



# Sticky Fingers

Far North Coast Beekeepers Inc.

The official newsletter of the Far North Coast Beekeepers Inc. Est. 2020

Website: [www.beekeepers.asn.au/far-north-coast](http://www.beekeepers.asn.au/far-north-coast)

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Editor Jenna Vos

## Bees Wax – Cera alba of the *Apis mellifera* sp.

There is so much we take for granted when we farm bees. Take honeycomb for instance. How do the bees construct this and what with? “What with” is easy to answer; “bees wax”.

Of the many jobs young worker nurse bees are tasked with besides cleaning and capping cells, feeding royal jelly and bee bread to eggs and larvae, receiving nectar and storing the subsequent enzyme activated honey, packing down pollen, tending the queen; they can metabolise the sugar from nectar in their wax-gland-associated fat cells to secrete glass-clear new wax scales from the four paired wax-mirror glands found on the underside(ventral) of their abdomens between segments(sternites) four and seven. The workers are at their most productive between 12 and 18-20 days old. Once their carapace has hardened enough to become foragers around 18-20 days, the wax glands start to atrophy however reversals can occur if the hive has inadequate workers to manage the hive. ....continued page 3.

### **Covid-19 Regulations and Restrictions**

Please practice physical distancing when attending any gathering and abide by the most recent advice given by Australian Government Health [www.health.gov.au](http://www.health.gov.au)

## Date Savers and Activities

**Thursday 1<sup>st</sup> July 2021 : A Reminder to renew your ABA and club membership on 1st July 2021 – 30<sup>th</sup> June 2022.. Please check all your contact details and that your default club is of your choice to receive your member pack from ABA.**

**Saturday 11<sup>th</sup> July 2021: 8h30 for 9h00 start - 12h00 Field Day** at Robert Stone's Apiary, 798 Ellengowan Rd, Yorklea NSW 2470 via Casino.

**Focus:** A hive inspection will be undertaken. A demonstration making wax foundation for frames plus how to make creamed honey.

**What to bring:** A veil and protective gear for viewing the apiary - all other bee gear will be provided, your own chair and cup and something to share – two tables and an urn will be provided with tea, coffee milk and sugar.

**Tuesday 13<sup>th</sup> July 2021 18h00: Committee meeting:** RSL Casino, Casino NSW 2470.

**Date TBA in August 2021: 8h30 for 9h00 start - 12h00 Field Day** with Ecrotek (Ace Ohlsson) Beekeeping Suppliers in Bangalow at 1/6 Dudgeons Lane, Bangalow, NSW 2479.

**Sunday 12<sup>th</sup> September 2021 8h30 for 9h00 start - 12h00 AGM** at 5 Robb Street, Russelton Industrial Estate, Alstonville NSW 2477. All office bearing positions to be declared vacant. Please nominate an office bearer of your choice. Splitting of a Native beehive will be demonstrated and discussed after the meeting.

## Presidents Report by Peter Laughton

*The meeting held at Steven's lockup site was well attended, considering the cool weather. A great thank you to Steve for preparing the parking area.*

*Steve, Shirley and Tanya demonstrated the melting and cleaning of wax cappings, preparing wax for candle making and discussing the various methods to clean wax to obtain white, yellow and brown wax and their specific uses. In addition there was a demonstration pouring wax into moulds and a discussion of optimal wax temperatures.*

*Merv undertook some hive inspections with his usual informative presentation. Steve's bees appear to be doing well with all the pastures and trees surrounding them. You could see the bees clustering around the centre of the brood frames where a queen was spotted.*

*Morning tea was well looked after and the meeting wrapped up at lunch time.*

**NB: Not everyone signed in. Please make sure you sign in at every gathering especially with the Covid Delta strain becoming more prevalent.**

*Peter*

## Far North Coast Club news

From our Secretary, Stephen Fowler

Due to the interest shown in wax production and its uses, the committee has decided to continue the theme for the next field day. Additional workshops will be planned to allow interested members to put into practice any ideas of making any wax bi-products eg. wax wraps, soaps, candles, cosmetics, lip balms, floor-, leather- and shoe polishes. This will allow you to reproduce quality products at home for sale to the general public or as great gifts to family and friends.

The committee discussed possible two day training modules for new beekeepers and allocating mentors on a rotation basis to enable new beekeepers to learn different approaches to beekeeping on site.

If you have an interest in being a mentor or attending any of these modules please advise Stephen..

## STERITECH RUN

The Far North Coast Beekeeping Club offers to make up a pallet of any suitably wrapped beehives and/or gear that needs to be irradiated. Please contact Stephen at 0418 412 621 with numbers and sizes of beehives and/or gear as soon as possible. A date will be set for delivery to 5 Robb St, Russelton Estate, Alstonville for despatch to Steritech.



*Stephen*

## Far North Coast Beekeepers Inc Committee

President	Peter Laughton	+61 491 609 416	farnorthcoast.president@beekeepers.asn.au
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Committee Members	<i>To be nominated (3)</i>		

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The wax scales are about 3mm across to 0.1mm thick and **1100** are needed to make **one** gram of wax. They consist primarily of esters of fatty acids, various long chained alcohols and hydro carbons. The approximate chemical formula of wax is  $C_{15}H_{31}COOC_{30}H_{61}$ . The principal constituents are triacontanyl palmitate and cerotic acid in a ratio of 1:6 which gives the wax it's crystalline structure. It takes between **6.66-8.80kg of honey** to yeild **one** kilogram of wax. It takes **100g of wax** to fill **one** frame with honeycomb (a Langstroth fulldepth frame).

**So what is so great about bees wax?** From a **bees perspective** they can metabolise it themselves from the nectar and pollen they gather. It is an inert(pH7), pliable construction material they can harvest from their fellow workers. Through masticating and moulding the wax they add salivary enzymes that give it anti microbial, anti bacterial, anti fungal and anti inflammatory properties. It acts as a waterproofing substance for themselves and their brood. It's crystalline structure is strong enough at temperatures below 62-65°C (melting point) to store honey and pollen plus it is resistant to acids eg. bee stomach juices and/or excrement. The bees cause the wax to change from white to yellow to brown depending on the amount of honey, pollen, propolis and other pollutants they inadvertently add whilst working and reworking the wax eg. brood wax becomes very brown.

From a **human perspective** wax has a myriad of uses. Similar to honey, wax has great medicinal properties topically (as outlined above) especially it's anti microbial effects versus "golden staph" (*Staphylococcus aureas*). It can act as a humectant on human skin (attracts water) therefore acting as a breathable moisturising protection against the elements. It is used extensively in the cosmetic industry due to it's great emulsifying properties allowing the "blending of oil and water based ingredients" with the wax. It is solid at room temperature making it easy to use and store. It has been used for millennia as a light source (wax candles) and as a waterproofing agent for leather and natural fabrics. Beeswax is a very useful ingredient in soap making. It adds a saponification value to lye (value is 88-100) which converts fats and oils to soap. It also adds value to the soap, making it harder and longer lasting, milder to use and increases the moisturising effects. It's water proofing effects has a myriad of uses in the garden, as a preservative on metal and wooden garden tools, benches, wood preservative on fence posts, waterproofing tents, hats, shoes etc. A more modern use of wax is "Encaustic Painting" which uses white wax combined with resin and pigments and applied to board, canvas, pottery and/or paper. This can be done with hot or cold wax. Easter is a great time to decorate those Easter eggs with hotwax and dyes. Hot wax and dyes will render you a beautiful Batik. The Balinese and Sri Lankans have made this a particular art form. Get on board and get making for those special times at Xmas and birthdays adding your personal touch to those special gifts.



### Footnote:

All information has been sourced from "The Beeswax Workshop" by Chris Dalziel, 2017, Ulysses Press USA; "The Australian Beekeeping Manual" by Robert Owen, 2015, Exisle Publishing, NSW Australia; Wikipedia "Beeswax" and miscellaneous scientific papers on the internet,

### Notes from the Editor:

If there is any subject matter you would like to see in the newsletter please contact us on email. I would love some feedback regarding form and subject matter.

### Hosting a Field Day

We would love to visit your yard and/or apiary for one of our field days. Please get in touch with the Secretary Stephen Fowler to discuss details and dates.

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