

Newsletter of the Townsville and District Beekeepers Association

April 2013
Volume 2013,
Issue 4



PO Box 1115, Aitkenvale, Q4814

Special points of interest:

- **A reminder to do the sugar-shake test for Varroa mite if you live within 10km of the Townsville Port**
- **Make sure your hive is registered with Biosecurity Qld (formerly DPI) and let us know your number.**
- **Updated members list enclosed. Please let Ray know any further updates and hive rego numbers.**

Next meeting:

Sunday 21 April, 2013, 14:00 at Derek and Marg's place, 5 Mawson St, Bluewater. Bring a chair!



Photo: Joel Mackay

www.beesnorth.org

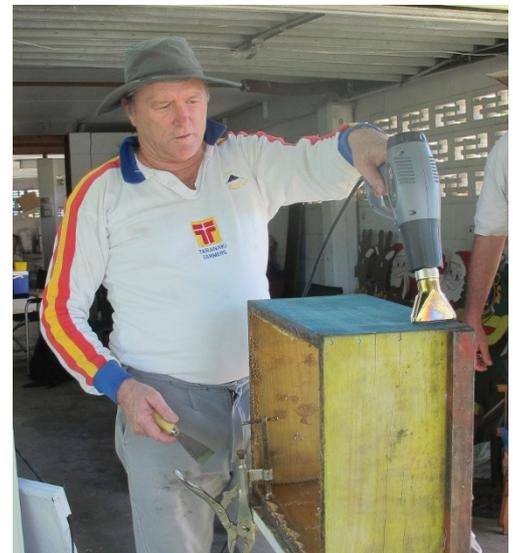
Editorial

The March meeting was another great meeting for sharing experience and ideas with other club members. This month our secretary, Grant Whiteford, turned it on with a hive opening looking for a queen, a demonstration of the sugar-shake test for *Varroa* mites, a simple-to-make solar wax smelter and a detailed practical on how to go about scorching an AFB-infected hive box using an inexpensive heat gun.

The trick is to do a thorough job of charring the wood. The American Foul Brood (AFB) spores are very heat resistant and can literally withstand boiling water for hours. If you do decide to rescue your boxes after an AFB-event (you might want to think about how valuable your time is before you start!), be prepared to do a proper job of scorching every square cm of the box, inside and out. Other-

wise, all you end up doing is helping the disease to re-establish and spread.

Ray B



Grant gives a demonstration on how to scorch a hive box after an AFB outbreak using a heat gun.

A Taste of Honey

When I first started extracting honey, I strained it all into the same bucket, regardless of the frame or hive it had come from. Over time I've learned to separate frames by age and colour. It's a real pleasure to see the different shades from pale yellow to really dark in the honey from different hives, or even the variation in the frames from a single hive. The taste

changes too, one harvest produced a pale honey that tastes faintly of raspberries.

On a recent trip to Daylesford we saw hives in the lavender fields, they had only been there a couple of months so the owners are still waiting for the first harvest, that's one honey I'd like to try. The worst I've had was from a hive we had near Ross River Dam – it tasted like diesel, apparently from a purple weed in the area. It may seem odd, but we're often given gifts of honey from other places, creamed leatherwood from Tassie, and red ironbark from Creswick among them. Like beer or wine, they are all different, and all good!

Frana



Minutes of the last Meeting

Townsville and District Beekeepers Association meeting 17-03-2013.

Before the sit down meeting Grant opened one of his hives to check for a sign of a queen. None found. Grant collected bees to show how to roll them in raw icing sugar and check for *Varroa* mite. He also highlighted how to use a solar melting wax box and had one of the members demonstrate how to use a heat gun to restore a box after a foul brood episode.

Mike James stood in as President for Dennis A as he was resting a sore back.

Mike welcomed the members and guests.

Present: as per signed book, over 35 members and guests

Apologies: as per the book.

Minutes of Previous meeting read:

Moved Dave T. sec: Kirsty S.

Carried.

Matters arising:

Letters to the MP's done and sent to Crisafulli, Cox, Hathaway, all of Townsville, and McArdle and McVeigh from the south.

Please report any *Varroa* test, particularly negative ones, let Rob Stevens know. He needs to collect data and we can help him here. It is easy so please try, **it is our best interest.**

AFB found in other places in and around Townsville. Please don't move affected hives and get help to destroy them if necessary.

Dave T. has a neighbour that may have native bees to be removed.

Kevin H. has native bees to give away see him.

Rob Stephens spoke about the cessation of the monitoring of *Apis cerana* in the coming months. The no go area for moving hives north of here will be lifted and some concerns were mentioned. In Cairns and surrounds the killing of *A. cerana* is only going to occur within 800 metres of the port. This is under the federal govt control. Qld Govt are still mapping the spread and are updated weekly. From up to 40 staff working on the incursion soon to be one and a bit. Pest controllers in Cairns have been trained to identify them. Townsville will get their turn when it arrives. Other points from Rob:

- AFB is still showing its head here, it is a notifiable disease.
- Bee registration is now on \$13.90 and is heavily promoted by this club to join and be registered
- More beginners packs have been handed to the club
- Report *Varroa* tests please to Rob in order to begin a bank of results.

Mike James mentioned the Ecofest again this year. Grant to organize members to man stalls.

Correspondence:

Letter sent out to 5 MPs

Inwards was only the PO Box bill of \$99 and a letter letting us know that the BNAB account is finally closed after Doug wrote



to head office.

More Apithor traps ordered.

Treasurer's report: Doug Mc, reported that we are healthy, as of the 28th Feb was \$2584.77, plus membership fees from this meeting, and sales of Apithor traps.

General Business.

You have an updated list of members, please get to know those closest to you and discuss AFB and how to minimize the spread.

The more experienced beekeepers will generally be available to help out the newer members so please ask them.

The TDBA booklet compiled by Mike James years ago has been revamped and presented through Ray B. These were handed out.

Ray moved a motion "That the Townsville and District Beekeepers Association open a PayPal account for the purpose of online membership payment.

Moved Ray B. Seconded Dave T.

The motion was opened for discussion. Various members spoke on the motion. Acting President Mike James called for a vote, For the motion 16 members, against the motion 4 members, Not voting quite a few. Ray will follow up on the motion.

Grant is to update the swarm collection list at this meeting and present it to the Assoc. and Rob S.

Frana spoke of how Jon Mc. collected a swarm the other day and it went perfectly for him. So far they seem clean from AFB. Virginia M also collected a swarm down her way.

Ray thanked the people who have been contributing to the newsletter, it makes his job easier.

Dave has wax for Frana who will send it away, see last newsletter Rob wants 4 more sentinel hives in and around the Port. To reach six hives and looking for beekeepers to manage them. See Rob S.

Please read what you can about American Foul Brood and we need to minimize the outbreaks occurring in and around Townsville.

The newer members may like to have a meeting at their place sometime in the future. Have a think about it.

Taming the wild!

(Article as printed in the ABK, Feb 2013)

Last September a few of us at the Townsville & District Beekeepers Association adopted a hive at an old lady's house as part of Biosecurity Queensland's sentinel hive monitoring program. This particular hive is one of only a small handful of site options for Biosecurity Queensland to monitor for Asian bees and the *Varroa* mite close to the Townsville port.

The hive was set up in Mrs Patterson's back yard by her nephew a good while ago. When we saw it for the first time, it consisted of a brood box with a queen excluder and two full-depth supers. The nephew lost interest in beekeeping and abandoned the hive, though thankfully, not his aunty: he still comes to visit her once a week. No doubt he gets to taste the delights of her raisin muffins as we do on each visit; bone dry, burnt on the bottom, but baked with love! She's a lovely soul, but at 92, the mind isn't what it used to be. "Old age is a curse" she tells us (more than a few times!).

All involved in this operation haven't been keeping bees all that long, but between us, we've seen quite a few hives opened and none of us have ever seen frames and honeycomb like these. They were black, dense, thick walled and each cell had only a small opening. More than 30% of each frame was not used by the bees presumably because it was just unworkable. As for the bee temperament, "wild" is about the only description that comes to mind! They set upon us almost as soon as we opened the lid, stinging our veils by the dozens. Luckily there weren't too many exposed parts, but one of us copped a veritable hammering through his socks. The brood box was totally unworkable, with dark, thick-walled comb running perpendicular to the frames! Once we were in the brood box, it was on for young and old! We had to close the hive in such a hurry that we forgot the queen excluder. At 20m distance, we were still swatting the angry bees off us 10 minutes later! On a subsequent visit we literally had to saw each frame loose from the brood with a handsaw! A burning question in our minds was: "How long was

it since this hive was attended to?" Gentle probing questions of Mrs P only yielded poignant gems like: "Not since the days of Methuselah!" and "Ooohh.., not since BC I reckon!" Who knows what the answer is – we haven't hooked up with the nephew as yet – but until we get credible information to the contrary, we are running with our hypothesis that it is more than 10 years!



The brood comb was almost black and built opposite to the run of the frames.

(cont. page 5)

Minutes of the Feb meeting (cont)

Next Meetings:

April the 21st at Derek's and Marg's place, in Bluewater

May the 19th in town, Ryan and Colette's place in Hyde Park

June the 16th at Dennis's place in Bartlett Rd, south of Giru.

July the 21st at Dave and Virginia's at the pistol club, Mona Park near Clare.

August the 18th Ron and Rose's, the AGM, Mundingburra.

Meeting closed at 3.45pm, with refreshments and nibbles enjoyed by the members. The rain was still falling.

The up to date swarm list, as at March 2013:

Colette and Ryan Thomas	0487 448 893
Ray Berkelmans	0427 473 239
Lindsay Trott	0409 789 162
Jon and Frana McKinstry	0413 765 192
Ron Rapson	0419 219 880
Kirsty Sugden	0447 762 686
Mike James	4773 7657
Grant Whiteford	4728 3051
Paul, Jacinta Payne	0428 745 340
Dan Donovan away until last week in April	

A chemical treatment option for AFB?

Having just had to clean up after my second outbreak of American Foul Brood disease (AFB), I was thinking about how many ways there are for the disease to spread and how few treatment options we have. I mean, after you've burnt your frames, scorched your boxes, washed your suit and sterilized your hive tool, then what? Surely there are still a myriad of other ways the disease could continue to spread, e.g. through the hive stand, soil in the vicinity of the old hive, the esky used to carry the contaminated frames and a many of other sources, most of which we can't control? Surely, there must be a chemical way of decontaminating after an AFB outbreak, a way to clean up the "contamination site" so to speak?

I discussed the problem with Lindsay T, a microbiologist by training, and he immediately set about finding some answers. Not much has been published in the primary literature on decontamination options for AFB. However, in clever lateral thinking, he came across a few articles on decontamination protocols for similar bacterial systems, i.e. systems with a similar "tough" bacterial spore stage. One study by Kenar *et al.* from the Department of Medical Nuclear/Biological/Chemical Defense in Ankara and published in an American medical warfare journal (Military Medicine) in particular was promising. This particular study investigated eight ways of dealing with the aftermath of an anthrax (*Bacillus anthracis*) attack! Anthrax happens to be the toughest spore-forming bacterium known to mankind and the authors used it's nearest, presumably less deadly, relative *B. atrophaeus* as a proxy.

We figured any treatment capable of killing anthrax and its spores would work fine against AFB. This study found that quite a number of treatment options were effective in killing anthrax spores, including gamma ray irradiation, ethylene oxide, autoclaving, peroxide and a number of others made the



The scattered brood in this frame should raise alarm bells. Sure, scattered brood can result from a number of things, but AFB is among the top candidates! Have it tested and set your mind at rest. Or, if the results come back positive, it's time for the big cleanup!

grade. However, by far the most effective and of most interest to us beekeepers is the use of hypochlorous acid (not to be confused with hydrochloric acid!). So how do you get this stuff? Well, its ingredients are likely to be found under the sink (or in the pantry) of most households, i.e. bleach and vinegar! Hypochlorous acid is the active ingredient of household bleach but is present only in low doses, but enough to deal with 99.9% of household germs! To really stimulate this acid, you need to reduce the pH from 12 (the normal pH of bleach is made alkaline to increase shelf life) to around neutral (i.e. pH 7). This has the effect of releasing the hypochlorous ions by an order of magnitude. In comes the vinegar. It is a mild acid, but in about equal volumes with household bleach (which has 4.2% free chlorine on the label), it is enough to bring the pH back down to neutral levels. The colour of the liquid should turn from a distinct greenish 'bleach colour' to a more clear solution. Be careful to wear appropriate PPE (personal protection equipment) though! Long rubber gloves and an approved respirator at a minimum, and do this outside in a well-ventilated spot! This stuff will dissolve your skin, draw blood from under your finger nails and burn your lungs if you are not careful!

If you need to make up large volumes, you could also use pool chlorine granules (350grams in 4 litres of water, plus equal volumes of vinegar; home brand is fine!). I used it to decontaminate the ground around my hive, the hive stand, the eskies and the hive boxes after they had been scorched. I liberally drenched the items and left them to dry. The 'chlorine smell' hung around for days so I know it was working well!

Note that this mix, potent as it is, will not penetrate wax. As a result, this method of chemical decontamination is best considered as a treatment option **in addition to, not instead of**, scorching your boxes.

I asked Rob, our Biosecurity officer, why we haven't been presented any chemical treatment options like this one. The answer is of course predictable: it is hard for them to endorse any chemical method for liability reasons. Somewhere, somehow, someone will always do the wrong thing and thus open the proverbial legal 'can-of-worms'! Having said that, Rob is also skeptical of the hive box scorching treatment which is recommended by the department. The problem is that it takes a serious bit of work to get the boxes to charcoal stage, which is essentially what is required for decontamination. It is of course hard to get this kind of consistency in every square millimeter of box, inside and out! The chances of leaving a small section with viable spores is too great. Given this dilemma, it seems to me the chemical option described here might be a useful piece of additional arsenal for the beekeeper!

Ray B

Important Disclaimer!

The information in this article is presented for your information only. If you decide to use it, you do so entirely at your own risk! If you do go ahead and use it, wear appropriate PPE—i.e., long rubber gloves and an approved respirator at a minimum!

Reference: Kenar I, Ortatatlı M, Yaren H, Karayılanoglu T, Aydoğan H. 2007. Comparative Sporicidal Effects of Disinfectants after Release of a Biological Agent. *Military Medicine* 172 (6) 616-621.

Taming the Wild (cont)

We managed to get around 16 kg of honey from the two supers, not much when you think about it, but testament to the poor state of the honey comb. But this leads us to another burning question: “Does anyone know if long-term storage of honey on the comb has a positive effect on taste, i.e. Does honey ‘mature’ like a wine?” Despite its unpleasant “sump oil” appearance, Mrs P’s honey tastes just superb! Passing it around a few people, the verdict was all the same: A fairly mild, but great tasting honey! So much so, that a jar or two has been set aside for next year’s Sydney Royal Easter Show and perhaps even the Melbourne Show! We’ll see...

Meanwhile, Mrs P’s hive is well and truly on the way to being tamed. All new frames, upstairs and downstairs, a new queen, a split, not to mention an accidental “mortality event”, have all contributed to the hive now being much more pleasant to open.



Some six weeks later, the wild hive is finally tamed with a new queen, a split and we won't mention an unfortunate mortality event while coaxing bees into the new sentinel hive....

As for Mrs P, taming her is much more challenging. On our last visit we arrived to find her cleaning the bird poo off her

car with the back of a spoon! On enquiry what she was doing her reply was: “Cleaning the car – I’m off to busy some beer”.

We replied: “But you don’t drink beer... and besides, ... should you be driving?” Apparently the beer was for the nephew and as for the driving, the doctor had told her he was not going to give her another medical clearance, so she still had a few weeks grace. We could not let her go off on her own. The battered and dented old Corolla spoke volumes in itself and we feared not only for her, but every other driver on the road. So, after the bees were “done”, I took Mrs P shopping.

She had gotten changed in the meantime and came out wearing her best frock, lipstick, stockings and creamed-coloured suede shoes. She looked a million dollars! “Mrs P, you look fantastic, what are you up to?” “When you’re going up town, you gotta look your best!” was the reply. At the shopping centre however, things took a turn for the worst. While walking around the car, she bumped her shin on the towbar and having paper-thin skin, tore a flap open the size of an extra large postage stamp. Blood started pooling under the stockings and running down her leg. “It’s only a scratch”, she said. By the time we shuffled to the front door, it was clearly more than a scratch. The suede shoes had a large red stain on them and the end of the frock, which touched the shin, was covered in blood.

Being a Saturday, Centre Management was shut, but mercifully, the bakery was able to help with a large bandage. While waiting for the bandage, Mrs P had taken off somewhere and I had to resort to following the drips of blood on the marble tiles to track her down. Thankfully this wasn’t hard! Coaxing her gently out of the bottle shop and waiving the bandage I explained the need to get her wound attended to. We found a bench to sit on, but before I could make a start, and in the middle of a busy shopping centre, the frock went up and the stockings came down!! I was so embarrassed, all I could do was call out: “Oh, Mrs P...!” while flicking my head quickly the other way and shielding my eyes with the back of my hand. I’m a broad minded guy and I’ve seen a few sights in my time, but this one had even me blubbering! Anyway, notwithstanding the curious looks, the wound got dressed and the beer got bought - even if it was three times the price she last remembered - and we made it home. I hope the leg heals well, I guess we’ll soon find out.

We thought we were just looking after a hive to help out BioSecurity Queensland and do our bit for the Asian bee threat, but Mrs P’s is clearly part of the rich “adopt-a-hive” experience. We’ll be a little more cautious in future though, but on our next visit, we can’t promise we won’t try and make a quick exit dash before the raisin muffins come out...!

Ray B

Hiving a house-bound swarm

Bee swarms that have made their home inside household wall cavities are a pretty common occurrence in our urban world. Most experienced beekeepers prefer to gracefully decline requests to assist when these curly jobs come in. Doug Mc and Dave T on the other hand don't mind a challenge. The key is to ensure that the home owner understands and agrees to any costs of re-instating gyprock walls, or any other modification necessary for gaining access to the hive.

Here is their pictorial story of a job they recently took on.



The job as presented. Bees flying in and out of a weep hole of an external brick wall of a low-set brick house. Coaxing these bees out with an external hive and one-way "bee valve" is a waste of time. Bees will always find other ways of getting in or out of a wall cavity!



The owner had already tried to identify the location of the bee nest by removing the window frame architrave. However, on seeing the bees come out of the space between the gyprock and the window frame, inside the house, he quickly taped it up!



Doug and Dave set about cutting a panel of gyprock open between three wall studs. They had already checked behind the power point to establish that the nest was not in that section of the wall. The bee colony had clearly already been established for some months.

The job from here entailed carefully breaking way pieces of comb and handing them through the open window and placing them into boxes between foundation frames.



Little by little the layers of wax comb, brood and a small amount of honey were removed and placed in a hive box outside and the job was done. Well, at least as far as the beekeepers were concerned! As far as the owner was concerned, it was a case of calling in some help to re-instate the gyprock, plastering the joins and painting the lounge room walls again.

On the face of it, it might seem like the owner would have been better off with a can of fly spray. However, as Doug points out, getting proper access for the spray to affect the hive would have been a 'hit and miss' affair.

They would also have had to do this at least weekly for a month until all the brood had hatched. In addition to that, and as a considerable consequence, they would have been to be left with an extremely attractive home for future bee swarms with copious amounts of comb and enough honey left behind to attract not only bees but other vermin as well.

Thanks to Doug and Dave for contributing this story.

Syngentia News Release

Syngenta and Bayer CropScience today proposed an action plan to help unlock the EU stalemate on bee health. This follows the failure of the European Commission to reach agreement with Member States on an appropriate response to EFSA's report on the theoretical risk to bee health from neonicotinoid pesticides.

John Atkin, Syngenta's Chief Operating Officer, said: "This comprehensive plan will bring valuable insights into the area of bee health, whereas a ban on neonicotinoids would simply close the door to understanding the problem. Banning these products would not save a single hive and it is time that everyone focused on addressing the real causes of declining bee populations. The plan is based on our confidence in the safety of our products and on our historical commitment to improving the environment for bees."

Dr. Rüdiger Scheitza, Member of the Board of Management of Bayer CropScience and Head of Strategy & Business Management, said: "Even though all the evidence points to various parasites and diseases being the true cause of poor bee health, we are keen to do everything in our power to give consumers confidence in our products. The significant lack of agreement between the European Commission and the Member States needs a bold plan so that farmers in Europe can continue to produce the high quality affordable food, in a way that promotes the health of bees and other pollinators. We believe that such a plan as this can be delivered."

The key features of the action plan are:

1. Significantly scale up the creation of pollen rich, flowering field margins across the EU to provide essential habitat and nutrition for bees.
2. Support for the establishment of a comprehensive field monitoring program for bee health including the detection of neonicotinoid crop protection products – particularly in maize, oilseed rape, sunflower and cotton.
3. Mandatory implementation of strict measures to mitigate the exposure risk to bees; these are currently already recommended by the manufacturers and effectively applied by most farmers as good agricultural practice.
4. Investment in and implementation, at the earliest opportunity, of new technologies which further reduce dust emissions from the planting of seed treated with neonicotinoid crop protection products.
5. Further investment in the research and development of new solutions for the main factors impacting bee health, which include parasites and viruses, and establishment of area-wide long-term pilot studies which demonstrate their effectiveness. In further detail, the key features of the action plan are:

Significantly scale up the provision of pollen rich flowering

field margins across the EU to be sown alongside bee attractive crops treated with neonicotinoids to provide habitat and nutrition.

This would build on Syngenta's 10-year Operation Pollinator program which has demonstrated that these margins dramatically increase pollinator populations, including honeybees.

This would address one of the main factors identified by the European Commission in the decline in bee health.

Support for the establishment of a comprehensive field monitoring program for bee health including the detection of crop protection chemicals

A comprehensive program, following the guidelines for surveillance projects by the EU Reference Laboratory for honey bee health, shall be established.

The current monitoring work of the EU reference laboratories on bee health, supported by national bee institutes, should be reinforced and extended.

Within this new scope the detection of chemicals from crop protection, particularly neonicotinoids, and veterinary products should be included.

Mandatory implementation of strict measures to mitigate the exposure risk to bees

High quality treatment of seed to take place only in certified production sites which participate in a Quality Assurance Scheme.

Strict rules governing the use of treated seed, such as the mandatory use of deflectors in planting machinery, application only by professional and certified users, and improved information exchange between farmers and beekeepers.

Bayer Crop Science recently developed "SweepAir", a new air-cleaning technology for maize sowing equipment offering a significant improvement in comparison to standard technology; first field tests with the prototype indicate a dust reduction well above 95%.

Invest in and roll out new technologies which further reduce the dust emissions from the planting of seed treated with neonicotinoid crop protection chemicals

Bayer CropScience and Syngenta are both working on new solutions to further improve the coating of seeds treated with crop protection chemicals and the way they are planted to ensure that dust emissions are minimized.

Some of these solutions are ready to be deployed and we commit to continuing our investment in the research and development of these risk mitigation measures.

Further invest in the research and development of new solutions for the main factors impacting bee health

The European Commission identifies disease and viruses such as Varroa destructor, American foulbrood, European foulbrood, Nosema spp., and honey bee viruses as the main cause of the decline in bee health.

(source: American Bee Journal)

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