BEEBIZ JULY 2020

The Newsletter of the Northern Rivers Amateur Beekeeping Association Inc.

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President Report

"There are certain pursuits which, if not wholly poetic and true, do at least suggest a nobler and finer relation to nature than we know. The keeping of bees, for instance...is like directing the sunbeams"

Henry David Thoreau, "Paradise (to be) Regained" (1843)

Hi All,

Well, our best laid plans have gone astray again due to you know what. The field day for July has been cancelled to be on the safe side as we have quite a few senior citizens in our membership. As humans and wildlife are pushed into closer proximity the chance of zoonotic disease jumping species is always on the cards. It is not about wildlife health or about human or livestock health it's really just about the health and balance of ecosystems throughout the planet. Healthy ecosystems promote healthy creatures within them. A wise philosopher once said, humankind will go out with a whimper not with a bang and that seems to be reinforced by the situation the world finds itself in today.

The London weather continues to dog me, in my attempts to do any work on my hives. Just hoping that they are strong enough to hang in until Spring or a change in this weather pattern that seems to persist at this normally dry time of the cycle. But what's normal anymore?

Cheers

Kevin Virgen.

Secretary Report

We have all been following the recent developments with COVID in Victoria. It is highly likely that there will be repeated outbreaks until the bug is eradicated, or there is a vaccine available. It is not prudent to organise a field day until the outbreak in Melbourne is contained. Remember your social distancing. Brian

Flowering Report

Basically things are the same as last month. Plenty of Fireweed and Red Gum are now in good bloom. Ironbark is showing well in some places, although seems to be a bit slow coming into general bloom.

You may have noticed that there is a good flowering of wattle around at the moment. Unfortunately the wattle on this side of the divide is of no value for bees, the protein is too low, and it doesn't seem to be attractive to bees. On the western side of the range some of the species produce really good pollen that

allows us to work autumn/winter honey flows that are pollen deficient. Interestingly for a plant that is often a spectacular flowerer, wattle is wind pollinated.



Ironbark at Coraki Fireweed

Another wind pollinated plant that is good is the She Oak that grows on the hills. Not the one that you see along the watercourses. It has male and female trees. The males look brownish when 'flowering'. The Hill Oak is good quality pollen. You may notice when it is going, a lot of bright yellow pollen in the hive. On the bottom board, or on the ground in front of the hive, the brown 'sawdust' is a husk that the bees collected with the pollen and stored. It is discarded when the pollen is eaten.

The red soil country was unusual recently in that there was not even a dribble coming in. Now things are somewhat better. The last time I looked there was a reasonable shake. The red soil normally has enough to keep bees going, but for some time they were eating a lot of honey. Geoff

From the Hives June 2020

The apiary is still at Coraki. There are a few flowers and buds left on the tea tree, but no sign of another general flowering. There is quite a good flowering of iron bark, and the stronger hives are reasonably busy. The paddocks are showing a lot more fireweed. Both groups of 16 will be moved up to Rous this month. Brian

Biosecurity

The DPI has sent everyone who is registered a reminder that the new biosecurity regulations came in on July 1st. Read the material that you have received, and act on it. It is possible that the DPI may look for a few people to prosecute to make others aware.

Honey Bee Genetics and Queen Quality

Gregor Mendel was born in Austria in 1822, the son of a poor farming family. He was academically excellent, and managed to go to the University of Olmutz to study Physics and Mathematics. He began studying to be a monk, and was attached to the monastery at Brno in Czechoslovakia as a monk. Later he went to the University of Vienna, and studied physics and mathematics under Christian Doppler (Doppler effect), and botany before returning to Brno. There he was a keen meteorologist, a beekeeper and a botanist. He was interested in how traits were passed down over the generations. He started his genetic work using mice, of which the church did not approve, before switching to garden peas. Mendel said "the bishop didn't understand that plants also have sex".

Mendel identified characteristics of garden peas that each depend on a single gene, such as inflated or constricted pods, green or yellow seed colour, wrinkled or smooth seeds etc, and followed the plants through many generations, meticulously noting where the characteristics showed up in succeeding generations. He used a small paint brush to pollinate the flowers. He published all the work in a somewhat obscure journal in 1865. It was not recognised until about 1900, when three European scientists independently rediscovered his rules. It is rumoured that one of the three drew attention to the existence of his work to deny the others

priority for the work.





Georg Mendel

Bee shed of Georg Mendel

He is known as the father of genetics. But his work has led to what is called the" Mendelian paradox"; the ratio of dominant to recessive phenotypes in his experiments is expected to be 3, but Mendel's results were too close to 3 according to statistics. Did he fudge the results to achieve this? Would a monk do that? We will never know.

Mendel did work on the genetics of bees, but little is known about whether he got anywhere.

There is a very good video on the net, titled "Basic Honey Bee Genetics for Beekeepers" by John Chambers.

https://youtu.be/w-pAQt6pFhM

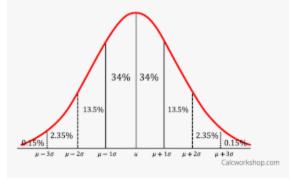
He starts with three statements well known to most beekeepers.

- There are as many opinions about how to keep bees as there are beekeepers.
- Work with the bees and not against them, and
- The bees know best.

He describes the way in which the six distinct European bees developed in isolation during the ice age, confined by ice in the north, and by the high mountain ranges. The British bee, apis mellifera mellifera, came across a land bridge from Europe and adapted to the British climate. Then the landscape was altered by man, causing the need for more adaptation as time went on. Now, practices such as importing queens (Britain imported over 18000 queens from 16 mainly European countries in 2018), and feeding sugar syrup have ruined that adaptation. Watch the video.

It is best for the bees in terms of survival of the fittest to purchase queens that are locally bred as the offspring will be locally adapted. Of course, with many migratory beekeepers in our area, there is a continual influx of non-locally adapted bees, contributing to the local gene pool through drones.

The intention of this article is to point out a few truths about the quality of queens purchased from a queen breeder or bred by you. There are few characteristics of bees that are determined by a single gene- they usually involve a number of genes, and when the male and female genes get all mixed up in the egg, the resultant offspring have a range of characteristics, something like a "Normal" or bell shaped distribution. So for a property like honey production, queens from the mating of a good queen with a good drone will end up covering a spectrum of performance; out of 100, there will be 2 excellent, 14 good, 68 average, 14 poor and 2 woeful. The same applies to other characteristics such as docility and cleaning ability, as they are controlled by multiple genes. The better breeders would shift the average towards the good end.



good

Bad the poorer performance.

So when purchasing queens (or breeding queens), do not expect that everyone will be fantastic; the one you buy could be woeful!

Queen breeders have little opportunity to assess a new queen after she returns from the mating flight and starts laying; if there is evidence, they will usually reject an inferior one. If you get a dud, you may be able to convince a breeder to give you a free replacement, but you are not entitled to it. Also, if you purchase say 10 queens and one is woeful, replace her; do not expect her to improve, unless there is a good reason for

Finding Queens Part Four

There is a technique used by some with a large number of hives to re-queen where the old queen is killed by a new queen. It is not necessary to find her.

The brood box is opened, and a queen cell fitted with a protector is placed on a frame. The protector such as a piece of polythene hose prevents the old queen tearing out the side of the cell and stinging the virgin inside, while leaving the top of the cell exposed so the virgin can free herself. It is not unusual in a hive to have a virgin queen as well as a mated queen running around, so the bees will not kill the virgin queen after she hatches (her pheronomes change when she is mated). She can approach unnoticed and sting the old queen to death.

This method is reputed to work 80% of the time, according to at least two sources. If it does not work, at least the hive still has a laying queen.

Dead Hives

Last season was a strange one. Beginners in particular should note that it was unusual for the lack of stores through summer, and also the propensity for hives to die out. A number of club members have reported more than the usual number of dead hives, where the queen has died and the hive has been unable to produce a new queen. The hive is usually left with a minimal amount of stores. Also, queen breeders have reported a low rate of success in grafting cells; the bees do not seem to want to make queens. All this could be due to our low stores; our bees are adapted to a much more productive flora.

Some are reporting problems in England with queens; see Roger Patterson in the video.

https://youtu.be/2wrW 04iJ c

There is no reason to think it is a world wide phenomena.

Beekeeping Course

In past years, the club has offered a low cost introductory bee course in Spring, with the intention of providing basic background and, more importantly, hands-on experience for beginners. It was usually held in early Spring to prepare beginners for their first season. With COVID, it is impossible to plan anything at this stage, and prospects do not look good.

Beginners who are interested in some basic instruction should email their names to the secretary, including type of hive eg flow or Langstroth, their address and phone number. Depending on the response, the committee may be able to arrange either group instruction or mentorship sessions with experienced club members. You may be contacted at short notice.

northernrivers.secretary@beekeepers.asn.au

Bee Connected Ap

The Bee Connected app was designed for farmers and beekeepers to identify where their crop/hives were on the ground. https://beeaware.org.au/pollination/beeconnected/

This should reduce the number of hives killed due to chemical sprays.

If a beekeeper is near crops and does not use bee connect and gets sprayed – blame yourself.

However, the app is far from perfect or user friendly. Please review the app. If you have any suggestions for improvements or identify functions that are not working or very difficult to use – send your suggestions through to AHBIC. AHBIC will collate replies and send on to Crop Life who are the owner of the app.

NO FEEDBACK NO IMPROVEMENTS can = dead bees.

BeeConnected is free and available on iPhone, Android and desktop computers.

https://apps.apple.com/au/app/beeconnected/id919861850

https://play.google.com/store/apps/details?id=com.beekeeper&hl=en

https://www.croplife.org.au/wp-content/uploads/2017/10/User-Instructions.pdf

Steritech Charges

The cost of irradiation of beekeeping equipment at the Steritech plant in Narangba north of Brisbane has been increased. In the past, the club has routinely had equipment irradiated at 15 kgy, sufficient to eliminate EFB as well as AFB. The rate including gst for 15 kgy has gone from \$324.50 to \$594 per pallet.

A pallet can hold 42 boxes plus extras, so the charge per box has gone from \$7.73 to \$14.14. The last time the club sent boxes up they cost \$17 for freight and irradiation. The new price will be more than \$24. This is barely worth it.

The 10 kgy irradiation is enough to kill AFB, and EFB has never been a problem in the Northern Rivers. The charge for that has gone from \$294.80 to \$396 incl gst, so the box rate is \$9.43, about \$2 more than the old 15 kgy rate. This would be more economical.

The consequences of this big increase in cost on the incidence of AFB are difficult to estimate. Certainly, it will mean an increase in less reliable methods of sterilising boxes, and an increase in beekeepers using antibiotics to suppress the disease.

Tocal Field Day

The annual field day at Tocal in the Hunter Valley will be held this year. Note that it can be livestreamed.











Services Directory

Summary of available products and services

NRABA Members

Paul Davey (hive care) (Mullumbimby) 0491 608 272 David Fairhall (queen cells, mated queens, nuclei) (Lismore) 0444 513 771 Leland Eglington (Steel beehive stands) (Alstonville) 0455 555 136 Geoff Manning (beehives) (Lismore) 6663 5211, 0400 221 602 Brian Window (nuclei) (Lismore) 0466 790 736 Ross Wood (mated queens, nuclei) (Grafton) 0421 817 710

Not NRABA Members

Stephen Fowler (nuclei, hives, all sorts of bee equipment, buys wax) (Alstonville) 0418 412 621 Merv McDonald (nuclei, hives, hive care)(Alstonville) 0439 166 016 Rob Stone (mated queens, nuclei)(Casino) 0487 598 105

Corrections and additions welcome

July Field Day July 26th

The field days are cancelled until further notice.

MINUTES NRABA COMMITTEE MARCH 2020

Time 5 pm Monday 2nd March

Place 54 Donnans Road, Lismore Heights

- Members present B Window, K Virgen, Ray Smith
- Apologies Paul Towner, Geoff Manning
- Results of Election of officers and committee at the AGM on 1st March

The following were elected Kevin Virgen President, Ray Smith Vice-President, Brian Window Secretary, Paul Towner Treasurer, Geoff Manning Committee member. Other positions are Brian Window Membership Officer and Editor, Paul Towner Public Officer, Ray Smith Biosecurity Officer.

The President thanked all those who served in the 2019 year. Secretary to notify the ABA the names of the office bearers for 2020 (moved RS s KV; passed)

There was discussion about who is accessing the ABA mailboxes on Gmail.

Secretary to find out from the ABA how various office bearers can access the ABA mailboxes Moved RS s KV; passed)

- Minutes of Committee meeting February 3rd 2020 Accepted (Moved BW s RS; passed)
- Matters Arising
- --Treasurer to open new account at the Greater with cards for himself, the president Kevin Virgen and the secretary Brian Window (Moved BW s KV; passed)
- -Letter to ABA later
- -Constitution later
- Correspondence
- -Mark Page the DPI Biosecurity officer emailed the secretary suggesting that he address the club on the new biosecurity laws. It was decided that a joint meeting with the professionals, and possibly the FNCABA, perhaps at Wollongbar DPI would be the most efficient way to proceed. Secretary to write to Mark Page suggesting this, and giving contact details for the other clubs if known (moved RS s KV; passed)
- Treasurer report
- -February field day raffle \$70, Lunch \$80.50, attendance 19
- Agenda Business Items
 - (1) Field Day Program (Tentative)

February 2nd (January) Rob Blair Pimlico

March 1st (February) Ruthven Hall. Forum on Living with SHB and AGM (after lunch)

March 29th (March) Rous Mill Hall Paul Towner Requeening Beehives

May3rd (April) Greg Booth Dunoon

(2) New Members

Secretary reported that he was not certain that he was looking in the right place on the ABA site for the list of new members for approval. Secretary to clear up with ABA membership officer.

- (3) Editor
 - -Secretary to prepare next newsletter, incorporating a request for a volunteer editor.
- (4) AGM

Treasurer to lodge annual report with the Dept of Fair Trading (moved BW s RS; passed)

- -Treasurer to lodge new constitution (dated 3rd February 2020) with the Dept of Fair Trading (Moved BW s RS;passed)
- -Secretary to ensure bound copies if constitution are in library (Moved KV s RS; passed)
- (5) Letter to ABA.
- President and secretary to finalise and send a letter to the ABA committee requesting the word "membership" in PSO be altered to "supplement", and asking that no more \$5 memberships be given to other ABA clubs. The existence of associate membership for such people should be pointed out. (Moved BW s RS ; passed)

- Secretary to write to other ABA clubs with a supplement fee less than \$10, seeking their support in the approach to the ABA. (Moved BW s RS; passed)
- Brochure Secretary to prepare brochure for use at Primex. (Moved KV s RS; passed)
- General Business
- Meeting finished 6.35pm
- Next Meeting

 $\begin{array}{ll} \text{Time} & \text{5pm } 6^{\text{th}} \text{ April 2020 (subject to availability of members)} \\ \text{Place 54 Donnans Road Lismore Heights} \end{array}$