BEEKEEPERS.ASN.AU



NEWSLETTER FOR MEMBERS DECEMBER-JANUARY 2023

HOW TO BREED YOUR OWN QUEENS PART FOUR 2022 AGM Orange February 12

Classic stories from the archives







3 President's letter AGM details







- **4** Resources
- 5 Varroa: Play your part in the fight
- 6 Alcohol washing: do you know all these tips?
- **7** Teaching kids about bees
- 8 How varroa resilience officers can help *you*
- **9** ABA AGM: Member rights at risk?
- **11** Extracting honey: the correct way
- **12** Honey labels explained
- 14 How to win a honey competition

- **18** 200 years of bees in Australia
- **19** Rookie mistakes: what's yours?
- 29 ABA executive
- 21 SPECIAL SUPPLEMENT PART 4 Breed Your Own Queen Bees
 - 22 Contents
 - 23 Mating nucs
 - 24 Handling cells. Bee vision explained
 - 25 Timetable
 - 26 Marketing 101
 - 27 Shipping
 - 28 Biosecurity



The Amateur Beekeeper is the journal of Amateur Beekeepers Australia (registered in NSW as The Amateur Beekeepers' Association of NSW Inc, ABN 69 273 458 089). It is distributed to members six times a year. Contents are presented for general information only: members should always seek advice tailored to their individual circumstances. The editor will consider adverts from businesses relevant to beekeepers to run free of charge where they contain a special offer to ABA members. **©2022 Amateur Beekeepers Australia**

2 AMATEUR BEEKEEPERS AUSTRALIA DECEMBER/JANUARY 2023

ABA NEWS Editor's letter

Sue Carney

editor@beekeepers.asn.au

This past year will be recorded in the history of beekeeping in Australia. Whether it's infamous or glorious is yet to play as the battle to rid us of the mite continues. But beekeepers continue on with much optimism,

realising that attitude and activity are key.

f I was to point to the things in 2022 that showed we *can* become the first country in the world to successfully eradicate *Varroa destructor*, these would be among them:

- * Seeing the thousands of beekeepeers across red zones resolutely watching their hives euthanised but understanding – and reassuring others – that it is 'for the greater good.'
- * Hundreds more keepers who volunteered for the response, often working in rough conditions and taking on whatever field tasks needed doing. They helped with inspections, surveillance, destroying colonies, checking sites . . . the list is extensive. Many volunteered multiple times.
- * The depth of expertise in professional emergency response teams, following carefully prepared plans or reacting as the crisis unfolded. The logistics of this entire operation have been huge and complex and largely unsung.
- * The renewed respect that beekeepers gained for each other, with commercial and recreational keepers working as a team to 'get the job done'. (Different parts of the sector have been at odds for way, way too long.)
- * Enthusiasm from those not directly affected to *learn* what they can and *do* what they can to help.
- * Within the ABA network, many people going 'above and beyond' to help their fellow beekeepers in a multitude of ways, sometimes directly, sometimes behind the scenes. This was no different this year – but just like everything else on my list, is truly a cause for celebration.

As the New Year kicks in, let's all hope 2023 brings us many more reasons to celebrate.

Stay safe, look after yourself and anyone else you can – and your bees of course!

RESCHEDULED

ABA 2022 AGM

FEBRUARY 12 at 10 am ORANGE EX-SERVICES' CLUB 231 Anson St, Orange 2800

FTER an eleventh-hour postponement due to flooding in the central west of NSW, we are rescheduling the ABA AGM for a date in February.

This avoids clashes with holiday plans members have already made, and provides plenty of notice for those wishing to make the trip to Orange.

We are currently investigating online access for members who are unable to attend in person, and we will update everyone if this can be arranged to allow both participation and voting.

Our constitution does not allow proxy voting.

The AGM will consist of reports from the president and treasurer, elections for all ABA office bearers and ordinary committee members, and a number of motions that individual members have given notice they wish to raise. This includes a motion that requires a special resolution to change the constitution.

A new invitation to the AGM and details of the agenda will be sent to each financial member in January.

ur AGM will be followed by a forum where members will be able to ask questions, share their thoughts and discuss ways in which the ABA may continue to support recreational beekeepers.

For further details on places to stay and things to do in Orange, go to <u>orange360.com.au</u>



Resources and links

HE ABA recommends that every beekeeper completes the Varroa mite online course created by Tocal College.

https://courses.tocal.nsw.edu.au/courses/varroa-mite-online-training

CHALKBROOD: Read about the bee killer that consumes larvae from the inside out. THE PER-SISTENT FUNGUS AMONG US is a feature from The American Bee Journal that's available free online. "The spores germinate in the larva's gut, then hyphae (fungal branches) burst from the larva's backside in just a few days after being consumed."

Drones: Find out <u>What drones can tell you</u> in this entertaining talk by Kim Flottum. It's 45 minutes



but well worth spending the time to gain a better understanding of these often overlooked but vital members of a bee colony.

The Varroa Emergency Response Hotline is open Monday to Friday 9am to 5pm **1800 084 881**

Outside these hours, the hotline has recorded instructions for reaching on-call officers who can respond to urgent and serious events



HAVE YOU COMPLETED YOUR ALCOHOL WASH TEST?

In NSW fill in the form online at www.dpi.nsw.gov.au/alcohol-wash

You must carry out this test at least every 16 weeks and report the results.

In Queensland use the <u>Bee 123 online form</u>

>>> For the latest on the response and NSW rules: dpi.nsw.gov.au/varroa <<<

"Help: can I use an entrance feeder under current varroa emergency restrictions?"

THIS IS A QUESTION that's been coming up a lot lately – even well into summer where beekeepers need to feed their bees because of poor conditions.

If you are located in NSW in the 'blue' (general emergency) zone or purple (surveillance) zones– which



covers all of the state except for red (eradication) zones – you can feed bees with feeders that do not expose sugar or sugar syrup to bees from other colonies. This is to prevent robbing, which is one way that

varroa can spread from colony to colony.

Here is the exact definition from the Biosecurity (Varroa Mite) Emergency Order 2022:

permitted bee feeder means a device for feeding bees installed in or attached to a hive and that can only be accessed from inside that hive by the bees living in that hive that is:

(a) new, or

(b) has not had contact with bees in the 10 days before it is installed or attached.

Note. Sugar and sugar syrup left in the open for bees to access from other than a hive is not a permitted bee feeder

In short: you can use a feeder that either sits inside the hive or channels feed into the hive. Steer clear of cheap feeders that leak syrup at the entrance.



VARROA BIOSECURITY OBLIGATIONS

Have you done – and reported – your 16-week alcohol wash test?

F YOU keep honey bees in NSW, you *must* carry out an alcohol wash test at least every 16 weeks and report the results. If you keep bees elsewhere in Australia, this schedule is highly recommended.

In fact, the ABA urges ALL beekeepers – in every region of Australia – to wash and report as a routine part of good beekeeping.

Robust and frequent surveillance is the only way to detect and eliminate varroa – and avoid its devastating consequences.

Everyone can help ensure we find every last varroa mite in Australia and preserve beekeeping as we know it. If we don't win this battle, beekeeping will become more labour intensive, more costly and involve regular chemical treatments – tasks that nobody wants.

If you have up to 64 hives: you must perform an alcohol wash test on EVERY hive at least once in each 16-week period.

If you think you've found varroa, call the Exotic Plant Pest Hotline on 1800 084 881 immediately.

If the test is clear, in NSW you still need to log the result using the online form at <u>dpi.nsw.gov.</u> <u>au/alcohol-wash</u>

In Queensland use Bee 123

These test reports will inform future decisions around if or when to relax restrictions on beekeeping in different zones.

So, to support beekeepers who have or will soon have hives euthanised in red zones, kick off your 16-week varroa checks now.

Beekeepers with 64 to 640 hives need to alcohol wash 64 hives in each 16week period; beekeepers with more than 640 hives have an obligation to wash 10 per cent. Everyone should report results.



Alcohol wash: best way to do it

Follow these tips to make your varroa check really count

What to use: Any form of ethanol. The easiest and cheapest drench is methylated spirits. Use it undiluted for the best result. Do not use petrol. Dispose of it wisely. It can be filtered and used over and over.

Safety first: Alcohol is very flammable. Keep it and any associated gear away from your smoker

Equipment: Purpose-made containers retail for between \$16 and \$45. But you can improvise). Use a regular lidded jar (such as a jam jar) to wash the bees in the alcohol and then pour the contents through a mesh or sieve with 3 mm holes.

Prepare: Before you open your hive, measure 3/4 cup (185ml) of your ethanol into your container. Don't get it near a flame or your smoker.

Bees: Collect 3/4 cup of nurse bees. As varroa



live mainly in brood cells, the bees that spend most of their time tending brood are most likely to be infested.

Remove a brood frame. Check if it contains the

queen: you want to keep her safe, so carefully put her back in the hive or temporarily in a queen cage.

Shake the adult bees onto a sheet of paper. If you didn't spot the queen on the frame, double check the paper.

Don't worry if some bees fly off: the ones left are more likely to be the nurse bees. Use the paper to funnel bees into an empty container marked at the 3/4-cup level. Tip these bees into your washer and promptly close the lid. **Extras:** Any surplus (unjarred) bees should be tipped back into the hive. Close up the hive.

NB: Unless you need to test more hives, you can do the rest of this test away from your apiary.

How long: Alcohol

kills bees quickly. But then you need to vigorously swish the sample around for **four minutes**.

Four minutes is probably longer than you think – count slowly to 240! Some experts even suggest then letting the dead bees sit in the alcohol for a day to be sure any mites have detached from the bees.

Tip the contents through the sieve – if your contain-

er doesn't have one built in – into a container with a white cloth or filter paper to catch any matter that gets through the sieve. (Coffee filters are ideal.)

Repeat: Swirl and tip twice more using water to further increase the effectiveness of the test.

Look: Use a magnifer or the magnifying function on your phone to examine any specks.

ALERT: Now is not the time to hesitate

- If you see something suspicious, call the hotline number 1800 084 881
- Take a close-up photo of the suspicious matter
- Secure all materials in ziplock bags until you get further advice

Once filtered, your alcohol mix can be stored in a well-labelled container and reused. Dead bees can be burned, buried or wrapped for waste disposal.

Report In NSW beekeepers *must* report they have conducted their tests – even if clear. This is important to confirm which areas remain free of varroa.



MICHAEL SHOWS A GROUP WHAT IS HAPPENING ON A FRAME OF BEES. BELOW: PROPS FOR THE ROLE PLAYING AND POLLEN STORING ACTIVITY



CLUB NEWS Teaching about bees

Cumberland beekeepers Michael Fogarty and Ivan Cauchi spent a day inspiring primary school kids

van writes: In November we were invited to Blacktown North Primary School to give a presentation on the Story of Honey Bees to junior Classes K-2 and Classes 3-6.

We arrived with a frame of brood and bees. This included the queen and drones in a glass walled presentation box. We also had role play devices I created to involve the students in playing the various worker bee, drone and queen roles they would be introduced to during my talk.

These devices imitated pollen, nectar, honey stomach transfers, various stages of development of a worker bee from egg to baby/emerging bee, and the various assigned duties of worker bees from nurses to foragers.

The first group of K-2 classes (some 120 students) responded well to the my presentation. However when it became too technical, their attention wandered until use of media with a cartoon re-awakened their interest.

We actually ran out of time in this first session and were unable to present role

play as planned. Nevertheless, when I asked Michael to present the demonstration frame to the students. his raising of a cloth that was keeping the frame warm was met by an audible *OOOOOOOHHH*!!!

The frame was set up on a table so students could file past on both sides. Michael pointed out the queen with her carers in a circle and drones nearby, together with capped honey and stored pollen.

7 AMATEUR BEEKEEPERS AUSTRALIA DECEMBER/JANUARY 2023



Our second group of some 100 students from Years 3 to 6 followed a similar presentation adapted to their ages and interest. For the role play, I selected 15 students at random and presented them with hats denoting their various roles within the hive, from the queen to various worker bee roles. This was met with keen interest and involvement, particularly when their duties were outlined.

The role play began as if at sunrise when the bees awoke from their slumber. Foragers were the first to leave the hive front of stage and 'fly' to a table carrying

pollen and nectar 'props' for them to pick up and return to the hive. There, housekeeping bees met them and received their packages to place in a hive frame (egg cartons on a 45° rack). The nurse bees were busy feeding the larvae while the queen bee was being groomed and fed by

IVAN PRESENTS HIS TALK, WHILE 'FOR-AGE' AWAITS THE NEXT ACTIVITY WHERE STUDENTS WILL TAKE ON THE ROLES OF DIFFERENT WORKER BEES



her 'royal circle.' Much amusement was aroused when bees had to groom the queen.

I then moved on in the day to midday when young bees went on their orientation flights around the entrance of the hive and drones left to attempt to mate with any virgin queens at the drone assembly areas nearby. Again, good involvement by students both in audience and role playing.

The role play ended soon after and Michael again raised the protective cloth to the live bee demonstration frame, which was a natural ending to their honey bee story.

Students filed past on both sides and asked some interested questions - with ample time for students to enjoy and watch the bee activity.

During this last presentation, teachers were busy capturing pictures of various of student participants and asking us questions about bees.

After this presentation two junior classes returned to see the demonstration frame, as there was limited time in the first session.

We were both very pleased and relieved that both presentations were successful and met with the approval of attending teachers.

Each session ended with a voluntary gold coin donation for a woven bee badge, with any profits going into club funds.

We hope we might have sparked an interest in our beloved insect, the bee, in a few of our student audience.

And we hope this article inspires other members to accept invitations from schools, both primary and



secondary, to add to interest in bees and beekeeping – together with advice on managing environments and bee stings.

BEEKEEPER SUPPORT Varroa emergency: Are you okay?

I would like to introduce myself, I have recently come onboard in the DPI – Biosecurity Team as one of their response resilience officers. Our role within the team is to liaise with beekeepers both recreational and commercial to assist them through these times of dealing with the Varroa mite eradication.

We can offer assistance to beekeepers through:

- help with the reimbursements with the RAA grants, from application to updates
- connection to services such as health services for those needing support
- linking with updates and where the DPI Biosecurity is currently at with the programme

Jamie Perry-Meijer, Response Resilience Officer

NSW Department of Primary Industries Biosecurity & Food Safety

> 0477 544 379 jamie.perry-meijer@dpi.nsw.gov.au



• any queries and questions that beekeepers may have regarding the Varroa mite outbreak.



Upcoming AGM: You could lose your right to vote

A proposal being put to members at the upcoming AGM aims to change the way the ABA operates. It would take away individual members' right to vote on issues and to elect the committee. ABA Vice President

Sue Carney argues why this is a bad idea

A MEMBER of the ABA, you currently have a **direct say** in the way the association operates. As with every one of our 3750 members, you are **entitled to vote** on important matters including electing the committee that runs the organisation.

A motion being proposed at the AGM in February would change the ABA constitution to permanently **take away your vote** and instead place decision making powers in the hands of 'club delegates'. (The proposal specifies these delegates represent clubs, not individual members.)

The current ABA committee **does not support** this proposal. It believes every ABA member is entitled to participate in meetings of the association and to vote on matters important to them personally.

After all, you have joined the ABA directly and pay the ABA a membership fee. This fee goes towards the services the ABA provides to *you*. (Think membership pack including log book and biosecurity equipment, various insurances, swarm register, online record keeping, support, this journal – *The Amateur Beekeeper*. . .) Your ABA membership fee also funds the support services the ABA provides to local clubs. (Your club fee goes to your club for local operating costs.)

Why then should your local club, in effect, be handed the power to govern the ABA? Your local club is not -- as many people misThe model rules for incorporated associations in NSW (where the ABA is reg-



NSW (where the ABA is registered) set out that **each member has a vote** at meetings and other decision making processes of an association.

The ABA has been given notice of a motion to be proposed at the upcoming AGM that wants to change the constitution of the ABA so only 'club delegates' get a vote. It sets out the number of delegates per club (2 or more depending on size). However it says nothing about how clubs appoint delegates, nor does it stipulate how or if delegates are to seek the views of club members.

takenly believe --- a member of the ABA or a branch of the ABA. It operates in an affiliation **partnership**. Clubs and the ABA are separate legal entities, incorporated in their own right and with their own rules of operation and obligations to their members. Your club chooses to affiliate with the ABA for the range of services and benefits the ABA provides. The club does not pay the ABA a fee for service – you do.

Members have shown they *do* want a say! Two recent informal polls around changing the name of the ABA received around **2000 votes** and much useful feedback. How does this stack up against attendence at AGMs? **Only 31 to 72 members** have attended individual AGMs in recent years, even when held online.

It is clear that individual members want their opinions counted – but sitting through an AGM doesn't hold much appeal. Making the system *more* complicated and *more* bureaucratic for members is not the answer. Greater use of online voting is one option that could encourage greater participation across the membership. When you join a local club you get to decide how that club is run -- that's if you're interested in participating. Shouldn't that be the same when you join the ABA?

The proposal to be put at the upcoming AGM would mean that in future anyone wishing to have a say in the way the ABA operates could only do so via participation in their club.

Only clubs would get notice of and be invited to general meetings. This would make clubs gatekeepers for nominations to the ABA committee. Only club delegates would get to vote on who is elected to run the ABA. According to this proposal a club delegate will not even be obligated to seek your view on any issues being considered by the ABA.

Such a system *might* work if ABA members are all deeply involved at club level. We know that's not the case – and that's perfectly fine.

n fact, in a recent survey of members, **50 per cent** of participants said they never or rarely attend a local club meeting. They may have joined the ABA for the direct benefits, or because they want to support recreational beekeeping or add weight to the power the ABA has to lobby on their behalf.

F you choose *not* to participate in your local club, you are still required to pay a club fee. This fee benefits members who do attend clubs, and your membership increases the bulk purchasing power of the ABA. This brings down the costs of membership and insurance for everyone. Is it fair then that these members who contribute financially and help others are stripped of their rights?

t's true that when the ABA formed it was structured so clubs *were* branches of the organisation. The ABA committee managed day-to-day tasks, but all decisions waited on approval by a council of club delegates who met several times a year. Meetings I attended several years back had patchy representation of clubs – although, of course, all were invited. I believe some meetings couldn't achieve a quorum. The system was deemed ineffective on many levels and abandoned.

Online events involve little time commitment, inconvenience or cost, yet encouraging club representatives to participate can be a task. This is not criticism – simply evidence of how clubs have varying levels of interest in ABA events. Some are very enthusiastic; at least one club *never* participates in ABA projects. Fair enough. But if the only way members can have a voice is through a club delegate system, I see problems.

So where does this leave us? Should the ABA work together with clubs to benefit everybody. Of course. Can current practices and communications both ways be improved? Undoubtedly. But this proposal is not the solution.

We simply do not need an additional layer of administration when time has shown us that it hasn't worked before.

f you support the ABA as an organisation where all recreational beekeepers can be heard, vote NO to this proposal. Instead, let's build a stronger association where it's easier for everyone to play their part.

WANT YOUR SAY on the proposal to change the ABA constitution? Watch out for your email invitation to the 12 February AGM. This invitation will be sent to all members in coming weeks. We are currently looking at options that will allow members who cannot attend in Orange to join the meeting online and to vote.

Meanwhile, we welcome your comments. Email: feedback@beekeepers.asn.au

TO BE CONSIDERED AT AGM

Here is a copy of the proposed new ABA constitition, with changes highlighted. In short it: transfers member voting rights to club delegates alters the nomination process for committee elections stops members automatically receiving notices of meetings allocates votes to clubs according to the number of members

Link to ABA constitution with proposed changes marked

REPRINT FROM AUGUST 2019

9 Things Every Beekeeper Should Know About ... Extracting Honey



REDUCE COMB BREAKAGE WHEN USING AN EXTRACTOR WITH BASKETS

After spinning to remove the honey, *gently* move the frame sideways to free the comb from the basket wires before pulling the frame up to remove it from the basket . This is especially important when extracting white combs (combs that have never had brood in them) as they will be fragile.

WARM HONEY FLOWS MORE READILY

It helps to remember this when you plan your tasks, particularly if you live in a cooler region. Inspecting hives to remove frames is easier in the middle of the day

(since many bees are out foraging) and if you can arrange to extract the honey from the frames while it is still at hive temperature, all the better. Honey in frames left to cool will not separate from the wax as easily, and cool honey takes longer to sieve and pour..

DON'T BE GREEDY Honey won't spoil if left on the hive, so err on the bees' side when deciding how much to leave. It's easy to forget that capped honey is the bees' pantry to get them through lean times.

AVOID BLOCKING THE STRAINER AFTER EXTRACTING

Uncap combs with a knife. The cutting ac-

tion removes slices of wax whereas a cappings scratcher or uncapping fork removes small particles of wax. These particles often end up mixed with the honey being extracted and can block the strainer.

WASH USED EQUIPMENT IN

COLD WATER It may seem intuitive to use hot water but opt for the cold tap. Beeswax quickly hardens

in cold water making clumps easier to hose away; hot water melts the wax so you could well end up with a thin coating on all your gear.

USE A MICROWAVE TO RENDER THE CAPPINGS AFTER EXTRACTING THE HONEY See how to do this at i<u>llawarrabeekeepers.org.</u> <u>au</u>. Look for the video on Rendering Beeswax a step by step Beginners Guide

Beeswax is a valuable by-product of honey extracting and wholesales for about \$18 a kilo.

LET YOUR HONEY STAND FOR A WEEK BEFORE BOTTLING. Open the bucket's lid and scoop off the whitish froth – air bubbles that have risen to the surface. (Beekeepers entering their honey in shows will repeat this process several times.)



NEVER!

It's NOT okay to leave honey-coated equipment out in the open for bees to clean up. This shortcut is often touted online. However it's

a biosecurity no-no and contravenes the Australian Code of Practice for Beekeepers.

Honey can contain the microscopic spores that cause American Foulbrood disease in honey bees. If you see posts encouraging open feeding of honey to bees please politely point out the dangers.



Sticky frames and equipment can be put back inside the hive that the honey was extracted from. Or wash it somewhere where bees can't access the runoff.

REPRINT FROM AUGUST 2019 Honey labels: the basic rules

If you intend to sell honey at a market or store, you must label it correctly. Here are the essentials

THE WORD HONEY. Sounds obvious but it's surprising how often beekeepers assume



everyone else will know what's in the jar. It's the law to declare the Hovey name of the food you are selling. You can add other descriptions (such as the floral source, where the hives are located, your 'brand',

degree of processing or other terms that will appeal to potential purchasers). But however else you dress it up, the word honey must appear on the label in clear, prominent and legible text somewhere.

WEIGHT OF PRODUCT This is best expressed in grams. **5**0gr, 400gr and 500gr are common honey jar sizes. Weigh the



jar, add the contents and subtract the weight of the jar from the final weight. Use accurate scales.

YOUR NAME AND STREET ADDRESS. This is so you can be contacted after the item has been purchased. The legal minimum is for an Australian street address of 'the supplier'. You can include a PO box, email address or website if you wish as an additional contact point but these options don't replace the requirement for a physical address.

COUNTRY OF ORIGIN PANEL. This is required on packaged food sold to consumers in Aus-tralia. You must use the standard mark with three components – the kangaroo in a triangle logo, a bar chart showing the percentage of Australian ingre-

dients, and appropriate explanatory text. The standard doesn't require the CoO label be a minimum size but the information must be 'legible' and 'prominent'. To generate a panel that you can then use on your honey packaging, go to originlabeltool.business.gov.au For locally produced honey you can choose from a selection of descriptions, such as Produce of Australia, or Australian Honey.



NUTRITION PANEL. This is less complicated than it looks. Food Standards ANZ has a <u>nutri-</u> tion panel calculator that will generate all the data you need. The standard set of information must include a serving size, the number of those serves in the package, and the levels of energy, protein, total fat, saturated fat, carbohydrate, sugars and sodium

expressed as both average quantity per serve and average quantity per 100gr. Find the calculator online at foodstan-

dards.gov.au and input 'honey', and the size of your pack. (For serving size, see next page.)The online tool will do the August 2019 rest.

LOT IDENTIFIER. This is important in case there

is an issue with a batch of honey. The identifier can be in any form that would allow all honey produced and packaged at one time to be traced. So, if you pack only one lot a year, a simple year date is sufficient; if you pack throughout the seaon you will need something more precise.

If your honey contains other ingredients, such as flavourings, the label needs A STATEMENT **OF INGREDIENTS listed in descending order** of weight. It will also need a warning statement if it

Ingredients: Honey, ginger, cinnamon, nutmeg contains substances such as nuts, milk, cereal or bee pollen. (Check the details carefully if you think this applies. FSANZ has a user guide to warning state-

ments.) If your honey package contains only honey you don't need to include separate statement of ingredients since you have already called it honey according to point 1.

ONLY TRUTHFUL STATEMENTS. You must not use statements that are incorrect or likely to create a false impression. Don't call

it organic unless you can meet the requirements set out in the national standard for organic produce. and don't make any other claims that you cannot prove. That includes health and wellbeing claims -- an area of



consumer marketing that is highly regulated. (See next page.)

DO YOUR LABELS COMPLY? Now's the time to check and make any necessary changes so you are ready for next season.

The information in this article is for general information purposes only. It ishould not be relied on as a substitute for legal advice.



REGULATIONS CONTINUED

Do I need a Best Before or Use By date?

Date marking information is optional if the food has a shelf life longer than two years.

What is a 'serve 'of honey?

When creating the nutrition panel for your label you need to include the serving size and declare how many servings are in the container. Serving sizes are not defined in the Food Standards Code, but the authority's guidance is that it should be a realistic portion of the food that a normal person might consume on one eating occasion. Typically, supermarket honey brands use 15g as a serving size.

What is the definition of legible?

It needs to be indelible – as in it won't rub off or become unreadable under normal conditions. It needs to be distinct – in other words readable on whatever background it is printed on. It needs to be easy to read: in most cases the size isn't prescribed although warning statements, where required, can have a prescribed minimum size dependant on the pack size.

Do I need to warn about not feeding honey to babies?

Local beekeepers often get confused about this. Some countries require a warning statement but Australia does not. The warning relates to the risk that the immune systems of very young children (under 12 months) cannot cope with <u>botulinum spores</u> in honey. You might want to advise your customers but you aren't required to do so by law.

Can I make health claims about honey?

Health and nutrition claims are governed by precise requirements in the Food Standards Code and in other consumer legislation in order to protect Australians from misleading or harmful statements. You need to fully understand what you can and cannot say, and what evidence you need to hold or include on your labels, advertisements or other marketing materials. You cannot make therapeutic claims — that is, refer to the prevention, diagnosis, cure or alleviation of a disease, disorder or condition without satisfying the Therapeutic Goods Administration that your product is a therapeutic item. This is a complex area. Food Regulation produces a <u>decision making guide to getting</u> <u>your claims right</u>.

Do I need a label if I sell from my premises or fill jars to order?

You don't need a label if the honey has been made and packaged on the premises from which it is sold, or if it is packaged in the presence of the purchaser. But if you are running a business from your premises you will need to check that you are complying with any council requirements such as zoning restrictions.



DELVING DEEPER: SOURCES TO CONSULT

Food Standards Australia New Zealand at <u>foodstandards.gov.au</u> This is a statutory authority at federal level. It develops the <u>Food Standards Code</u> which is enforced by all state and territory governments and local councils. Find the details of the code that relate to your honey sales; use the <u>nutrition panel calculator</u> to generate the data you need for your labels; and discover information about food safety, warnings, recalls and other topics presented in a number of <u>user guides</u>.

The <u>Australian Competition and Consumer Commission</u> at <u>accc.gov.au</u> applies the Trade Practices Act to ensure that businesses operate competitively, efficiently and honestly. It makes sure the Food Standards Code is complied with in Australia, in particular representations that are made about <u>food on labels and in</u> <u>marketing</u>. The ACCC has a FAQ section relating to the <u>Country of Origin labelling</u> <u>regulations</u>.

Business.gov.au has created an online tool to help you understand whether you need to use a Country of Origin panel on food labels. The site also has general information on running a small business and on regulations that apply to selling products and services in Australia.

TRIVIA Bees in space

14 honeybees were taken into orbit in 1982 aboard the Space Shuttle in a <u>student</u> <u>experiment</u> to test how zero gravity affects insects.

The honeybee workers didn't fare well: they struggled to fly or to walk on surfaces of their cage, and it's thought they had difficulty accessing the sugar feed. As a result, they all died before the shuttle returned to Earth.

REPRINT FROM FEBRUARY 2022 Showing honey at agricultural shows

It's easy to improve your chances of winning. Bruce White shares tips

HE KEEN INTEREST shown by the public in the exhibits at agricultural shows is rewarding for all competitors. Winners should also get much satisfaction from the prize cards, and these can be used to promote the sale of honey at farmers markets.

This article aims to help beekeepers prepare honey and give guidance to stewards or judges involved with apiculture contests.

Harvesting the honey



The first important step is to select your best combs. Look for newly drawn white combs that are fully capped. If all cells on a frame are fully capped the honey is at its maximum density.

Hold frames up with a bright light behind the comb and inspect for any stored pollen. If pollen is present, either reject the comb or cut out the pollen cells prior to removing the honey. Pollen must not be mixed with show honey.

By using a bright light you will also be able to tell if the honey is all of the same floral type.

The best way to remove the honey for showing is to press it from the cells. Uncap the combs with a clean knife or other suitable instrument and force the honey from the cells. This minimises air entering the liquid honey.

The other method is to extract the white combs using a small hand extractor. This will avoid the risk of overheating the honey. The extractor should be made of food-grade stainless steel or food-grade plastic.

If propolis is on the frame, remove it before placing the frame into the extractor. When pouring the honey into the settling container, pour it down the inside surface to minimise air bubbles getting trapped in the honey. Honey is hydroscopic and can absorb moisture from the atmosphere. If possible, use a small bucket or plastic ice cream container so it can be filled to the top. Ensure the lid is airtight.

Allow the honey to settle for several days at a temperature of 37°C. This will allow any air bubbles, wax or other matter to rise to the surface where it can carefully be skimmed off.

After the settling

With the honey at about 37°C, pour it down the edge of a cone-shaped nylon strainer. Nylon straining material is available from beekeeping suppliers and can be sewn into a cone shaped bag so the point of the strainer almost touches the bottom of the container.

The best container for the straining process is a plastic bucket with a gate at the bottom or an ice cream container. After straining the settled honey carefully remove the strainer.

Allow the honey to remain in the straining container for about one week.

After a week, pour the honey into your show jars by opening the honey gate on the bucket or cut a hole in the bottom of the ice cream container. Vent the lid before pouring, then pour the honey down the inside edge of the jar to minimise air bubbles entering the honey.

All jars in an entry should be filled to the same level for uniformity, with the honey just not touching the inside of the lid when the jars are level.

The selection of jars is very important. Hold the jars up to examine them before filling to ensure there are no flaws from the glass moulding, and cull any with imperfections. Equally important is

the cleaning of the jars with a quality glass detergent.

The jars must comply with the show schedule (usually 500g glass round jars).



Store the filled jars in a closed

cardboard box with partitions so the jars don't touch each other. If stored in the dark, the honey colour is unlikely to change in the short term.

Granulation can be inhibited by storing at temperatures lower than 0°C.

Liquefying granulated honey

This must be done with extreme care to avoid overheating the sugars and darkening the honey. Use warm air or a water bath so the honey is kept below 43°C. It is preferable not to liquefy already granulated honey for liquid class entries.

Classes

All honey in the same entry should be of the same blend or floral type.

Judging Qualities

Based on the Sydney Royal Easter Show point score, some variation to the points may occur at other shows

Liquid Honey

,	MAXIMUM POINTS
Flavour	25
Density	25
Colour	25
A roma	10
CLEARNESS	10
Brightness	5

Flavour Honey should be palatable – free from "tang", off flavour, fermentation and acidity. If the honey is for a floral type class e.g. Yellow Box, the honey must be characteristic of that floral type.

Density Honey varies in density. The highest points are awarded to the highest density. Density can be determined either with a refractometer, by rating the buoyancy of a glass rod near the honey surface, or rating the rising of an air bubble by inverting the jar.

Colour At the Sydney RAS, classes are for light, very light, medium and dark. A Pfund honey grader can be used to grade honey by colour.

With very light honey, the lighter the colour the higher the points awarded. Other classes are within the prescribed colour ranges.

Aroma Honey with a pleasing aroma scores the highest points. Fewer points are awarded for honey with offensive aroma or no aroma, or those with fermentation, or showing they have been overheated. Aroma varies according to the floral source, hence honey from Clover, Stringybark and Yellow Box has a distinctive bouquet.

Clearness Honey must not have a dull or cloudy appearance, it should be clean and have a sparkle.

Brightness Slightly warm the honey in the jars before showing to increase the brightness. This will remove any minute crystals and give the entry more brilliance. The honey must be at room temperature for judging.

Chunk Honey

This is a jar of honey with a cut out section of capped comb placed into the liquid honey.

A ppearance	25
Colour	25
FLAVOUR	20
DENSITY	20
CLEARNESS	10

Prepare the honey as for liquid honey showing except you need to select a comb of honey as you would for showing a frame of capped honey.

Using a hot knife, cut out a section of the comb after first pulling out the wires in the frame that held in the comb foundation.

The comb section of honey should fit into the jar through the lid opening, touch the bottom of the jar and, at the top, sit so it just misses touching the lid.

The comb honey and liquid honey should be the same colour and floral type.

Cut out the section of comb and allow it to drain over a grid i.e. wire queen excluder. Pieces of wax should drain away so your exhibit has no particles of wax present.

Granulated Honey

The general requirements are similar to liquid honey. Of major importance is the texture of the granulation and firmness of set.

Evenness of grain	30
Flavour	30
FIRMNESS	30
Colour	10

Evenness of grain

Classes can be fine or course grain. In the case of fine grain, the granules should be even and almost indistinguishable to the palate and tongue. Floral types such as Lucerne and Clover have natural fine

ADVERTISEMENT

SYDNEY BEE SHOP

Our beekeeping shop in Matraville stocks most gear for the hobby beekeeper, offering Australian made or assembled equipment where possible.

We've personally tested all our gear and only stock products we'd use ourselves.

Save time – order online for instore pick-up or we can deliver for \$10 in Sydney.

shop.theurbanbeehive.com.au



U21, 19 McCauley st Matraville 2036 Phone 02 9232 5600

grains. Course grain floral types are usually Eucalypts.

To achieve even granulation, 10 to 15 per cent of the selected granulation honey, called "starter", is mixed with the selected liquid honey you wish to granulate. Mix the starter thoroughly at 18°C to 24°C with the liquid honey until the whole mix is the same colour and consistency and incorporating as little air as possible.

Leave the mix at 14°C for 12 to 36 hours. Before it sets firmly, the honey should be poured slowly into the show containers, pouring down the inside of the jars to prevent air bubbles. Store at 14°C so the mix will set in about three weeks.

Best results are obtained if the granulated honey is in firm condition just before showing.

Flavour

The flavour will be determined by the floral source of the starter and liquid honey used in the mix.

Firmness

The mix should set firm but be easy to spread. The starter used will determine this characteristic.

Colour

The colour should be off-white to cream. This will be determined by the starter and liquid honey used.

Creamed Honey

Use a fine grain starter, or save some of the previous batch of honey you creamed. The point score is as for granulated honey.

Mixing the starter into the liquid honey is done in such a way as to add air to the mix.

Creaming machines are available from beekeeping suppliers. Dough mixing machines or motorized mincing machines can be used.

Don't use a regular kitchen mixer: the honey is too dense and the motor may overheat. With a dough mixer, beat the honey until it won't turn any whiter. Or pass the honey through the mincer or a commercial cream machine until it is white as you can get it.

Comb Honey

Frames and section are best drawn above the brood chamber with the hive fitted with a queen excluder. You don't want comb that been used for brood. A queen excluder also reduces the amount of pollen in the comb or section. Ensure frames and sections are correctly assembled and fitted with foundation.

Select colonies that leave an air space under the cappings. This gives the cappings a whiter appearance. Avoid taken frames or sections from colonies that leave no air space, or those that collect and deposit a lot of propolis as this could stain the cappings

Remove sections and show combs that have been on a heavy honey flow as soon as the whole frame or section is completely capped. This prevents discolour-

16 AMATEUR BEEKEEPERS AUSTRALIA DECEMBER/JANUARY 2023

ing from bees walking over the cappings.

Hold up each frame or section with a light behind it. Cull ones with pollen.

Fullness	30
Colour of Cappings	30
Evenness	20
GENERAL APPEARANCE	20

Fullness

Highest points are awarded to combs or sections that are well drawn out.

Colour of cappings

Cappings should be whitish in colour.

Evenness

Cells should be even, with no depression on the surface. Cappings should be the same colour as each other, indicating the honey inside is from the same floral type. Some section classes may indicate light or dark honey. If not, light honey is preferred.

General Appearance

Clean or sandpaper wooden components to remove any stains. Frames must be shown in a bee-proof wooden display case with glass or perspex sides.

For sections, use food wrap, cellophane, perspex or glass sided cases over the section to make it beeproof.

ADVERTISEMENT



Servine FROM AUGUST 2019 Things Every Beekeeper Should Know About Selling Honey

COMPLY WITH FOOD HANDLING REGULATIONS

Goes without saying? Check with your local council for up-to-date details of requirements for bottling and selling as a home based business.

IF YOU SELL MORE THAN 1500 KILOS A YEAR, PAY THE HONEY LEVY

You benefit from lots of work being done to protect Australia from pest incursions and to strengthen our local apiculture industry, so make sure you pay the national honey levy of 4.6 cents a kilo. For more information check out the <u>December 2021 issue of this journal</u>.

LABEL IT RIGHT

Check you have included all necessary information, such as contents, contacts, batch, weight, nutrition panel and country of origin symbols. The <u>August 2019 issue</u> has a rundown.

HEALTH CLAIMS? NOT UNLESS YOU CAN PROVE THEM

By all means make your honey sound attractive to potential buyers, but never stretch the truth. Health claims made for marketing purposes are strictly regulated and fines can be heavy. Stick to what's been scientifically proven.

CUSTOMERS VALUE BEAUTIFUL PACKAGING AND PRESENTATION

Plastic pails may be cheap and cheerful -- and that may suit your pitch. But a stylish glass jar and professional looking label will increase the appeal of your harvest and boost the amount you can charge.

Never undervalue honey: it is a premium natural product and consumers will respond if you present it that way..

SET A GOOD PRICE If you sell direct to the consumer, you can expect to get around \$20 a kilo (sometimes more). If you are selling bulk or to a retailer, you trade convenience for price and so expect a lot less.

CHECK THE LIDS ARE SECURE Goes without saying? Perhaps.

Until that one time that you don't check!

It's NOT okay to use a hodge podge of old jars with their original lids. This contravenes food safety regulations and looks unprofessional. Properly sterilised glass jars with new lids can be used.

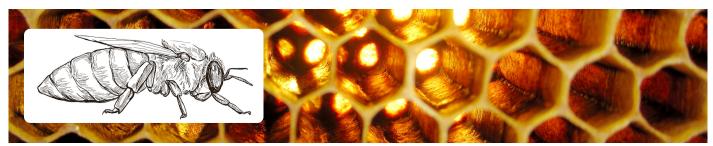
ALWAYS!

Prepare your bottling area so it is scrupulously clean and tidy. Once filled, carefully wipe the outside of each jar to remove all traces of honey and fingerprints. A sticky jar is never appealing – and the last thing you want if you are selling outdoors is for some opportunistic bees to pick up that aroma. Bees can quickly become very annoying for everyone at the market – a good reason to think carefully before allowing honey tasting when hives are nearby.









Celebrating 200 years of beekeeping in Australia From BEE INFORMED, a

HERE IS MUCH deliberation about the successful introduction of the European honey bee (Apis mellifera) into

Australia, but most sources agree that this was in March 1822 by Captain John Wallis of the ship *Isabel-Ia*. The *Isabella* was a merchant ship that transported convicts from England and the captain brought seven hives to Sydney on the ship's second voyage.



Evidently, further hives were imported in 1824 aboard the *Phoenix*, and again in 1831 on a ship called the *John*, which brought honey bee colonies managed by Dr Thomas Braidwood Wilson of Hobart, who

had ongoing success in multiplying and distributing colonies. In addition to the original black bee (*Apis mellifera mellifera*), other subspecies were later introduced from Italy (*Apis mellifera ligustica*) and Yugoslavia (*Apis mellifera carnica*).

Given the abundance and unique diversity of Australian honey and pollen flora, and the milder climate compared with Europe and North America, the environment was highly conducive to beekeeping and honey production, and subsequent bee businesses proliferated.

Australian farmers in the 19th century who wished to diversify and secure additional income often turned to beekeeping as a sideline. It is likely that the export of honey from Australia started in 1845 when honey and honeycomb were shipped from New South Wales to Great Britain in wooden casks.

Following the development of the movable-frame hive by Reverend Lorenzo Lorraine Langstroth in America in 1852, the Langstroth hive found its way into Australian apiaries by 1872. The adoption of Langstroth hives and subsequent use of the smoker by about 1895 led to more honey bees, increased honey From BEE INFORMED, a compendium of 60 years of honey bee research funded under the honey levy. It details the major findings from projects investigating pests and disease, nutrition, genetic improvement, resources, pollination, off-farm



issues, and communication and extension. Free to download at

BeeInformed. Agrifutures Honeybee and Pollination Programme

production and less disease. By 1895, more than 100 tonnes of honey had been exported to the United Kingdom from Victoria alone.

In 1903, Victorian apiarist Thomas Bolton voiced resource concerns regarding the clearing of forest areas in the Western District of Victoria, which was resulting in considerable economic losses to bee

business.

It didn't take long for American foulbrood (AFB) disease to become an issue, with the disease first reported in NSW in 1889, and by 1891 efforts were underway to control its spread in South Australia. European foulbrood (EFB) disease was identified in Australia in 1977, in

Victoria, South Australia and NSW.

In 2002, the small hive beetle was detected in NSW and Queensland; by 2005 it had spread to Victoria.

Honey bees have been an integral part of the Australian economy

for the past 200 years; not only in terms of honey production but as a provider of livelihoods and pollination services for agriculture and horticulture.

This has especially been the case since 1962, when commercial beekeepers began paying the honey levy. In the six decades since, there has been a 10-fold



increase in the recreational beekeeping sector, and the average number of hives managed by a commercial beekeeper has almost doubled, from 156 in 1962 to 299 in 2018.

One study (2014-2015) estimated the economic value of Australian managed and wild honey bee pollinators to be \$14.2 billion. A later study found honey produced by commercial and recreational beekeepers in 2019 was worth \$257.6 million.

The Australian honey bee industry now supports more than 1800 highly skilled commercial beekeepers and some 531,000 commercially managed hives that can deliver paid pollination services. On average, annual honey production (commercial and recreational) in Australia is 37,000 tonnes. In a typical year, 70% of Australian honey is produced from native flora.

The Australian beekeeping industry has proven to be highly resilient over the past 200 years. The industry has a favourable outlook for its products and services, yet the realisation of the opportunities will not be without challenges, and change is required to manage de-

clining floral resources and climate change.





LESSONS FOR BEGINNERS Rookie mistakes

Kevin Tracy recalls how his adventures in beekeeping started with a rutted road and some feisty bees

"Some say experience is the name we give our mistakes.

I was younger in 1974, two years married and had never experienced bees.

Living on an escarpment overlooking Kangaroo Valley, NSW, was blissful and exciting: eight miles of 4 X 4, half of it on a steep, rutted goat track, cliff on one side. We drove a Suzuki 2-stroke 4x4 Sardine Can.

Of course, we had a self-sustainable, organic market garden, as any reader of "Five Acres and Independence" would do if they could.

Use. Share. Trade. Barter.

One day it came to me, in a puff of smoke: "We've gotta get bees."

After all, everyone knows about pollination for the garden and honey. "The bees do everything. How hard can it be?"



To keep this brief, I resort to points:

- 1. Bought bees from an old beekeeper
- 2. He didn't want his two double-brood-box colonies anymore and told me they came with honey that could come off 'now'
- 3. Bees collected during the day
- 4. Bees rammed into the "Sardine Can"
- 5. Long, slow descent down the rutted track
- 6. Bees ROARING
- 7. Me thinking "I could die today!"
- 8. Bees unloaded
- 9. Boxes opened to harvest honey 'now'
- 10. Bees See number 7 above

Have you a funny story about a rookie mistake? Tell us about the time you learnt a beekeeping lesson the hard way. Send your story to editor@beekeepers.asn.au If we publish it in a future edition you'll win a prize!

WEB STORE Shop online and support the ABA

For ABA merchandise, essential biosecurity



Beekeeper's Log Book 2021/22 \$5

Want one for each hive? Grab some spare copies now We have limited stocks – when they're gone, they're gone. A5 size. 60 pages plus cover.

2020/21 edition: last copies available. Special price \$2 CLUBS can contact us to discuss bulk orders of items that they wish to supply to their members.

And we are always keen to hear from members with ideas for products or publications they would be interested in purchasing from the ABA.

Our store sells essential equipment that can be tricky to source elsewhere.

Any profits go to help fund the ABA.

Our popular warning signs suit backyard beekeepers. 200mm by 265mm. Made from lightweight UVstable material similar to that used for real estate signs.

With eyelets for easy fixing. Text reads: Caution. This area has beehives. There are many bees about. Bees can cause a painful sting. If you are allergic to bee stings you MUST NOT approach the hives as a bee sting can be fatal

SIGNS \$10 EACH



Sugar Shake Kit \$15

Contains all you need to perform a sugar shake test to check your bees for mites.





AFB brood

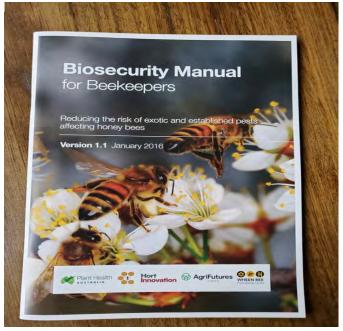
sampling kit \$4 Make sure you have a brood sampling kit every

time you open your hives for inspection.

Contains instructions, glass slides, mailers and a laboratory form – all you need to send suspect brood samples off for scientific diagnosis. Versions for NSW/NT and QLD. (The laboratory forms are different for each state.)

Please note: lab testing fees are payable. However if you suspect AFB and are a registered beekeeper in NSW, NT or QLD, your state veterinary laboratory will not charge for this service. Available through our shop at cost price.. 64-page A4 printed manual.

Biosecurity Manual for Beekeepers \$3.50 This is your essential guide to local pests and diseases, produced by Plant Health Australia.





SPECIAL SUPPLEMENT

Breeding QUEEN BEES

PART Four

SPECIAL SUPPLEMENT **Rear Queen Bees** Kevin Tracy presents the final part in our

series

ELCOME to Part 4, the last in our series – "Rear Queen Bees". The intention of this series is to encourage and help you raise your own



queens. If you have not read the first three parts, you would be well advised to do so. Click on the months below to access previous issues of The Amateur Beekeeper.

This series is taken from a two-full-day and more, non-accredited course that meets many elements addressed in the Unit of Competency AHCBEK409 Rear Queen bees (in

line with AHCBEK31818 - Certificate 3 in Beekeeping).

This series is non-accredited, so it awards no certification or formal qualification. I've kept it to the bare bones in an attempt you get you started.

SUFFICIENT knowledge, practical skills, and resource information has been included to help you achieve another level in your beekeeping, and enhance your wonder of bees.

And, in case you were wondering, there is always more to learn and experience when it comes to bees!

BY THIS STAGE, Part 4 in the series, I would like to think that you have the interest, desire, and commitment to rear queen bees. You may have even done a few cell-builder setups and grafts.

BIOSECURITY RULES Varroa emergency restrictions

Check the <u>current rules</u> on feeding. handling and moving bees in your location.

In NSW, in mid December recreational beekeepers in the blue zone were allowed to move honey bees if they complied with a set of legal conditions. Rules and zones can change, so it is essential to keep up with the latest conditions.

IN THIS SERIES

Part 1 June/July Issue

- Benefits and reasons
- What you'll need to get started
- Age-appropriate larvae
- The schedule. Biosecurity
- Glossary

Part 2 <u>August/September Issue</u>

- Basic anatomy of worker, drone, queen
- Drone Congregation Areas (DCAs)
- Races of queens
- Selecting your "breeder" queen
- Choices. Decisions. Actions

Part 3 October/November Issue

- The Cell Builder (CB) Starter/Finisher
- Cloake method
- Equipment and setup
- Records to keep
- Queen rearing methods explained
- Grafting tools and technique

Part 4 THIS ISSUE

- Mating nucs
- Handling queen cells
- Catching, caging, and banking queens
- Marketing tips



REVISION

Before we move into more of the practical considerations and applications for your success:

- Keep records
- Superior queens are produced from larvae up to 24 hours old
- The day of the graft is Day 1 of your schedule
- Day 10 is when cells go into mating nucs.

TIPS:

• Practice and experience lead to success. You can do this!

- The season starts with drones
- Drones are sexually mature between two and four weeks after hatching
- Do not give up (Did I say: You can do this??)
- Quality before quantity
- Keep learning and sharing.
 Collaborate!

With mating nucs or nucs for increase, you need to keep a close watch on their condition at all times.



Here's just a few of the things you'll want to monitor:

- Need for sugar feeding
- Need for pollen supplementation
- Small hive beetle
 - Ants
 - Temperatures
 Weather

 - Population
 - Disease



MATING NUCS

A mating nuc is a nucleus colony you use to place your queen cell in on Day 10 of your schedule/records.

This nuc is where the virgin queen will hatch and be cared for by the colony.

The virgin queen then goes on her mating/nuptial flight/s and remains until you catch her for use elsewhere or to make room for another queen cell in your production programme. (This is also a good way to produce nucleus colonies to increase your apiary.)

Mating nucs come in many sizes and configurations: mini, 2-way, 3-way, 4-way, 6-way, 4 or 5 frame.

All types have pros and cons. All types need healthy bees, and to be well populated and well situated.

Placement of queen cells is between brood comb.

Placement of queen cages is between brood comb, and at a slight angle, not pressed into honey.



23 AMATEUR BEEKEEPERS AUSTRALIA DECEMBER/JANUARY 2023



So, what about "orientation" and the bee's eye?

Quickly -

 Bees' two compound eyes give them phenomenal sight.

• Three ocelli on the top of their heads give bees a very good directional sense.

• Bees can follow a map of their making as well as a "Map B" for weather.

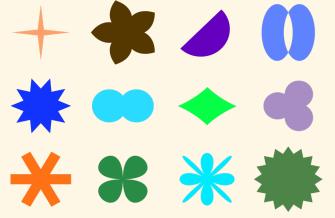
Having said that, the use of orientation markings on the hive greatly improves the chances of a queen returning to her specific colony after her mating/nuptial flight.

Markings:

 Bees more readily see the UV range of the light spectrum – favouring blues and purples, but not registering reds as colours.

• Markings can be simple – use a marker pen, or paint, and draw freehand or use a stencil.

- Add some detail be creative.
- Orientation markings go at the hive entrance/exit and on the lid.



HANDLING CELLS -CELL BUILDER TO NUC

DAY 1 is when your graft went into your cell builder

DAY 9 is when you removed the queen from a mating nuc so it is ready to receive a queen cell

DAY 10 is the day you remove the cells, carefully, from the cell builder and transport them to the queenless colony you prepared earlier.

We need, here, to emphasise record keeping. It is essential. You will get lost and confused if your records are not in order.

The records you keep for rearing queen bees

do not replace the biosecurity requirements for two full brood inspections per year or other protocols required to combat the varroa incursion.



The following information is useful to keep in your queen records. You may want to keep additional notes as you move ahead in your queen bee production.

Graft/Catch Schedule

- 3-4 days before sugar syrup into breeder
- ? day set up cell builder/s
- Which cell builder/s used, quantity of syrup
 - Day 1 = date of graft, including number of cells and from which queens
- Day 9 = catch queens
- Day 10 = when and where cells go out number of successful cells percentage of queens caught number of cells installed, date conditions, other matters/issues
- ? day of next graft

* Queen breeding *

It is *quality* results you are looking for. Each person will have their own way/s of producing queens – that's fine. Maybe something in that can help you. Share your experiences.



You *can* rear queen bees

Stick to the timetable – the hard part – and choose a method that best suits your ability and the *number* of queens you want from *which* queen you want.

Pay attention to biosecurity, pests, and diseases in all queen production



Back to Day 10, "Cells Out"

Cells are fragile. Handle with care to avoid damage. Use a brush to gently remove bees

Keep cells vertical, with the hatch end facing down

The cells can be transported various ways, including in a container with sawdust (don't use sawdust from

treated wood), in spaces cut into foam rubber, with an incubator, or a queenless nuc with bees. It's your choice.

A cell goes into a healthy queenless colony by being placed between brood combs.

The cell does *not* need to be placed far down on a frame. It can be placed and held between top bars of frames – making it easy to remove later.



Catching/Marking/Caging/Banking

You can do this too!

First tip: Practice with drones because they do not sting. Then use the same technique to catch workers, and the queen for marking if you choose to do so. At this stage there would be little, if any, reason to clip the wing/s of a queen.



THE PAINT IS ON THIS QUEEN BEE'S THORAX. [THIS IS WHERE YOU WILL "MARK" YOUR QUEEN IF YOU CHOOSE TO DO SO]

REVIEW ANATOMY

Bees are insects. They have three body parts:

HEAD (eyes, antennae, mouthparts, brain)

THORAX (legs, wings, muscular)

ABDOMEN (important internal organs – fragile) A water-based marker can be used. Make sure it is ready to use and doesn't "spill" ink as you put a dot on the thorax. There is an international colour code used for identifying queen age.

Allow paint to dry before putting the queen in a cage.



A crash course on marketing your queen bees

PARE QUEEN/S? Really? Is there such a thing? Before we look at some help for marketing, I

Bees that are caught to cage are:

- Picked up by the wings or thorax only. It's much easier to handle her without gloves.
- Queens are carefully directed into a prepared cage head first only.
- Five to seven attendants are caught by their wings and added to the cage.

Now you have a caged queen - of your own making! Use her to replace a queen, to supply someone else, increase your bee numbers, and save you money.



do want to mention, again, that "local vigour" is one of the best reasons to produce your own queen bees in and for your own region. Yes, we are talking adaptation and genetics and you are now involved!

It follows that you would seek to do your marketing within your region. At least at the beginning.

The role of marketing is to:

- 1. Identify customers
- 2. Satisfy customers
- 3. Keep/retain the customers

Here, again, we emphasise quality is more important than quantity.

Remember: the best queen/s that you produce are kept by you for your queen bee improvement plan and local vigour.

Marketing Your Queen Bees -

1. IDENTIFY CUSTOMERS

First of all, you need to identify your customer wants and needs. Then you need to work out who you are going to target and how you will reach them.

Is your market commercial beekeepers, sideliner beekeepers or recreationals?

Who are they getting queens from at the moment? Where do they look for information? How can you deliver better customer satisfaction? Is there a niche in the market? Where did you get your queens from before you started breeding your own?

Remember: there are not enough queen breeders in the market.

2. SATISIFY CUSTOMERS

Here are some reasons customers could give for not being happy: queen/s are poor quality, low numbers, not available when needed, not delivered on time, supercedure, poorly mated, wrong colour.*

Here are some reasons why customers are likely to say they are happy: good product, fair price, a



IMPORTANT

In NSW in late December 2022 the emergency varroa regulation prohibits recreational beekeepers from selling (moving) queens. Check for any upates to restrictions in your area.

3. **KEEP/RETAIN CUSTOMERS**

Customers want reasons to keep coming back:

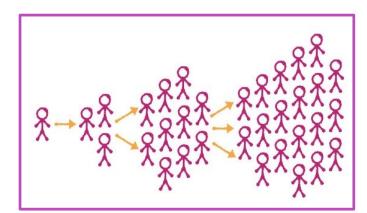
- Friendly service
- Reliable seller
- Honesty
- Availability (You have banked queens)
- Unique Selling Points (USPs)

Are you boutique? Can you catch on a longer than two-week cycle? Is your price realistic? Do you provide follow-up advice? Do you have queen expertise? Industry contacts? Can you offer queens of the right colour? The right temperament? Can you maintain adequate production levels?

New opportunities to win business:

- Ask for feedback
- Listen to that feedback
- Visit when/where possible
- Be a reference point
- Communicate

MAKE IT KNOWN THAT YOU HAVE QUEENS – AND THE CLIENTS WILL COME



Banking queens

A "queen bank" is a colony used to maintain and hold queens for use later than the day of catch.

Note: Virgin queens are kept in a separate bank to mated queens.

Storage in a single box is preferable but is not mandatory.

As a guide for banking queens, I suggest 20 to 25 days. (Longer can be done, but the quality of the queens may decline. The queen's pheromone declines after 30 to 35 days.

Best bank type in order:

- 1) Queenless, brood right colony
- 2) Queenright colony; separate resident queen

Posting and shipping bees

Take care to ensure that the bees:

- Are hydrated
- Have food ie. queen candy
- Cannot escape secure in cage and packaging
- Have sufficient labelling eg Live Bees, Keep Out of Sun, No Sprays
- Are properly addressed for yourself and the customer, including phone numbers

To:				-
Contaciblaria				
Street, Address of PO few method				
Statute or town; State, Restands				
-			-	
Autorian Genutity and Dangemus Genute Declaration*				
	n einen untressiehte Der Dis arti- miene, weit diriter Bart Ress an.			and clearts
				2
-				
EXP	press Pos	t Sticker	Here	

Consider insurance.

Send early in the week for delivery ASAP.

Include instructions to customer for queen handling and installation.

It is worth speaking with whoever you need at the post

office, transport cmpany and airline to ensure you are adhering to their guidelines and requirements.



from "bank"

3) Quiet temperament colony

The "Bank"

We will demonstrate with number 1. Queenless, brood right colony:

Queenless = Queen is removed from a colony and relocated OR colony is made up of frames and bees from a donor colony. (Biosecurity a must!)

Broodright is the manipulation of frames that will include regular "donations" from a "support colony". (Let's say again: biosecurity is a must!)

Because this bank has no queen, the only way to maintain its ability to look after queens is to have a regular, one-week- to 10-day-rotation of frames to maintain a high population of young, nurse bees.

Brood frames to be used in the bank should contain hatching and not-faroff-hatching workers. Uncapped brood will also do but ensure the frame has no eggs or age-appropriate larvae.

Make sure the bank has food stores. Possibly use an internal (or where

allowed, entrance) feeder. The majority of bees in this hive are not foragers. Remember to leave a space for the frame

Queens that are banked are:

containing your queens.

Caged and without attendants. (When the queen is removed from the bank, attendants are added to the cage.)

Keep records.

Mated queens are kept in a different bank to virgin queens but the bank is set up the same way.

There are various types of hangers for holding your caged queens. You may be able to make one yourself from spare materials.

Remember: the size, strength, and health of your bank will determine the number of queens it can hold and look after.

Be Disease Aware: BOLT

F YOU'RE thinking of breeding queen bees, you'll want to ensure your colonies are healthy and that you can spot any signs of trouble. Otherwise, your efforts could all go to waste.

Biosecurity for Beekeepers Online Training (BOLT) is free for all Australian beekeepers.

The course explains why biosecurity is important, describes the main pest threats to bees, and shows how to check for pests and diseases.

For more information about BOLT, click here.



FRAME LIFTED FROM QUEEN BANK. NOTE HOW BEES HAVE STARTED TO FAVOUR SOME QUEENS. THE BEST QUEEN IS ALWAYS YOURS FOR CONTINUOUS IMPROVEMENT OF YOUR STOCK



HIS BRINGS US to the end of this series and hopefully the start of your queen rearing at whatever numbers you choose.

Certainly, there is much more information that could have been included. For instance, some of the common pitfalls and management issues, unexpected outcomes, even customers! But you do have a guide to get you started. You can do it, so stick to it and keep going. Collaborate with others and learn together.

If you work towards always using your best queens, you'll see improvement in the traits you choose. Concentrate on bee health, temperament and production, and results will be easy to identify.

It is my hope that you find great purpose and pleasure in rearing your own queen bees for your location. There are many rewards, including personal satisfaction, stock improvement, convenience, possible savings/ earnings and, not least of all, local vigour.

Where you go with this is in your control. All the best for every success. Let us know how you go.

Kevin Tracy kntracy@gmail.com



The ABA thanks Kevin Tracy of Bee Zone Apiaries for developing this four-part series for our members. We welcome your feedback on this and any other content in The Amateur Beekeeper.

Email editor@beekeepers.asn.au

ABA CONTACTS MEET THE 2022 EXECUTIVE TEAM



SHEILA STOKES

president@beekeepers.asn.au web@beekeepers.asn.au

ABA president Sheila is a web development professional who builds, maintains and supports all ABA IT infrastructure. She has been on the ABA executive since 2015. "Lobbying is the way to ensure recreational beekeepers' voices are heard."

DREW MAYWOLD

drew.maywold@beekeepers.asn.au

Drew is the secretary of Gold Coast Regional Beekeepers, and has a background in education and human resources. He's recently been working on an online resources hub for his local club to help members locate useful information.

MIKE ALLERTON

biosecurity@beekeepers.asn.au

Mike began his obsession with bees in 2016. Currently engaged in his Cert III Beekeeping at Tocal College and Master Beekeeper Program at University of Florida, Mike gives bee presentations to garden clubs, schools and anyone else interested in bees.



ABA 2020 AGM February 12 from 10 am ORANGE EX-SERVICES' CLUB 231 Anson St, Orange 2800

The Annual General Meeting of Amateur Beekeepers Australia will be held face-to-face. Look out for details emailed to all members.



SUE CARNEY

vicepresident@beekeepers.asn.au editor@beekeepers.asn.au

Sue is a communications specialist with a lifelong fascination for bees. She started the Blue Mountains Beekeepers club and enjoys collecting books about bees and beekeeping. "Bees know it: cooperation and good communication are key."

JACQUELINE LEA

treasurer@beekeepers.asn.au

Jacqueline commenced her beekeeping exploits in 2019 and has enjoyed her involvement with the ABA at club level. She is membership officer for Hawkesbury Beekeepers and is now putting her administrative skills to work as treasurer of the ABA.





It all depends on you!

Amateur Beekeepers Australia is run by volunteers elected at the AGM. They each take on a range of duties to represent members, provide services to affliated clubs, and help individual members and the public.

The team meets regularly online or face-toface to discuss projects, policy and current matters that affect recreational beekeepers and our network of affliated clubs.

The ABA is one of 10 members of the Australian Honey Bee Industry Council – the peak body for the sector in Australia. The ABA is also represented at such forums as the NSW Bee Industry Biosecurity Consultative Committee, and works with government and commercial organisations to promote and support recreational beekeeping.

Do you have some time and skills to contribute? This organisation relies 100% on members who volunteer in ways small and large, regularly or on a project basis. Contact any of us on these emails to find out more.