



Newsletter No 10, October 2015

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**Next Meeting: Leonie and Lennie's
186 Bus Road, Charters Towers 4820
2:00 pm Sunday 18 October
Bring a chair and a plate of food??**

Beekeeping on Sydney's North Shore with Joshua and Nicole

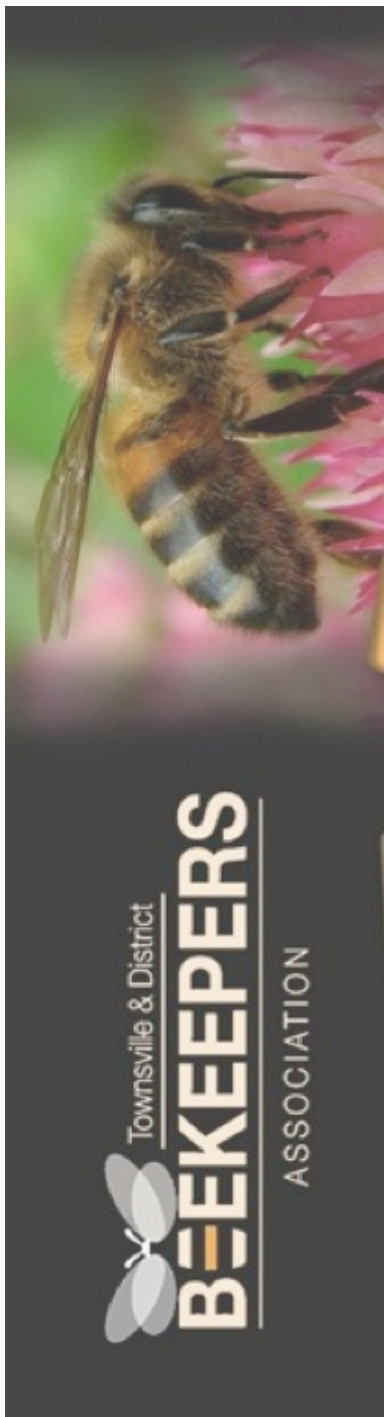
Joshua and Nicole live in the leafy suburb of Wahroonga on the upper North Shore. of Sydney This is their beekeeping story exclusive for our Newsletter.

My introduction into bees was when I was a daring 14 year old boy who would give anything a go. I found myself being dared to collect a swarm of bees which had found themselves in the front yard of my parents' home. The collection of the swarm was successful and I was an instant beekeeper! My neighbour had donated the super and a few frames where his son and I started our journey into becoming beginner apiarists. After about three years of this I found chasing girls a better proposition and left the bee keeping to my friend for some 25 years. He went on to have some 10 hives at one point. We still keep in contact and assist each other from time to time with the more challenging parts of beekeeping like replacing the queen in one of his 6 box high hives! It wasn't until an employee of mine mentioned that her father had a few hives whereby I flippantly indicated if he ever had a swarm I would be interested in taking it off his hands. Two weeks later I had a call and a swarm of my own! Instant Beekeeper once more! This was five years ago and I now manage and enjoy three healthy hives.



Leafy hive site in Sydney - and is that a Flo hive I see in the foreground?

My wife Nicole and I have been not only enjoying the honey from our bees but we have experimented in how to use other parts of the bees production including the wax. We have experimented on making hand cream, lip balm, also some furniture polish and candles. Friends and family are continually asking for replacement batches of the hand cream which are replenished with pride and given as gifts. I have included the hand cream recipe which is a favourite for our friends and family with any skin irritations and even for the boys after a day in the garden digging in the dirt or working on the tools. [See next page for Recipes](#)



Josh and Nicole's story continued

Another quick recipe I would like to share is one for anyone who may experience Chalkbrood within their hives. I had a weaker hive which did experience some varying intensities of Chalkbrood over a number of years. I had tried everything from cleaning out the hive with a dilute solution of water and bleach to replacing the queen and increasing ventilation which had limited effect. I searched on 'You tube' for answers whereby I came across the Fat Bee Man who had a great natural treatment using tea tree oil infused into sugar water and fed through the hive. I used this method and fed about 2 litres through the hive and it has never had Chalkbrood again, and that was about two seasons ago. [See Recipe on this page.](#) You can feed this mixture to the bees as you would any sugar water. I fed the whole 3 litres through the hive over a four to five week period and have never seen the Chalkbrood return to this hive. It has a tendency of disinfecting the hive and I am thinking it may be a good practice to feed all my hives a few hundred ml every season as a "clean and disinfect the house" measure. I really hope this short story and a few recipes have entertained and helped any keen apiarists up there in NQ!

Thanks Joshua and Nicole. How about a few TDBA Club members write a short story for the Newsletter about their bee adventures - please?? Email me stories or any tidbits of news to: trottlindsay@gmail.com

Nicole's Beeswax Hand Cream Recipe.

You may want to play with the quantities a little, as to make a harder 'lip balm' type consistency you can simply add more bees wax to make it a harder type cream. Additionally the essential oils used could be changed depending on personal taste and intensity.

2/3 Organic Coconut Oil

1/3 Bees wax

100% Lavender essential oil (or any other essential oil of your choice)

Vitamin E oil - Usually 20 drops for a litre of mixture though can depend on the quantity you are making and personal requirements (Can be purchased from most chemists).

Nicole combines the mixture by heating it up in the microwave gradually and stirring it together until fully melted together. We have a 1200W microwave whereby she heats the mixture (on high) at 2 minute intervals and stirs the mixture at each interval. She uses a large glass jug which enables the mixture to be poured as the jug has a pouring lip (this part is quite important as pouring hot wax can be dangerous and control of the hot liquid is paramount.) Nicole pours the melted mixture in small glass jars and left to cool overnight with the lid off.



Joshua's Natural Recipe for Chalkbrood treatment

Joshua has adapted the Fat Bee Man's original recipe with a version of his own which proved to work very well for him.

Make up a batch of sugar water 2 parts sugar to 1 part water (1 litre)

Add 40 ml Tea Tree oil

Add 5 drops of Lemongrass Oil

I also add 3 drops of 'Oil of Clove' (which is a proven anti-mould/fungal oil)

After you have mixed all the ingredients you will need to 'infuse' them by blending for between 4-5 minutes on top speed. Use a household Bamix blender or a hand held blender/whizzer (handheld blenders usually need a little more time to ensure the mixture is infused). This part is important as the oil will rise to the top if not properly infused which will throw out the consistency of the mixture and potentially harm the bees. When infused the mixture will look cloudy and nothing will rise to the top.



Feeding Refined Sugar to Honey Bees

By [James A Zitting](#)

In the beekeeping world it is common to harvest the honey in the fall. In natural beekeeping, we try to leave enough honey to sustain the bees to last until spring. However many beekeepers feed sugar or high fructose corn syrup to bees.

The main reason beekeepers do this supplemental feeding is a matter of simple economics. The commercial beekeepers have a business to run, and when they do the math, it simply does not work from a financial stand point to let the bees eat honey. They can make more money selling the honey and buying an artificial substitute. For a more in-depth view on this see my [blog](#). This post will focus on why we need to let the bees eat their own honey.

For eons of time the honey bees have been gathering nectar, mixing it with their own special enzymes, and placing it in the wax cells. The bees create a draft through the hive by flapping their wings in unison to evaporate the moisture from the nectar until it thickens to approximately 18% moisture. During this process the enzymes continue to work and when the bees decide the honey is ripe, they cap it. Capping is simply when the bees cover the cell with wax to seal off their special winter food. The honey is an amazing food that will last indefinitely.

There is another process taking place in the bee hive that few people know about. When the bees bring in pollen they also add enzymes that pickle or ferment the pollen. This pickled pollen is called “bee bread” This bee bread is even more nutritious for the bees because they can assimilate it better. There have been over 8,000 different micro organisms recorded living in the bee bread. It is a fine tuned and balanced world of little bugs that I liken to the microorganisms and flora living in our intestines. We simply could not live without them, and neither can the bees.

People will argue that sugar is sugar and that it is the same thing to the bees as honey. However refined sugar and high fructose corn syrup (HFCS) are not honey. They have a different pH and they lack the enzymes.

When you change the pH in a bee hive, it affects the finely balanced world of the little bugs, and weakens the colony. When they track pesticides and fungicides into the hive with their little feet, the life within the bee bread is affected.

Another thing that most people don't realize about honey is that when you feed bees HFCS they stash it in the same cells that nectar gets stored in, and in fact gets mixed up with the honey. So when you buy honey from many

suppliers you are getting HFCS and a honey mixture—even if the label says “pure honey,” the odds are it isn't.

HFCS is claimed to be toxic to honey bees. We are also learning it isn't good for humans either.

The bottom line is that the bees will continue to be fed artificial sugars as long it makes economic sense to do so. Due to the corn lobby convincing our lawmakers to subsidize the corn crops, HFCS is cheap. Since I don't think the government will stop the corporate welfare any time soon, we the people must bite the bullet and pay the higher price to the natural beekeepers with the natural honey. Let's reward the beekeepers who do the right thing by buying their product, and the big players will catch on and change there ways.

Simply put, get to know your local beekeepers. Ask questions about if they feed substitutes and if they place chemicals in their hives. In doing so, you are protecting the bees, the environment, and your own personal health.

*Thanks to Ron Rapson for submitting this article. **Editors note:: this article is talking mainly about corn sugar (fructose)- not cane sugar (sucrose) that we use in Australia. Does it make any difference??*



Nice top bar frame full of bees and comb

Breeding butterflies, growing flowers, and beekeeping for USA prisoners

Snapshots



Cedar Creek Corrections Center, in Littlerock, uses beekeeping to teach prisoners about environmental practices and help them develop skills, that can be applied to a future career, King 5 reported.

"It gives me an open communication line we can talk about and share," Glenn Epling, corrections officer and program instructor, told the news outlet. "It helps me bring something to these inmates that I'm finding out they're very interested in."

The program is part of Washington's Sustainability in Prisons Project, which began at Cedar Creek in 2003, but grew to be formally implemented in 2008 in four prisons around the state, according to the project's website. The program includes a number of environmental initiatives, including breeding threatened butterflies and growing flowers, the Associated Press reported. Inmates conduct research and implement that knowledge into these programs.

"It makes sense that we engage in activity that make prisons safe to run, reduce negative inmate behavior and contribute to the community," Dan Pacholke, prison director for Washington State's Department of Corrections, told the Associated Press. Today, all 12 prisons in Washington State have sustainability programs, with the project currently working with the Olympia Bee Keeper's Association to fund a beekeeper apprentice certification program, according to King 5. "If I'm calm around the bees, I'm alright," inmate Jack Boysen told the news outlet. "It's better than a lot of jobs in prison. It gives us more opportunities, more chances."

Source: https://www.cartoonstock.com/directory/k/killer_bee.asp

http://www.huffingtonpost.com.au/entry/beekeeping-inmates-protect-the-planet-and-prepare-for-their-future_55e0aee2e4b0c818f617c9c6?

State Insects of the USA - but none for Queensland!!!!

The non-native European Honey Bee (*Apis mellifera*) is the state insect of:

Arkansas
Georgia
Kansas
Louisiana
Maine
Mississippi
Missouri
Nebraska
New Jersey
North Carolina
Oklahoma
South Dakota
Tennessee
Utah
Vermont
West Virginia
Wisconsin



Not one native bee is a state insect. The closest relative of a North American native bee to make the list is the Tarantula Hawk Wasp, the state insect of New Mexico.

Queensland does not have a state insect, but we do have a state colour (maroon of course - what else?), a state animal (koala), bird (brolga), gemstone (sapphire), and fish (anemone fish). Anyone want to start a campaign for a Queensland state insect??? - how about the Dengue mosquito??, or the Bush Tick???, how about the March fly??

Club Member Graeme Smith waxing lyrical about wax foundation

Weed Process Foundation

Comb foundation was first made by J. Mehring of Germany in 1857 and his findings stimulated others in Europe and North America to improve the product. In 1924, the development of new machinery improved the process of wax foundation comb production. Previously, a single sheet of wax was passed through a stamper or "printer". This was prone to buckling when placed in the hive. The big 1.2 m diameter cast iron stamper could produce thinner sheets when cooled with ice water. Sheets of thinner wax increased the footage rolled onto spools - and some could reach over 1 m in diameter. It had long been known that the sheeted wax surfaces exposed to air caused increased surface toughness. This meant that two sheets merged in the printer had four tougher surfaces when merged and had increased toughness. The big surprise!! - when placed in the hive, buckling did not occur. Normal practice to embed wax into frames in the warmest part of the day meant nice straight combs.



All buildings where sheeting and printing are done must be air conditioned. Sheeted wax is cooled overnight and printed the next day to achieve maximum toughness. The printer rolls are sprayed with a mild detergent/water mix to prevent sticking. Hot tungsten wires cut foundation to the size required. Fans dry off any moisture before packing. A count of 180 sheets/box is common for modern horizontal axis extractors. A much thinner wax foundation, called "thin surplus", is made for comb honey producers.

Graeme Smith

For a YouTube clip of inserting pre wired foundation check out: <https://youtu.be/DMqEfpzySNA>
PS Don't watch this if you get motion sickness! The head mounted Go Pro is pretty shaky.

"Newbees" Steve and Ping with a monster 5.5 kg frame on their first harvest!!



Native bees vs European honey bees - is there a bee fight going on out there in "Flower Land"??

European honey bees may have been given an undeserved bad rap on a website dedicated to growing and pollinating palms. In the last Newsletter (No. 9, September 2015), I asked for info regarding a claim that Europeans bump out Natives for nectar and pollen. Follow the story below to see that "Dr Google" is not always the most accurate information source, and to always check claims from non referenced sites. Thanks to my correspondents, Iris Z, Elly M, Tim Heard and Charlie from website Palmsonline.com.

Sent: Monday, September 7, 2015 11:52 AM

To: charlie@palmsonline.com.au

Subject: Clarification

Hi,

I found this statement on your blog under the article entitled "Playing Horticultural Cupid: The In's and Out's of Pollination":

"Feral honeybees (*Apis mellifera*) in Australia are threatening native bees, which has a direct and severe impact on plant pollination."

Do you have any source for this claim, and if so could you please provide it? So far, I have always heard that both species do not interfere with each other since they tend to pollinate different species but would be very interested to see whether the opposite is a possibility and if new studies are available.

Thank you in advance,

Regards

Iris

From: PalmsOnline <charlie@palmsonline.com.au>

To: Iris

Sent: Monday, 7 September 2015, 18:35

Subject: Re: Clarification

Hi Iris,

I did not actually write that article but I did edit it.

I do not have any evidence that feral bees are interfering with native bees so I will remove this remark.

Thanks for pointing it out. No one has ever commented on or noticed this before.

Regards from Charlie

And from TDBA Club Member Elly

Hi Lindsay,

Elly M here, I just saw that there was some info needed for European vs Native bees in competition for food etc. This year being a particularly hard year for my girls has seen some very interesting sights. Between the constant bird attacks upon them, which resulted in my girls not even venturing outside. Plus the drought that has left them hungry, with not a scrap of nectar or pollen, it was very concerning indeed. I then started to feed my bees sugar water via the entrance feeders bought from the club. Interesting indeed!! Both my girls and the natives were starving! Both flocked and fed from the sugar water with no malice towards each other, in fact, the native girls ended up inside the soft drink bottle to lick out the very last drops of sugar water before departing to their secret location.

Also my aloe's that are in bloom are covered by the native girls, and my own lovely ladies. I have no idea of where their home is, but I assure you that they are in abundance this year along with the birds.

Cheers

Elly M1092



Native stingless bee (*T. carbonaria*)

Source: <http://www.permaculturenorthernbeaches.org.au/native-bees>

And finally, from our hard working Native Bee Workshop guru - Dr Tim Heard.

Hi Lindsay,

The subject of competition between honey bees and native bees and then the effect of this on plants and flowers is a very complex one. There have been some studies and a few reviews of the results published. It is very laborious, expensive and time consuming to do experiments to prove this one way or the other. So there are not many done. Also the forms of interactions vary. It is possible that honey bees compete with a variety of native animals for nest sites. It is also possible that they compete for flower resources. In general there are not obvious physical interactions between honey bees and native bees. But honey bees could remove resources that are then not available for native flower feeding animals. The effect of honey bees on native flowering is another aspect.

In general the results suggest that there is the potential for competition but this may only occur under some circumstances. I tend to avoid commenting on the subject as the evidence is not strong either way. Instead I emphasize that both honey bees and native bees play very important roles in pollination. They are both important for our crops. And they may both be valuable for our native plants. It is desirable that native insects pollinate native plants because they are likely to generate more natural outcomes. But in areas where humans have heavily disturbed the environment, we may need the exotic honeybees to replace the native bees that do not thrive in these environments.

Best wishes, Tim
Tim Heard
04 3441 6053
07 3844 4914
www.sugarbag.net
<https://www.facebook.com/sugarbagbees>



Blue banded bee on flower.
<http://www.aussiebee.com.au/blue-banded-bee-feb2013.html>

Also look at pollination by Native bees at: <http://www.aussiebee.com.au/croppollination.html>
and for competition between introduced bees in the USA:
<https://theconversation.com/bee-battles-why-our-native-pollinators-are-losing-the-war-40620>

Conclusion

It looks like there is no evidence of open warfare out there in the flowers, so could everybody, including bees just: "Stay calm and carry on" making honey.

Lindsay T624

Who is spreading Myrtle Rust????

Iris Z sent this news item from the Facebook group titled 'Australian Native Bee Network' 14/09/2015 7pm. Myrtle Rust is a highly contagious new fungal disease in Australia that is affecting most plants in the Myrtaceae family This threatens *Eucalyptus*, *Corymbia*, *Angophora*, *Leptospermum*, *Melaleuca*, *Metrosideros*, *Callistemon*, *Syzygium*. Are European and Native bees helping spread the fungal spores??????



Is this the face that only a mother Rainbow bee-eater could love - or is it the “gayest-liveried of our feathered friends”.

Here is the beautiful culprit of some serious hive plundering going on at present in my backyard. It seems that the Beekeepers' Association have also had it in for this bird for over 100 years.

The Courier-Mail (Brisbane, Qld. : 1933 - 1954),
Thursday 9 December 1937, page 16

National Library of Australia <http://nla.gov.au/nla.news-article37914728>

THE RAINBOW BIRD

SIR,— The proposal by the Beekeepers' Association to have the Rainbow Bird (*Merops ornatus*) taken off the Protected List, and declared a Pest is not the first occasion the subject has been before the Department of Agriculture. In the annual report of the department for 1918-19, nearly twenty years ago, appears an interesting reference to the subject from the Government Entomologist. It reads:— 'In December, 1918, the Queensland Beekeepers' Association submitted -“a proposal that the protection afforded this bird under the Native' Birds Protection Act be removed.” In the interest of one of the gayest-liveried of our feathered friends, we have dissented from this proposal. This beautiful bird is a Queensland summer visitant,- only coming here to breed ; and. as it is “to be shot with facility”, any licence to kill it would soon much reduce it's numbers. It is strictly insectivorous; but its taste for bees is not commonly and persistently exercised, feeding generally, as it does, on beetles, Neuroptera, and winged ants. Where hives are few and swarms weak, or where there is a decline in bee strength owing to a bad season, as was experienced in 1918 by apiarists here, it's habit of capturing bees is noticed, and loss of bees to an undue extent attributed to the bird; but under other circumstances its bee-feeding habit has little or no influence in reducing the numbers of bees. Its occasional weakness for these insects has always been remarked here, notwithstanding which no such proposal as that in question had earlier reached us. And unfortunately, it is now accompanied by one of like nature, emanating from another quarter; one for slaughtering this gem amongst insectivorous birds in the interests of the millinery trade, seeking still another plume — cost to bird life, what it will.' — I am, sir, &c, South Brisbane. HENRY TRYON.(Other letters page 5)



Photo: L. Trott

Rainbow bee-eaters mostly eat flying insects, but, as their name implies, they have a real taste for bees. Rainbow bee-eaters are always watching for flying insects, and can spot a potential meal up to 45 metres away. Once it spots an insect a bee-eater will swoop down from its perch and catch it in its long, slender, black bill and fly back to its perch. Bee-eaters will then knock their prey against their perch to subdue it. Even though rainbow bee-eaters are actually immune to the stings of bees and wasps, upon capturing a bee they will rub the insect's stinger against their perch to remove it, closing their eyes to avoid being squirted with poison from the ruptured poison sac. Bee-eaters can **eat several hundred bees a day**, so they are obviously resented by beekeepers, but their damage is generally balanced by their role in keeping pest insects such as locusts and hornets under control.

https://en.wikipedia.org/wiki/Rainbow_bee-eater

****Ed's Note: I have no problem with locusts or hornets in my beehive, so could the birds kindly move on??

No,..... this is not a solution.

Rainbow bee-eaters are a protected native species. We have potentially much bigger issues to face in the near future, and smart beekeepers will find a way to survive and adapt with the help of our State and Federal agencies.





Dan Donovan put on an impressive display of cheap and effective hive extracting technology at the last AGM. All the gear can be assembled from plumbing parts, or made up using simple carpentry. Great display Dan, thanks for the advice. Speak to Dan at one of our meetings if you want some finer details or advice.

DID YOU KNOW??

80% of all honey produced in Queensland comes from government controlled native forest areas. The Queensland government has now acted to have all managed hives out of native forests after the year 2024. Where will Queensland honey come from after 2024?? - only 9 years from now.

Club Membership Fees for 2016 are due: now \$25/year (still the cheapest in town)

Pay by direct debit (put your name OR hive Registration number in the reference field)
Bank details: Townsville and District Beekeepers Association Inc,
Bendigo Bank BSB: 633 000 Account: 141 466 078

Get access to discount equipment, free advice, access to bee mentors, news about nucs, swarms, hives for scale, raw honey and wax availability, a Native Bee special interest group, and a monthly meeting with tea, coffee, eats and live hive openings - what a bargain.

Meeting Minutes TDBA Inc. 20/09/2015

We started with a new meeting agenda this meeting.

Welcome: President Ron Rapson welcomed new and existing members. 6 new members attended this meeting. Please welcome them and help them with their enquiries: Wes from Gumlow, Wayne from Hermit Park, Nathan from Bluewater, Denise from Jensen, Tracey from Deeragun and Ingrid from Aitkenvale. Ron thanked Honey Atkinson for hosting the meeting this month.

Apologies: Dave Turnball, Wayne Bromham, Dan Donovan, Alan Ziegenfusz, Matt Lavarack

Minutes of previous meeting: taken as read raised and moved

Discussion: Newsletter: Beryl did not receive her newsletter, president and secretary names mixed up in last newsletter. Ron is President and Carla is Secretary. Also anyone submitting an item for the newsletter please supply your first name and your hive number to Lindsay.

Business from previous meeting: Rob Stephans is holding a workshop on honey bee diseases and pests to be held at the wildlife carers office in Aitkenvale. Date to be confirmed/

Frana, Jon and Lindsay hosted a bee information workshop for the University of the Third Age. The workshop was very successful with lots of displays, native bee hives and honey spinning. They have had interest for more of these workshops.

We discussed the proceeds of the Executive Meeting: we are going to have 3 Executive Meetings a year February, May and August. We are going to have an annual program. where we celebrate honey month in May and also have a stall at Ecofest May/June. We may also attend the Defence "Welcome Day" and the Garden Expo. We have got in touch with Hermit Park State School. All is looking good, they have already put in an application to Education Queensland for a bee hive.

We asked the meeting for another committee member to be point of contact for community events. Sonya Verburt put her hand up for the position.

Correspondence: nil

Treasurers report: All is looking well

Librarian report: Let Jon know if there is anything you want copied and he will help

General business: Ron Rapson lost a hive at his Kennedy property from banana spray.

Honey Atkinson asked about the flow hive. We have a couple of members who have ordered them as we are all looking forward to see how it works.

We have more bee feeders to purchase. The recipe for the feeding liquid is 1 cup of sugar to 1 cup of water. It is very Important to not over feed.

Tim Heard's new book on native bees will be released in November let Frana know if you are interested in purchasing the book

Frana and Carla talked to the meeting about purchasing a trailer for club use. There are a few community grants available at the moment. The executive committee will look into it more. The committee was made aware the Federal government is bringing in a code of practice for bee keepers. The committee is going to research that as well as a code of practice for the club.

Meeting closed at 4:30 and a fine spread of home made goodies, coffee and tea was available.

Next meeting: Lenny and Leonie's place 186 Bus Road Charters Towers at 2:00 pm 18 October.

TDBA Office holders for 2015/2016

<u>President:</u>	Ron Rapson	ronald.i.rapson@team.telstra.com
<u>Vice President:</u>	Paul Payne	trapper4812@gmail.com
<u>Secretary:</u>	Carla Kersnovske	cke00786@bigpond.net.au
<u>Treasurer:</u>	Frana McKinstry	franajon@gmail.com
<u>Newsletter Editor:</u>	Lindsay Trott	trott Lindsay@gmail.com
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<u>Equipment Steward:</u>	Frana McKinstry	franajon@gmail.com
<u>Committee Members:</u>	Dave Bowtell	spanner1969@gmail.com
	Dave Turnbull	turnbuld@bigpond.net.au

Club Shop Items Price List

These prices are only available to currently financial members

<u>Item</u>	<u>Price</u>	<u>Comment</u>
Veil with drawstring	20.00	
Jacket / Round hat	50.00	
Ventilated jacket	70.00	
Gloves	20.00	
Booklet - Managing AFB	6.00	
Hive tool (S/S)	12.00	
Hive tool (Yellow)	5.00	
Smoker	35.00	
Queen Excluder - Wire	20.00	Limited supply
Queen Excluder - Plastic	5.00	Ideal for use as inner lids
Frames - Full depth	1.35	
Foundation - Plastic	1.90	
Foundation - Wax	1.60	
Bee Brush - Natural bristle	8.00	
Bee Brush - Synthetic bristle	7.00	
Club Polo Shirts	22.00	
Queen Catcher	3.00	
Frame Gripper	8.00	
Gate valve	10.00	
Capping knife, serrated	15.00	
Comb scratcher	8.00	
Honey jars 500gm	0.75	
1kg Buckets	1.25ea	
<u>TRAPS</u>		
Apithor trap	6.00	
Silver Bullet trap	7.00	or 3 for \$20
TK Beetle mat	6.00	
"Die Ya Bastard" trap	2.00	
Diatomaceous earth	2.00	
Full depth super	25.00	Unassembled
Lid	25.00	Unassembled
Base	20.00	Unassembled

***TDBA Starter Kit -
The Perfect Gift for a budding Beekeeper
All available in Townsville:
Club Members Price Only!***

Bee Jackets \$50 Hive tools \$5
Bee Brush \$7 Gloves \$20
Smokers \$35

All five items sold as a Beginners Kit \$90

Uncapping knives sold separately \$10-\$15,
Gate Valve \$10

Frana: Ph. 0401 014 948



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PMB 19, MAITLAND NSW 2320

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