BEEKEEPERS.ASN.AU



NEWSLETTER FOR MEMBERS

February/March 2020

HONEY FRAUD Action plan to stop the fakers

ANGRY BEES!
HOW TO CALM
THAT HIVE

CONTESTS TO ENTER NOW

- *DESIGN A LABEL
- *DECORATE A HIVE
- *TELL YOUR STORY
- + 2020 INTERCLUB CHALLENGE





BEES IN TOUGH TIMES

WHAT TO DO WHEN POLLEN, NECTAR AND WATER IS SCARCE

February/March 2020

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REMINDER We don't want you to miss out on the next issue. Make sure your membership fees are paid and we have your current details. Unfinancial members will not receive the next issue

The Amateur Beekeeper is the journal of the Amateur Beekeepers Association of NSW Inc. It is distributed to members six times a year, in December, February, April, June, August and October.

The editor will consider adverts from businesses relevant to beekeepers to run free of charge where they contain a discount or special offer to ABA members. Please email editor@beekeepers.asn.au









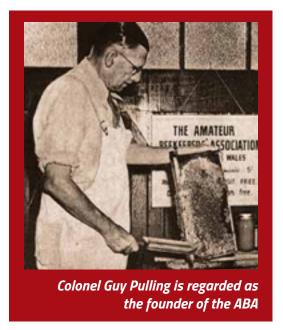
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COLONEL PULLING COMPETITION

Is your club our next trophy winner?

The countdown is on for the ABA's 2020 interclub competition

T'S NEVER BEEN easier for your club to compete in our annual contest named in honour of the founder of the ABA. Trophies will be awarded to the top overall club and to the best developing club. (Clubs qualify in the later category if they have formed in the last two years or have fewer members than 50% of affliated clubs.) Clubs have been sent details of how and where to submit entries. Competing clubs need to select a team and team leader. The team leader is responsible for submitting club entries in each round.



Round 1 Liquid Honey

We've simplified the judging of apiary products. This year we require entries of liquid honey only. Entry categories will be based on <u>RAS standards</u> for small producers — very light, light, medium and dark honey. Points will be awarded out of a total of 100 (flavour 25, density 25, colour 25, aroma 10, clearness 10, brightness 5). Clubs should pick two classes and submit two clear 375 ml jars (plastic preferred) for each. Honey must be received by the judge in Sydney by March 20.

Round 2 Club Report

Tell us about how your club helps educate local beekeepers. Clubs have been notified of two report topics. The reports are to be no more than 500 words each and submitted online. Due March 20.

Round 3 Club Promotion

Get creative! Competing clubs need to submit a single or double-sided PDF of a pamphlet or flyer suitable for distribution to the general public or a specific group (such a students or gardeners), to inform them about bees, beekeeping or the local club. Due March 20.

Round 4 Beekeeping Quiz

20 multiple-choice questions will be released at 9.15 am on the day of the ABA AGM, 5 April 2020. The quiz can be completed in the AGM auditorium at Bathurst RSL. If the team is not at the AGM, the answers can be submitted online.

For details of the AGM and competition trophy presentation, see page 17.

AND THE WINNER IS...

\$200 to promote bees

CAN YOU design a flyer or brochure to advertise the benefits of bees, beekeeping or your local club? Contact your club secretary about helping with the 'Club Promotion' entry in this year's Colonel Pulling contest (see above).

Clubs submitting excellent entries in this category may qualify to get 500 copies of their entry professionally printed, with the costs (up to \$200) covered by the ABA.

WIN \$100 to spend on beekeeping gear

GET YOUR club's entries organised for the 2020 Colonel Pulling competition and you could be in the running to win \$100 towards your next beekeeping buys.

To encourage participation, the ABA will present a \$100 prize to the best organised club team leader. Talk to your club secretary about how you can volunteer.

NEWS



Executive

EN VERRENKAMP recently resigned as president of the ABA.
Len had held the role since May 2018, representing the association at beekeeping events and industry meetings. Len led the organisation

of the ABA's 2018 conference at The Entrance, has demonstrated his beekeeping skills at a range of field days and is deeply involved in the success of Central Coast Amateur Beekeepers. The ABA executive team thanks Len for his unique contributions to local beekeeping including regular columns in our journal. Our very best wishes to you, Len!

SHEILA STOKES, vice resident of the ABA, is the acting president until the role is filled at the AGM to be held in April.

Sydney Bee Club

HE SYDNEY club splits member activities between regular weekend practical hive inspections and demonstrations at Randwick Community Centre (members and guests reserve places via online booking site Eventbrite), and Monday-night speaker events held at Waverley Council Library.



Recently the club started selling its honey at the Bondi Farmers Market on the first Saturday every month, where visitors can find out about the club and get their questions on bees and honey answered by a local beekeeper. For events, check the club page at beekeepers.asn.au/sydney

Alice Springs

SINCE FORMING an association last July, Alice Springs beekeepers have been promoting beekeeping at events such as the local Eco Fair and Show Day. Funds raised through grants, sausage sizzles and raffles are helping the club buy resources such as bee suits and a four-frame spinner.

The group meets bi-monthly to discuss the successes and troubles of members' hives, and how to respond to local nectar flows. 2019 was the driest year on record and, as the arid environment relies heavily on rain, the honey harvest can vary dramatically. Honey harvested after the River Red Gums have flowered is beautifully light and delicate! At a recent Bunnings' activity day, members gave out seeds and we got kids to make small bees out of small plastic bottles with googly eyes and cut-out wings stuck on. beekeepers.asn.au/alice-springs

Insurance

AVE YOU taken out the optional beekeeper insurance available through the ABA?

Your insurance Certificate of Currency is emailed to you in the month following your payment. That means everyone who paid in December should have their certificate by now.

If you paid in December but haven't yet received your certificate, please let us know if you need a copy. Contact secretary@beekeepers.asn.au

Details of the policy are listed online at beekeepers.asn.au



They are hive savers!

LL BEEKEEPERS would be aware of the disastrous results when bushfires overrun apiary sites.

A South Coast member had concerns about the fate of

A South Coast member had concerns about the fate of an apiary site on the coast. When the fire risk had diminished he checked on the site. To his amazement local firefighters had cleared the ground around the site (see left) and, while there was fire damage within 200 metres, the hives were untouched. Fire-

fighters save lives, property and beehives! We are all in their debt.

For details of various programmes to help fire affected keepers go to <u>beekeepers.asn.au/news/bushfire-assistance</u>
Donations to HiveAid, a registered charity set up to help commercial beekeepers cope with drought, fire and natural disasters, are tax deductible. To donate, go to <u>ruralaid.org.au</u>

MEMBERSHIP

It's in the mail!

Cards, log books and biosecurity manuals are being delivered

HIS YEAR we are sending a membership pack direct to each ABA member. So, instead of collecting your ID card at a club meeting, you'll receive it at the address you provided when you entered your details online.

Members who had paid their ABA and club fees by the end of January will receive packs in mid February. (If you don't receive a pack, please check your details are up to date by signing in at <u>beekeepers.asn.au</u>.)

Along with the current blue ID card we are enclosing a new version of the ABA **Beekeeper's Log Book** and a copy of the **Biosecurity Manual for Beekeepers**. This 64-page publication is packed with information to help identify and deal with bee pests and diseases.

The ABA thanks the NSW State Advisory Group of the National Bee Biosecurity Programme for a contribution towards the manual's printing costs.

A team of ABA volunteers pulled this mailing project together and, over several days, assembled more than 2500 packs into barcoded and presorted envelopes to lodge with Australia Post for a discounted mail rate.

We thank all volunteers for their efforts, especially for staying cheery on some 40-plus° days!

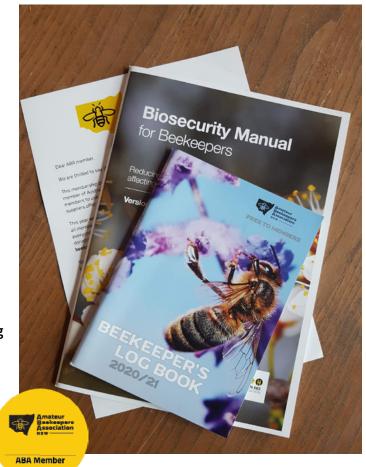


CLUB NETWORK

For details of our network of 28 affiliated clubs across NSW and beyond, check out beekeepers.asn.au/find-a-club

Many clubs welcome ABA members from a different region as visitors, so it's worth checking the calendar of events listed on many club web pages.

Know of beekeepers in an area not served by an existing club? We are always happy to hear from beekeepers wanting to start a new group. Information is available at beekeepers.asn.au/affiliation



MEMBERSHIP Q&A

ABA FEE: \$30 CLUB FEE: SET BY YOUR LOCAL CLUB OPTIONAL INSURANCE: \$20

"WHEN'S MY NEXT RENEWAL DUE?"

Memberships and insurance purchased now carry through to 30 June, 2021.

"WHY DO I NEED TO PAY AN ABA FEE AND A SEPARATE CLUB FEE?"

Affliated clubs are independent associations and decide their own fees. The ABA collects club fees on behalf of clubs via a centralised membership register.

The ABA fee is retained by the ABA to fund its activities supporting clubs and amateur beekeepers.

The two fees are currently listed separately so that members can choose to join multiple clubs and pay only one set of ABA fees.

"HOW DO I CHANGE CLUBS?"

If you are already a member of an ABA club, email membership@beekeepers.asn.au with details of the other ABA club you wish to join. We will send you details of the fees due to the new club.

Unexpired club membership fees are not refunded.

BETTER BEEKEEPING

Caring for bees in extreme conditions

ABA Biosecurity Officer Bruce White explains how to manage your bees during drought

ROUGHT AND wild fires reduce the nectar and pollen available to honey bee colonies.

For amateur beekeepers in rural areas who don't migrate their hives, the effects can be particularly severe.

My advice for beekeepers during a drought is, where possible, to shift your apiary to a town or its outskirts so the field bees can forage on the variety of flora available in gardens, parks and street plantings.

When locating hives in or closer to town you must, of course, consider the neighbours: entrances shouldn't face lights (which will attract bees at night), and flight paths need to be watched to prevent bees becoming a nuisance. (Fences, hedges, or screens on property boundaries will divert bees above head height.) These colonies need to be managed so the bees remain docile and swarms are controlled.

Particularly during drought consider the three main elements of bee nutrition:

POLLEN builds body structures, increases bees' longevity, and stimulates the queen to lay eggs so colony numbers don't dwindle

NECTAR provides energy for heat and to power bees' flight

WATER is essential for colonies to survive above 35°C

AT THE COLONY ENTRANCE:

Pollen Observe the field bees carrying pollen on their hind legs at different times of the day. The more bees carrying pollen the better. Different colours indicate they are collecting a variety of nutritional elements: so the more colours the better too! Strong colonies can collect 100 kilos of pollen a year.

Nectar Bees carrying nectar in their honey sac will have an enlarged abdomen. They tend to drop at the hive entrance, or land short of the entrance and walk in. If you catch a bee and gently squeeze her abdomen, the bee will regurgitate the nectar for you. You can taste the sweetness. If nectar is available, bees keep collecting it.

Water If the liquid you taste when you squeeze a bee is not sweet, she is bringing back water. Strong colonies in temperatures over 40°C can collect four litres a day.

INSIDE THE COLONY:

Don't open a hive unless the outside temperature is below 30°C.

Pollen is stored in the brood area, normally in the combs on its outermost edges. You may find some pollen stored above an excluder.

If you find little pollen stored or being collected, feed irradiated pollen otherwise the colony population will decline and die out. Pollen is as – or more – important than nectar.



Nectar Check for

frames of capped honey and for nectar in open cells in the brood box and super. Shake the frames sideways and if nectar is present it will shake out. (Honey is thicker.) If bees have collected nectar during the day, after dark you will be able to hear the bees fanning to ripen the nectar into honey.

Water Bees are busiest collecting water late in the afternoon. Mainly they put it in the brood area ready to cool the cells in hot weather. They must maintain the brood temperature at about 34°C.

MANAGEMENT

Once you have checked the condition of the colony by observing the field bees at the hive entrance and examining the combs inside, as well as checked the availability of flowering plants, you can decide on a course of action.

• The colony has plenty of stored honey, pollen and fresh nectar available, and water and flora is rewarding the colony: DO NOTHING

- Colony is short of nectar and stored honey: FEED **SUGAR**
- Colony is short of pollen: FEED IRRADIATED **POLLEN**

Next question: Do you want to build the population, reduce the population, or maintain it?

If you feed because colonies are short of nectar or pollen:

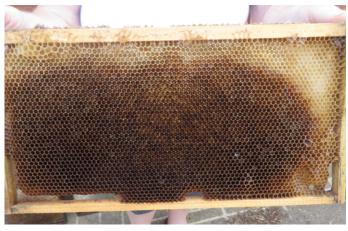
Nectar To stimulate the colony: mix one part water to one part sugar by volume. Feed one to two litres twice a week.

For stores: mix one part water to two parts sugar by volume. Feed five to 10 litres once or twice a week depending on the colony strength.

Best method for winter stores: Feed one to two kilos of dry white sugar on a mat under a migratory lid. Dry sugar will not stimulate the colony to breed or fly to excess.

Never feed honey, even from your own bees, as it is too great a risk for all brood diseases.

To feed syrup: (This is my recommended method, with the added advantage that you don't need to buy special feeders.) Remove a frame of empty drawn comb and lay it on top of the open hive. Sprinkle the sugar syrup into the cells using, for example, a plastic



juice bottle with holes punched in the lid.

Turn the filled comb over —the syrup won't run



repeat on the other side. A full-depth comb can hold at least two litres of syrup. Return it to the hive. The bees will clean up any syrup that spills during the process.

out — and



You can fix a shortage with sugar. However, if the colony is also lacking pollen, feeding sugar only will lead to the colony's death.

Pollen I prefer to feed powdered irradiated pollen mixed with syrup. This has the advantage of not requiring a special feeder and is not very attractive to small hive beetle. Additionally, it exposes the whole colony to the benefits of the pollen. Irradiation eliminates the disease risk and does not affect the pollen's nutritional value.

I am not a fan of commercial supplementary protein formulations. Irradiated pollen can be purchased from equipment suppliers and ground to a powder in a kitchen blender.

Mix 100 grams of ground pollen into half a litre of sugar syrup.

I used this method

successfully for over 20 years when managing the Honey Bee Quarantine Station, where colonies needed to be contained and kept alive in flight cages for over 12 months.

Water You must provide water within 200 metres of your colonies. Use polystyrene as floats or add sticks to the container so the bees won't drown.

Stop supplementary feeding when conditions improve and you see frames of brood at all stages plus stored honey.

Prought can increase other hazards:

Ants can attack colonies, especially those under stress from drought conditions. Place harbourages under the bottom boards to kill the ants. This way no toxic pesticides get into the soil or touch the bees.

Hardware stores can provide suitable harbourages. Meat ants cause the most damage as they eat bees. Small black ants are usually not a problem

Small Hive Beetles are often very active in February and March, coinciding with the humid weather. Control with Apithor traps or with devices that catch SHB in oil or diatomaceous earth.

Cane Toads eat bees. Place hives on suitable stands if you are in an area with toads.

Heat Provide some shade especially if lids are tin. Corflute nuc boxes provide poor insulation and can easily result in colony meltdown.

If moving colonies, move at night with entrances open. If you have to move a hive during the day, make sure it has a large screened area, such as a screened base or lid, for heat to escape.

Disease In dry times bees are more inclined to rob honey and pollen from other hives, increasing the risk of disease spread. Check your hives regularly to catch problems early.

Colony size Use only enough boxes to house the colony for the number of frames covered with bees eg, eight frames covered with bees need a single eight-frame hive box.

If your hives are disease-free, you can switch the positions of strong and weak hives during the day while field bees are foraging. These bees will return to the spot they left from and even up the populations.

> The management of commercial apiaries in drought times varies from these recommendations but the aims are similar.

SOME BEEKEEPERS may wish to plant trees, shrubs and garden plants to boost supplies of nectar, pollen or both.

Consider wattles, banksias, bottlebrushes, casuarinas, grevilleas, leptospermums, melaleucas, camellias, pecans, citrus, various eucalypts, brush box, lavenders, willows, prunus, borage, daisies, goldenrod, poppies, roses, stocks . . . the list goes on.

Excellent plant references are: Honey and Pollen Flora by Alan Clemson (out of print), and Honey and Pollen Flora of South Eastern Australia by Douglas Somerville, published by **NSW Department of Primary Industries.**

INVETERATE INVENTOR

CLEANING UP OLD FRAMES

Here's how to deal with those much-used frames

FTER A FEW seasons some hives end up with frames that have dark comb, often with small cells unsuitable for brood or honey storage. Some of these old frames — black with mould stains, damaged by wax moth, with broken wiring — are beyond repair and so should be binned. Other frames will be in a poor state but still too good to throw away: the wood and wires are fine but the old comb needs replacement. Yes, I know it would be easy to simply purchase new wired foundation frames. However with a little effort the Inveterate Inventor proves it's easy to renovate old frames.

First up, the old comb needs removal without damaging the frame and wiring. A solar wax melter is often suitable to soften the old comb and debris. Sometimes, however, the

> number of frames to process and inclement weather means an alternative method is needed.

A spare wallpaper remover kit provides a great steam generator (see left). A steam generator, wooden box, a tray and a wire grid to support the old frame make up the unit. The steam enters via

the upper part of the box and the old frame sits on the raised grid. The temperature in the box will not get above 100°C and the steam transfers the heat directly to the wax and frame.

The steam will go some way to sterilizing the frame. The old comb readily shakes from the frame and some work with a scraper or knife cleans up any remaining comb. Is the frame as good as new? Well, not quite, but with the

emphasis on "reduce, recycle and reuse", it is a ready for another season or two.





BIOSECURITY

Testing honey for AFB

Clubs urged to participate in this statewide project

ABA CLUBS across NSW are being given the opportunity to contribute to an important project that maps the changing levels of AFB in the environment. Data collected over time will allow biosecurity professionals to build up a picture of when and where bee colonies are at risk, and then better target control efforts.

Here's how NSW clubs can participate:

Clubs have been sent details of how to collect samples from three different apiaries in their area and then submit the honey to ABA biosecurity officer Bruce White.

Bruce will remove identifying details and code the samples before hand delivering them to the Department of Primary Industries' laboratory for analysis.

The DPI will know only the town or postcode where the apiary is located, the number of colonies the honey sample was extracted from, and the collection date.

The ABA will let participating clubs know the results of the AFB analysis.

Please support this important project. At your next club meeting, ask your club secretary or biosecurity officer how you can get involved.



Bee Fact

The volume of air that a honey bee colony "breathes" is the same as that of a domestic cat





Have you met your club's biosecurity officer?

The ABA provides information about bee pests and diseases to clubs via your biosecurity officer. If your club doesn't currently have a biosecurity officer, why not volunteer? You don't have to be an expert beekeeper, you just have to be willing to learn and keen to pass that knowledge on to club members.

Want to know more? At your next meeting check with your club secretary and then contact Bruce White at biosecurity@beekeepers.asn.au

ADVERTISEMENT



AMATEUR BEEKEEPERS ASSOCIATION 2020

FESTASOF

weekend of

MAY 30 & 31

From 9am both days

WESTERN SYDNEY UNIVERSITY, HAWKESBURY CAMPUS, RICHMOND

Book your tickets now

BEEKEEPERS.ASN.AU/CONFERENCE





CONFERENCE

TICKETS NOW ON SALE! 2020 FESTIVAL OF BEES

DATE It's on the weekend of May 30 and 31. Check your diary!

VENUE Western Sydney University, Hawkesbury Campus at Richmond. We've chosen this venue again as it is within easiest reach of the largest number of our clubs and members. WSU is close to motorways, has ample parking, access to public transport, theatre-stye facilities and plenty of relaxed outdoor areas

EARLYBIRD TICKETS are now available. Buy now before prices increase!

Earlybird rates: \$100 ABA members; \$120 non members Regular rates: \$120 ABA members; \$150 non members

Under 14s qualify for a special 'Junior Beekeeper' rate of \$40 (must be purchased with an adult ticket). Tickets include admission to presentations, lunch, morning and afternoon refreshments, beekeepers' market, exhibitions and parking. Go to beekeepers.asn.au/conference to book now

EXPERT TALKS Expect cutting-edge science, thought-provoking ideas, news and views, and uniquely entertaining presentations from a host of top-class speakers covering honey bees and native bees

SHOWBAG: Ticket holders will get a free ABA calico showbag filled with bee-related offers and items. Collect your bag on entry to the theatre

BEEKEEPERS' MARKET We're planning a range of stalls with lots to interest beekeepers and general visitors. Expect to find beekeeping equipment, bargains, plants, books, gifts and some surprises

ACTIVITIES Get ready for hands-on bee-themed activities, aimed at all ages

CONTESTS AND DISPLAYS Play BEE TRIVIA and test your general knowledge. View the entries of our member contests (see p12)

FILM COMPETITION Enter a <u>short film about bees</u> for your chance at screen glory

FORAGE Lunch plus morning and afternoon refreshments are included with your ticket. Visit the uni kiosk or coffee van for extra snacks and drinks

GET TOGETHER with old friends, bee buddies and make new connections

GET YOUR CLUB ORGANISED Why not suggest your club makes up a party and organises group transport?

ACCOMMODATION The region has a wide range of hotels, motels, dormitory style rooms, home stays, camping sites and more. Useful sites to start your planning: booking.com and discoverthehawkesbury.com.au

beekeepers.asn.au/conference

A&P

Can I buy a ticket for just one day?

To make it simple, we're offering one style of ticket to cover the weekend, whether you want to come on Saturday, Sunday or both. Tickets for conference style events can cost hundreds of dolars elsewhere, but we can keep our prices low as we are a non-profit and hundreds of hours of organisation is contributed by volunteers.

for my family? Yes, if they are ABA members.
Otherwise you can purchase tickets for them at the non member price. (Friends and family are welcome to join the ABA and a local club, of course!)

My children are keen on bees. Can they come along too? We love to encourage a new generation of bee fans. This year we have special \$40 ticket for under 14s. They must be accompanied by an adult at all times and closely supervised if they attend presentations in the lecture theatre.



CONTESTS

COMPETITIONS FOR ALL MEMBERS

Entry is free. And you can enter by email. So what are you waiting for? Results and prizes will be announced at the ABA Festival of Bees weekend in Richmond on May 30 and 31



BEST DECORATED BEE BOX/HIVE OPEN NOW!

- Show off your creative skills by decorating one, two or a set of bee boxes
- Choose any style of box, design and decorating method. Entries will be judged on originality, artistic merit and skill
- Submit up to three images of your boxes/hive taken from different angles to contest@beekeepers.asn.au marked "Decorated hive". Tell us about the design, how it was created, and your beekeeping background
- Email entries close May 15, 2020. Or bring your boxes to the Festival of Bees on May 30

CHAMPION HONEY LABEL OPEN NOW!

- Do you have an eye-catching label that promotes your honey and explains its special appeal?
- Send us up to three images showing your label/s in close-up and in use on your honey containers. Address your entry to "Honey labels" at contest@beekeepers.asn.au and tell us a little about how you created the design and produce the labels
- Labels will be judged on design, compliance to regulations, execution and copy writing. (Please ensure all text is legible in the images.)
- Closes May 15. Finalists will be asked to send in physical labels for display at the Festival of Bees



EST BEE SWARM STORY OPEN NOW!

- Tell us about your exploits rescuing bees. We are looking for good stories and images that showcase interesting examples of bee behaviour and beekeeper community service
- Judging criteria for image: quality of image, situation Judging criteria for story: technical accuracy, general interest, ingenuity
- Submit one image and story (up to 500 words) to contest@beekeepers.asn.au, marked "Bee Swarm"
- Closes May 15. Interesting stories will be published in a future issue of The Amateur Beekeeper

REGULATION

Taking a stand against honey fraud

OCAL BEEKEEPERS would remember the recent uproar when samples of Australian honey purchased from supermarkets failed scientific testing. The Australian incident shone a spotlight on testing techniques, but it was not the first to alarm consumers and tarnish the

international honey industry.

Globally, honey is a favourite target for food adulteration (third only to milk and olive oil). As a result, market prices have been tumbling, consumer trust is dented and the future of commercial beekeeping is under threat in many countries.

Now APIMONDIA, as the voice that represents beekeepers around the world, has released its official <u>Statement on Honey Fraud</u>. It sets out the organisation's position on honey purity, authenticity, fair modes of production, and the best available recommended methods to detect and prevent honey fraud.

APIMONDIA notes, "It is also a guide to promote best practices for the prevention of honey fraud and all of its insidious negative side effects on bees, beekeepers, crop pollination, and food security."

THE REPORT makes the case that conditions for honey fraud have never before been so conducive or aligned. It singles out five elements:

- 1. World honey demand growing at a faster rate than global production of the pure product.
 - 2. Strong profits available through fraud.
- 3. Modes of honey adulteration have rapidly changed and multiplied.
 - 4. Honey is a complex product to test.
- 5. The official method of testing cannot reliably detect honey adulteration with C3-type sugars.

It also singles out five ways that unscrupulous producers are duping the market

- 1. Dilution with manufactured syrups produced from corn, cane, beet, rice, wheat, etc.
- 2. Harvesting immature honey (before the bees have had a chance to transform nectar into a product which has the chemical constituents and composition of authentic honey) and then dehydrating it with, for example, vacuum dryers.
- 3. Using ion-exchange resins to remove or reduce residues and constituents of honey or lighten its colour.

APIMONDIA is the
International Federation
of Beekeepers' Associations. It works to
promote the cooperation
of beekeeper associations, scientific bodies
and individuals involved



in apiculture worldwide. APIMONDIA has seven scientific commissions and five regional commissions.

"Honey fraud threatens honey's image as a natural product and its attractiveness and appeal to consumers, and harms honest beekeeping.

It also happens at the expense of consumers who often do not receive the product they expect and pay for." APIMONDIA STATEMENT



The World Beekeeping Awards at APIMONDIA's 2019 conference in Montreal clearly demonstrated the difficulties testing for honey purity. Displays were filled with notices explaining exhibits had failed lab tests

- 4. Masking and mislabeling the geographical and botanical origin of honey.
 - 5. Artificial feeding of bees during a nectar flow.

LIMINATING HONEY fraud will not be easy, but in the first instance, APIMONDIA is calling on all beekeepers to follow good beekeeping practices and to document all activities that impact on their honey. Then it highlights three actions necessary for a robust and transparent food chain:

Traceability APIMONDIA recommends systems that allow honey to be traced back to the beekeeper, to the botanical floral source from which the bees gathered the nectar, and to the location of the apiary.

Testing Honey is a complex substance to test for authenticity, and fraudsters will work hard to stay one step ahead of authorities.

It's important, then, the industry stays on the front foot, states APIMONDIA. It acknowledges that currently no single form of scientific test is perfect, and that authorities need to select from the cocktail of tests available depending on what is known about the provenance of the product being reviewed.

"APIMONDIA supports the development of new techniques to detect honey fraud, available at reasonable costs for the majority of stakeholders, and supports the constitution of an international database of original honeys with a more open exchange

"There has never been a period in human history during which the importance of and concern for the world's bees and their keepers has been so widespread."

APIMONDIA STATEMENT

of analytical information between the different government, academic and private laboratories specialized in honey analysis."

Auditing Anti fraud checks are essential at every stage of the supply chain for importers, exporters and processors, says APIMONDIA. It recommends independent auditors be required to check the integrity of honey from hive to jar, as well as auditing all transactions in order to highlight suspicious activity.

Edited extracts from an open letter that president of APIMONDIA Dr Jeff Pettis

wrote to Australian Beekeepers, the Australian public & Australian policy makers, January 2020

"THE WORLD is saddened to see the bushfire crisis that is gripping Australia.

I write to say our thoughts are with you and to express my sincere wishes for better things to come for the Australian environment and Australian beekeepers. The world is witnessing an environmental disaster for the beekeepers of Australia, their honeybees and native bees that is of global significance to the broader global beekeeping population and food security.

What is clear from the international news reporting is that the impacts on Australian beekeepers from the events of fires following long droughts will be felt for the next 10 to 20 years as your forests recover. What is concerning is that some forests may not recover I am told. This will surely significantly shift the equilibrium of keeping bees in Australia and force the immediate assessment of how to keep bees healthy and sustained in a severely floral resource constrained new climate changed reality.

To this end I encourage your governments and policy makers to double down to help you put long term strategies in place to manage these difficult circumstances over the years ahead. This cannot be a short term effort. The efforts of careful planning and targeted programmes to support beekeepers will be repaid in the resulting crop pollination into the future for the important conservation of beekeeping in Australia.

We really hope that, with strong action and government support, optimism can be found for Australian beekeepers.

APIMONDIA is deeply concerned about the wellbeing and long-term sustainability of bees and beekeepers and the essential ecosystem services bees play through their pollination. APIMONDIA works with initiatives such as World Bee Day to bring awareness to the important role that bees play.

[At the time of writing] I am currently in Rome meeting with FAO [Food and Agriculture Organisation of the United Nations] in relation to having bees recognised more prominently for their role in sustainable development.

Our global efforts should support positive action by your policy makers to initiate new solutions to manage your current crisis and the problem of climate change for the broader beekeeping world."

BETTER BEEKEEPING

"Why are my bees SO angry?"

Bruce Ward shares advice on keeping a hive calm

HEN I WAS a boy, my father was given some beehives to pollinate crops on our vegetable farm. These were the hives that started my interest in beekeeping. Nearly 50 years have passed since those initial encounters with bees, but I have yet to find anything to match those first hives for ferocity.

I was away at agricultural college when the farm was sold and the hives dispatched to a local beekeeper. I've often wondered since what made them so cranky.

MANY DIFFERENT THINGS might make bees crankier than normal. The best place to start is to understand something about their biology and behaviour.

Bees sting to defend their colony from predators and other intruders. Bears and humans are the main animal predators that bees would have encountered in Europe (where our honey bees originate).

Colony defence is carried out by specialised workers called guard bees. These bees are about three weeks old, usually in transition between being house bees and foragers. Guards can quickly call on many more defenders by releasing an alarm pheromone (scent).

Guard bees tune their response to the nature of the threat and the prevailing conditions. If they don't defend well enough, the colony may be destroyed, but if they overreact, the colony could lose many of its foraging workforce because bees inevitably die after delivering a sting.

After detecting a threat, bees respond initially by taking a characteristic stance. They stand on four legs, with their front legs in the air, wings spread, and antennae extended forwards, towards the threat. They are poised to launch into flight and attack the intruder. Attacking bees are particularly drawn to dark, furry things and to sources of carbon dioxide. This means they often attack the head and face of intruders.

If any bee launches an attack or stings an intruder, it immediately releases the alarm pheromone from a gland near the sting. The pheromone recruits surrounding bees to the defence. If more of these bees also perceive danger, the attack can quickly snowball as more and more alarm pheromone is released.

In summary:

- Defence work for a hive is done by older bees.
- The presence of alarm pheromone is likely to

induce more bees to sting.

 Things that resemble the enemies of bees are more likely to be attacked.

 While many solitary insects are repelled by things they dislike, bees and other

social insects are more likely to *attack* things they dislike.

A number of things can make our bees more aggressive or less aggressive:

Weather If weather prevents foragers from working, expect to find many more potential defenders in the hive than at other times. The best time to inspect is on a warm, sunny day without too much wind.

Flora Some floral sources are known for making bees more aggressive. I have not found a good explanation for why this is so, but I can attest that bees are often cranky when citrus or canola is abundant nearby.

Bees will often be more aggressive if the nectar flow cuts out suddenly.

Hive size and condition Small hives are usually easier to handle than very large ones. Hives that are struggling because they are starving or queenless are also likely to be cranky.

Handling An experienced beekeeper usually works in a calm, methodical way, with deceptively smooth movements. While they may shake and jar

bees loose from frames on occasions, they know how to do this without upsetting bees.

Bruce Ward is a former
Department of Primary Industries
Apiary Officer who has just
returned to beekeeping after a
30-year break. He is a member of
Blue Mountains Beekeepers



Know how to use the pacifier of your choice to the best advantage. For most of us that is a smoker, but some folk prefer water or sugar spray. The trick is to use enough to keep the bees calm without overdoing it and disrupting the whole organisation of the hive.

Predators If your hives have been under attack from robber bees, wasps or other predators, they are likely to be on edge, ready to defend themselves at the slightest provocation. Residues of alarm pheromone may be keeping the guard bees on a high state of readiness.

Robber bees are usually an issue in the warmer months when fresh nectar is scarce (such as during a drought). You may see bees hovering around the cracks and vents of the hive.

Irritants A bee suit that already has traces of alarm pheromone may provoke your bees. Other irritants can be things like deodorants, perfumes, insect repellents, detergents or petroleum residues (petrol, diesel, kerosene). Bees also dislike dark furry things that resemble their natural predator, the bear.

Genetics Last but not least, some strains of bees are simply more aggressive than others. There is also some evidence that bees raised in aggressive hives may be aggressive themselves, regardless of their breeding. So while the genetics can be easily changed by replacing the queen, it may take time for the change to take full effect within the hive.



Solutions

F YOUR BEES are constantly trying to sting your gloves or bee suit, then they are probably more aggressive than they should be. Keep in mind that bees will often fly around you and land on you without aggression.

If they are buzzing fiercely and curling their abdomen to try to drive the sting in, then you know they're aggressive.

Here are some things you could try:

- When you are new to beekeeping, limit hive inspections to warm sunny days when the bees are busily working in and out of the entrance.
- Wear light coloured clothing and avoid things like dark woolly jumpers, socks or gloves.
- Make sure you have your smoker properly alight and well-stuffed with fuel. You want a good flow of cool smoke and no sparks! Give a couple of puffs at the entrance first, then a puff or two as you take



off the lid and boxes. This should be all you need. When you start to see bees appearing over the top bars of frames, a gentle puff of smoke will send them back down and keep them under control. You don't need to direct smoke into the heart of the

hive either through the entrance or down between the frames.

- Consider your hive handling technique. Try to get some pointers from your club or an experienced beekeeper. Use smooth, deliberate movements and avoid jerking or jarring as you remove frames. This is easier in warm weather, when wax and propolis is soft.
- Do not use any insect repellents before working with bees. If mosquitos don't like something, they move away. If bees don't like a smell, they attack it!
- If you normally wear deodorants or scents, try not wearing any when you are working with bees and

see if that makes any difference.

• Wash your bee suit and other protective clothing. This will get rid of any residual alarm pheromone. If the aggressive behaviour continues, try washing without detergent.



- Don't use gloves or clothing that might be contaminated with petrol, diesel, turpentine, kerosene or other petroleum products. And, above all, avoid anything with traces of pesticides!
- Consider whether a change in temperament might be due to the flora available. Has something just come into flower that might have changed their behaviour? If it is floral aggression, the bees will calm down when other floral sources bloom.
- Have a look at the entrance for signs bees might be defending against robber bees. Dead bees, bees fighting, or bees hovering around vents and joints are signs robbers might be active. Opening hives when bees are robbing is not a good idea; only do it if you have to (such as feeding) and keep the open time to a minimum. Consider feeding late in the day to limit time bees can rob after the hive is closed.
- If wasps or bee-eating birds might be a problem, reduce the size of the entrance. Limiting the space that needs to be defended may reduce the amount of alarm pheromone released.
- Requeening with a more docile strain of bees is an ultimate solution. Queens purchased from any of the reputable queen breeders will be a good choice, but you may have to seek out a specialist to find the very docile strains.

The catch is that you have to be able to find and kill

the old gueen to be able to requeen the hive. This can be difficult for even the most experienced beekeeper.

In my experience at least, the queens of aggressive hives are among the hardest to find!



Thinking back to the hives on our farm, I suspect that a combination of factors made them so aggressive.

They were probably an aggressive breed, working flora that made them cranky, and they were being worked by inexperienced people who used

inadequate equipment. I still have the smoker — it is very small with worn-out bellows. And we used old potato sacks as fuel, so that may not have helped.

Then there were some constant irritants! My brother who worked on the farm remembers being attacked on the tractor. The bees hated the power kerosene

that the tractor used and if he went anywhere near the hives they would go on the attack.

If I knew then what I know now, I would first have removed the sources of irritation.

Moving the bees away from where the tractor had to work would have been a good start. That would have to be done slowly, a metre at a time. I would then choose a better smoker fuel.

I would also try a divide-and-conquer tactic.

I would rug up very well and split the hives down into nucleus-sized units. I could then introduce new queens to the queenless nucs. It would be easier to search the queen-right nucs until I could find and destroy the old queens. If I did not want the extra hives, I would reunite the nucs as soon as the old queens had gone.

There is not much I could do about the flora, but the other strategies would have made the hives more manageable at least.

Sunday April 5 Have a day out in Bathurst! The Quiz, AGM and Bee Tour

Join us for a day of activities. Meet ABA members from around the state and beyond

9.15 am ABA Colonel Pulling Interclub Competition, Round 4.

Beekeeping Quiz. Presented live at Bathurst RSL.

Test your bee knowledge. See page x for details and get your club team organised now!

10.15 am ABA AGM Bathurst RSL Club, 114 Rankin Street, Bathurst NSW 2795

All ABA members are encouraged to attend and are eligible to vote. Includes elections for the 2020/21 executive.

2pm Beekeepers' Afternoon, The Beekeepers Inn, 2319 Mitchell Hwy, Vittoria NSW 2799 Join our specially organised tour of commercial apiary Goldfields Honey. Includes a talk by Sam Lockwood followed by afternoon tea in the function area at The Beekeepers Inn. Visitors can also visit the historic displays, gift store and beekeeping supplies shop.

Tickets for ABA members and guests are \$15 each and include afternoon tea.

Bookings essential. Book now at beekeepers.asn.au/goldfieldstour

CITIZEN SCIENCE

Aussie scientists need your help to keep track of bees (please)

EES GET A LOT of good press. They pollinate our crops and, in some cases, make delicious honey. But bees around the world face serious threats, and the public can help protect them.

Of more than 20,400 known bee species in the world, about 1650 are native to Australia. But not all bees found in Australia are native. A few species have been introduced: some on purpose and others secretly hitchhiking, usually through international trade routes.

As bee researchers, we've all experienced seeing a beautiful, fuzzy striped bee buzzing about our gardens, only to realise it's an exotic species far from home.

We need the public's help to identify the bees in Australian backyards. There's a good chance some are not native, but are unwanted exotic species. Identifying new intruders before they become established will help protect our native species.

Exotic bees in Australia

The European honey bee (*Apis mellifera*) is the best-known introduced species, first brought to Australia in the early 1800s. It is now well-established throughout the country, with profitable industries built around managed populations.

Other invasive species in Australia are less well known (or loved). The European bumblebee (*Bombus terrestris*) is present in high numbers in Tasmania, but isn't thought to be established on mainland Australia.

This bumblebee has caused major harm to native bees in South America, competing for resources and spreading disease.

In northern Queensland, the Asian honey bee (*Apis cerana*) is established around Cairns and Mareeba, from a single incursion in 2007. The original founding colony is thought to have been a stowaway on a boat that sailed to Cairns from somewhere in southeast Asia or the Pacific, where this bee is widespread.

New Asian honey bee incursions at Australian ports occur almost annually, most recently in Townsville and Melbourne. But swift biosecurity responses have so far stopped them becoming established.

Why should we care?

Most insects can spread and establish breeding populations before anyone notices them, so it's important we pay attention to these small intruders.

Introduced species can bring new parasites or diseases into the country that may harm native insects— including our stingless bees that are so vital to crop pollination — or affect the valuable European honey bee industry.

While bumblebees may help commercial pollination in a handful of Australian crops, they and other introduced species can also compete with native species for resources, or spread weeds.

Most resources go to monitoring invasive species with a more dramatic and understood effect on agriculture and the environment. Bees sneak under the radar— but we're still curious.

Take the African carder bee (*Pseudoanthidium repetitum*), pictured left, which arrived in Australia in the early 2000s. Thanks to citizen scientists, we know they are spreading rapidly. In 2014, they were the third most common bee species found in a survey of Sydney community gardens.

Just recently, we found two invasive African carder bees in a backyard in Armidale in northern New South Wales while testing out a new insect monitoring method. There are no confirmed

Reprinted from:

THE CONVERSATION

Authors:

Manu Saunders, research fellow, University of New England Callum McKercher, PhD student, University of New England Mark Hall, research fellow, Western Sydney University

Tanya Latty, associate professor, University of Sydney

Tobias Smith, ecologist, bee researcher and stingless beekeeper, The University of Queensland



records of this invasive bee in Armidale, although we have seen a few around town since 2017.

Although it's usually exciting to find a new record for a native species, finding an exotic bee where it's not supposed to be is worrying. How long have they been there, and how many others are there?

The European bumble bee was recently sighted on Queensland's Sunshine Coast, prompting a biosecurity investigation. Bumblebees (common white-tailed, pictured left) are considered one of the most significant emerging threats to global biodiversity.

Will you help us keep track?

Anyone can help keep track of potential new invasive species, simply by learning more about the insects in your local area and sharing observations on citizen science platforms such as iNaturalist, or through targeted projects like the African carder bee monitoring project.

You don't need to be sure exactly what species you've seen. Uploading some clear, high-resolution photos, along with the date and location of your

DAISY VENOM

Inhaling warm air

My nose

Tracing

Scent outline of

Sun daisy

Swept up and drawn in

I drop

Immersed

Pollen covered and laughing.

From out of the center a roaring draws near Tracing flesh outline.

No moment

So clear

As the moment of spear

Tears open

My flesh

Pulses in light

The last dying

Breath of

A honey bee

Flight.

from "Pandeme of Bees" by SezzaJai Sykes

https://sezzajaisykes.australianauthors.store



observation, will help naturalists and researchers identify it.

You can also participate in events such as the twice-yearly Wild Pollinator Count or local Bioblitzes.

Your efforts can help us detect emerging threats, and add to our records of both native and non-native bees (and other species). Plus it's a great excuse to get outdoors and learn more about the insect life in your area.

This article was co-written with Karen Retra. Reprinted from theconversation.com

BEE BEHAVIOUR

Q: "I keep my hives in a row. Why does the one on the end invariably get stronger than the others?"

A: If bees drift between hives they will drift to the end of straight rows. The end depends on the main flight route. If most bees are flying in the direction of one end when they leave the hives due to a honey flow in that direction, when they come back loaded with nectar they're likely to drift to that end.

Another cause can be strong winds. Bees flying home against a strong wind will, being tired, enter the end of the row.

Drifting is more common on winter honey flows. The drifted bees are accepted as they are bring nectar, water or pollen to the hives

Painting boxes different colours helps reduce drift: bees will recognise the colour hive they left. BW



ABA CONTACTS

EXECUTIVE TEAM



SHEILA STOKES

web@beekeepers.asn.au

ABA acting president Sheila is a web development professional who builds, maintains and supports all ABA IT infrastructure. She is also president of Hawkesbury Beekeepers. "Lobbying is the way to ensure recreational beekeepers' voices are heard."

LYALL ZWECK

treasurer@beekeepers.asn.au

Lyall is president of Bega Valley Beekeepers and has also been that club's treasurer. During the day, he is the finance manager for a gallery in Alice Springs, and on the weekend cares for a dozen colonies. He sees his role as "making the money make sense."



VINCE SCHNYDER

secretary@beekeepers.asn.au

President of Northern Beaches Beekeepers and banker in a risk and compliance role, Vince likes the KISS principle: Keep It Simple Stupid.

His goal: "to simplify and streamline our processes so we have more time for beekeeping."

BRUCE WHITE OAM

biosecurity@beekeepers.asn.au

Bruce retired from NSW DPI as Technical Specialist Apiculture after 41 years' service, 20 years of it managing the Honey Bee Quarantine Station. He's an active member of Illawarra Beekeepers. "We all keep learning. I'm happy to pass my knowledge on."





SUE CARNEY

editor@beekeepers.asn.au

Sue is a publishing professional with a lifelong fascination for bees. She is the founding president of Blue Mountains Beekeepers and keeps bees in Langstroth, Flow and Warré hives.

"Bees know it: cooperation and good communication are key."

ANA MARTIN

ana.martin@beekeepers.asn.au

Ana is vice president of Manning Valley club and a member of Hastings Valley. Ana started beekeeping as a hobby in 2015 and has since turned it into a full-time business. "Supporting beekeepers benefits us all, but also it benefits bees."





DAVE WILSON

education@beekeepers.asn.au

Dave is a former secretary of the ABA and has been on the committee of the Parramatta club since 2007. He has 15 bee hives in northwest Sydney.

Dave's motto: "Working hard has its own rewards."

JOIN US

The executive team is elected each year at the AGM. Are you interested in joining? We are particularly keen to hear from members with skills in finance, accounting, administration or promotions.

To find out more about what is involved, contact us at feedback@beekeepers.asn.au

This year's AGM will be held at 10.15 am at Bathurst RSL Auditorium, 114 Rankin St, Bathurst, NSW 2795. All financial ABA members are invited and eligible to vote.

Details of the meeting will be emailed to all financial ABA members closer to the date of the meeting.



ARTHUR GARSKE

publicofficer@beekeepers.asn.au

Arthur has 48 years' experience with bees and is a founding member of the Parramatta club. A successful honey exhibitor around the state. Arthur now judges at shows and events. "Detail and plain common sense go a long way in beekeeping."

Our commercial beekeeping friends at the NSW Apiarists' Association are again running the Honeyland stall at the Easter Show.

As in previous years, the NSWAA is inviting members of the ABA to volunteer to work on its stall.

HONEYLAND VOLUNTEERS NEEDED FOR 2020 SYDNEY ROYAL EASTER SHOW

VOLUNTEER FORM

THE SHOW DATES ARE FRIDAY 3rd APRIL 2020 TO TUESDAY 14th APRIL 2020

I/We can work at the Show on the following days:
Second Preference:
I/We require accommodation for the nights of:
Be specific with your dates for working and accommodation
VOLUNTEERS NEEDING ACCOMMODATION PLEASE RETURN YOUR FORM ASAP AS ACCOMMODATION IS LIMITED
YOUR CONTACT DETAILS – WHERE TICKETS WILL BE SENT
Name/s:
Address:
Email:
Phone:

PLEASE RETURN FORM NO LATER THAN 31st January 2020:

Debbie Porter, NSWAA Show Coordinator, 135 Eusdale Road Yetholme NSW 2795

Email: debbie.porter3@hotmail.com

Thank you for your time and dedication to the NSW Apiarists' Association and Honeyland. Your efforts make Honeyland run more smoothly and efficiently.