



THE AMATEUR BEEKEEPER

Bi-monthly newsletter of the
Amateur Beekeepers Association NSW
beekeepers.asn.au

Volume 53 Issue 6

October/November 2016



Amateur Beekeepers Association NSW
presents

2016 BEEKEEPERS FIELD DAY

PITTWATER HIGH SCHOOL
Sunday 9 October
8.30am to 3.30pm

**SPECIAL GUEST
SPEAKERS**

- FLOW HIVES •
Stuart Anderson
Inventor
- NATIVE BEES •
Dr Megan Halcroft
beesbusiness.com.au
- BEE HEALTH •
Hayley Pragert
Bee Biosecurity Officer
NSW DPI

LIVE EVENTS

- REQUEENING HIVES
Arthur Garske
- MAKING FRAMES AND BOXES
Central Coast ABA
- HONEY TASTING AND SALES
Nepean ABA

LEARN AND DISCOVER

- BEE BOOKS *Illawarra ABA*
- POLLINATION *Macarthur ABA*
- BEE FRIENDLY GARDENING
AND MUCH MORE

SPECIAL REQUEST
ABA members please RSVP for catering purposes
club@beekeepersutherland.org.au
or Lamorna Osborne 0419 731864

Pittwater High School Agricultural Plot & School Hall
1668 Pittwater Rd, Mona Vale

ADMISSION FREE PUBLIC WELCOME!
TEA + COFFEE + SAUSAGE SIZZLE

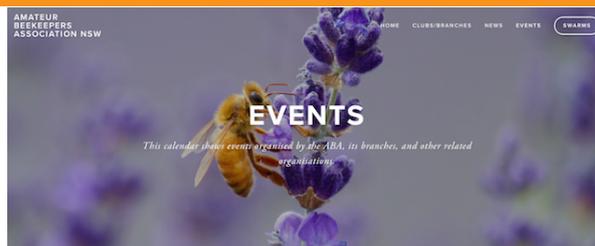
Event organised by Doug Purdie and ABA of NSW Executive

DON'T MISS Saturday October 29
TOCAL BEEKEEPER'S FIELD DAY
815 Tocal Road | PATERSON | NSW 2421 SEE PAGE 18 FOR DETAILS

Diary dates

For a full list of ABA events, including times of local club meetings, look under the **EVENTS** tab on beekeepers.asn.au

- October 23 ABA General Meeting – Bega
- October 29 Tocal Beekeepers Field Day
(details are on p18)
- Nov 29 Tamworth NSW Apiarists'
Field Day
- NEXT ABA AGM – Ballina, 21 May 2017



What's in the October/November issue

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LUCKY DRAW WINNER Congratulations! David Vial, from the Hunter Valley Club wins a copy of The Australian Beekeeping Manual. David completed our recent online survey by the deadline. Thank you to everyone who shared their thoughts and experiences. The survey will remain open for a couple more weeks and full results will be included in the next newsletter.

Deadline for next newsletter: 15 November editor@beekeepers.asn.au

Spring beekeeping essentials

Hive Management



By Arthur Garske, Parramatta Club

The way hives kick off in Spring depends on the temperature, both days and nights. DO NOT OPEN HIVES too early in Spring as brood and bees can become chilled and die.

Before you open a hive, you should:

- Observe bees in flight. Observe how many are bringing in pollen and how much
- Feel the weight of the hive by lifting the hive

from the back. If the hive feels 'light', stimulate it by feeding, ie, 1 part sugar to 2 parts of water. Feed the syrup warm and do not give large amounts. Syrup that is not eaten quickly can start to ferment and alcohol kills bees.

After a couple of weeks of warm weather, both day and night:

- Inspect hives in the middle of the day
- Look at the brood: observe the number of eggs, pattern of laying, larvae and sealed brood
- Look for signs of disease – EFB, AFB, chalk brood, sac brood, nosema and Spring dwindle
- Check available food supplies

Now is time to FIND, CLIP and MARK the queens, if required.

Depending on brood and conditions, check:

- How much pollen
- How much available nectar – shake the frames to determine
- How many bees. If necessary add an additional super, lifting up frame of sealed brood. Put drawn comb into the space left vacant.

Look at the bees EVERY 3 WEEKS, unless you are wanting to breed queens. Eliminate drone comb by removal. In its place put worker drawn comb. The drone cells on the bottom bar of frames should be scraped with the hive tool. Bees will clean them out. The queen will lay again but as it takes 25 days for drones to hatch, and providing you are looking every three weeks, you just go through the same process again and again.

As the season moves into late spring or earlier, depending on weather conditions, the signs to look for indicating bees preparing to swarm are:

- Queen cups (drawn out of face of combs)
- Congestion of brood nest

Almost 12% of honey bee colonies failed to survive the last Northern Hemisphere winter, according to a survey of 29 countries.

To blame? Spring and early summer was cold in Norway, Scotland, Sweden, Denmark and Ireland, impacting on colony strength and build-up.

- Lack of amounts of eggs
- More larvae
- Sealed brood
- Maybe eggs in queen cups

PLAN OF ACTION

- Expand brood nest
- Remove all sealed brood frames. In their place spread out the other frames and interleave frames of foundation so you have brood, foundation, brood . . .
- Place the new super containing the brood frames that have been taken out and repeat the same brood, foundation, brood process in that box. Then add a super of foundation on top of that box.

STOP PRESS! The new web-based membership system is coming!

Once the ABA capitation fees for 2017 have been ratified by the ABA Council, and your club has set its own fees for the year, we will email you to invite you to renew your membership online. You will be able to select your optional insurance cover through this system, as well as update your contact details.

The new system will greatly reduce the administrative effort involved for the ABA and Club Secretaries across the state, and allow the ABA to distribute membership cards more quickly

– Sheila Stokes, Web Administrator

As a result, conditions of ABNORMALITY have been created in the hive; and the bees that were thinking of swarming have to repair after this interference. A hive works internally on a BEE SPACE and this has the backs of the bees on one comb just touching the backs of the bees on the next comb. As new foundation has been placed in the hive, this cannot occur and therefore the bees raw the foundation out to get the required bee space.

Also in the BROOD CHAMBER there cannot be gaps in the brood as this is unnatural. As such the bees feed the queen lavishly on royal jelly, her abdomen swells and she commences to lay up all those frames of foundation that you interleaved between the brood.

So as you can see, the whole hive has to work to get their hive back into shape again. There is no time to think about swarming and queens in full lay cannot swarm. In a couple of weeks, look at the brood again, as well as the condition of the hive. If the bees are preparing to swarm, repeat the process all over again.

If you have any weaker hives you can take frames of brood and bees and add them to weaker hives to make them stronger. If on the next inspection, the bees are still making preparation to swarm, create an artificial swarm by taking a whole box of brood and bees and moving this to a new place with a new bottom board and lid and in its place put a new box with frames of foundation. Move up brood frames and do the interleaving process again. TRY NOT TO TAKE THE QUEEN. However, if the queen cannot be found, look at both hives in the next two days and you will know which hive has the queen in it as the other one will have drawn cells.

Once a honey flow is found or the main honey flow has commenced then the bees will forget about swarming – the bees will get down to gathering. If that extra hive is not wanted, and if the new queen that the bees have made and her progeny is quiet and easy to work, then kill the original queen and UNITE the two. To do this use a couple of sheets of newspaper with a couple of sharp knife splits or cuts in it. The result is a super honey gathering hive.

LATE SPRING TO EARLY SUMMER This when you can start extracting. It depends on the honey flows and what is to follow, plus how much honey taken. This is the time to get good drawn combs by interleaving frames of foundation between the stickies which have been put back on the bees.



Based in Sydney, online supplier Beekeeping Gear specializes in the full range of beehive parts, tools, extracting equipment, protective clothing and is the home of the Oz Armour brand of ventilated bee suits. Extensively tested by beekeepers, including enthusiastic members of the ABA's Nepean Club, Oz Armour is first brand created for Australian conditions.

Beekeeping Gear offers free postage for all but bulky orders.

ABA members can claim a 15% discount on all items.

To get this discount, you must call Azim on 0481 146420 or email to beekeepinggear@gmail.com before you order

beekeepinggear.com.au

www.facebook.com/Beekeepinggear/

SWARM HINTS

Thinking of catching a swarm this season? Take note of what experienced beekeeper Frank Karabaic has to say

A swarm of bees in Spring

Is worth a silver ring.

A swarm of bees in Summer

Is worth the extra number.

A swarm of bees in Fall

Is worth nothing at all.

Adapted from an old saying



Usually swarming bees do not sting. Why is that? They have filled themselves with honey so cannot bend to sting. Do you know that feeling when you have overeaten? Swarming bees are ready to build new comb. Do not give sticky combs for at least three days otherwise they may desert the hive. Just give foundation or dry combs.

The largest swarm from a hive is the first one with the old queen. Subsequent swarms from the same hive will be smaller, each with a young or unmated queen. Sometimes two swarms join together in the air and the bees destroy one queen eventually. The different swarms won't fight each other. They will join peacefully.

Don't make increases or breed from stock known to swarm readily as this increases the swarming tendency – you will always end up with a weak hive that's susceptible to disease and no honey.

Things to consider if intending to catch a swarm

1. How far will you have to travel? Will the swarm still be there when you arrive? If the bees have clustered only a short time ago they may move.
2. How far off the ground is the swarm? You may need to take a ladder.
3. How big is the cluster? Is it the size of a football? Smaller? Larger? A tiny swarm is not worth collecting.
4. What time of year is it? Spring and early Summer are best as that will allow time for the colony to build up.
5. Are the bees in a building? If you damage the building, the owner will not be happy.
6. Has anyone tried to remove or kill the bees by shaking, spraying etc? This will make your job more difficult.
7. Does the caller expect a reward?
8. Do you have a suitable ventilated swarm collecting box with strapping?
9. Do you have a suitable place to put them? Keep the swarm away from your hives and check them in two weeks for signs of disease.
10. Do you really want another hive?

FUEL FOR SMOKERS

"Many kinds of fuel are used in smokers. The ideal fuel will produce volumes of cool smoke and will stay alight longer. Dry pine needles are a favourite but they produce a lot of sticky residue. That's why a lot of beekeepers prefer something else. Fine, dry bark can be used such as that from Paperbark or Stringybark trees. Hessian is sometimes used but the smoke can contain ash. Bags made of hessian are sometimes exposed to insecticides or other chemicals that can aggravate bees. Don't use newspaper as the smoke can be too hot and toxic."

—Frank Karabaic, Mid North Coast

If you are satisfied, go ahead and collect the swarm. Love those bees!

Biosecurity:

Add your voice to the ABA call for free amateur registration

As outlined in the last issue of The Amateur Beekeeper, the ABA believes small-scale beekeepers should be excused from paying DPI registration fees. We believe the fee discourages many from lodging their details with the DPI – making it more difficult for the beekeeping community to contain serious pest and disease outbreaks in the future.

The ABA, on behalf of its members, has written to the Minister responsible for the NSW DPI **requesting free hive registration for NSW beekeepers with fewer than six hives.** The Minister has responded indicating that this is not likely to happen because of the need for "cost recovery". The ABA is still pushing for a meeting with the Minister.

Please help by writing to your own state MP about this matter.

Some relevant points to include:

- ❖ You are a member of the NSW ABA. It has 1200+ members.
- ❖ Australia does not have the serious pests and diseases of honey bees that have devastated beekeeping elsewhere.

- ❖ Honey bees are critical to commercial crop pollination. If *Varroa destructor* gets established in NSW, it would have a devastating effect on many of our agricultural industries.
- ❖ NSW has a long established system of registering all beekeepers. This is implemented via the NSW DPI. However, many small-scale beekeepers do not register and fees may be a factor.
- ❖ The concern is that the registration system needs to capture the vast bulk of beekeepers so that communication about biosecurity matters can be effective.
- ❖ Allowing free registration for beekeepers with fewer than six hives would parallel the Victorian system and would encourage more beekeepers to register.
- ❖ The ABA believes any loss in revenue will be more than offset by the ability to effectively communicate with all beekeepers about biosecurity issues.

Which State electorate am I in?

<http://streetlist.elections.nsw.gov.au/>

Who is my local State member?

<https://www.parliament.nsw.gov.au/members/Pages/all-members.aspx>

News *For the very latest on Varroa and other biosecurity threats, DPI bulletins, local club newsletters and recent copies of this journal, look for the NEWS tab on the ABA website beekeepers.asn.au*

Hive rescue Bees in a couch

Bees will find a home in the unlikeliest of places, as Glenn Locke discovered

Thanks to Bee Line, the newsletter of the Mid North Coast club for this story

It looked like an innocent couch in a paddock, as the picture (left) testifies. At least that's what the property owner who picked it up with a bobcat thought. But very soon he was stung. And stung over and over again. (He estimates at least a hundred times).



When Glenn got to the scene he was able to salvage about six frames of brood and a nice healthy queen. He found very little beetle activity and no sign of any other disease. The property owner received a reward for all his stings:



once the foam upholstery was cut away: approximately 30 to 40 kilos

of comb honey.

Glen estimates the bees could have been calling the abandoned couch home for perhaps a couple of years. Now they are safely, and more conventionally, housed in a hive in Glenn's yard.

Do you have a bizarre bee-rescue tale to share with members? Email editor@beekeepers.asn.au

Bee Biosecurity

Behind the Scenes at the Steritech Open Day



What happens when you send bee boxes to Steritech for sterilisation and decontamination? Cindy Budai and John Steffas (Parramatta Club) found out

On Saturday 13 August, we were among the ABA members from across the state to accept the invitation to join a tour of Steritech's facility at Wetherill Park. The event was

organised by Doug Purdie of the Sydney Bee Club and Jamie Crighton, National Business Development Manager at Steritech,.

Jamie and his colleague Richie, whose role includes responsibility for maintenance at the facility, gave an interesting, informative and entertaining presentation on the history and development of gamma irradiation treatments. They outlined how it is used in various industries generally, in apiculture specifically.

On a tour of the facility, we saw how Steritech handles goods for irradiation. Staff then initiated the 'shutdown procedure' to allow safe access to the irradiation chamber.

Cobalt-60 is the most common source of gamma rays for irradiation processing. The Cobalt-60 used by Steritech is manufactured specifically for the irradiation process and housed in rods (1cm x 45cm) which sit in racks stacked vertically within large frames.

When the frames are exposed to air, invisible gamma rays, which are a form of electromagnetic radiation of very short wavelengths, act as a source of ionising energy that destroys bacteria and pests. Below the frames is a nine-metre-deep pool of water. Water acts as a barrier to the radiation, so lowering the Cobalt-60 into the pool allows staff (and tour groups!) safe access to the chamber for inspection and maintenance.

It's difficult to describe the experience standing at the control panel as the safety protocols were enacted and the radiation levels tested. Alarms and buzzers signalled each series of actions and the results. This was an unusual place to find ourselves – standing there brought to mind a surreal combination of movies (sci-fi, Cold War) and Big Bang Theory. Our overwhelming impressions however, are of awe and wonder at seeing the Cobalt: once in the water, the radiation produced an amazing blue glow (Cobalt blue), with each rod a different hue depending on its age and thus, the level radiation emitted.

We feel privileged at being granted access to such a place.

STERILISE TO PROTECT YOUR BEES

NSW's Bee Biosecurity Officer advises: To reduce the risk of disease – and for peace of mind – it is now recommended that you get ALL second hand beekeeping equipment (no matter the source) irradiated before reuse with your bees

GRAND THEFT MANUKA

Here's what Lindsay Bourke, Chairman of the Australian Honey Bee Industry Council, had to say about the recent NZ claim to own the term 'Manuka'

"A recent application by the UMF Honey Association Inc of New Zealand to trademark 'Manuka Honey' is an affront to Australian producers. Manuka honey has been produced here in Tasmania since the arrival of the European honey bee. There are numerous records of the word 'Manuka' in print and in place names dating back at least to 1884.

The Manuka tree, or *Leptospermum scoparium*, originated in Tasmania and seed dispersed from there to New Zealand. Australia is home to over 80 species of *Leptospermum* to New Zealand's one, yet New Zealand apiarists wish to claim it as their own!

We could sympathise; they long assumed that Manuka was unique to New Zealand and much of the marketing and research from which all Manuka producers now benefit was undertaken on that basis. However, neither the name 'Manuka' nor the species *Leptospermum scoparium* are unique to New Zealand and Manuka should not join Kiwi Fruit and Bungee Jumping on the list of stolen and re-branded Kiwi products.

Australia will fight this application if necessary - but the point is we shouldn't have to!"

Meanwhile . . . Free honey analysis available with the Australian Leptospermum Project



Simon Williams a PhD student at the University of the Sunshine Coast writes: *The Australian Leptospermum Honey Project has at least another two years of sample collection to go.*

Leptospermum honeys in particular, are known for their medicinal antimicrobial and anti-inflammatory properties. New Zealand

Leptospermum scoparium (Manuka) is the most well-known of these honeys worldwide. Australia has more than 80 species of *Leptospermum*, including *L. scoparium*, compared to New Zealand's single species. Hence, Australia is the home of *Leptospermum*. Scientific evidence based research is critical to informing the public and beekeepers on the activities and medicinal benefits of the many Australian *Leptospermum* honey products.

Testing is being performed on the nectar of the *Leptospermum* plants around Australia to help beekeepers identify and source active species. The main target areas for this year being North Queensland, Southern New South Wales, the Queensland/New South Wales tablelands and Western Australia. Beekeepers can take advantage of the free testing of honey samples that are donated to the research project. These tests determine whether the honey has the antibacterial non-peroxide activity associated with active *Leptospermum* honey. Please ensure that documentation is included when submitting samples. Beekeepers can be assured that site specific information is kept confidential.

*To become involved in nectar testing, contact PhD student Simon Williams
Simon.Williams@research.usc.edu.au mobile 0459336779*

BEE BIOSECURITY IN NSW

AN UPDATE By Hayley Pragert, NSW Bee Biosecurity Officer



Since I started in April, I've met with commercial beekeepers from the Southern Tablelands, the Northern Tablelands, Tamworth, Riverina and the Central Tablelands branch. Issues highlighted at these meetings include the recent incursion of *Varroa jacobsoni* in Far North Queensland, security of sites for beekeeping on public land, rising rates of American Foulbrood (AFB) and also, inappropriate use of oxytetracycline to treat AFB.

I've seen considerable interest from the Amateur Beekeeping Association to learn more on the Bee Biosecurity Code of Practice and bee disorders. Amateurs managing a smaller number of hives have the luxury of being able to inspect for pests and diseases more frequently. Because of this, amateurs are better placed to find new disorders much sooner than those with many hives to inspect. I have been to ABA club meetings in Gosford, Sydney, Bega and Canberra.

In May I attended the state conference and more recently, the Crop Pollination Conference in Griffith. Emerging issues include concerns about pesticide use and particularly systemic seed treatments that are applied to crops such as canola. Another concern is the increased demands on the bee industry for pollination, the current remuneration per hive for pollination services, and the prevalence of pests and disease at large scale pollination events.

I was fortunate to observe apiary officers from Victoria in action during these pollination events, where I visited almond orchards in Robinvale. From what I saw, the level of pests and disease in hives being transported from across Australia was dismaying. Not to mention, the large number of hives which were complete dead outs from AFB. This is something that needs to be addressed.

'From what I saw, the level of pests and disease in hives being transported from across Australia was dismaying'

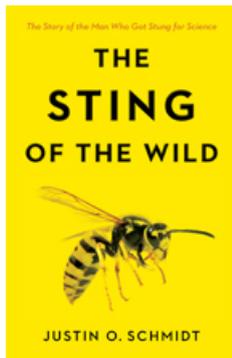
My role is primarily to promote the adoption of the Bee Biosecurity Code of Practice. There are up to 19 regulatory staff in NSW DPI engaged for some of their time on regulatory matters. So while I have the powers of an inspector to inspect hives and similar activities, the enforcement of the current or future legislation will not be my role. If the code is embraced by both the commercial and amateur bee keepers, there will be a declining need for regulatory enforcement. We are also likely to see better containment of some disorders such as American foulbrood. Under the new legislation, disorder or disease "free" zones could be possible and allow easier access to interstate movement of bees or bee products.

But for the moment, as I continue to travel around NSW and meet a diverse group of apiarists in a challenging range of environments, I will continue to promote the benefits of the code. I look forward to meeting many more apiarists in the coming months.

If you would like assistance on the code, please feel free to contact me.

Hayley Pragert
0438677195
Hayley.pragert@dpi.nsw.gov.au

Book release *The Sting of the Wild*



In *The Sting of the Wild*, American entomologist Justin Schmidt ranks the stinging sensations of 83 insects – from a very personal and painful perspective. His resulting ‘Schmidt Pain Index’ runs from below 1 to an excruciating 4.

An insect hardly worth worrying about is the Pacific cicada killer wasp *Sphecius convallis* (“1 Clean. Concentrated dish detergent seeps into a freshly cut finger”). Slightly more annoying is the Australian red bull ant *Myrmecia gulosa* (“1.5 Like a brightly coloured LEGO, charming til it’s lodged in the arch of your foot in the dark”).

Schmidt ranks a regular sting from a Western honey bee *Apis mellifera* as a 2 (“Burning, corrosive, but you can handle it”). Or a 3 if you accidentally get one in a can of fizzy drink and then let it sting your tongue. (“It’s immediate, noisome, visceral, debilitating. For 10 minutes, life is not worth living”).

Think that’s bad? Well, thank your lucky stars you’re not keeping thousands of Tarantula hawks *Pepsis spp.* If one strikes out you can expect five minutes of pain that’s “blinding, fierce, shockingly electric. A running hairdryer has just been dropped into your bubble bath”.

What could be worse? Perhaps only the South American armadillo wasp. To quote Schmidt, “Torture. You are chained in the flow of an active volcano. Why did I start this list?”

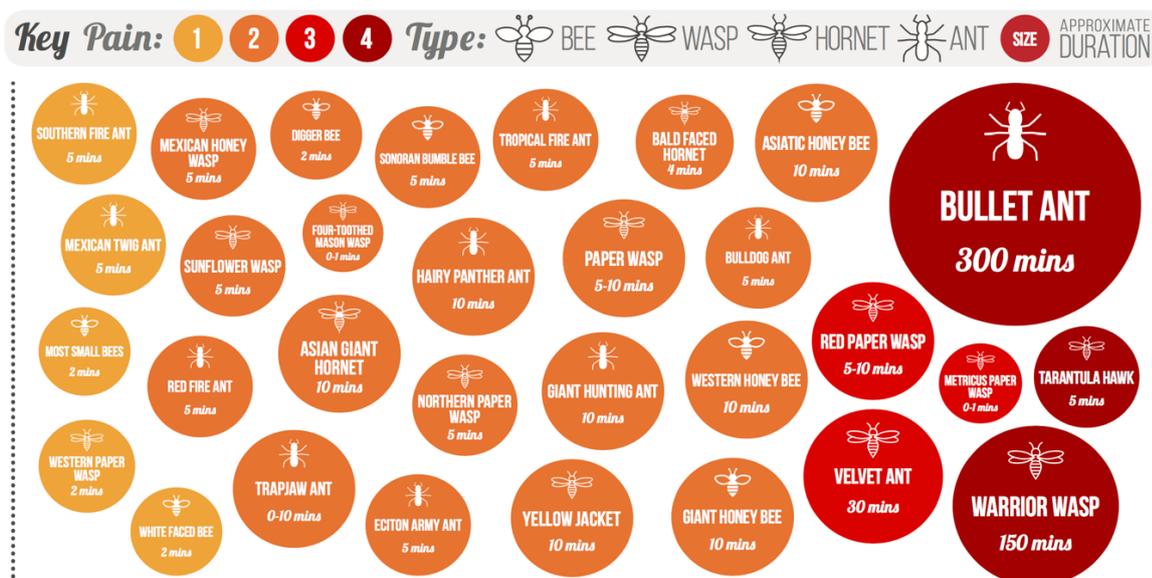
The Sting of the Wild by Justin O Schmidt (Johns Hopkins University Press) available at Amazon, Booktopia or local booksellers. An e-book version is available at <https://jhupbooks.press.jhu.edu>

Can you describe a honey bee sting in 20 words or less? What does it compare to? Tell us and we’ll publish a selection in the next issue of The Amateur Beekeeper.

email
editor@beekeepers.asn.au

THE SCHMIDT INSECT STING PAIN INDEX

The Schmidt Pain Index was developed by Dr. Justin Schmidt, an entomologist, as a method for comparing the pain of various different insect stings he experienced during his work. The scale runs from 1 to 4, with four being the most painful. Pain can be subjective, varying from person to person, and this scale is therefore not absolute.



Note: circles sizes relate to duration, but are for purposes of comparison only, and are not to scale. All durations are an average, and as with pain, are subject to variation.

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Q&A *'What's with the dead bees in my garden?'*

The ABA has received a number of questions about dead bees in suburban gardens. It is reassuring that many people are concerned enough about bees to seek information. Dave Wilson asked Bruce White to answer a typical question

Q *"We live in the Southern Highlands and have a large garden with lots of flowering plants. Yesterday I noticed around 50 dead and dying bees on our back patio. I didn't see anything obviously wrong with them. They were covered in pollen and some had pollen bags on their legs. They were directly beneath a grevillea which had live bees working. We don't regularly use insecticides as we are concerned about the health of insects. Do you have an explanation?"*

A Grevilleas in the mornings produce thin nectar that attracts birds. The birds can deal with this nectar as they have a larger body mass. However, bees cannot handle thin nectar that contains yeasts. The nectar ferments producing alcohol that effects the bees. They present as being drunk and become disorientated. Sometimes a sudden cool change can result in foraging bees becoming chilled and they can die under the forage they were working. The test is to take them inside in a bottle and blow on them to warm them up. When warm they will often move and then recover.



Photo credit: Michel Dignand via Visual hunt / CC BY-NC-ND

HAVE YOUR SAY *Have a comment about something in this newsletter?
Share your views. Email editor@beekeepers.asn.au*

Dear Editor,

I would like to provide a comment on the "Excluders: Pros and Cons" book extract which appeared in the August/September 2016 edition.

Firstly, I should make it clear that I have only been keeping bees since September 2015 and that I currently have only two hives. At this stage, I am a non-user of queen excluders. The initial reason for this goes back to the time when I added the first ideal super to my double-brood-box hive, with a queen excluder below the ideal. At this point, the hive was going gangbusters and I expected the super to be full of honey in only a few weeks. However, when I next opened the hive, I found that the bees had done nothing in the super and were effectively "trapped" beneath the excluder.

My reaction was to drill a hole of about 25mm diameter in the super, to provide a second entrance above the excluder. When this super was full of honey, I added another super to the hive and took the excluder out. From this point, the bottom super has effectively acted as an excluder, on the principal that the queen will not cross a full super of honey. I get this principal from Don Kuchenmeister ("the Fat Bee Man"):

<https://www.youtube.com/watch?v=X1XJT-yVZPE>

In my view, using a queen excluder makes it more difficult to control small hive beetle for two reasons. Firstly, the excluder provides numerous places for the beetles to hide. (I expect that some excluders are worse than others in this respect.) Secondly, I suspect that the excluder hinders the bees' efforts to harass the beetles, since the beetles can easily pass through the excluder whereas the bees cannot.

Jamie Thomson ABA Parramatta Branch

EXPLAINED How Bees Make Honey



Kathy Keatley Garvey of Bug Squad (ucanr.edu/blogs/bug squad/) gets the full story from an entomologist

"Honey is bee barf!" How many times have you heard that? Non-beekeepers, in particular, gleefully maintain that the sweet mixture you spread on your toast in the morning is "bee vomit." (It's usually accompanied by "How can you eat THAT?") So, is that correct?

I consulted "honey bee guru" apiculturist emeritus Eric Mussen of the UC Davis Department of Entomology and Nematology, who recently completed 38 years of service to the apiculture industry. The answer? "In one word--No!" he says. "Honey is neither bee vomit nor bee barf." Then, what is honey? "Honey begins as a dilute (5-20%) sugar solution which is sucked up by foraging honey bees as they visit bee-attractive plants. This nectar is pumped through the 'tongue' of the bee into an expandable crop, which in honey bees is called the honey stomach. While in the crop, two salivary enzymes begin the honey-making process. Diastase catalyzes the conversion of starch into maltose. Glucose oxidase, catalyzes the conversion of glucose to hydrogen peroxide and gluconolactone. Curved, rake-like bristles in the crop filter out particles such as a pollen grains from the nectar. Once a number of particles have accumulated, they are passed back (swallowed) into the midgut and there is no way for them to return to the honey stomach. To reduce its moisture content, the now nearly-particle-free nectar is pumped out of the crop and suspended as a thin film, hanging directly below the horizontally extended mouthparts. Bees fan the films with their wings to hasten evaporation of water. As the film thickens, it is pumped back into the crop, blended with the remaining nectar, and pumped back out to be dried some more. When it reaches the appropriate moisture content, the 'ripened' honey is pumped into a comb cell and capped. This is the honey that beekeepers provide for us to eat. So, bottom line is this: Sorry, honey, honey is not bee vomit. "It *never* reaches the true digestive tract of a honey bee," Mussen emphasizes.

COMMUNITY NOTICEBOARD

WANTED We are building a shed on our farm and collecting old wares for decoration and conversation pieces. I would like to include a 'beekeeping' nook so I am after inexpensive vintage-type beekeeping paraphernalia. Please contact me direct, on 0419 442 701 Robyn Alderton



CALLING ALL BEE PHOTOGRAPHERS

Would you like to see your featured in future issues of this newsletter? We're looking for interesting shots that show the unique aspects of beekeeping in your area. If you think you have captured something of interest to other members, email editor@beekeepers.asn.au

MEMBERS CAN POST THEIR CALL-OUTS HERE. NO BUSINESS ADS PLEASE. BUT IF YOU HAVE A BEEKEEPING RELATED MESSAGE OF WIDE INTEREST TO MEMBERS, SEND IT THROUGH FOR POSSIBLE INCLUSION IN A FUTURE TAB.



Looking for mesh to make vented bases on bee boxes?

Wire Mesh Industries is offering suitable woven stainless steel mesh at a special discount to ABA members. Mesh replaces the floor section of the traditional solid hive base to help with ventilation and to allow the bees to better maintain suitable temperatures in the hive. Vented bases will become critical if or when Varroa arrives in Australia.

Specifications

| | |
|-------------------------------|------------------------|
| Type of Mesh: | Woven Stainless |
| Aperture (hole size) : | 3.333 mm |
| Wire Size: | 0.900 mm |

This size of mesh is perfectly suited to the European honey bee. WMI can also supply a finer mesh suitable for the native Australian bee.

WMI sell the bee mesh by the lineal metre from a roll 1220mm wide.

For those members who are not handy with cutting equipment , WMI can cut to size at a minimum charge.

Normal sell price for this mesh is \$ 110 per lineal metre.

For customers who can show their ABA Beekeeper membership card, the price is \$90 Lm including GST.

Wire Mesh Industries Pty Ltd, 7-9 Rhodes Street, West Ryde, Sydney NSW
02 9809 0900 wiremesh.com.au

Bees in the news

A quick roundup of recent stories from print and online media, with links to the full story, video or audio. (Click on the links to read original story. Google url shortener has been used to abbreviate addresses for your convenience if you are typing the address in.)

CONTROLLING VARROA WITH OXALIC ACID

Good news: UK scientists been working to determine the best dose and method of treating varroa affected hives, without harming the bees. The chemical is vaporised inside the hive using an electrically heated tool

<https://goo.gl/K1aHJf>

IS HONEY VEGAN?

The Vegan Society answers the controversial question, according to their definition

<https://goo.gl/xvP7BA>

IT'S WHAT ISN'T IN ROYAL JELLY THAT COUNTS

If you thought queen bees are fed something special to turn them into monarchs, you're right. But it's what the jelly lacks that makes the regal difference

<https://goo.gl/qHEuLX>

WORKER BEE WATCH

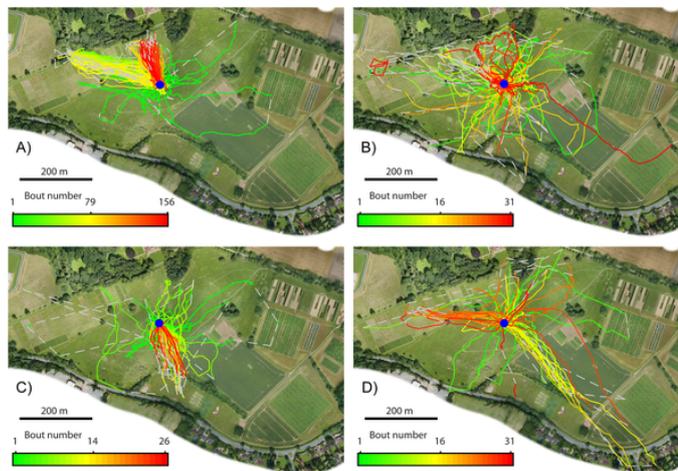
Scientists in the UK tracked the entire lifetime flights of four worker bees, to fascinating effect

<https://goo.gl/ij9LaJ>

SICK PLANTS LEARN TO ATTRACT BEES – TO ENSURE THEIR SPECIES SURVIVAL

Plants infected with a particular virus release volatile compounds that lure bees to them in preference to healthier plants alongside. It's an interesting discovery for scientists trying to figure out how to increase crop yields

<https://goo.gl/Lq4F01>



VOLCANO BEES: LIVING ON THE EDGE

Masaya bees of Nicaragua live where most other creatures couldn't survive. And forage for nectar and pollen from a daisy that can deal with acid rain

<https://goo.gl/k2lyhx>

WORKERS WILL STAY WORKERS, BECAUSE THEIR QUEEN SAYS SO

University of Otago researchers have discovered the molecular mechanism through which queen honeybees carefully control the fertility of worker bees

<https://goo.gl/DJPV6Q>

SAVE THE BEES? WHICH BEES?

What's good for one type of bee isn't always good for others – and simple theories about saving the planet are seldom the whole answer

<https://goo.gl/Hth4WV>

HONEY'S ETERNAL SHELF LIFE

The Smithsonian explains how a slew of factors—its acidity, its lack of water and the presence of hydrogen peroxide—work in perfect harmony, allowing the sticky treat to last almost forever

<https://goo.gl/iaW7i2>

GIANT HONEY BEES, SHAKING THEIR BOOTY

In this part of the world, thousands of twerking insects move in unison to ward off predators and cool their colonies

<https://goo.gl/5JVxyB>

More bees in the news

FASTER INTERNET? IT'S TIME TO THANK THE BEES

The fascinating tale of how the decentralized foraging patterns of honey bees led engineers to develop the 'Honey Bee Algorithm' that major web-hosting companies are using to keep internet services running efficiently – and saving billions of dollars in the process

<https://goo.gl/2ZosDa>

CROP CHEMICALS DO WILD BEES NO FAVOURS

Neonicotinoid insecticides are linked to the long term decline of wild bee populations across the UK according to an 18-year-old survey, reports the BBC

<https://goo.gl/UvY7hG>

15 MINUTES OF FAME FOR THE ROCK CHOMPING BEES OF UTAH

They chew through sandstone to make their homes cliffs, so this news quote is a too hard to resist: “Anthophora pueblo has pioneered a suitable niche between a rock and a hard place.”

<https://goo.gl/iATywq>

GRAND DESIGNS FOR BEEHIVES

Bees don't need to live in modest little square boxes. Here are 12 designs that redefine the super, such the towering Sky Hive shown here that can be installed in high density cities

<https://goo.gl/cntvrW>



... AND ONLY IN THE UK TABLOIDS

WASPZILLA!!

While the UK Department for Environment, Food and Rural Affairs is anxious of the potential impact these giant insects could have on Britain's bee population, The Sun newspaper reports “unsettling photos show the critter flicking its prey's body around while devouring its flesh” according to, yes, a man in a pub.

<https://goo.gl/VW6CQE>

SEEN AN INTERESTING FEATURE ON BEES RECENTLY?

Send the link to editor@beekeepers.asn.au

From the Inveterate Inventor

The Inveterate Inventor has a solution for empty space in the hive box

Sometimes a nucleus box is not there when you really want it. A small swarm, a big box: not a good idea. The small clump of bees has to try to maintain a brood temperature in a large box.

The answer: “filler frames”. These are really just hollow wooden boxes that fill the unwanted space in the bee box but can easily be removed as the colony develops.



The image above shows their construction. They are made from ply sides with light pine timber top, bottom and ends. They sit in the box in the same way as a frame does.

If the “fillers” are made either 72 mm wide or 83 mm wide, different combinations can be used to accommodate colonies on as little as two frames.



NEXT ABA Council October 23 Bega

The ABA holds its Council meetings around NSW to allow members distant from Sydney the opportunity to be involved in decision making about the operation of the ABA.

The last meeting was held at Mudgee.

*The next ABA Council meeting is October 23 in Bega.
It starts at 10 am at **Club Bega, 82 Gipps Street Bega NSW 2550.***

All ABA members are invited.

Important agenda items include:

*Capitation fees and insurance premiums for 2017
ABA journal – survey results and getting contributions from clubs
The ABA web based membership system
A review of the recent ABA field day*

ABA website link to a new club starting in Canberra – do we link to clubs out of NSW?

ABA cash reserves

DON'T MISS Saturday October 29

TOCAL BEEKEEPER'S FIELD DAY

815 Tocal Road | PATERSON | NSW 2421

| | |
|---------------------|---|
| 8.45 | Introduction |
| 9-9.30 | Biosecurity Update.....Hayley Pragert |
| 9.30-10 | Vocational Training, "Tocal the Place to Bee"....Elizabeth Frost |
| 10.-10.20 | Pillars of Beekeeping.....Doug Somerville |
| 10.20-10.40 | Mesh bottom boards, hive ventilation and temperature control....Col Wilson |
| 10.40-11 | MORNING TEA |
| 11-11.30 | Honey---Hive to Consumer....Bill Winner |
| 11.30-11.45 | Native Bees---AgGuide Preview....Danielle Lloyd-Prichard |
| 11.45- 12.30 | SIMULTANEOUS DEMONSTRATIONS: Opening Beehives for Beginners....In the field Inspecting Beehives for Disease....In the field |
| 12.30-1.30 | LUNCH |
| 1.30-2.30 | SIMULTANEOUS DEMONSTRATIONS Inspecting Hives for Disease....In the field (repeat demonstration) Demonstration of Extraction....Indoors View the inside of a native stingless beehive....In the field |
| 2.30-3 | Rearing Quality Queens....Elizabeth Frost and Doug Somerville |
| 3-3.30 | Flow Hive Update |
| 3.30-4 | Q& A |

TRADE SHOW AND FOOD/COFFEE AVAILABLE ALL DAY

TAMWORTH BRANCH

NSW APIARISTS ASSOCIATION INC.

BEEKEEPER FIELD DAY

Saturday 26 November 2016, Tamworth Agricultural Institute (DPI)
4 Marsden Park Road
Tamworth NSW 2340

Organized by the Tamworth Branch of the NSW Apiarists Association in collaboration with the NSW Department of Primary Industry's Advisory Officer Dr Doug Somerville.

If you have an interest in beekeeping you are very welcome to attend this FREE Field Day.

Presenters: Doug Somerville, Hayley Pragert, Ray Hull, Norm Maher and others

Inside Sessions

9.00 - 9.15 Introduction and Welcome
9.15 - 9.45 Biosecurity Update and Code of Practice
9.45 -10:15 Training and knowledge opportunities.
10.15 - 10.45 Pillars of Good Beekeeping
10.45 -11.00 Morning Tea

Outside Sessions

11.00 -11.30 How to open a hive, identify each cast of bee,
Inspect for disease and reassemble the hive.
11.30 - 12.00 How to check for Varroa mite - sugar shake test, others
12.00 - 12.30 A look into a Native Bee Hive
12.30 - 1.30 LUNCH BBQ - (Gold Coin Donation) and Raffle Draw

Inside Sessions

1.30 -2.30: Do I need to feed my bees? Bee Nutrition
2.30 - 3.00 What Makes a Good Queen?
3.00 - 3.30 Future Challenges. Sustainability.
3.30 Coffee and Head Home.

Enquiries: Contact Ray Hull on 0407 469 176

To Confirm your attendance email Norm Maher, normmaher@hotmail.com

ABA Club contacts

| Club | Contact | Email address | Web site address |
|--------------------|---------------------|--|---|
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| Central Coast | Max Rae | mx_rae@yahoo.com.au | |
| Goulburn District | Lee Towle | secretary@goulburnbeekeepers.asn.au | www.goulburnbeekeepers.asn.au |
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| Sydney Central | Elke Haege | secretary@sydneybeeclub.org.au | www.sydneybeeclub.org.au |

CLUB GRANTS NOW AVAILABLE

Does your club need equipment to enhance the education of new and existing members? Do you need IT equipment, extracting equipment, hives or guest speakers? Then please discuss this at your next meeting and get back to me. I will need you to complete an application form along with the minutes of the meeting where the item was proposed and accepted.

To give you some ideas, Hunter Valley and Sydney branches have decided to add Flow hives to their apiary to attract new Flow Hive members and to cater for existing members and guests looking to learn about a different method of harvesting honey.

Shoalhaven will be able to provide beekeeping presentations with a laptop and projector, while Bega plan to establish an apiary in the grounds of the Old Bega Hospital.

Miskell Hampton ABA Education Officer

misandcy@hotmail.com