

BEEKEEPERS.ASN.AU



**Amateur
Beekeepers
Association**
NSW

THE AMATEUR BEEKEEPER

NEWSLETTER FOR MEMBERS
June/July 2019



2019

**ABA BEEKEEPING WEEKEND
LISTEN, LEARN, ENJOY!**

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Beekeepers
Association**
NSW

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Bottling without mess or stress



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COVER: SOME OF OUR SPEAKERS
TOP: Mark Hall, Katja Hogendoorn,
Hilary Kearney, Eric Tourneret
MIDDLE ROW: Tim Heard, Adrian Dyer,
Jody Gerds
BOTTOM ROW: Megan Halcroft, Amelie
Vanderstock, Gina Cranson, Nural
Cokcetin, Laura Bee Ferguson



CONFERENCE • 7-9 JUNE 2019

The Art & SCIENCE of Beekeeping

A smaller, more stylized illustration of a bee on a flower branch, located on the right side of the title area. The bee is facing left, and the flower is a single, larger tubular flower. The branch has several green, lanceolate leaves. The background is a light, neutral color.

G1 & G6 Theatres, Western Sydney University Hawkesbury Campus, Richmond

WEEKEND TICKET \$100 members, \$120 public

Each ticket includes

- entry to Friday movie night: June 7
- two days of talks, trade show and displays: Saturday June 8 and Sunday 9
- light refreshments and lunch on Saturday and Sunday
- conference show bag containing gifts and vouchers
- reusable bee-logo lanyard

REGISTRATION from: 6pm Friday June 7; 8am Saturday; 8.30am Sunday

PARKING \$7 a day on university grounds

GALA DINNER AND AWARDS

Pre-booked tickets: \$95, includes three-courses and all drinks

6pm Saturday

Hawkesbury Race Club, Clarendon

Tickets available ABA2019.BEEKEEPERS.ASN.AU

WEEKEND PROGRAMME *SUBJECT TO CHANGE

VENUE

WESTERN SYDNEY UNIVERSITY HAWKESBURY CAMPUS AT RICHMOND

Enter via Londonderry Road. Events are in or adjacent to G1 and G6 lecture theatres. Follow signage on campus

FRIDAY JUNE 7

3PM WSU GLASSHOUSE TOUR

Meet at S40 (park your car near Building S8)

Join a walking tour lead by Jasmine Grinyer to see how WSU researchers are investigating native bees as agricultural pollinators in controlled conditions. Approximately one hour

6 TO 9PM

REGISTRATION G1 registration desk

COMPETITION ENTRIES DELIVERY

Entries to Colonel Pulling Contest, Inventions, Art and Labels contests accepted at G6

BEE SHORTS FILM SCREENING

Come along to G6 Theatre, meet conference attendees and guest speakers, and watch films submitted in our short film competition. Food truck onsite providing refreshments at own cost

SATURDAY JUNE 8

8.30 OFFICIAL OPENING G6

PROFESSOR JAMES COOK, WSU

9AM HILARY KEARNEY, Girl Next Door Honey, USA

BROADCASTING YOUR BEESWAX

Breaking from tradition, Hilary has developed a beekeeping business that doesn't rely on honey sales or pollination services for economic success. She reveals some of the secrets of her international success

9.45 LAURA BEE FERGUSON, College of Melissae

HISTORY AND MYSTERY OF BEES

A rousing anthropological romp through honeybee mythologies and mysteries, animal communication and history that are at the root of civilization and spiritual practices the world over

10.30 Morning Tea

11 NURAL COKCETIN, DANIEL BOUZO, University of Technology Sydney

MEDICINAL HONEY – NOT SO

ALTERNATIVE NOW Learn from these leading researchers about the antimicrobial properties of honey and its medical grade use as a topical treatment for wounds and skin infections; the increasing buzz about Australian manuka honey and its unique properties;

and how we are gaining more understanding of honey as a prebiotic food that can improve gut health

12 SIMON TURNER, Malaika Honey

BEEKEEPING IN UGANDA

Simon explains how a beekeeping social enterprise is supporting poor rural communities by providing reliable markets, research and training, and quality beekeeping supplies

12.15 ROD BOURKE, DPI Bee Biosecurity

AFB AND THE ART OF BEEKEEPER

SURVIVAL AFB is all around us. It is a fatal honeybee disease, yet for much of the time is not such a great threat. Rod shares practical beekeeping tips that can reduce the incidence of AFB, stop its spread, and allow us to enjoy our beekeeping more

12.30 Lunch

1.30 ADRIAN DYER, Research Fellow, RMIT University Melbourne

SEE LIKE A BEE: THINK LIKE A BEE

Recent advances in photography are being used to understand how bees recognise the flowers on which to forage; and how bees compensate for the limitations in their vision by using cognitive-like solutions, like counting, to enable survival in complex, changing environments

2 TIM HEARD, director, Sugarbag Bees

RESEARCH SUPPORTING STINGLESS BEEKEEPING

Tim reviews a wide range of studies that are revolutionising our understanding of stingless bees, their management and a commercial future for their honey

2.30 JODY GERDTS, researcher, Bee Scientifics

WHO'S YOUR MUMMY

Breeding resistance to chalkbrood in Australia: Jody details the results of her groundbreaking studies

3PM Afternoon Tea

3.30 MEGAN HALCROFT, native-bee educator and conservationist

AUSTRALIAN POLLINATOR WEEK

Inspiring community awareness and participation, five years on. Megan describes how this project continues to develop and encourage citizen scientists across the country to take a closer look at their surroundings

4PM Finish

6 TO 10PM GALA DINNER

Hawkesbury Race Club, Clarendon. Pre-booked

tickets. Three-course dinner with soft drink, beer and wine included.

Interclub quiz and presentation of awards for Colonel Pulling Contest, Invention of the Year, Best Labels, Celebration of Bees Art Project, and Bee Shorts film competition. Grand raffle draw.

SUNDAY JUNE 9

9AM ABA ANNUAL GENERAL MEETING Theatre G1

Open to all ABA members. (No conference ticket required.) Must start promptly so we invite you to arrive early. Please bring your green ABA membership card to speed entry

DAY 2 Theatre G6

10 ROSIE STERN, honey nutrition researcher
GLYCAEMIC INDEX AND PREBIOTIC EFFECTS OF AUSTRALIAN HONEYS Rosie sums up a decade of her research into local honey and its effect on our digestive health, and explains why some honey can be labelled with nutritional health claims

10.30 Morning Tea

11 ERIC TOURNERET, The Bee Photographer
ALONG THE HONEY ROADS Eric takes us on an epic visual voyage around the world to glimpse the lives of bees and beekeepers working in all environments, from the rooftops of major cities to the valleys of the remotest regions

11.45 Projects at WSU Hawkesbury Institute of the Environment

VIROSPHERE OF HONEYBEES AND STINGLESS BEES **BRONWEN ROY** is investigating the world of viruses that pollinators inhabit, and is examining which viruses affect different species

SMALL HIVE BEETLES AND STINGLESS BEES **SCOTT NACKO** on the first detailed case of a SHB infestation in a native bee hive

APPLE AND CHERRY POLLINATORS **OLIVIA BERNAUER** has been comparing the pollination effectiveness of insects such as beetles, flies, moths, wild bees and managed bees, and their role in improving the yields of local orchards

12.30 Lunch

1.30 HILARY KEARNEY, Girl Next Door Honey
MANAGING VARROA WITHOUT CHEMICALS Hilary explains how natural beekeeping practices keep this feared parasite in check in her California apiaries. A treatment-free approach that can manage this tiny but devastating pest

2 KATJA HOGENDOORN, University of Adelaide
REVEGETATION FOR CROP POLLINATORS Habitat loss, pesticides and climate change put pressure on all types of wildlife. Katja has been researching how modified agricultural landscapes could ease the strain

2.30 AMELIE VANDERSTOCK, Sydney University
NATIVE BEES IN COMMUNITY GARDENS Amelie outlines her research into bee populations across Sydney's urban and suburban green spaces

3PM Afternoon tea

3.30 MARK HALL, Postdoctoral Research Fellow, WSU Hawkesbury Institute for the Environment

THE LIFE AND TIMES OF NATIVE AND MANAGED BEES Merging art and science, Mark will share his love and fascination of bees in a presentation that interweaves poems and short stories with details of the important research underway at Western Sydney University

4 In Conversation with **GINA CRANSON**, native bee illustrator

NATIVES: UP CLOSE AND GLORIOUS Gina's work bridges the worlds of scientific study and artistic expression to show us how to recognise and appreciate the bees in our midst

4.30 Tim Heard, director Sugarbag Bees
CONSERVATION OF STINGLESS BEES

Keeping stingless bees is gaining in popularity. How can we ensure that this movement has a positive impact on their conservation?

5PM Close

The
Art
& SCIENCE
of Beekeeping

YOUR WEEKEND PLANNER

BOOK YOUR TICKETS

ABA2019.BEEKEEPERS.ASN.AU

ABA financial members qualify for the \$100 weekend rate. The ABA is also extending this discount to members of NSBKA, NSWAA and other bee clubs. Non member rate is \$120. No other discounts apply.

Lunch plus refreshments mid morning and mid afternoon will be provided on Saturday and Sunday to ticketed attendees. Included in ticket price.

Parking on campus is \$7 a day. Pay at nearest meter. If you have prepaid, collect your voucher at the registration desk. Talks will be held in tiered lecture theatres on the campus of the university. Theatres G1 and G6.

Coffee shop will be open all weekend.

Outdoor stalls will be trading all weekend.

Registration will commence at 6pm on Friday.

If you are intending to register on Saturday, please arrive early to avoid queues. Registration opens 8am.

SHORT FILM CONTEST

The ABA is running a short film competition, ABA Bee Shorts, for the first time this year.

Entry is open to ABA members and the public.

Films must be under 10 minutes, and may be of any genre, but must have something to do with bees.

Enter online at filmfreeway.com/ABABeeShorts. Use code ABALastMinute. Selected entries will be shown at the pre-registration session on Friday evening.

Winners will be announced at the Gala Dinner.

AGM SUNDAY MORNING

This will be held at 9am on Sunday June 9 in Lecture Theatre G1. The AGM is open to all ABA members – no conference ticket required – and to speed up entry please show your green 2019 ABA membership card at the door.

Official notice of the AGM, the agenda and reports were sent to all members in May.

ASK THE DPI

Rod Bourke, the Bee Biosecurity Officer with NSW Department of Primary Industries is attending on Saturday. So seek him out to get an answer to your bee queries, current regulations, and other information to help you keep your bees in the best of health.

TRADE SHOW

Imagine a market where everything is bee-related! Here's your chance to shop for some beekeeping essentials and unique buys. Chat directly with a range of suppliers and discover what's new, what's best and what's just what you need to get ready for next season. (And pick up that special treat!)

EXPECTED TO ATTEND:

Urban Beehive	(Saturday, Sunday)
Australian Honeybee	(Saturday, Sunday)
OZ Armour	(Saturday, Sunday)
Keeper & Hive	(Saturday, Sunday)
Lyson	(Saturday, Sunday)
Malaika Honey	(Saturday, Sunday)
Goldfields Honey	(Saturday, Sunday)
Healy Group	(Saturday, Sunday)
Hornsby Beekeeping Supplies	(Sunday)
Sustainable Natives	(Sunday)

Plus nearby and on-campus: The Secret Garden nursery will be open on Saturday selling bee friendly native and exotic plants, and handmade bee hotels.

DISPLAYS. RAFFLE

View apiary products from around the state – the entries in the ABA's annual interclub competition. Plus, this year, see the entries to our Best Invention contest, projects in our Celebration of Bees art award, and labels hoping to take out top honours in our Labels and Packaging contest. Vote on your favourite! And don't forget to buy your raffle tickets for the chance to win amazing bee-related prizes

GALA DINNER

This is on Saturday June 8 from 6pm. **Hawkesbury Race Club** is close to Clarendon rail station and there is plenty of free parking at the venue.

The quiz component of the Colonel Pulling contest will be held during the dinner. Awards will be presented and weekend raffle prizes drawn

STAYING THE WEEKEND?

The area has a range of accommodation catering for all budgets. Check out sydney.com/hawkesbury. Crowne Plaza Hawkesbury Valley is offering discounted rates to ABA conference attendees. Book via the link when you purchase your weekend tickets to get the reduced rate. [As of May 28, the hotel tells us they have plenty of availability this weekend.]

LABEL LAW

Country of Origin

Is your honey marked correctly?

ALMOST 12 months ago new labelling regulations became mandatory, with a special country of origin symbol required on foodstuffs sold in Australia. Don't make the mistake of thinking because you aren't a large scale commercial operator that you can ignore all this. Honey sold by individual and club beekeepers **MUST** comply.

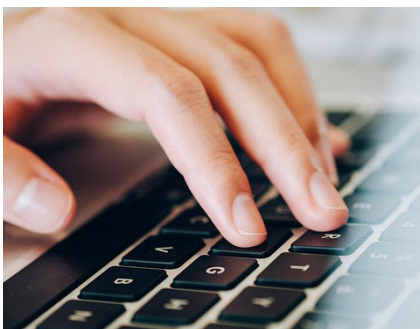
Adopting the rules isn't difficult: the [ACCC's website](#) has very easy to follow explanations and links to an online tool that will create the right symbol for your packaging. (Type [ACCC Country of Origin label](#) into your search engine.) A simple CoOL fact sheet is now available in languages other than En-



TRAINING

BRUSH UP SKILLS

NSW registered commercial beekeepers (with 50 hives or more) who would like to do the Biosecurity for Beekeepers online course but have not yet received a code (to do it at no cost) please send an e-mail to rod.bourke@dpi.nsw.gov.au listing your brand, individual beekeeper and any company name.



Under the Biosecurity Code of Practice, beekeepers with more than 50 hives are required to show that they have completed biosecurity training.

For all other beekeepers wanting to

access this course, it is available at <https://honeybee.canopihr.com.au> for a small cost.

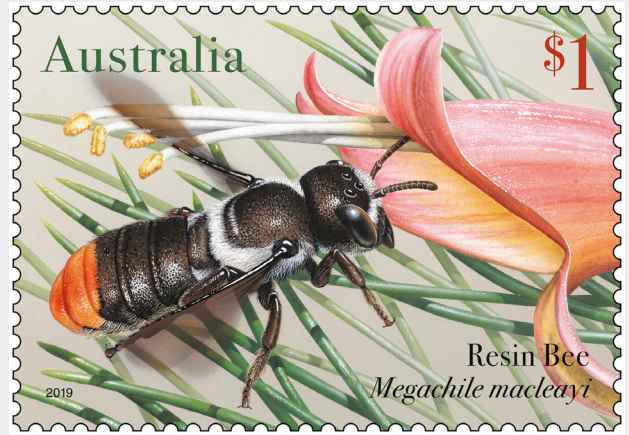
QUIZ

Test your Bee IQ

Who said, "I watched the little working gangs as once I watched the criminal world in London"?

- A) Charles Darwin
- B) James Bond
- C) Sherlock Holmes
- D) Reverend Langstroth

Answer on page 15



STAMP ISSUE

Celebrate Natives

Australia Post issued four \$1 stamps in mid May to celebrate four major types of native bees. Illustrated by Kevin Stead, the stamps feature a resin bee (*Megachile macleayi*), a green and gold nomia (*Lipotriches australica*), a wasp-mimic bee (*Hyleoides concinna*) and a neon cuckoo bee (*Thyreus nitidulus*). **Products include a first day cover, stamp pack, medallion cover, booklet collection and booklet of 10 x 4 \$1 self-adhesive stamps.**

Available while stocks last



INDUSTRY

Manuka gets its credentials

It's the, *ahem*, buzzword in honey. So Australian producers are introducing symbols to show consumers what they are paying for

MANUKA HONEY is much sought after for its medicinal properties. Produced by bees from the nectar of *Leptospermum* plants, it is an important product in local and export markets. Australia has over 80 native species of *Leptospermum* that grow in a range of habitats.

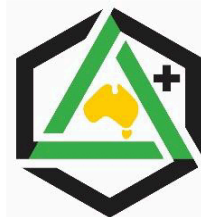
Now extensive scientific studies have profiled Australian manuka honey to identify Methylglyoxal (MGO) as the most significant marker, indicating potency, in addition to precursor Dihydroxyacetone (DHA), and Leptosperin as an authentication aid. With levels over 1800 mg/kg of MGO being reported, Australian Manuka is arguably the strongest natural antibacterial honey in the world.

Now the Australian Manuka Honey Association

(AMHA) has introduced a series of symbols to give customers confidence that they are buying 100% authentic, high quality manuka honey, produced in Australia, that has been independently tested for MGO and DHA markers. The AMHA is also now imposing a levy on member producers to raise funds that can be directed to fighting for market access along with future research and marketing. The immediate goal is for industry to fund legal costs necessary to defend trademark applications by NZ's Manuka Honey Appellation Society Incorporated for the exclusive grant of the certification trademark for 'Manuka Honey' in the UK and NZ. The director of AMHA is Ben McKee, CEO of Hive & Wellness Australia – owners of the 'Capilano' Brand and Australia's largest packer of manuka honey.



AMHA
AUTHORISED



AMHA
AUTHENTIC

Grade 2
differentiation



Criteria:

- must be sourced primarily from *Leptospermum* forests in Australia; and
- contain not less than:
 - 30+ mg/kg Methylglyoxal (MGO); and
 - 60+ mg/kg Dihydroxyacetone (DHA)

→ Testing required to be conducted by an independent analytical laboratory, authorised by AMHA

Criteria:

- must be sourced solely from *Leptospermum* forests in Australia; and
- contain not less than 83 mg/kg Methylglyoxal (MGO); and
- greater than 170 mg/kg of Dihydroxyacetone (DHA)

→ Testing required to be conducted by an independent analytical laboratory, authorised by AMHA.

→ This Mark does not indicate strength of the honey, refer MGO Rating.

These 'Marks of Authenticity' are true marks of authenticity for Australian Manuka honey products and can only be used on products that are registered with the AMHA; and meet the strict verification and testing requirements for each category.

CLUB NEWS

Well done, Hastings Valley

The recently formed Hastings Valley club has received a \$8678 grant from the Port Macquarie-Hastings Council to buy equipment including a laptop, projector, screen, marquee, tables and display boards.

"It will make life a lot easier and it will add a touch of professionalism to everything we do," club president Charles Watkins told the Port Macquarie News in May. Hastings Valley has grown from 16 members five months ago to more than 50 today.

Annual report

Len Verrenkamp sums up the year

AS MUCH AS I would prefer to just *talk* about the achievements of clubs and the ABA over the past year, protocol dictates that a written report is supplied and recorded for all of eternity. So please bear with me on this one.

The Amateur Beekeepers Association NSW Inc has again experienced significant growth over the past year. We had 2146 members at the end of December and five months later have passed 2300. Affiliated clubs now total 24 across the state, ranging from Bega in the south, Northern Rivers to the north, and Mudgee to the west. Clubs added this year, in no particular order, are Blue Mountains, New England and Hastings Valley. Those names themselves indicate that the popularity of beekeeping ranges well beyond the state's major population areas.

Talking to different clubs, I note a common theme: membership growth. And most new recruits are people who have little or no experience in keeping bees. This places a huge amount of work on club committees. Delivering quality information time and time again is certainly a challenge.

All in all I hear only great things that committees are doing in an effort to keep up with the demands placed on the few involved in running our clubs. I thank these people for their efforts. Maintaining that level of commitment and enthusiasm will, I'm sure, eventually rub off onto some of the new members coming through and spread the load a little. The ABA executive has also been impacted by this continued growth, with increasing demands being made on executive committee members. More on this later.

A year of firsts is one phrase that sums up a number of initiatives coming to fruition in 2018. Mind you, these happenings have taken more than just a single year to eventuate. As I recall American singer Tracy Chapman once saying in an interview: it's taken 20 years to become an overnight success!

Beekeeper's record diaries. Educational materials. A revamped insurance system. Continued refinement of the online membership system. A seat for amateurs at the AHBC (Australian Honey Bee Industry Council) table. Our inaugural ABA conference. Continued lobbying for a better deal for our members on hive registration. A number of visits around the state to clubs for council meetings. And much work done by many individuals, whether it be on a one-on-one basis, visiting other clubs to present talks, attending and supporting new clubs in the throes of starting out . . . and any number of things that come across executive members' desks



in any given week that are dealt with without fuss or fanfare. The skills of the people who make up the ABA executive are extensive and allow the ABA to represent our members across many different levels of industry and government when required.

Now back to my comment above about the impact of the sustained growth on not just our member clubs. Currently, under the council-style constitution, the ABA executive has its hands tied to make decisions. Yes, we can propose ideas and put the wheels in motion to a certain extent. However any initiatives then require ratification at a council meeting to which all clubs are invited to send delegates. This means it can be three or four months before an idea can grow legs. In the past, when there were a dozen or so clubs and well under a thousand members, this system had some merit. However with the growth experienced in recent years, the shift in our demographic and a progressive executive, it is now proposed that the Department of Fair Trading model constitution for not-for-profit groups be adopted. This will enable the ABA executive to make timely decisions and in a far more efficient manner.

This is significant change for an organization that has been around since 1954. However nothing stays the same forever, and this proposal will enable the ABA to function effectively and continue to support our affiliated clubs and members into the future.

To the outgoing executive committee: many thanks for the efforts you put in this past year. A special thanks to Dave Wilson who is stepping down from his role as secretary after better than 10 years in the role. David's calm head (and extensive vocabulary) has guided the ABA through some challenging times, and the health of the organization is a direct result of Dave's selfless service to the ABA, clubs and all beekeepers alike.

May the next 12 months prove to be as informative and satisfying to all as the last 12 months have been for myself.

LEONARD H VERRENKAMP, ABA PRESIDENT
president@beekeepers.asn.au

REGULATIONS

DO YOU NEED COUNCIL PERMISSION?

We are often asked if you require a Development Application or permission from the local council to keep bees on your property. This is the situation as confirmed by two different councils – Hawkesbury Council and Northern Beaches Council

BEE KEEPING DEFINITIONS

Both the Northern Beaches Council and Hawkesbury Council have adopted the state government standard template "Local Environmental Plan" which defines 'extensive agriculture' to mean any of the following:

- (a) The production of crops or fodder (including irrigated pasture and fodder crops) for commercial purposes,
- (b) The grazing of livestock for commercial purposes.
- (c) Bee keeping,
- (d) A dairy (pasture-based).

The Local Environmental Plan [LEP] defines 'bee keeping' to mean "a building or place used for the keeping and breeding of bees for commercial purposes".

Whilst the LEP and the Environmental Planning and Assessment Act, 1979 do not provide a definition for 'commercial purposes', the Australian Tax Office and NSW Business provide guidance in determining whether an activity is a hobby or a business.

The following link is provided for your information: www.business.gov.au/planning/new-businesses/a-business-or-a-hobby/

No approval is required under [the state standard template] LEP for the keeping of bees as a hobby. Commercial bee keeping is permitted with consent (i.e. a development application is required) in some zones. If you wish to run a commercial business then I recommend that you engage a town planner. Commercial bee keeping is prohibited in some areas such as R1 General Residential, R3 Medium Density Residential, and RU5 Village.

PROCESSING

The collection, processing, packaging, storing etc of honey or beeswax is considered to be part of the operation/maintenance of keeping bees, whether for commercial or hobby purposes. In this regard, separate approval for the processing of products produced from the keeping of bees is

Reprinted from THE BEEKEEPER, the quarterly newsletter of the North Shore Beekeepers' Association.

Written by Michael Syme from information provided by the ABA's Vice President, Sheila Stokes

not required. However, should an activity involve the processing of products produced off site, development consent would be required as a 'rural industry'.

'Rural industry' means "the handling, treating, production, processing, storage or packing of animal or plant agricultural products for commercial purposes, and includes agricultural produce industries."

Whilst an approval for the keeping of bees may not be required, be it development not requiring consent or as a hobby, if honey is to be sold from the premises, the activity will need to be registered with Council as a 'food business' under the Foods Act 2003. This also applies to roadside stalls.

Bee related complaints used to be managed by the local government under the Apiary Act which has now been repealed, and replaced by the Biosecurity Act 2015. The Department of Primary Industries is now responsible for enforcing the Biosecurity Act 2015 and managing any complaints.

You should make your own enquires with your council about the rules for beekeeping in your area.



MEMBERSHIP

NEW MEMBERS: WELCOME!

THE ABA now has over 2300 members across 24 clubs. New beekeepers are joining every week and established organisations such as Gold Coast Amateur Beekeepers Society are set to affiliate in July. (GCABS is a thriving club established 40 years ago and now has many members based on both sides of the state border.)

HAVE YOU RECEIVED YOUR 2019 MEMBERSHIP CARD YET?

For all members who paid their ABA membership fee *before* 1 April 2019: your membership card has been sent to your club for collection.

For all members who have joined *since* 1 April 2019:

the membership card will be part of the Welcome Pack that the ABA is now sending directly to the member (once membership has been approved by the local club). This pack contains a personalised membership card, hive log book and a letter of welcome.

Many clubs report they are holding a stack of cards for new or renewing members that were not collected earlier in the year. Please check with your club membership officer if you have any questions.

NOTE: Log books ordered prior to April have been sent to clubs or individuals, as requested. Still haven't ordered one? Request your first copy via the membership system (and pay \$5 for postage). Additional copies are \$20 at beekeepers.asn.au/shop



JUDGING HONEY

PFUND HONEY GRADES

Preparing show honey is no easy task, but working out the correct entry class can be harder again, explains Dave Wilson

RAS National Honey Competition classes are:

CLASS	PFUND VALUE
Very Light	0-15 mm
Light	16-34 mm
Medium	35-59 mm
Dark	60-120 mm

LIQUID HONEYS are judged in classes based on their colour but how do we distinguish between Very Light and Light? In general, judging stewards will not move entries that are entered into incorrect classes, so the entrant has to get it right. This is where having some knowledge of the Pfund (usually pronounced *foond*) scale helps.

The original honey colour grader (top right) using the Pfund scale was developed by Pfund and Sechrist almost 100 years ago. It consisted of a wedge or strip of amber-coloured glass next to a wedge-shaped cell (bottom right) which was filled with honey. The wedge of honey is moved sideways until the colour of the light passing through the wedge matches the light passing through the amber glass (centre right). The Pfund value is the distance the wedge has been moved in millimetres.

These graders relied on a subjective assessment of when colours matched. Nevertheless they were remarkably accurate.

Today, multiple alternate colour scales exist. Some such as the Lovibond scale are also used to grade vegetables and fruit colours. <http://frenchlickhoney.com/colorguide.html> provides an excellent colour sheet, though it is grouped according to the American honey colour class standard.





"Jack's scale" colour cards (left), available at beekeeping suppliers, are designed to match a small pot of honey to the Pfund colours printed on the cards. The cards are relatively economic but they have limits.

I know of some bee clubs that have found jars of honey close to the "break" points between the various classes (for example, 15.5 mm) and use these as reference points when judging. Often the jars are stored in a freezer between competitions to prevent candying. However honey colour is not stable even when chilled and the so-called standards gradually drift high on the scale as the honey darkens.

Hanna (an American instrument company) has produced a digital honey colour grader that is calibrated to the Pfund scale from 0 to 150 mm. At over \$750, this instrument (right) is beyond the reach of most recreational beekeepers but it is quick to use and portable.



This device uses a quality light source to generate light of specific colours in the red-orange range. All samples are measured in a square cuvette having a 10 mm light path and are compared to a glycerol standard. The readings are displayed as mm Pfund.

The missing item in this list of colour measurement devices, I believe, is a calibration chart connecting Pfund and a computer colour standard such as the R (red) G (green) B (blue) scale. A colour with an RGB of 255, 165, 0 is pure orange and can be viewed on a computer by entering those codes. What is needed is a table that provides an RGB equivalent to any Pfund value.



The factors that contribute to honey colour are extremely complex. Almost every component of the honey plays some part in its appearance. Honey can darken with storage, although at widely differing rates depending upon the composition of the honey (acidity, nitrogen, and fructose levels) and its initial colour. Generally, honey darkens more rapidly when stored at high temperatures.

Research indicates that consumers prefer lighter honey over dark. Honey packers know this and will blend and filter honey to produce a colour that appeals to the highest number of potential customers.

TREES FOR BEES

SWAMP MAHOGANY

Len Verrenkamp helps you identify this tree

THE SWAMP MAHOGANY (*Eucalyptus robusta*) is common along the coast of NSW from about Merimbula in the south and north up into Queensland. A very similar species (*E. botryoides*) goes under the names of Bangalay or Southern Mahogany.

Swamp mahogany is typically found in lower lying coastal areas, hence the swamp part of its name, or "Swampy" in the great Aussie tradition of shortening any name where possible.

Flowering every year generally in late autumn (they have been early this year), these trees can produce a light to medium honey flow and only a low amount of pollen. This year the Central Coast has seen a prolific and extended flowering, with a number of club members reporting seeing bees in the blossom, which must indicate something in there for the bees.

It is reasonably easily identified by its almost sponge-like thick, fibrous bark, a flower bud with a pronounced pointed cap (*E. botryoides* has a less pointed cap) that will yellow and drop just before the bud bursts into blossom, and quite large glossy leaves with an almost waxy appearance. Swamp mahogonies are a favourite of the nectar eating rainbow lorikeet. So if you see a tree in flower this time of year full of lorikeets, then the odds are it's a Swampy. Hopefully there are a few not too far from your place.



GETTING BIGGER. IS IT BETTER?

Rod Bourke, NSW Department of Primary Industries Bee Biosecurity Officer has words of caution for amateurs dreaming of a bee empire

IT OFTEN HAPPENS sometime after the Christmas-New Year silly season. I take a good hard look at myself and ask the question, "Am I getting bigger?" Increasingly in the last few years the answer has been "YES"! The main culprit: those few extra small things I can't resist!

These little things are, of course, nucleus bee colonies. They're a great way to add additional security and reliability to a beekeeping operation. But what happens when they grow and you decide to turn them into hives?

When bigger is better

Did you know that it is often easier to keep two hives instead of one?

This is particularly true for newer beekeepers gaining experience. If one hive starts to weaken, the stronger hive can prop up the weaker one by donating bees and brood. And by freeing up space in the stronger hive you may even prevent swarming.

Being able to share bees and brood quickly and easily between your own hives as



"I NEED MORE ROOM PLEASE, OR I MAY SWARM"

opposed to an unknown source (that could be introducing disease) can prevent the loss of a hive. Also, successfully managing the weakened hive prevents robbing out by opportunistic bees looking for easy honey and is fundamental to reducing the potential transmission of American Foulbrood (AFB).

But when does "bigger is better" turn into "too much of a good thing"?

As new beekeepers become more familiar with their hobby they tend to reach two realisations. The first is that it is REALLY EASY to increase the size of an apiary. Through the frenzied collection of swarms

each spring and making up nucs and splits, hive numbers can multiply profoundly within a few months. This is followed by the second realisation: there's money to be made out of beekeeping. "Liquid gold fever" can cloud the judgment and drives a beekeeper to quickly and unsustainably go from just a few hives to suddenly 50 to 100. If this sounds like you, or a beekeeper you know, then . . . be VERY AFRAID!!!

Although it can be relatively easy to build up hive numbers, it's important to understand the amount of work involved to maintain every colony to proper standards. Due to the work that additional hives create, it can be tempting to start taking short-cuts and do less brood work on each hive. However, the fallout of lazy management is significant: increased swarming, unmanaged brood disease, underperforming and inconsistent colonies/queens, reduced honey takes during peak honey flows (as they aren't tended often enough) and, small hive beetle (SHB) slime outs.

Ultimately, if time isn't taken to manage hives properly you will lose some, and every lost hive costs hundreds of dollars. Moreover, if the hive has succumbed to a pest or disease it's a messy job to clean up and puts other hives and beekeepers at risk of the same fate.

Where do big things go?

If all that isn't enough to convince you that there's such a thing as 'too many hives', also consider the practicalities of housing the extra equipment. Each hive will, at the very least, have one extra honey super that comes off before autumn (if not two or three) which requires additional space, bottom boards, lids and em-locks to be stored. Each stack of boxes is at risk of infestation by wax moth or SHB if not stored properly.

With a few hives you can get by with an old fridge to store spare frames; upgrading to a large chest



IF THE BEEKEEPER HAD THE TIME TO WORK THIS HIVE AND ADD HONEY BOXES IT WOULD HAVE PRODUCED A LOT MORE HONEY AND NOT HAD A SWARM LEAVE



TELLTALE SIGNS OF ROBBING ACTIVITY. THIS WEAK HIVE WAS UNABLE TO DEFEND THE GAP IN AN OLD BOX.

freezer works better when you have 15 to 20 boxes of frames to store. Then its perhaps a cool room if you no longer have time for handling and stacking spare frames in the fridge.

From what originally seemed a good little pocket-lining hobby, many operators soon find themselves in the confounding position where costs are increasing and things just don't add up! More hives, a whole lot less free time, but the amount of honey (money) produced from each hive is down. In this case there is less strength in numbers.

If you are thinking of expanding your operation, think about how many hives you *really want* and how many you can *effectively keep*, and then find a spot somewhere in between so you have a life too. Consider that you need to find large chunks of dedicated time to work your bees regularly.

Going REALLY big

If you're looking to really expand, you need to consider the implications (and additional responsibilities). Once you reach 50 hives (remembering that 4 nucs also equals 1 hive), you are considered 'commercial' under the Australian Honey Bee Industry Biosecurity Code of Practice. Ensure you update your registration to accurately reflect the number of hives you are running in NSW. At 50 hives you are probably producing over 1500kg of honey per year, at which point you are legally required to pay a honey levy to assist AHVIC's work.

I personally know that many amateur beekeepers run in excess of 50 hives but are registered for fewer. This is irresponsible practice that can put the whole industry at risk if there is an outbreak of disease that needs to be quickly and effectively managed.

Don't be a part of the problem.

I encourage everyone to update their registration numbers by e-mailing Colleen Reeves at colleen.reeves@dpi.nsw.gov.au. With more hives, comes more responsibility. Make sure you're doing the right thing to protect your industry and avoid production problems (and a nasty fine from DPI).

How big do you want to be?

Things to consider;

- Regularly self-assess your skills and see if you can benefit from additional beekeeper training
- If you are considering 'going bigger' in bees take a serious look at the time, costs and space involved
- Develop a business plan. Do the maths to work out how many hives you can manage to make it economically viable
- If you're confident in your ability to manage a large number of hives, consider opportunities to buy out a retiring commercial beekeeper

At the end of the day as you run more hives you need to start making bees your main job. If you don't think that you can run the many hundreds of hives needed to support you and your family then think carefully as to how big you really should get in bees.

Rod Bourke



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August issue DEADLINE: July 15

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DIY GADGETS

THE INVETERATE INVENTOR is . . . decanting honey

It pays to have some simple and robust equipment to hand

Having a simple platform for decanting honey from a large pail into a jar is obvious and hardly could be described as an invention. Yet from personal experience I know that many beekeepers have pails balanced boxes, pieces of timber, a pile of ABK magazines . . .

A simple "table" that will allow the jar to sit directly under the tap is simple to build and proves its value every time honey is decanted. The one shown has small lengths of pipe as legs, but any stable structure capable of carrying the weight of a full honey pail will



The plastic carrier will not work with some pails – particularly those with a stepped rim.

Certainly these two aids could not attract a patent for original design, but they are handy and no honey jarring operation should be without them.

Do you have a bright idea? Share it here

We are keen to hear from members who have a good tip or a canny hack that makes beekeeping easier. Tell us about it at editor@beekeepers.asn

QUIZ ANSWER (p7): Sherlock Holmes, in *The Last Bow*. The literary detective famously retired to rural Sussex and kept bees



work.

Now for that pail that has a measure of honey in the base below the tap and so it will not drain.

A simple structure to hold the

pail at an angle to allow the honey to drain will save you some extra honey and will occupy your time with some timber and a jig saw. No dimensions are supplied but be consider the likely need for the device to accommodate different drums. The one pictured also has an aluminium strip at the front to hold the pail proud



of the timber base. This will ensure that a jar can sit directly under the lip of the pail.

A small plastic pail carrier is also available for those who prefer the speed of a credit card over the thrill of a jig saw and timber.



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