

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

Website: www.beekeepers.asn.au/far-north-coast

Facebook: TBA



Editor Jenna Vos Swarming Behaviour and Prevention

Swarming is the natural behaviour of any colony of Europen Honey Bees (*Apis millifera sp.*) as a way to reproduce and create diversification of their genetics. It is the equivalent to having a human baby, a foal, a calf etc, except this occurs annually in the life of a bee colony if conditions are right. A single colony will split into two or more distinct colonies.

In early Spring when plants start flowering (plant phrenology) and there appears to be an abundance of nectar and pollen, the foraging bees will start encouraging the hive to prepare the colony for swarming. The queen will start laying drone cells. The workers will be preparing queen cups and/or swarm queen cells usually located at the bottom of the frame for the queen to lay an egg in. The nurse bees will raise the virgin queens feeding them predominantly royal jelly. There will also be an increase in honey storage especially in the brood box thus reducing the amount of space for the queen to lay eggs. The workers also reduce the queen's food intake to get her trimmed down so she can fly. Some of the worker bees have been observed shaking their fellow workers and the queen as if to say "Let's Go Girls".

As soon as the new virgin queen cell is capped a hive will start to swarm. If you have had the privilege of hearing a queen piping this is one occasion when it will occur intermittently a few days before the swarming. The virgin queens in the new queen cells can also be heard. The queen is then made ready to leave with the recently **underemployed nurse bees**, designated worker bees and some drones. Approximately 10,000 to 25,000 bees will accompany the **primary** swarm. Subsequent swarms from the same hive are called **cast** or **secondary** swarms and will generally have a **virgin queen**. A hive can swarm several times until there are hardly any workers left. This behaviour is predominantly present in the Asian Honey bee (*Apis cerana* sp.) species but less so in the *Apis millifera* species. ...continued on p3

NEW Covid-19 Regulations and Restrictions ramped up.

Please practice physical distancing, mask wearing and sanitising when attending any gathering and abide by the most recent advice given by Australian Government Health www.health.gov.au

Date Savers and Activities

Tuesday 21st September 2021 18h00: Committee meeting: RSL Casino, Casino NSW 2470.

Saturday 9th October 2021: 8h30 for 9h00 start - 12h00 Field Day; 5 Robb Street, Russelton Industrial Estate, Alstonville NSW 2477

FOCUS: There will be a demonstration of how to split a hive plus "hands on" demonstrations on how to assemble hive boxes, frames and embedding of foundation. Please bring a mask to wear indoors or outdoors subject to weather conditions. Please bring your own mug and something to share for morning tea.

Sunday TBA November 2021 8h30 for 9h00 start - 12h00 AGM has been postphoned until

November 2021 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.

Presidents Report by Peter Laughton

Firstly I would like to welcome all new members to our Far North Coast Club. Secondly I would also like to thank all those old members for renewing their financial memberships. For those still outstanding this will be a great time to renew so we can share our knowledge and expertise with all those young and old amongst us.

We also hope that by the end of the year we will be able to gather face to face. So until then if not before, I have looked at some resources that might benefit you during this period of "on again off again" lockdown during this swarming season.

https://www.abc.net.au/news rural/2021-08-28/native-bees-healthy-/100409558

https://www.beesource.com/threads/high-tech-beehives.358245/

For those tech heads with Iphones;

https://www.instructables.com/iphone-apidictor-for-acoustal-beehive-swarm-detect/ **Peter**

Far North Coast Club news

From our Secretary, Stephen Fowler

Officially Spring is here and with a bit of luck our need to self isolate will be over in the Northern Rivers. At this point of time Ballina and Lismore LGA's are out of lockdown but with restrictions. The main problem now is that someone forgot to tell the bees about the **stay at home** order.

This Spring has seen unprecedented swarming from hives in this region. Beekeepers are running out of boxes and nuc's etc. The macadamias commenced flowering two weeks early and are still flowering thus extending their season by several weeks. I, personally, tried to pre-empt this problem about a month ago by putting new frames in the brood box thus creating more room for "her royal highness". It was a waste of time, most of my hives on the last inspection had queen cells on more than one frame. So down to the last line of defence. I split my hives; I removed all the queen cells bar two and moved the old queen to a Nuc box with a couple of frames of brood. I will inspect the original hive in a few weeks to see if they have hatched and a new queen has returned from her mating flight sucessfully. A sign of eggs and larvae is an excellent indicator of a newly mated queen. She herself will be difficult to detect as she will not be very large. If this is not the case I will merge the original hive with the newly created Nuc and the old queen.

The ABA has allocated each Bee Club funding to the tune of \$1000. We need you all to consider some ideas as to how the FNC Club can distribute these funds. Please submit your ideas to the club secretary aka myself "Stephen".

Stephen

Images supplied by Jenna Vos and Jamie Mudge in Uralba; Original hive with added Ideals for more room, the Nuc with original queen and then the inevitable swarming! **Request:** Need a **subeditor,** please let Stephen know..



Far North Coast Beekeepers Inc Committee

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Committee Members	To be nominated (3)		

Sticky Fingers AugSept 2021

Cont. from p.1

Swarm prevention and conservation: There are several methods to conserve and prevent bee colonies swarming. Each beekeeper will have his own tried and true method according to their locale and method of beekeeping. Below are some methods, however none are full proof if the hive is bent on swarming. It is worth considering that approximately only one in six swarms(16%) will survive in the wild. The main factors to consider in swarm management is to reduce congestion, improve ventilation and remove excess resources eg. honey and pollen stores.

- **Easy swarm retrieval**: if you clip one wing of the existing queen and the hive swarms it will only go as far as the entrance of the hive and thus is easy to retrieve. Creating a new colony.
- **Conserving an existing hive:** The Demaree method relies on the beekeeper having used two brood boxes to overwinter his/her hive. By early Spring the hive will have navigated to the top hive to conserve heat and will have eaten out its stores of honey. This allows the beekeeper to switch out the empty bottom brood box once it has been inspected and the removal of any swarm queen cells or re-queening queen cup cells has been done. This is placed on top of the original top box(existing old queen) with an queen excluder between the two. The original top box now bottom brood box needs at least two honey/pollen frames removed and replaced with drawn empty frames to give the old queen room to lay. An additional super and queen excluder is inserted between the top and bottom box to create space. The workers will then move down to the bottom box. The nurse bees will remain to care for any brood in the top box. This method requires hive inspections every seven to ten days to knock off any new queen swarm cells, preventing cast or secondary swarming.
- **Providing room for the queen to lay**: Under normal swarming conditions the bees start filling the brood frames with nectar/honey in readiness for swarming. The queen stops laying eggs to be trim enough to fly accompanied by the newly unemployed nurse bees, designated worker bees and a few drones. To reverse this process a beekeeper can remove two brood and the honey frames and place them above the queen excluder replacing them with empty drawn comb frames to stimulate the nurse bees back to work and the queen to start laying again.
- **Checkerboarding**: Bee colonies need adequate honey reserves to swarm. A beekeeper can manipulate the honey stores by removing every alternate frame of capped honey and replacing it with empty frames.



Footnote:

All information has been sourced from"Swarming Honey Bee", https://en.m.wikipedia.org;https; " The Bahaviour of Honeybees preparing to Swarm" https://www.sciencedirect.com; "The Perfect Bee; Recognizing and Avoiding Swarms"https://www.perfectbee.com; "The Australian Beekeeping Manual" by Robert Owen, 2015, Exisle Publishing, NSW Australia;

Special Note from the Editor:

Due to other and family commitments I would very much like to have another volunteer to help me with the editing. Please let me now if you are interested in writing or learning how to put a newsletter together.

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.

Disclaimer – the views and opinions expressed in this newsletter are those of the authors and do not necessarily reflect the official policy or position of the FNC Beekeepers Inc. FNC Beekeepers Inc. accepts no liability for the consequences of any actions taken on the basis of the information provided.