

The Amateur Beekeeper

Newsletter for members

April/May 2023



From the Editor

Hello and welcome to this April/May issue of The Amateur Beekeeper.

It's going to look a little different while I ease off my training wheels and launch into a full sprint. Due to committee changes we won't be able to retain the previous look of the magazine, so bear with us while we get a **brand new look and feel** established.

The biggest news for this issue is a **face-to-face field day** to take place on Sunday 30 April in Sutherland, the home of our Illawarra club. Do come along - it's been a while and we would love to see you there. You'll find full details on page 8.

Did anyone forget to enter the Easter Show or miss the deadline? The good news is the **NSW Apiarists Association has a honey show** at their conference coming up on 18 - 19 May. Check their Facebook page for more information. <https://www.facebook.com/honeyshow.nswaa/>

If you haven't done your **alcohol wash** yet, please make sure you do one and [report the results on the DPI website](#). It seems every few weeks they're finding more varroa and the various zones keep expanding. Doing an alcohol wash helps all of us by identifying the edges of the incursion.

While we're talking about varroa, it's important that you **don't move hives without the required permits and approvals**. It's absolutely imperative that you check the DPI map to see what zone

you're in and make sure you're not breaking the law.

As this mixed bag of a season comes to an end, it's time to get your bees ready for winter. If you're not sure how to pack your hives down, check out our guide on page 4.

If you have an idea for an article or a topic we should cover, let me know at editor@beekeepers.asn.au

Keep on buzzing

Doug Purdie

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BOTULISM & BABIES & HONEY – fact or fallacy?

By Lamorna Osborne

As medical students in Scotland in 1974, we all heard about a famous Loch Maree botulism incident. The Loch Maree Hotel botulism poisoning of 1922 was the first recorded outbreak of botulism in the United Kingdom. Eight people died, with the resulting public inquiry

linking all the deaths to the hotel's canned potted duck paste. Loch Maree was a popular location for holiday makers, sports fishermen and romantic breaks, and interest in the event was heightened by the hotel's scenic location. The incident ultimately led to the establishment of regulations to control home canning in Scotland as well as many other countries since.

Scotland featured again in worldwide botulism cases in 2011 when 3 children in the same family contracted the disease from bottled Korma sauce.

Botulism has been a notifiable disease in Australia federally since 1992. It is rare, but the majority (94%) of cases in children occur in babies less than six months old. The disease is like tetanus in that both diseases are spread by spores usually in soil / dust. That's why there is concern about feeding honey to babies, as it may contain spores of both tetanus and botulism. Babies in Australia are vaccinated against tetanus at 6 weeks, 4 months and 6 months in the federally funded national immunisation scheme, but not against botulism .

The spores when eaten or inhaled or in wounds germinate and become active bacteria, producing nerve toxins which cause lethargy, swallowing difficulties, breathing difficulties and in the case of tetanus, spasms of muscle. They are one of the most dangerous spores in the world and are heat resistant, requiring temperatures of 85°C for 5 mins to destroy them. Think about the same sort of spore as American foulbrood, with which it

shares the record of being the two most long lived viable spores. Gamma radiation works on both as it destroys the core DNA and the live bugs can't grow. In the USA there were 162 cases of infant botulism from ingestion of the spores in 2018, (last available statistics) and an additional 89 from botulism in wounds . Again in the UK in 1989 their largest ever outbreak of botulism was 27 cases from eating hazelnut yoghurt – one died. In Italy, there was an outbreak from a dessert with marscapone cheese. In Japan a 6 month old baby died from botulism in 2019 and a baby girl in 1996.

So whilst rare it is a serious disease. Canning and preserving sauces and fish and pickling processes are where most foods become unstuck and most countries in the world have policies around canning.

Typical symptoms of this rare disease botulism are that the illness typically begins with constipation followed by lethargy, listlessness, poor feeding, droopy eyelids, difficulty

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swallowing, loss of head control, hypotonic extending to generalised weakness (the 'floppy baby') and, in some cases respiratory insufficiency and arrest. Fatality rates in countries with good paediatric intensive care facilities is less than 1% according to Rosalind Holland of Australia's Communicable Diseases Intelligence.

So is honey implicated?

The answer is yes.

Adults secrete hydrochloric acid from the parietal cells in the lining of their stomach, which lowers the pH of the stomach to 3, and this kills bacteria.

When babies are born they have little hydrochloric acid in their stomach thus making them less able to protect themselves from invading bacteria. Breast milk contains colostrum which is antibacterial and helps babies avoid harmful bacteria. Colostrum from cattle is now used as a protective capsule for travellers diarrhoea (Travelan).

Babies who are premature or who have swallowed Meconium (dark bowel contents passed in the womb when babies are stressed during delivery) have even less protection as their stomachs are far more alkaline.

Gradually the acid content of the baby's stomach increases with time, especially from 2 months old onwards.

Feeding honey to babies under 12 months is not recommended anywhere.

The literature reports 3 cases in Texas from honey on dummies.

Like nuclear energy can be good (as in nuclear power) or bad (as in nuclear bombs), Botulinus toxin can be a biological weapon and treatment for wrinkles, pain and itch has two sides to it.

Electrical safety risk with imported electrical gear

By Doug Purdie

We all use electrical gear often really without giving a thought to just how safe it might be. It's really easy these days to purchase electrical equipment from countries that don't have the same regard for safety that we have in Australia. Goods can be purchased from auction sites, directly from manufacturers or even in some cases from local suppliers, that are unsafe to use.

Recently a member of the Wagga Wagga branch had a problem with an uncapping knife where the switch failed sending out an alarming shower of sparks, he took it to a local repairer along with a second knife where it was discovered that the earth wire was not even attached. If the element had failed then the entire metal part of the knife could have become live, possibly causing an electric shock or worse, electrocution.



In my day-to-day life I work for a retailer of beekeeping gear, some years ago we imported some Chinese made honey extractors the smaller units which had a simple speed control were unearthed and the switches that stopped the drum from spinning had exposed terminals at mains voltage so all it would take is some honey to flick up and the drum would become live. Even worse were the

inverter controller ones often sold as programmable (incidentally they are not programmable: the inverter has programmable parameters that are set for the motor in use)



The manufacturer had used the incorrect cable to connect the motors and with little regard for colour coding had used the earth wire to carry power to the motor. What makes this especially dangerous is these units take 240v (our usual household power) and turn it into 415v to run a three phase motor and control the speed so there is the potential for a much greater electrical shock.

All homes in NSW must be fitted with RCD protection at home but this doesn't necessarily mean you are safe from electrocution. Residual Current Detectors rely on everything being in balance between the Live and Neutral conductors in a circuit, when for example a person touches a live conductor

and the path taken by the power is to the earth the switch senses this and turns off the power before electrocution can occur. If however a person were to touch the Live and Neutral conductors the RCD wouldn't sense a fault and wont turn the power off with possible catastrophic results.

So what can you do ?

I would recommend using a portable RCD cord with any electrical gear you are using to make sure the circuit has protection.

Have any electrical gear you are using tested for an earth fault, this is a simple test that can be done with a multimeter to make sure the metal parts are earthed. If you want to be extra sure get it tested and tagged this is a special test that measures electrical safety and the tag is like a safety certificate for that device. Somebody in your local club might be able to do this for you.



Be especially careful of anything bought from overseas via auction sites as I have seen all sorts of dangerous wiring on gear bought from these sites.... cheap doesn't mean safe.

Be especially careful of water and electrical gear, never wash an uncapping knife for example always wipe it with a damp rag instead.

Packing Down Colonies for Winter

By Bruce White

In winter honeybees form a winter cluster by clustering together to conserve heat. In colder areas of the state colonies are often broodless during winter in warmer areas brood rearing may continue.

In some areas winter flowering flora can provide a honey flow. You can intervene to help the colonies come through winter in a strong condition, with plenty of worker bees.

Best to leave a super full of honey on hives so they don't starve going into winter.

Pre winter inspection in April

Pick a sunny day, stand at the side of the hive and smoke the entrance. Remove the lid and turn it upside down on the ground at the back of the hive, and place the supers on top of the upside side of the lid, to inspect the brood box for any diseased symptoms.

- Uncap about one hundred capped brood cells using an uncapping comb to examine the pupae for parasites. Report to your state DPI if any found.
- Check for the amount of stored honey and the number of frames covered with bees in all boxes to measure the colony strength and stores
- Check the work of the queen, brood pattern should be even all sealed. brood together, no signs the queen is failing by the brood being patchy.
- Check for stored pollen you should see the equivalent of at least half a frame, if no stored pollen you may need to feed some
- Harvest any excess surplus honey, or determine if white sugar should be fed to hives short of stores
- Leave the queen excluder on the bottom brood box if used
- Ensure entrances are clear so bees have a clear flight path
- Have Small hive beetle controls in place
- Strap the hive

Excess capped honey left on colonies could go candy over winter and is best removed before the end of April.

In coastal areas a double colony needs at least five Langstroth frames of capped honey and eight in inland areas

A full depth Langstroth frame holds about 2.2kg of honey when fully capped with honey, a flow frame 3kgs. All frames must be removed to see the capped honey.

Feed in April if your colonies need winter stores

Best practice is to leave sufficient store on hives going into winter

Starvation can be prevented by feeding white table sugar or syrup made with white sugar. Do not feed honey.

The amount depends on the size of the colony and amount that should be stored. The Initial feed should be 1 to 3 litres. Colonies with insufficient stores for winter should be given enough syrup to boost their stores before the cold weather sets in

Honey tasting and appreciation course



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so the bees can ripen the syrup to a moisture content of about 18%. Stored syrup should not be extracted but consumed by the bees as it will not conform to the legal standards for honey.



Several commercial feeders are available to feed sugar syrup to the colony inside the hive or at the entrance. It is illegal to open feed. Empty drawn combs can also be filled with sugar syrup. Hives are best fed towards evening to minimise robbing.

After each use, clean the commercial feeders before reusing to prevent sugar fermentation.

For winter stores feed white sugar on a mat under the hive lid after slightly wetting, or sugar syrup or in a feeder. Mix two thirds white sugar with one third water after first warming the water to dissolve the sugar crystals let cool before placing in the feeder.

Winter Climate

If your hives are located in cold areas, the bees will not be foraging and it is very important to winter hives with a full super of capped honey going into winter they will go broodless.

In warmer coastal areas bees will forage on the warmer days to collect some nectar and pollen and have some brood present.

Exception to the above if in areas where a winter nectar flow is occurring.

Closing down hives for winter

Compact your hives into one or two boxes so the colony is covering most or all of your frames. This can be done by removing and storing the excess material preventing it from wax moth damage or, in the case of amateur beekeepers, adding a mat on the frames above the cluster so bees can get around the edges to any boxes empty above while conserving the clusters heat, mats can be vinyl or plastic. A mat can be placed in a single box to encase all the frames covered with bees to keep the cluster warm

- Adjust the entrance to make it smaller

- Position the hives to sunny positions away from damp low lying spots to get plenty of winter sun and slope the entrance slightly forward.



Winter monthly checks

- Each month feel the hive weight by lifting the hive by the back hand hole
- Feed hives that have eaten too much stored honey - only on warm days
- The cluster can be checked by using the smoker and lifting the lid
- Remove any dead hives and find a reason for the hive death
- Keep entrance clear
- Check entrances for flight activity

Further information

Illawarra Beekeepers video on Wintering bees

<https://illawarrabeekeepers.org.au/wintering-bees-with-bruce-white>

Why can't I treat my bees for Varroa?

(extract from the AHBIC newsletter)

There are a few reasons this is not occurring in Australia while we are under the eradication phase of the incursion:

- The current permits for miticide strips are 'emergency use permits' this only allows for miticides to be used for surveillance by authorised personnel.
- The cost of purchasing and importing enough miticides and sticky mats to allow the surveillance by beekeepers is prohibitive. Individual beekeepers or industry as a collective would need to pay for the miticide as it is not in the agreed response plan, for which there is no system in place.
- The laboratory resources for assessing the individual sticky mats are limited (mats must be inspected under microscope). Already the resources are stretched with the level of sticky mats in the current surveillance program. The system would be completely overwhelmed, and results would be so delayed that it would defeat the purpose.

There is current 'shelf' registration for Apivar (amitraz) and Apiguard (thymol), and AHBIC is working with chemical companies to have shelf registration for Bayvarol (flumethrin) and Mite Away Quick Strips (formic acid).

If the response did transition to management then these 'shelf' registrations would be activated for general use and resellers could begin importing and selling to beekeepers.

AHBIC has secured Department of Agriculture, Fisheries and Forestry (DAFF) funding to progress registration of Oxalic acid strips but the company that was to register the product has since withdrawn citing prohibitive costs to do field trials.

It is unlikely that the APVMA will register Oxalic acid for Varroa control due to the significant health and safety (OH&S) risks the acid presents.

Isn't treatment routine overseas?

Treatment chemicals do accumulate in beeswax and one manufacturer of foundation in Australia has paused purchasing beeswax due to the possibility of contamination by inappropriate treatment use.

Overseas experience is showing chemical resistance is growing because treatments are not being used according to the label. This is leading to money being wasted on treatments that do not work. Some beekeepers with more than a few hives now check if the treatment will work on a small sample of mites before purchasing all the treatments to save the waste.



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ABA Members' Field Day

30 April 2023, Sutherland NSW

Program

10.00am -10.30am	Stall Holders talk about their wares
10.30am -11am	Mark Greco – 'C.T. scanning of beehives'
11.00am -11.15am	Morning tea
11.15am -12.00pm	Fiona Fernie. 'Living with Varroa Mite – 30 years in Scotland
12am -12.30pm	Chris Anderson – DPI Deputy Chief Biosecurity Officer – 'Varroa baiting Program'
12.30pm -1.30pm	Lunch break and Check out the exhibitors
1.30pm - 2.00pm	Michael Fogarty – 'Siting and opening a beehive'
2.00pm - 2.30pm	Lamorna Osborne – 'Botulism and Honey'
2.30pm -3.00pm	Michael Graham Biosecurity Officer Central Coast Branch 'Current experiences of Varroa Mite'
2.30pm - 3.00pm	Bruce White OAM . Preparing for Winter. Apimondia Conference, Chile Aug 2023. https://www.apimondia.org
3.00pm - 4.00pm	Members Forum Members are encouraged to ask questions by email and forward to executive member Grace Jerrett grace.jerrett@beekeepers.asn.au by 25/4/2023 5pm to coordinate for discussion on the day. A report will be sent to members afterwards.

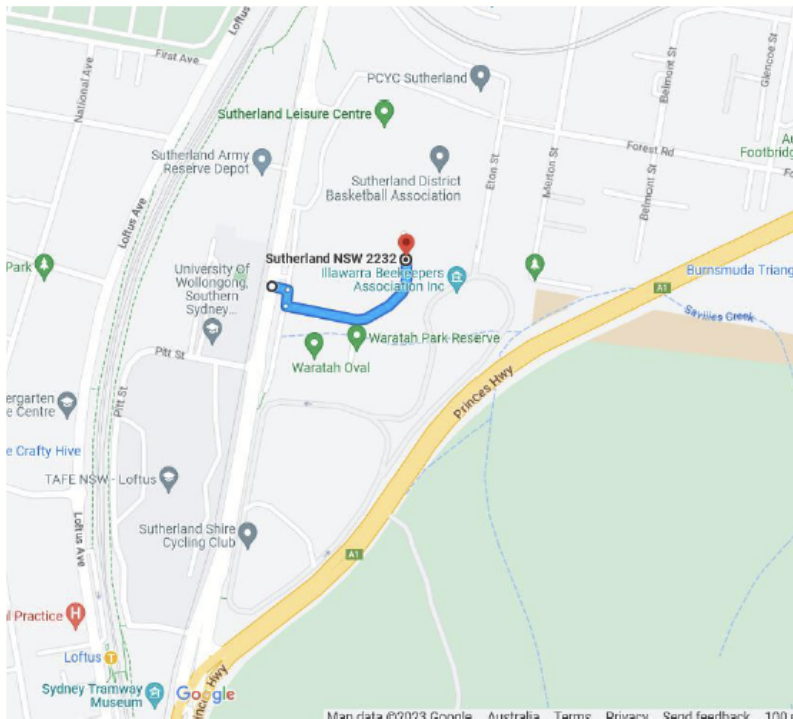
Trade Exhibitors

ABA, Healy Group, Hornsby Beekeepers, Penders, Urban Beehive

Directions and parking

Illawarra Beekeepers, Parking

- # At Sutherland, NSW 2226
- # Follow signage, on Old Princes Highway, to Waratah Park Tennis Courts.
- # Park
- # On southern side of tennis courts walk down path
- # Clubhouse is inside Sutherland Shire Cycling Club bike track.



Illawarra Beekeepers, travelling by Public Transport

- # Alight east side, Sutherland Station
- # Head south, down Old Princes Highway, towards Coles Supermarket
110 m
- # Go through 2 roundabouts and under rail bridge
600 m
- # Turn left
- # Walk past Sutherland swimming pool, on right, and Sutherland PCYC, on left
260 m
- # Turn right onto Eton Street & proceed South to end
240 m

