

Townsville and District Beekeepers Association (Inc.)

www.beesnorth.com.au



PO Box 1115, Aitkenvale QLD 4814

Newsletter No 10 Oct 2016

In this Issue: **AGM on 16 Oct**

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- What makes bees angry and why do bee stings hurt so much?
- Top bar success
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- Club Shop Items

Next Meeting:
2:00 pm Sunday, 16 October 2016
Hermit Park State School, 5 Sussex St, Hermit Park
AGM to be held before hand
Bring a chair - and a plate of food if you can

November bowls competition with Central Queensland and Cairns Beekeepers Clubs

Central Queensland Club, TDBA and the Cairns Beekeepers Club are planning for the 4th-6th of November for a get together and social bowls competition. The bowls competition is to be held at 1pm Saturday 5 Nov at the Jubilee Bowls Club. All Clubs are keen to have a combined northern voice and talk about Varroa, honey, bees etc and other issues. Other social activities are planned as well.

Please discuss details of the social activity and your intention to join in at the next Club meeting on 16 October, or email Sonya V (sonyavverb@optusnet.com.au)

Remember: **Bowls Comp 1pm on Saturday 5 November at Jubilee Bowls Club.**

Response team make a bee-line to Asian honey bee nest

DAF Press Release: 12 September 2016

Another Asian honey bee nest has been found in the Hyde Park area of Townsville, but there were no Varroa mites on the bees or in the nest.

Biosecurity Queensland Varroa Mite Response Coordinator Dr Ashley Bunce said this latest nest was located in the eaves of a house that backed on to the property where the last nest was found in a wine barrel on the verandah of a family home. "The Varroa Mite Response team found this latest Asian honey bee nest using a technique called bee-lining, which tracks foraging bees back to their nest," he said. "The technique is normally used when suspect bees have been spotted foraging on flowers, and involves setting up a feeding station as an artificial food source for the bees close to where they have been seen. "By luring the bees to the feeding station with a floral scent and converting them to the artificial food source, the response team can then track the flight path of the bees back to their nest. "This last discovery proves that bee-lining is an effective technique and will continue to be used by the varroa mite response team to locate any further Asian honey bee nests in Townsville.

"With spring now upon us, it is important that Townsville residents remain vigilant and report any suspect bee sighting to us on 13 25 23, whether it's a swarm or nest, or even a couple of unusual bees."

Varroa mites (*Varroa jacobsoni*) have been found on Asian honey bees at Townsville Port and Annandale. A five-year project will identify how to eradicate bee diseases or manage them if threats such as the Varroa mite were established in Australia.

Ed's note: Check last month's Newsletter for a story and pics on how to use a "beelining box".

More information on Asian honey bees, their appearance and associated symptoms once infected with varroa mites is [available online at www.biosecurity.qld.gov.au](http://www.biosecurity.qld.gov.au), or view the [varroa mite pest alert](#).

What makes bees angry? -and what you can do to calm them down

An edited version of an online conversation, with extra bits from painful personal experience and discussions with Club members and the Ed.

You should be able to work your hives without being attacked as long as you don't do anything to provoke them. Standing close to a hive should not immediately stimulate a response of an attack. Generally handling your bees, and extracting frames should get a minor raised level of attention, but not all out attack on you. The "tone" of the hive will rise, but shouldn't reach high pitch, and the bees should ideally remain upon the frames when lifted out and not suddenly fly up in a big cloud of bees. But there are several things that can make a hive hard to work with, and can cause grief for you and your neighbours as well.



Things that WILL upset bees:

- standing in front of the hive in the flight path will cause bees to sometimes bump into you which can lead to them getting upset if they feel you are a threat.
- wearing dark clothes, or furry socks that trap bees legs,
- strong smells like deodorant, aftershave/perfume, the smells of garlic and curry, petrol and diesel fumes, insect repellent, and other strong smells can upset bees.
- sweat from you, horses, dogs or other animals is a definite invite for attention. Do not place hives near horses.
- some detergents - so be careful to wash yourself and bee suits and clothes in neutral smelling soaps, detergents
- queenless hives will get more aggressive the longer they remain queenless.
- the sound and fumes from lawnmowers, blowers, hedgers, power tools
- cloudy, or windy, or rainy weather
- very hot and humid weather
- fast, jerky action while working the frames, and dropping a fully loaded frame of bees will definitely excite them
- working on the hive for too long - don't open the brood box for any longer than is essential
- getting stung - this releases an alarm pheromone that attracts more attention, also, killing a bee and swatting at them will get them excited and invite more attention
- overcrowded hives sometimes get a bit aggro
- nectar of some flowering trees have been known to upset bees - Heliconia and Oleander flowers have pollen that is toxic to bee larvae
- plastic excluders/foundation might be a cause (I have not heard of this before- Ed)
- starvation from a honey or pollen dearth - this is when the hive has limited food supplies in the field or stored in the hive
- lack of water
- predators around the hive entrance that alert the guard bees - wasps, geckos, bears!
- a robbing attack from another hive will cause mayhem, dead bees and aggression

Things that MIGHT calm bees down:

- move slowly, do not jerk the frames, or queen excluder
- stand back and give them time to settle if you have just dropped a frame on them or they have become agitated
- spray them with sugar water (1;1), and or sugar water with lavender oil
- smoke them
- re-queen the hive - either replace the old queen or make sure there is a functioning queen
- do something to the hive to upset their routine, e.g. split the hive and re-queen the split, put another honey super in to give them some extra work to do
- re-orientate the hive by 90 degrees by shifting the hive a little each day
- move the hive to another location
- don't work on bees after dark/before sunrise



Sources:

<http://honeybeesuite.com/what-makes-honey-bees-aggressive/>

TDBA Club members

<https://www.google.com.au/search?q=sleepy+bee+cartoon>

<https://www.google.com.au/#q=angry+bee+cartoon>

Renne & Dale's top bar hive.going at full speed

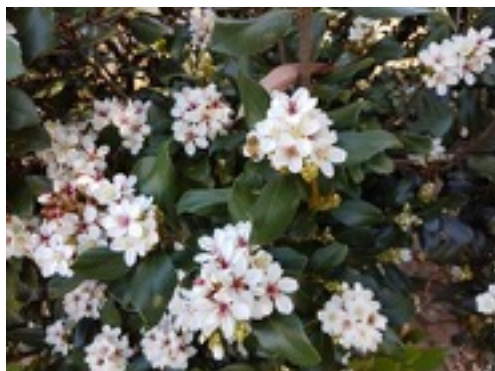
Alan Z went out to Rupertswood to see Renne & Dales top bar hive. It is amazing as the bees have been in only 3 weeks to a bare box with 7 starter frames. The hive box is 40 x 20 pine with a 10 mm strip of wax as a starter. This has blown me away what the bees have achieved and with a new queen

as well. Check out these photos . Notice how the wax has been formed following the inside shape of the box. Also the eastern facing side is formed first and it grows out to the west. The wax they have created is so pure and clean / white.

Alan Z reported with news and photos. Ed: Thanks Alan, we need more items from Club Members please.



Plants that are attractive to bees



Common Indian Hawthorn (*Rhaphiolepis indica*) attracts many native and European bees during flowering. Many of these hardy and pretty trees have been planted in southern Queensland, but it is now a declared weed as it's berries are spread by birds and it invades nearby bushland.

Check your local planting guide before putting in any introduced species - even if they do look nice with pretty flowers

A similar but far less invasive species is Indian Hawthorn (*Rhaphiolepis indica* 'Intermedia') -(pictured at left) plenty of bee attention there. <http://www.growmeinstead.com.au/plant/common-indian-hawthorn.aspx>



Red flowering Eucalyptus sp (Red Coral Tree??) seen in a garden on Sunshine Coast. Native to WA, SA, and parts of NSW, it has prolific flowering and many bee visitors - native and European. has been planted in Israel to support a non migratory bee and honey industry. See RRDC website for details.

Parliament to bee a hive of activity

QUEENSLAND'S politicians might soon have real, rather than figurative, bees in their bonnets.

Yesterday's Budget Estimates hearings revealed that two native beehives would be installed in the gardens of State Parliament.

Speaker Peter Wellington signed a memorandum of understanding between State Parliament, the Queensland University of Technology and

researchers, allowing PhD students access to the hives for studies.

"The state of our environment is important to me and I hope that the presence of the native bees in our Parliament gardens will become a symbol to inspire others to always consider the potential impact of their decisions on our environment," he said.

"The bees will remain there for as long as I am Speaker."

But contrary to what happens inside the chamber, there will be less of a sting in the tails of the democratic insects.

The species, sometimes referred to as "sugarbag" or "stingless" bees, have only a vestigial sting which is useless in defence.

The decline of bee species worldwide is of increasing concern to scientist, some of whom believe losing them could spark a major disaster.

BCHM01Z02MA - V1

Townsville Bulletin, July 13, 2016, President Ron looking very uncomfortable in the limelight

18 NEWS

WEDNESDAY JULY 13 2016 TOWNSVILLEBULLETIN.COM.AU

Bee risk invaders repelled

LEANNE OLIVERI



had been found in the Asian honey bee hive and he believed there was no further threat to the North's beekeeping industry.

Mr Dewar, who is in Townsville for the association's annual conference that starts today, said he had toured the area around the port with Biosecurity Queensland officers and was happy with the biosecurity response.

"They're doing a pretty good job on the ground from what I've seen," he said.

"It's all been cordoned off and dealt with properly, I believe. They've also taken on board a few things we (beekeepers) suggested.

"I am pretty confident the threat has been contained. I wasn't before I got here, because obviously they're a bee and they can fly anywhere, but I am now."



SWEET SOLUTION: Townsville beekeeper Ron Rapson and Queensland Beekeepers Association president Robert Dewar with varroa trap. Picture: EARA MORGAN

Townsville and District Beekeepers Association said incursions such as this were inevitable and required a quick response.

"Biosecurity Queensland has done a good job of managing it and they've done a pretty good job in this case at keeping us informed," he said.

"They're extremely fortunate that we're having a conference here at the same time because we've got all these experts here meeting them and helping out."

Ashley Bunce, director of the Townsville varroa mite response, said he was confident of eradicating the varroa mite from Townsville.

"We've had staff doing surveillance work since the nest was found but there have been no further detections of Asian honey-bees in the area," he said.

Biosecurity Queensland staff gave local beekeepers an update on the varroa mite response at a special information session held at the Mercure last night.

Hive box pushes pests out

LOCAL beekeepers are being encouraged to adopt a new bee hive box that will make it easier to detect future pest incursions.

Queensland Beekeepers' Association president Robert Dewar has brought eight of the modified boxes to Townsville for the association's two-day conference that starts today.

"These boxes are the same design that Biosecurity Queensland has," he said. "They

have a removable tray at the bottom which you can put a sticky mat into. In the event of a varroa mite incursion, Biosecurity Queensland can come through, put miticide strips into the hive to kill the varroa mites and they'll fall down on to the sticky mat.

"Then the biosecurity officers can come along, take out the mat, and take samples to send away for testing."

Volunteer Beekeepers in Townsville assisting with hive inspections

The first week of September saw the Industry volunteer beekeepers from interstate up here in Townsville carrying out hive inspections for Varroa and other pests (Jeff from ACT, Ben from Vic, Paul & Simeon from SA. Trevor Weatherhead, Executive Director of AHBIC was also here to assist and inspect the eradication program. From all reports the visit & surveillance activities that they assisted with was good & positive, & no problems were encountered.

They conducted the following:

14 beekeepers visited

28 hives inspected

5 bottom boxes handed out

7 alcohol washes

13 drone uncapping

20 sugar shakes

We wish to thank the co-operation of those 14 local beekeepers.

The next week we had another 4 volunteers (Barry from Vic, Paul from Tas, Reg & David from NSW) at the LCC. And the following week & the week after we will have another 3 to 4 visitors. Accordingly, we will soon be running out of names of local beekeepers on our compiled list of those beekeepers who have put their names down as consenting/willing to undertake first round of managed hive surveillance activities. Managed hive surveillance, particularly within the inner areas of a known Varroa mite detection & within a known Asian honeybee detection is an integral part of the response surveillance plan. This surveillance of managed hives is necessary to provide confidence that host drift has not occurred and to ensure market access (for Townsville area, rest of the State & Australia).

Club member Nikkita Y is doing a good job with liaising with the listed local beekeepers, however we now need additional names for places/beekeepers/hives to conduct managed hive surveillance. The volunteer interstate beekeepers are experienced beekeepers (some commercial & some amateur/hobbyist) & as such they can be a source of valuable knowledge & information on general beekeeping matters.

Club members - please contact/liase with Nikkita on LCC Office landline 3330 4513 or Mobile 0448 800 139 to register their names/details for managed hive surveillance.

Edited item from Roger Winton LCC for the Varroa Response Team

Club T-shirt and bucket hat available

Get your orders in for the new Club shirt (\$30 each) and hat (\$10 each prices for Club members only).

<https://www.gracecollection.com.au/ah707-surf-hat-with-rope-toggle?search=AH707>



A variety of sizes in M or F ranging from S,M,L,XL, to XXL. One colour only in T-shirts, but a variety of colours for the hats. The T-shirts have a honeycomb pattern as the background and look pretty sharp.

Get your name printed on the T shirt at "Time of Printing" for \$5.00 per shirt.

To place the order for adding a name, members just need to **clearly print** their "name" they want on the shirt in the Misc column, to request the long sleeve option just and or add "LS" to the Size column eg XL – LS.

There is also the option of a long sleeve shirt for \$5.00 extra per shirt.

Please get your order form from the Club Shop Stewards Dan and Chrystal Horne: smith2horne@hotmail.com

Native stingless bees and mass flowering trees in the Brazilian rainforest

Stingless bees and mass flowering trees in the canopy of Atlantic Forest: a tight relationship. by Mauro Ramalho, Acta Botanica Brasílica, Print version ISSN 0102-3306, On-line version ISSN 1677-941X

Approximately 70% of all bees foraging on flowers in the Brazilian Tropical Atlantic Rainforest are native stingless bees. They are the unique bee group concentrated in the upper level of the trees. This vertical distribution is a result of an uneven distribution of preferred flowers within the forest. In the upper tree levels, most of the trees visited by stingless bees produce small, inconspicuous, generalized flowers, clustered in dense inflorescences (mass flowering). These trees represent only 15% of the total flora in the study area (96 plant species). In contrast, they attracted all 17 stingless bee species and more than 70% of all stingless bee individuals. Almost all these mass-flowering trees are hermaphroditic (both male and female parts within the same flower) or monoecious (male and female flowers on the same tree).

Research on environmental effects on bee larvae

1. This one sounds self explanatory to me!!

“Honey Bee Workers That Are Pollen Stressed as Larvae Become Poor Foragers and Waggle Dancers as Adults”:

Hailey N. Scofield and Heather R. Mattila* Published online 2015 Apr 8. doi: [10.1371/journal.pone.0121731](https://doi.org/10.1371/journal.pone.0121731)

2. This one is interesting, as it indicates that larvae raised at a higher temperature are better learners than larvae reared at a lower temperature. Does this mean our bees reared in the North are smarter than those Southern bees?

“Behavioural performance in adult honey bees is influenced by the temperature experienced during their pupal development”

Jürgen Tautz,* Sven Maier, Claudia Groh, Wolfgang Rössler, and Axel Brockmann

Proc Natl Acad Sci U S A. 2003 Jun 10; 100(12): 7343–7347. Neuroscience Published online 2003 May 22. doi: [10.1073/pnas.1232346100](https://doi.org/10.1073/pnas.1232346100)

To investigate the possible consequences of brood-temperature regulation in honey bee colonies on the quality of behavioural performance of adults, we placed honey bee pupae in incubators and allowed them to develop at temperatures held constant at 32°C, 34.5°C, and 36°C. This temperature range occurs naturally within hives. On emergence, the young adult bees were marked and introduced into foster colonies housed in normal and observation hives and allowed to live out their lives. No obvious difference in within-hive behaviour was noted between the temperature-treated bees and the foster-colony bees. However, when the temperature-treated bees became foragers and were trained to visit a feeder 200 m from the hive, they exhibited clear differences in dance performance that could be correlated with the temperatures at which they had been raised: bees raised at 32°C completed only ≈20% of the dance circuits when compared with bees of the higher-temperature group. Also, the variance in the duration of the waggle phase is larger in 32°C-raised bees compared with 36°C-raised bees. All other parameters compared across all groups were not significantly different. One-trial learning and memory consolidation in the bees raised at different temperatures was investigated 1 and 10 min after conditioning the proboscis-extension reflex. Bees raised at 36°C performed as expected for bees typically classified as “good learners,” whereas bees raised at 32°C and 34.5°C performed significantly less well. We propose that the temperature at which pupae are raised will influence their behavioural performance as adults and may determine the tasks they carry out best inside and outside the hive.

Collective control of brood temperature is an essential aspect of the behaviour of honey bees, and air temperatures measured close to the brood combs are, although never constant, always within a range of 33–36°C. High temperatures outside the hive are compensated by bringing water into the hive and evaporating this by wing fanning. Low temperatures inside the hive are compensated by the production of heat through thoracic muscle activity in individual bees, which then is transferred to the brood. Extended deviations from an optimal temperature window during development are known to result in morphological deficits, so, by stabilising the brood temperature, bees are able to control the influence of this environmental variable on the development of their offspring.

Beekeeping like a girl: webpage and advice

<http://beekeepinglikeagirl.com/10-mistakes-new-beekeepers-make/>

Some potentially useful tips for Newbees, but most of this relates to USA and cold climates - nice photos though!

Your Ed does not personally agree with some of the ideas, but check them out

Welcome New Members

Chance, Amanda & Nathan H., PALLARENDA
Glyn E., KELSO Des B. KIRWAN

Peter B., KELSO
Susan M. YASS

Reg J., CONDON
Ian T., NORTH WARD

Ray B gets busy and prepares for his new hives



Ray B moved south last year to build a house on his new block of land in the Gold Coast hinterland. He has not been idle, as he has built a gigantic shed, a granny flat and is now laying blocks for the new house - and in his spare time he made up some bee hives. Here's the result of Ray's working bee for one and a half days: 5 boxes, 7 bottom boards and 4 lids – all naphthanated! Bring on the bees!



Ray B also sent this image of his Father's day present: has anyone read it, please pass on a review and let Club members know if it's any good - we could all do with a little more wisdom.

Why do bee stings hurt?

<http://www.bkbees.com/blog/blog8.htm>

Sent in by Frana M.

A honey bee will sting to defend her hive or as a result of rough handling. They use stings as a last resort defense mechanism, with no inclination to sting you for any other reason. When the hive recognises a threat, the response is first a release of an alarm pheromone, alerting the rest of the colony of the threat. The alarm pheromone is released from the honey bee's Koschevnikov gland and consists mainly of a substance called Isoamyl Acetate, also the main ingredient in banana oil. When this scent permeates through the hive a beekeeper will normally mask it with smoke from a bee smoker, sometimes delaying or stopping the next level of defense, stings. If the threat level increases to the threshold of that particular hive, some bees will fly out, normally to an area of the invader known to be sensitive and sink their barbed stinger in a fleshy, moist tissue spot. If the invader was a mammal or bird, chances are the stinger's barbs would serve their purpose and the stinger and venom sack would remain stuck to the victim even as the bee flies off, eviscerating the bee resulting in her death shortly thereafter. If not removed quickly, the venom sack will continue to pump bee venom into the victim, increasing the severity of the resulting reaction. The total amount of venom contained in a venom sack is thought to be about .1mg, but nonetheless, you should remove the stinger as quickly as possible after the stinging incident.



What's in bee venom? The most abundant of the short chain amino acid groups, known as peptides, is Melittin, making up 50% of bee venom's dry weight. Melittin causes red blood cells at the sting site to burst and blood vessels to expand causing pain and in some cases, a drop in blood pressure.

The next in line of most abundant is a substance called Phospholipase A2, making up 12% of bee venom's dry weight. Phospholipase A2 helps destroy cell membranes at the sting site, causing pain and inflammation.

After Phospholipase A2 is Histamine, making up 9% of bee venom's dry weight. This substance causes capillaries to leak fluid resulting in itchy, red spots.



Ouch - nice reaction to a bee sting

The remaining active compounds in bee venom are Apamin – 2-3% of bee venom's dry weight, and Hyaluronidase – 2%. Apamin destroys nerve tissue and increases the production of cortisol in the adrenal gland and Hyaluronidase helps spread the reaction by dilating capillaries and breaking down cell membranes. There are many other components that exist in bee venom that either have a limited effect or have not been studied enough to list any general characteristics

Kidney problems can arise after a major stinging incident, because the kidneys can have trouble dealing with the excess tissue damage. In severe cases kidneys can become clogged and fail in the days following a major stinging event. If you are the victim of a major stinging (normally more than 100 stings) incident, you should follow up with a physician to monitor your health in case of renal failure. Do not take aspirin for pain relief after a sting, as it thins the blood, exacerbating the bruising, swelling and cell degradation. In case of a severe allergic or anaphylactic reaction, the use of epinephrine (Epipen) may be necessary.

TDBA Meeting Minutes

General Meeting, 18 September 2016, Noon at Burdekin Gun Club

Welcome by President

Present / Apologies: Refer to Attendance Book

Minutes of Previous Meeting: Mover: Ron Rapson, Seconded: Dennis Anger

Business from Previous Meeting

1. Display Banner –update on arrival: Arrived. Committee has seen Banner
2. TDBA Merchandise – available for order now, Orders to Chrystal Horne- Shirts \$30 - Hat \$10
3. Biosecurity Action and AFB – updates
Biosecurity Qld: Nikita Young: Update on Varroa Mite Surveillance Program: No Varroa identified
Managed Hive Surveillance:: 100% within 2.5km, 50% within 2.5 to 5km, 25% within 5 to 10km
Sentinel Hives and Sticky Mats to be distributed Test and Inspect every 2 months
Out of town beekeepers in town assisting with hive inspections. Encourage hive inspections. Looking for more hives to inspect within the 10km. Volunteers requested.
Recent updates: AFB identified in Nome. Some chalk brood around
Hive beetle . Ron to talk to Roger about circulating information to TDBA.
Nikita to provide Ron with eNewsletter details for inclusion in next newsletter.

Correspondence: Australian Bee Keeper Magazine

President Report: Warm days with risk of swarming so check brood.

Treasurer Report: Opening Balance \$6,173.83, Deposits: \$7,575.20, Expenses: \$4,431 Orders from Suppliers, Balance: \$9,371.72. Mover: Frana McKinstry, Seconded: David Turnbull

Shop Report: Update on Shop Management, Back to Jon and Frana's place

Librarian Report: Fat Bees Skinny Bees back in library, New: Honey Bee Pesticide Poisoning

Newsletter Report: Ed not present

Special Business

1. Proposed Amendment to Model Rules. To be voted upon at AGM
2. Disease and Health Issues related to various Hive types. Clarification of concerns raised regarding disease and health issues in different hive types. TDBA is here to support all members with all hive types and to promote healthy bees and management.
3. TDBA – needs a shed - Options. Investigate Storage Shed Options to store TDBA equipment
Motion passed as follows: Allow executive to make final decision regarding storage shed options. Mover: Dave Bowtell, Seconded: David Turnbull, Approved by Members. Explore permanent options by speaking with Council.

General Business

Names on Shirts: should look into this option. AGM – to be held in October

Bee Club catch up with Mackay and Cairns: 5 November 2016 at Jubilee Bowls Club Mundingburra, BBQ, Details to be provided

New Club Stamp to be ordered

Nomination Forms for Executive Positions required at or prior to AGM. Form in last Newsletter.

Bee Sting Reactions – seek medical assistance, call ambulance.

Portable Incinerator – Ron has investigated options. 240v, \$4,500.

Email addresses for executive members – set up new email addresses where available.

New Sign – warning of bees will be displayed at club meetings.

Next Meeting: Hermit Park State School – to be confirmed.

Close Meeting: 2.30pm

Annual Membership Fees are Due Now

A reminder that your club membership is now due. This can be done electronically to

Name:- Townsville and District Beekeepers Association

BSB:- 633000

Account:- 141466078

Refer :- Please make sure you add **your Surname** so that your membership can be signed off.

Amount at this time: \$25.00 but soon to become \$30

Please note that an item will be tabled at the next AGM to increase the membership to \$30.00, where the additional \$5.00 dollars per member will go to the Queensland Beekeepers Association for ongoing research and development in support of the Bee industry.

Hives wanted!!

Native bee hives wanted by:

Contact: vanessa.warrington@jcu.edu.au

Contact: Ron Gladman: 0474 318272

European bee hive placements, ie people who would like to host a hive at their place:

Contact: Aria on 0412 345 362

Contact: j.andersen@westnet.com.au

Contact: Lenore in Douglas on 0401 4588748

Contact: Linda at linray@internode.on.net

We have several other people who have already expressed interest in native and European bee hives. Do you have any available - swarm and honey flow season is coming up, so keep your eyes open.

TDBA Inc 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>	Connie Navarro	navarroc@bigpond.com
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<u>Committee Members:</u>	Dave Bowtell	spanner1969@gmail.com
	Dave Turnbull	turnbuld@bigpond.net.au

Honorary Members of the TDBA Inc

In recognition of their long term service and support of our Association.

Dennis ANGER

Graeme & Adele ARMSTRONG

Ken & Marcia CALEO

Dave HOEY

Mike & Jill JAMES

Doug & Sonya MCBRIDE

Club Shop Items - 2016 Price List

These prices are only available to current financial members

Item	Price
Veil - Native Bee	10.00
Veil - cotton	15.00
Veil - ventilated	20.00
Jacket / Cotton/ Round hat	55.00
Ventilated jacket	75.00
Full Suit - Cotton	75.00
Full Suit - ventilated	95.00
Gloves	20.00
Super - Rebated	25.00
Super - Dove tail	26.00
Lids	25.00
Bases	20.00
Lifting Cleats (Handles)	5.00 pair
Spring clips	2.00 ea
Emlok	12.00
Hive tool (S/S)	15.00
Hive tool (Yellow)	8.00
Smoker	35.00
Queen Excluder - Wire	20.00
Queen Excluder - Plastic	6.00
Frames - Full depth	1.50
Foundation - Plastic	2.00
Foundation - Wax	1.60
Beeswax block	10.00 per kg
Eyelets pkt 500/50gm	10.00
S/S Wire .5mm x 500gm	20.00
Bee Brush - Natural bristle	10.00
Bee Brush - Synthetic bristle	8.00
Queen Catcher	3.00
Frame Gripper	10.00
Bee Feeders	2.00
Gate valve	10.00
Capping knife, serrated	15.00
Comb scratcher	8.00
Honey jars 250gm	0.65
Honey jars 500gm - square	0.75
Honey jars 500gm - round	0.75
Honey jars 550gm - squeeze	0.75
Honey jars 1kg round	1.00
Honey Pails 1kg	1.25
Strainers (fit bucket)	80.00
Apithor trap	6.00
Silver Bullet trap	7.00
BeetlTra bottom trap	20.00
TK Beetle mat	6.00
Booklet - Managing AFB	6.00
Australian Beekeeping Manual	35
Australian Native Bee Book	25.00

TDBA Starter Kit - \$95

The Perfect Gift for a budding Beekeeper

All available in Townsville (freight free):

Club Members Price Only!

Bee Jackets \$55 Hive tool \$8 Gloves \$20

Smoker \$35 Bee Brush \$8,

All five items sold as a Beginners Kit \$95

Contact: Daniel: Ph. 0437 540 473



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