

# The Waggle

## Gold Coast Regional Beekeepers Inc.

*“Furthering knowledge in Beekeeping by assisted learning and practical experience”*

*P.O. Box 319 Ashmore City Qld 4217      [www.gcrb.org.au](http://www.gcrb.org.au)      Tel: 0421 992 208*

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Bee sure you see the articles on AFB & Small Hive Beetle (following the Regional Report)

### The Regional Report

*Our first “Introduction to Beekeeping” course will be held over the weekend of Saturday 11th and Sunday 12 February 2017, starting at the Currumbin Community Special School, 5 Hammersford Drive Currumbin at 9:00am, registration ( and Coffee / Tea )will commence at 8:15 until 9:00am when the course will start. **The course is recommended for all new beekeepers and people interested in becoming a beekeeper, both club members and community members.***

Due to weather conditions west of the ranges one of the batches of Nuc hives we received were not up to their normal standards of excellence that we are used to. Half of the batch had supers fitted within 2 weeks of their arrival whilst many of the second batch were very slow off the mark with a couple that I know failing. The club is negotiating with the supplier now for refunds and/or reductions in the price paid for these Nuc's.

Toowoomba, from where these Nuc's were obtained is in the grip of a severe nectar drought at the moment, first they had the drought then when rain did come it was heavy and washed a lot of the nectar from the trees in flower, makes us realise how lucky we are living here on the coastal fringe.

Congratulations must go to club member Dave Perkins on winning a scholarship to study horticulture for a 9 month project in Israel. The experience he will gain from this scholarship will be invaluable for his ongoing career in the horticultural industry, and will help Dave by increasing his experience base. The only advise that I can offer Dave is not to stick his head up in the air to often looking at trees because bees are not the only thing that buzz's around over there. It will be very interesting to hear of his exploits and experiences when he returns.

Over the next few additions of the Waggle, we will cover some of the basic equipment or jigs that you can construct out of surplus timber you may have in your shed (or Bunnings) that will help you make some of the work that you do a bit easier and quicker.

Many novice beekeepers often ask the question, “what do we do with the old wax capping or burr comb”. Now this will depend on how much wax you have accumulated. You can check Mr Google, just type in “Honey bee wax melter” and you will get a whole array ranging from expensive commercial stainless steel models down to simple DIY models that use things that you will find around the home. Speak with some of the experienced beekeepers at the next meeting and see what they do with their wax, as with suppliers paying up to \$15 per kilo it certainly isn't cheap anymore, which is reflected in the cost of foundation.

Some dates to keep in mind for the up coming year include the  
NSW Aoiarist Association 2017 Annual

Conference that will be held on Thursday 18th and Friday 19th of May at Ballina, an hours drive south of  
the border.

Queensland Beekeepers Association who will be holding their conference this year at Gympie on Thursday  
29th and Friday 30th of June. These conferences are worthwhile attending as you will meet and talk with  
some of Australias best beekeepers and many of the dedicated researchers who are more than happy to pass  
on their knowledge and ideas on the day.

Gold Coast Regional Beekeepers will be holding our inaugural Field Day on Sunday 20th of August at the  
Currumbin Community Special School (CCSS) with Doug Summerville being our Keynote speaker on the  
day.

At our next Information and Training meeting being held at the CCSS on Sunday 19th February, Mr Peter  
Warhurst will be our guest speaker, Peter has been involved in beekeeping in many facets of the industry, as  
a DPI inspector, Author of beekeeping books (including The Bee Book - Beekeeping in Australia),  
beekeeper and researcher besides the many roles he has filled with various industry organisations.

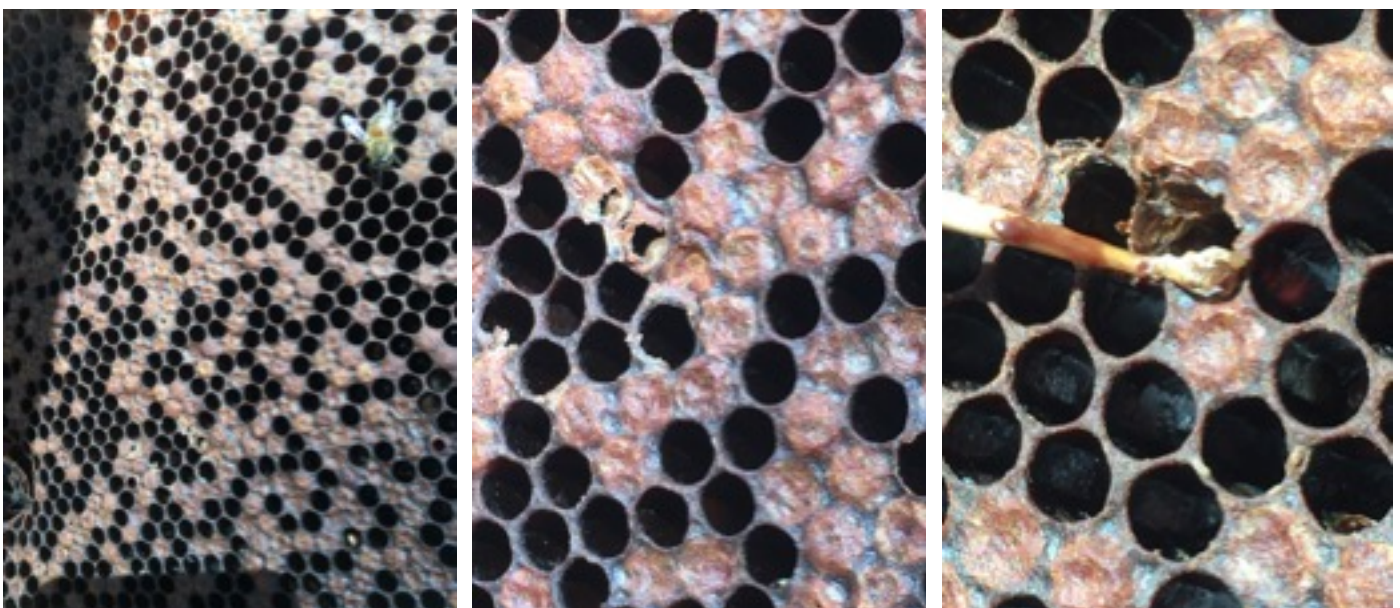
The following months meeting at the CCSS on Saturday 11th of March will cover the current research being  
carried out by the joint Leptospermum analysis team from the Sunshine Coast University/ University of  
Technology Sydney where Peter Brooks and Simon Williams will bring the club up to date with the research  
into Australias Leptospermum trees and the bio-active honey they can produce.

If there are any topics that you as a club member would like to see covered in our newsletter, please let one  
of the committee know.

Cheers till next meeting JP

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## ***DO YOU KNOW WHAT WE ARE LOOKING AT ??***



***It is American Foul Brood (AFB)***

The curse of beekeepers world wide, not only here in Australia. In some areas of the Gold Coast beekeepers have lost a great proportion of their hives due to AFB, these apiarist have many years experience in beekeeping, work a “Barrier” system (see later explanation) with their hives.

What can be seen in these photos are discoloured, sunken capping, some with small perforations which are indicators of AFB. The simple test is to insert a match stick, tooth pick or small twig into the cell, gently stir it around the cell then slowly withdraw the test stick. If the stick as it is being drawn out had a gooey string like substance attached as it is withdrawn, you have an extremely high indicator that that cell contains AFB. AFB test kits are available online and when they are available the club carries a small stock of these kits.

With AFB there is no simple solution, the only alternatives you have is to send the hive to Steritech Pty Ltd to be irradiated or to incinerate the hive and bury the ashes. All equipment used on that hive then has to irradiated before being used again as the AFB spores can live for in excess of 50 years.

***American foul brood (AFB) is a fatal microbial disease of honey bee brood caused by the spore forming bacterium Paenibacillus larvae. The disease is caused when young larvae ingest spores of the bacterium which germinate in the honey bee's gut. The brood usually dies at the pre-pupal or pupal stage.***

#### ***What should beekeepers look for?***

Brood combs should be thoroughly examined for AFB at least twice a year, preferably in spring and in autumn, although AFB can occur in hives at any time of the year. Beekeepers should remove each brood frame from the colony and look for symptoms such as sunken, darkened and greasy looking, perforated cappings and irregular brood pattern in advanced infections. Look closely, as early infections may only have as few as one or two cells showing disease signs.

Brood infected with AFB generally die after the cells are capped and the affected brood becomes discoloured, changing from the healthy pearly white to a darker brown as the disease progresses. At this stage of infection beekeepers should conduct the ropiness test. Thrust a matchstick into the infected individual in the cell and if the semi- fluid remains are drawn out in a ropy thread it indicates the hive could be infected with AFB. After about a month, infected brood dry to a dark scale which adheres to the wall of the cell.

#### ***How can beekeepers protect their hives from American foul brood?***

Beekeepers should always check brood combs at least twice a year for early signs of AFB. Brood combs should be replaced every 3-4 years as old brood combs can act as a reservoir of the bacterium. To greatly minimise the spread of AFB throughout hives, beekeepers should put in place a barrier management system and clean hive tools and apiary equipment between hives and apiaries. If AFB is found in a hive, thoroughly clean all hive tools, gloves and apiary equipment before inspecting other hives or another apiary. When AFB is detected, contact your local department of agriculture, kill the infected colony and either irradiate or burn infected hive parts in a pit and cover the remains.

#### ***The Barrier System.***

One system of management worth implementing is a ‘barrier system’. The working definition is simple: ‘there is a degree of segregation of hives and apiaries within a beekeeping operation whereby material from one hive/group/apiary is only interchanged with that hive/group/apiary’.

An individual hive barrier system is where frames and boxes from the same hive are always returned to the same hive. This can be difficult to achieve in a large beekeeping operation, but not impossible.

Smaller hobby beekeeping operations are in a better position to keep supers and combs in single non-interchangeable units. Commercial beekeepers with mobile extracting plants are in a good position to extract

honey on the site of the apiary and return the extracted frames and boxes to the same hives. This is the ultimate barrier system.

**AFB** is a brood disease and therefore causes a range of symptoms in the brood which can be observed by beekeepers. Typical symptoms include: **Irregular** and patchy brood pattern. Cell cappings on infected brood may appear sunken, darker coloured or greasy.

**I would recommend the following youtube video by Doug Summerville to ALL beekeepers.**

<https://www.youtube.com/watch?v=v2Aa56jut7Y>

**This is a MUST watch video for Beekeepers**

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### *Small Hive Beetle*

**Fight against exotic bee pest heats up as scientists and beekeepers race to protect honey**

By **Marty McCarthy** ABC Rural



**PHOTO: Small Hive Beetles can kill bees and cause the honey in a hive to ferment** (Dr Denis Anderson)

A leading bee researcher says recent hot weather in Queensland and New South Wales could lead to more pest problems for beekeepers, as the honey industry races to find a scientific solution to the problem.

Dr Diana Leemon from Queensland's Department of Agriculture said apiarists should be on the lookout for Small Hive Beetle (SHB) this summer.

SHB can reduce honey production in hives right up the east coast of Australia, and the complete loss of hives.

The warning comes after weeks of warm wet weather in Queensland and New South Wales, which can cause the beetles to become more active.

"The bees hang outside the hive to help cool it and that's an opportunity, it appears, for the beetles to take advantage and run around and lay a lot of eggs," Dr Leemon said.

The Small Hive Beetle is native to South Africa and was first detected in Australia in 2002.

"The beetle larvae, while in the grub stage, can completely destroy a bee hive," Dr Leemon said.

"They need protein to feed on and that is either the baby bees or stored pollen in the hive, and through sheer numbers the larvae eat through the baby bees."

Dr Leemon said the beetles also carried a yeast fungus that infected the honey, causing it to ferment and become slimy.

"It means you can get nothing out of your hive," she said.

Although SHB is found as far south as Victoria and South Australia, the baby beetles cannot survive the cooler temperatures and is therefore easier to control in those states.

However, Dr Leemon said outbreaks in Queensland and New South Wales were more difficult to manage, especially with the recent hot and wet weather the state had been experiencing.

"Southern states don't have the geographical and environmental conditions to support large numbers of it breeding up," she said.

"It has spread right up north where managed honey bees are, up past Mareeba in far north Queensland."



**PHOTO: A hive that has been overtaken by Small Hive Beetle larvae (Dr Denis Anderson)**

## Fight against Small Hive Beetle

As part of the Honey Bee and Pollination Program, researchers are trying to develop a synthetic lure to trap the beetle before it gets into a hive.

Chairman of the Honey Bee and Pollination Program, Michael Hornitzky, said the research was needed to reduce the threat posed by SHB incursions.

"It is exciting research in terms of developing the odour lure and modifying a non-specific commercial trap to contain the lure," Dr Hornitzky said.

"It is hoped that this research could help the beekeeping industry establish more extensive eradication strategies for the future."

Results from the field trials are not expected until mid-2017, but research leader Dr Leemon said the initial results were positive.

"I'm hoping by the end of our project we will have a synthetic lure and trap we can modify," she said.

"We are trailing the synthetic lure this week, but before that we have been using a natural odour to track beetle movement.

"The odour is based on, ironically, the yeasty horrible smell that comes out of a hive after the beetles have destroyed it.

"We have done a chemical analysis of the slime at different stages of development and how attractive it is to the beetles.

"We found certain chemical components that were highly attractive, and use those to make a lure."

While the results of the lure and traps were positive, Dr Leemon said the next challenge was replicating that success in an outdoor setting.

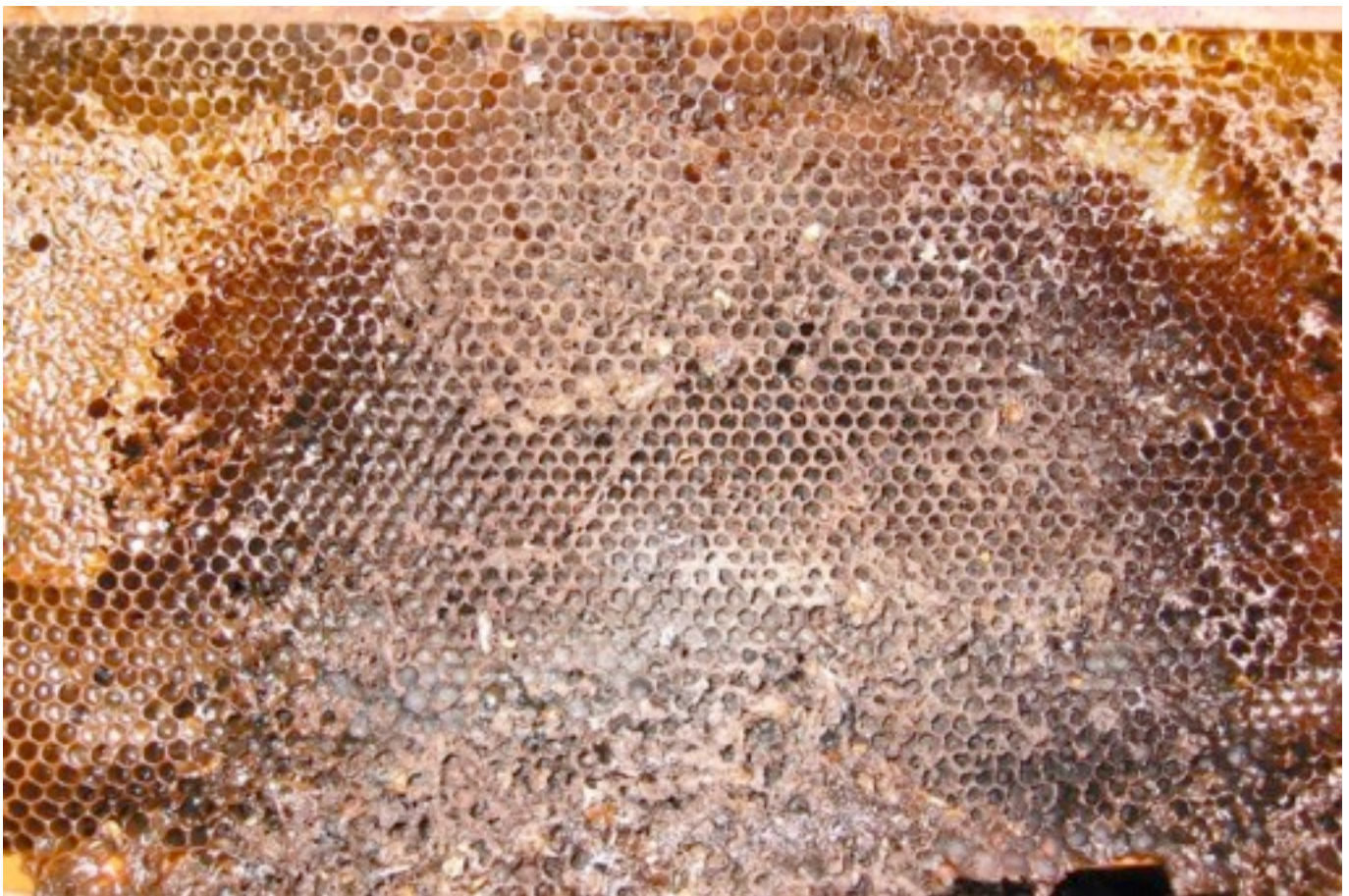


PHOTO: Honeycomb damage caused by Small Hive Beetle (Dr Denis Anderson)

## Native bees an alternative in the fight against Small Hive Beetle



**PHOTO:** Beekeeper Glen Otto took this photo of the labyrinth made by his native stingless bees, which he says confuses invading Small Hive Beetles (SUPPLIED: Glen Otto)

An apiarist and orchardist, Glen Otto from Yandina on Queensland's Sunshine Coast, said he thought native stingless bees were the answer to combatting Small Hive Beetle.

He said he has seen his native stingless bees fight off invading small hive beetles, while European honeybees do not.

"I noticed the native bees singled out the hive beetles and pursued them all over the exterior of the hive," he said.

"There hasn't been any noticeable entry of the beetle in these native hives."

Mr Otto said the native bees had a narrow entry point into the hive, making it easier to defend, as well as tunnels that the beetles struggle to navigate through.

"The honeybee hive has a larger entry and so the bees have a large area to defend," he said.

"With the native bees it is usually a 13 to 15 millimetre diameter entrance hole and then on the end of that they have a labyrinth of tunnels that the beetle has to try negotiate.

"The natives have soldiers guarding their entry to chase them back out again."

Mr Otto said he was unsure if the native bees physically attacked or killed the beetles.

"Native bees have the ability to bite, they might not sting but they do bite, but only if they believe the hive is under threat," he said.

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## Club Contacts

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## Notice Board

### Upcoming Events

|                             |   |   |
|-----------------------------|---|---|
| Saturday 11th February 2017 | } | Introduction to Beekeeping Course   |
| Sunday 12th February 2017   | } | Currumbin/Bonogin/Nerang  |
| Sunday 19th February 2017   |   | Information & Training meeting Currumbin Community Special School, 5 Hammersford Drive, Currumbin Waters<br><b>Guest Speaker : Peter Warhurst</b>                                   |
| Saturday 11th March 2017    |   | Information & Training meeting Currumbin Community Special School,<br><b>Guest Speakers: Peter Brooks &amp; Simon Williams</b><br><b>Subject: Leptospermum (tea tree), research</b> |
| Sunday 12th March 2017      |   | Ipswich & West Moreton Beekeepers Field Day, Peak Crossing  |

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### **Caution**

Bloodwood trees are already flowing in some areas, therefore, when taking honey make sure all cells on the frames taken are capped.

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### **Steritech**

Any members needing/wishing to have hives and or gear Irradiated, please contact Kevin Finn (0413 282 836) or Mike Hynes (0408 766 085), as they will be doing a run to Steritech in the next week or so.