in many countries, including Mexico, Thailand and Australia. It has a nutty flavor with a crunchy texture when eaten cooked or dried, and is a versatile ingredient used in soups and egg dishes. It also has high nutritional value, similar to beef in terms of protein quality and quantity.

With human population set to reach 9 billion by 2050, eating insects is gaining attention as a possible way to feed the world. A paper published in the *Journal of Apicultural Research* shows how honey bee brood -- the larvae and pupae of drones -- has great potential as a food source.

Beekeepers are accustomed to removing brood to manage Varroa mite, the most harmful parasite affecting honey bees worldwide. According to Professor Annette Bruun Jensen of the University of Copenhagen and her colleagues, this practice makes drone brood an abundant source of farmed insects with untapped potential for human consumption.

Brood farming has a number of advantages, including the relatively little arable space and cells.

low financial investment required to set up hives. Research on honey bee biology and breeding also has a long history compared to other candidates for insect farming.

But several challenges would need to be met for this method of farming to take off -- none more so than in the harvesting of brood, which is very fragile and thus difficult to remove intact from the hive.

Storage, shelf life and safety are also important considerations. Due to their high fat content, larvae and pupae could go rancid if not properly removed from contact with oxygen. Yet research has shown that they can be frozen and stored for up to 10 months without severe loss or change of taste.

The food safety risks associated with bee brood are yet to be assessed. However, no cases of food poisoning from bee brood have ever been recorded, and the European Food Safety Authority has found no additional or specific risks associated with the production and consumption of insects compared to traditional livestock production.

Professor Bruun Jensen said: "Honey bees and their products are appreciated throughout the world. Honey bee brood and in particular drone brood, a by-product of sustainable Varroa mite control, can therefore pave the way for the acceptance of insects as a food in the western world."

Source: Taylor & Francis. "Could honey bee brood be the future of food?." ScienceDaily. ScienceDaily, 28 November 2016.

Queen Rearing 3)

Cell-Raising Techniques

There are many different techniques for rearing queen cells. When you are aware of how they work you can choose the best method to suit you and your local conditions. The first thing to consider will be whether

All queen rearing methods rely on a large, young population of workers, a surplus of pollen and nectar, and the manipulation of two natural behaviours.

- emergency behaviour triggers a queenless colony to start queen cells
- supercedure behaviour stimulates a queenright colony to feed and finish the started queen cells

All methods require:

- a minimum of 250 nurse bees for each queen cell to be produced: nurse bees aged 5-15 days
- pollen, honey and nectar in abundance near the queen cells
- reduced competition for food from nearby drone and worker larvae
- reduced queen pheromone near the queen cells

Special equipment for some methods may include:

- modified boxes
- queen cells (wax or plastic)
- bars to hold the cells
- modified frames to hold the cell bar
- queen excluder
- grafting tool



Queen cells on a triple bar

Seasonal Management

Summer

- Extract Honey (usually)
- Inspect for disease, if colony reduces in size
- Inspect for a failing queen if the colony reduces in size
- Inspect for wax moth and SHB in stored combs
- Replace old combs in strong colonies, two or three should be replaced each year
- ensure there is an adequate water supply for the bees
- inspect for Small hive beetle and take appropriate action

Next Meeting

The location and date of the February meeting in 2017 is uncertain at the moment. Wayne and Steve Fuller hopefully will be having a Field day at their premises at Clarenza, near Grafton. I will not give any details at this stage until I have confirmation. As an alternative venue if this falls through then the February meeting will be held at "Anabriar", Glenreagh, on the 12th February. There will be a January Newsletter with further details.

It's all about the timing. (days from queen

Laying egg)

EGG HATCHES	* Queen 3 days * Worker 3 days * Drone 3 days
CELL CAPPED	* Queen 8 days * Worker 8 days * Drone 10 days
BECOMES A PUPA	* Queen 10 days * Worker 11 days * Drone 14 days
BECOMES AN ADULT	* Queen 15 days * Worker 20 days * Drone 22.5 days
EMERGES FROM CELL	* Queen 16 days * Worker 21 days * Drone 24 days