AUSTRALIAN HONEY BEE INDUSTRY COUNCIL INC.
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Monthly News
March 2021

Enjoy reading this newsletter and learning about our work on behalf of your honey bee industry?
If you haven't already become a Friend of AHBIC, we welcome you coming on board to help us!

CONTRIBUTE HERE

Or use the form on the last page

Supporting Australia's national beekeeping industry that supports you

NSW South Coast – 12 months after bushifres

Photo credit – Neil Bingley

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MEMBERS CONFERENCES

New South Wales Apiarists Association (NSWAA) – Annual Conference and AGM, 20-21 May 2021, West Leagues Club, Tamworth NSW
Tasmanian Beekeepers Association (TBA) – Annual Conference and AGM, May 28 -29 2021, Tall Timbers Hotel, Smithton TAS
Queensland Beekeepers Association – Annual Conference and AGM, 3-4 June 2021, Mantra Sharks Event Centre, Southport, QLD
South Australian Apiarists Association (SAAA) – Annual Conference and AGM, 24 -25 June 2021 , Berri Hotel, Riverland, SA
Bee Industry Council of WA (BICWA) - Australasian Honey Bee 2021 Research Conference 29 June – 1 July 2021, Perth WA - AGM to be advised
Victorian Apiarists Association (VAA) - Annual Conference and AGM Sessions, 7 – 9 July 2021, Bendigo VIC
Australian Honey Bee Industry Council (AHBIC) AGM, 11 July 2021, Bendigo VIC
Honey Packers and Marketers Association – TBA
National Council of Crop Pollination Association – TBA
Australian Queen Bee Breeders Association -TBA
Amateur Beekeepers Association of NSW - TBA

AUSTRALIAN HONEYBEE INDUSTRY COUNCIL INC

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The Australian Honey Bee Industry Council (AHBIC)
is the peak industry body for the Australian beekeeping industry
working for all within our industry including
honey producers, honey packers, pollinators, queen bee breeders, equipment manufacturers/suppliers

The following list recognises contributions received for the last 12 months.
A number of generous contributors wish to remain anonymous. We encourage beekeepers to support those packers, queen bee breeders, equipment manufacturers/suppliers who contribute to AHBIC.
Thank you to all our contributors & supporters. AHBIC appreciates your generous & ongoing support.

Friends of AHBIC – Voluntary Contributions

PLATINUM PLUS (0)

PLATINUM (2)
Beechworth Honey Enterprises P/L
Hive & Wellness Australia P/L

GOLD PLUS (9)
Almond Board of Australia
Australian Honey Products P/L
Baker Beekeeping P/L
Beekeeping Australia P/L
Bega Cheese Limited
Goldfield Honey Australia P/L
Lauberts, Ugis
Sterling Kershaw & Co
Woolworths

GOLD (9)
Australian Queen Bee Line P/L
Amateur Beekeepers Assoc. NSW
Browns Bees Australia P/L
Cotton, Allan & Michelle
Hampel, SJ & SM
McDonald Honey
Weerona Apiaries
Woolfe, BD & CA
Zadow, IM & MJ

SILVER (24)
Australian Manuka Honey Association Ltd
Australian Quality Honey (Blue Hills Honey)
Barnes Apiaries
Bees Neez Apiaries
Brenton, Daryl
Boyd Apiaries P/L
Cooper, Casey
Desert Breeze Honey
Eastburn, Murray & Sandy
Gells' Honey Maryborough
Hooper Honey (Ben Hooper)
Kuyan Apiaries
Le Feuvre, Danny
Manukalife Pty Ltd
McDonald, Eileen & Bob
Michie, Robert & Raelene
Pavy, Rod
Porter, ML & DJ
R. Stephens Apiaries
Ruge Honey
South Australian Apiarists Association
Victorian Recreational Beekeepers Association
Warral Apiaries P/L
Wilson, Colin

BRONZE (12)
Arkadieff, Murray
Australian Honeybee P/L
Clarke, RK & KM
Cunial Beekeeping P/L
G&A Apiaries
Hampson, Terry (Daybreak Apiaries)
Heritage Honey (P. Norris)
Holscher, Luke
Ipswich & West Moreton Beekeepers
Lutze, Brett & Lynda
Masters, Neil & Sharon
Targett, Stephen
The House of Honey

COPPER (23)
AB's Honey
Ballarat Regional Beekeepers
Berry, Jessica
Bayside Beekeepers Assoc.
Clarke, Michael
Frost, Liz
Geelong Beekeepers
Godman, Phil
Gustare Honey Australia
Honey in the Garden
Hoskinson, HL & HM
Hum Honey
JBR Bees
Jordan, Corinne
Kennett Apiaries (SA) P/L
Nairn, Mal
Northside Beekeepers Assoc.
Petratos, Aris
Sedgwick, Peter (Honeyworks P/L)
Stokes, Peter
Trigg, Margaret
Weatherhead, Trevor & Marion
Wilson, Luke

OTHER (3)
De Broun, Pauline
Honeylife Australia
Shaw, Robert

NON-PUBLISHED Value (21)
Australian Women in Beekeeping
Australian Virtual Hobby Beekeepers Conference 2020
Bec's BeeHive Beekeeping Supplies
Ecrotek
Evans, Trevor & Faye
Faithfull, Mark
Gibson, David Iee
Gilbert, Martin & Lorraine
Gold Coast Regional Beekeepers
Honey Australia P/L
Hampton, Tom
Hivekeepers
Lewis, Peter
Matsen, Jeff
McCormick Jenny
Moggill Honey
Mumford, Dave & Wendy
Naicol P/L
The Tasmanian Honey Company
WA Pure Honey
Watson, Jim

ANONYMOUS (10)

Did you expect your name to be listed here?
Please check your emails for a message from AHBIC inviting you to renew your contribution (AHBIC emails often end up in spam) or feel free to email Helen Goodall.

NEWS FROM THE CHAIR, Trevor Weatherhead AM

1. I watched the ABC Landline program celebrating 30 years on 21 March 2021. Imagine my disappointment when there was not one mention of honey bees, pollination or honey.

2. Hopefully there are no beekeepers in Australia using imported beeswax foundation. Yes it is cheap and the temptation is there to buy at that cheap price but in the long run it has the potential to do damage to our reputation for good clean beeswax.

As you know AHBIC has had some imported foundation analysed and it is adulterated with paraffin and has chemical residues that have most likely resulted from Varroa treatments. Thank you to those who have supplied me with samples. We are awaiting the results from the last two samples sent away. One of these was pellets and previously we had a block of beeswax sold by a major store that was also adulterated and contained chemical residues. That block has been withdrawn from sale by that store.

AHBIC is trying to find a way for beeswax that is being imported into Australia, either as foundation or block, to be checked for adulteration and chemical residues. As beeswax is not classed as a food we cannot have it examined under the imported foods inspections. AHBIC has lodged complaints with the Australian Competition and Consumer Commission (ACCC) and to date we have not heard of any action they have taken. We will enquire again as to what is happening.

AHBIC is writing to Minister Littleproud to see if there is some way this inspection of imported beeswax can be put in place.

So the best way you can help is not to use any imported beeswax foundation.

3. AHBIC put in a submission to the Trade Advice Notice on APIVAR 500 mg Bee Hive Strips For Honey Bees for use in honey bee hives. After a Council meeting the AHBIC submission was for amitraz, the active ingredient of Apivar, not to be shelf registered and no Maximum Residue Limit (MRL) to be set.

4. With the flooding rain that the east coast of Australia has experienced in the past week or so, I hope that there have not been many bee hives lost due to being washed away or inundated. In Queensland it seems that there will be minimal losses. New South Wales has not fared as well and there are reports coming to hand of hives being either washed away or inundated.

The rain should help in the long run by helping our flora get back to something like normal. Even with this rain there is still a big part of Queensland that is still drought declared.

There are disaster recovery payments available through the various Government agencies. If you have been affected check to see what assistance you are eligible for. Your State beekeeping association will, I am sure, have details.

NOTE FROM CEO, Helen Goodall

Bushfire Recovery update

You will note the photo on the front page of this newsletter, which highlights that the recovery of the burnt native forest is some areas is going to take many years. AHBIC continues to lobby to receive Federal Government funding for bushfire recovery which includes a range of measures. As has previously been advised the only confirmed Federal Government funding for our industry at this stage is the one off grant to Plant Health Australia of $270,000 to cover the forecasted shortfall in biosecurity levies to support the National Bee Pest Surveillance Program (NBPSP) and the National Bee Biosecurity Program (NBBP). We look to provide further updates soon.

AHBIC AGM

The AHBIC AGM will be held on Sunday 11 July 2021 in Bendigo Victoria. There will be three positions up for election as follows:

- The Deputy Chair. Stephen Fewster retires from this position and is eligible for re-election.
- Two (2) positions on the Executive. Leilani Leyland and Therese Kershaw retire and are eligible for re-election.

Nominations for these positions will be taken at the AGM. Also note section 7.6 of the AHBIC Constitution has the eligibility criteria for being on the Executive. This includes being a voluntary contributor to AHBIC i.e. being a friend of AHBIC.

Updates to the BeeConnected app

We have been speaking about the BeeConnected app and the updates that occurred in late 2020. If you have not already done so, please log onto the app and provide feedback if there are any issues in using it. Updates to the BeeConnected app

Beekeepers are also reminded to submit an Adverse Experience Report (AER) into the Australian Pesticides and Veterinary Medicines Authority (APVMA) should an incident occur. If you require assistance in submitting the report AHBIC can provide assistance. In addition, the Bee Biosecurity Officers have been briefed by APVMA and can also provide assistance in submitting a report. It is imperative that incidents are reported to government, as without this record of incidents it is harder to make changes.

Have you been affected by the recent floods?

Are you a beekeeper impacted by drought, bushfire or flood? Financial and practical support to professional beekeepers is available through HiveAid. For further information about the program please see here . All impacted beekeepers, listed as primary producers are encouraged to register for assistance. Please click here to apply. *Please remember all applications are treated with strict confidentiality by Rural Aid.*

Evaluation of the Farm Management Deposits Scheme

Please see the request to complete a survey for beekeepers that use the Farm Management Deposits Scheme (FMDS). AHBIC will be involved in the roundtable consultation. To support this process it would be helpful for AHBIC to gain a understanding of the number of beekeepers that use the FMDS. AHBIC would be looking for beekeepers to indicate, on a confidential basis to me, if they are using FMD's and if they believe they are of a benefit and should be continued. Beekeepers are encouraged to complete the survey or put in a submission as well as indicate to AHBIC if they using the FMDS. Have Your Say Closing on the 26 April 2021.

FALL ARMYWORM

Below is an excellent article on the fall armyworm prepared by Jacob Stevens. As well as being the QBA Biosecurity Chair, Jacob is also on the AHBIC Biosecurity Sub-committee.

For those who are not in Queensland, some State websites give you more information for your State. See:-
NSW - https://www.dpi.nsw.gov.au/biosecurity/plant/insect-pests-and-plant-diseases/fall-armyworm
WA - https://www.agric.wa.gov.au/fall-armyworm-western-australia

The fall armyworm has also been found in the Northern Territory and Victoria.

25 March 2021 - QBA Members Circular – Fall Armyworm Update
Prepared by Jacob Stevens, QBA Biosecurity Chairman

Earlier today, State Secretary Jo Martin and I attended a meeting with representatives from Biosecurity Queensland and Agri-Science Queensland to receive an update on the spread and control measures of Fall Armyworm (FAW). As an Industry our main concern at this time is the control measures that are being employed to control FAW.

As most of you are probably aware FAW is an exotic pest that has quickly spread over the past 12months. FAW was first detected in the Torres Strait in January 2020 and spread rapidly towards the south with detections in the Burnett and South East Queensland in August, it has continued its spread south being detected in the East Gippsland district of Victoria in December. FAW is most active in the late summer and early autumn. Adult moths can fly remarkable distances which have enabled its rapid spread. There are over 350 plant species that its larva is known to feed on. The most notable of these species include maize, rice, sorghum, sugarcane, and wheat but also other vegetable and fruit crops and cotton.

For more information on Fall Army Worm please visit:
https://www.business.qld.gov.au/industries/farms-fishing-forestry/agriculture/crop-growing/priority-pest-disease/fall-armyworm

At this time the predominant host is Sweet corn which is closely followed by maize. Other crops that have experienced moderate damage in Queensland include sorghum and capsicums with occasional damaged being reported in Peanuts, ginger, soya beans, and Rhodes and Johnson grasses. This damage has been exacerbated when these crops have been in close proximity to Sweet corn or Mazie.
As for control options for framers, the situation is rapidly developing. At this time products including Altacor, Success Neo, Proclaim, Avatar and Stewart are permitted for use by the APVMA and are widely being recommended. At this stage, there have not been permits given to chemicals in the neonicotinoid class or to any containing fipronil for Control of FAW. Chemicals of the Organophosphates, Carbamates, and Pyrethroids Classifications have questions surrounding their efficacy in the control of FAW and are not currently being

recommended for use. Many of the chemicals that are being recommended for use are on the safer end of the scale in relation to their impact on bees, provided they are used in an appropriate manner, nevertheless, it remains imperative to assess the risks on a case-by-case basis. There is an increased risk of spray drift associated with the use of these types of contact chemicals due to the need to create smaller droplets to maximise the efficacy of the application.

There are many projects underway that hope to investigate a range of alternative control measures including Filed trials on soil and seed treatments, Bio-Pesticides, and Biological Controls. It is hoped that this may provide some relief for chemical applications in the future. It also remains to be seen in Australian conditions as to the impacts of different climates may have on the breeding of FAW, it is thought that in areas that experience cooler winter that FAW will be a predominately Summer pest but in warmer climates it may be prevalent year-round. There are also uncertainties in relation to the impacts on pollination- dependent industries in Queensland. It is thought that there should not be extreme impacts on Macadamias and Avocados but it is unclear as to the extent that FAW impacts other pollination-dependent industries.
In managing the risks associated with the control of FAW on honeybees, it is recommended that beekeepers maintain close relationships with growers in areas where host species are prevalent. Those working in areas where Sweet corn or Mazie is grown in a regular summer rotation should be most alert. Tools such as the Bee Connected App may be useful in maintaining communications between beekeepers, growers, and consultants.

We understand and recognise that the control of FAW is an additional risk that beekeepers will need to manage going forward. The QBA will continue to be engaged with government and industry bodies to ascertain and deliver the most up-to-date information as it comes to hand.

GENERAL NEWS

- Kangaroo Island beekeepers desperately try to keep Ligurian strain alive after last year's bushfires destroyed hives
- A band of volunteer beekeepers from the mainland stepping in to lend a hand Bee recovery : kangaroo island
- In South Australia, La Niña's cool but dry weather conditions provided less pollen and nectar for bees. honey season sees apiarists struggle to keep bees fed
- Woolworths Supermarket removed the grocery items at its Neutral Bay store to highlight the many everyday foods that rely on pollination, illustrating the significant role bees and insects play in Australia's food supply
- Bees will become 'disorientated and stressed' by bright lights and noise if mine given the go ahead gold mine operation
- Guinness world record - Turkish honey
- Celebrating incredible bee biodiversity

APIMONDIA

- Apimondia Newsletter March 2021

RESEARCH

- Tracing the fate of pollen substitutes throughout honey bee colonies
- Managed pollination and the transmission of a plant virus –what's going on and should we be worried?

Hort Innovation VM18008:

Understanding and managing the role of honey bees in CGMMV epidemiology

Cucumber green mottle mosaic virus (CGMMV) is a plant virus that infects cucurbit crops including watermelon, cucumber, melons, zucchini and pumpkin. CGMMV can cause substantial crop losses. CGMMV is most likely introduced into a crop through infected planting material (seed or seedlings) and can be mechanically transmitted (by something as small as using secateurs to prune plants, or something as large as driving a tractor through a crop).

Cucurbit crops are almost 100% pollinator dependent, they require insect pollination for successful fruit set and production. In Australia, honey bees are regularly used to provide managed pollination services to broad acre watermelon cropping.

This raises the question are honey bees able to transmit CGMMV?
The short answer is yes. However, there are gaps in our knowledge. The NT based project team are trying to determine exactly how this may impact on Australian apiarists and melon producers.

CGMMV is not known to affect bee health. The main concern is that if honey bees are exposed to CGMMV and then moved significant distances within or between states, they may be move this highly destructive plant virus to new locations.

In the past year the research team has shown:

- when CGMMV is already present in a crop, honey bees travelling from flowers on CGMMV positive plants to flowers on clean plants cause infection in the clean plant;
- CGMMV can be detected in capped honey for up to 12 months after initial exposure;
- for a bee hive that contains CGMMV, removing the honey frames and placing the hive on a resting site (with no cultivated cucurbits nearby) can reduce the levels of CGMMV detected in the hive after 12 months.

This field season we will be working on determining if the CGMMV we have detected in various bee hive products (wax, honey, etc.) is alive and capable of causing plant disease, and running field trials to see if honey bees from a hive containing living CGMMV are able to transmit the virus to clean plants.

The project will also produce a literature review what is currently known about the ability of honey bees to transmit other pathogens aside from CGMMV. This review will cover viruses, bacteria, fungi and nematodes and will allow the apiary and horticulture industries to assess and identify future threats.

The project is due to wrap up in December 2021.

For more information about CGMMV see the department of agriculture website in your state or territory.

- https://www.dpi.nsw.gov.au/biosecurity/plant/insect-pests-and-plant-diseases/cgmmv
- https://www.business.qld.gov.au/industries/farms-fishing-forestry/agriculture/crop-growing/priority-pest-disease/cucumber-green-mottle-mosaic-virus
- https://www.agric.wa.gov.au/cgmmv
- https://nt.gov.au/industry/agriculture/food-crops-plants-and-quarantine/cucumber-green-mottle-mosaic-virus/cucumber-green-mottle-mosaic-virus
- https://pir.sa.gov.au/biosecurity/plant_health/emergency_and_significant_plant_pests/cucumber_green_mottle_mosaic_virus

SOME REFLECTIONS ON HONEY BEE IMPROVEMENT PROGRAMS SINCE 1980
by Don Keith and Laurie Dewar

FROM 1980 - 2000

The article on pages 18 and 19 of the December 2020 ABK titled " 'Plan Bee' to deliver A+ breeding tech to honey bee industry" has stimulated me to write about bee breeding enthusiasm from the 1980s.

Fortunately for the industry, a number of key factors to progress two bee breeding programs funded by the Honey Bee Research Committee, one in Eastern Australia and one in Western Australia, started in 1986 after some dedicated preparations.

Gretchen Wheen, who managed a commercial queen bee breeding business at Richmond, NSW, became enthusiastic about honey bee improvement for which artificial insemination is an important but complex skill. In 1978 Gretchen studied at the Bee Research Institute at Oberursel in Frankfurt Germany, became competent in queen bee artificial insemination, and established a well equipped laboratory at her property at Richmond. (For your reference : a Google search will provide an excellent article on Gretchen Wheen and the Wheen Bee Foundation, and the actions and factors that preceded these two early bee breeding programs.)

We are aware of the successful WA program and their unique Rottnest Island location. However this article is about honey bee improvement in Eastern Australia in which the authors had personal involvement.
The industry was fortunate in being able to have the apiary section at Hawkesbury Agricultural College and Gretchen Wheen and her AI laboratory and expertise so close together at Richmond.

On election to the position of President of the Federal Council of Australia Apiarists Associations (FCAAA), my (Don's) commitment to bee breeding commenced in earnest in mid 1986, when with the FCAAA Executive Officer Linton Briggs, I attended a meeting with two senior staff members of the Hawkesbury Agricultural College (later the University of Western Sydney) to discuss establishment of the Eastern Australian Honey Bee Improvement Program.

The program was a closed population of thirty Italian lines including genetics from renowned world queen breeders and tried and tested Australian stock. Progeny of each line were artificially inseminated with homogenised semen from the thirty lines. Five artificially inseminated queens from each line were sent to five co-operating producers who evaluated each queen. The objective evaluation was honey production. The production of each hive was weighed and recorded at each robbing and the hives of the two best queens were returned to the College in winter to rear the next generation in spring. Extra queens were raised to make stock available to the industry each year.

As an evaluator, after a couple of years of two trips from Qld to Richmond, I arranged to leave the dozen hives till next winter. After six generations of improvement, in 1993 the HBRDC (Honey Bee Research and Development Council) determined that the research nature of the program had concluded and the program would cease. The HBRDC called for expressions of interest from the industry for continuation of the program.
A number of beekeepers I contacted agreed there was a great benefit in ensuring the development of quality improved stock. I prepared an expression of interest on behalf of Linton Briggs, Laurie Dewar, Leigh Duffield, Don Keith, John Rhodes, David Roots and Gretchen Wheen – to buy one queen from each line and continue the program. Each member of the consortium we formed provided equal significant finance as well as willingness to participate actively.

The expected main benefit was continuing access to improved stock for our own businesses and the industry as expectations of financial dividends were low.

As we moved forward and because of the wide distribution of members, it became clear that to be effective, some of the main effort needed to be concentrated. Therefore the breeding stock were transferred to Laurie and Paula Dewar's (Boonah,Qld). Laurie raised the virgins for each next generation. Gretchen Wheen and her brother Frank brought their AI equipment to Qld for the first two generations. In future years suitable transport arrangement for cells and drones was devised so AI could be performed at Gretchen's Richmond laboratory.
At the time of the consortium's commencement, the incursion of chalk brood had spread throughout Australia, drawing focus on assessing the presence of the cleaning gene in various lines. Testing for the presence of the cleaning gene became another objective test of each line and added to knowledge of our lines.

About this time Dr Marla Spivak and Gary Reuter had developed the Minnesota hygienic line. The HBRDC funded Dr Ben Oldroyd to purchase and import Spivak lines. At the end of his experiments the top two cleaning gene lines were sold to the industry. The consortium bought one and had access to the other. Prior to adding these lines to the program, they were trialled. Some research revealed that, the Cordovan line present in Dewar's apiary, was identified by Dr Denis Anderson as being very cleaning gene positive. Dr Anderson at that time was working for the CSIRO on chalkbrood. Cordovan drones were crossed with virgins of the Spivak lines. These 2 lines were excellent. On the advice of Dr Robert Page (geneticist) that these two lines would increase the overall level of cleaning genes in the pool and would extend the life of the program by two years, they were added to the program.

Breeder queens continued to be available for sale and helped meet expenses and maintain some capital.
Laurie's wife, Paula, learnt the skill of artificial insemination with Gretchen's mentoring, and has provided this skill for ongoing breeding programs.

The consortium functioned successfully till 2000 when personal commitments changed and it went into recession.

Fortunately for the industry, Laurie continued to use the expertise he had gained improving honey bee lines. Dewars provided the stock for our apiary business until our retirement in 2008 to our total satisfaction. Helping other beekeepers since retirement, I have continued experience with Dewar's improved stock to my continuing delight. Involvement by Laurie Dewar in honey bee improvement over the next twenty years is recorded below.

THE NEW MILLENIUM

Whilst I was AHBIC Chairman (Laurie), a proposal came forward from the University of Sydney. Peter Oxley, a PHD student, and Dr Ben Oldroyd put forward a proposal to genetically identify cleaning gene traits. The aim was to take wing clippings, then use Satellite DNA sequencing, thus not injuring the queen bee. The industry agreed to co-fund the research and was to share in the Intellectual Property rights.

The industry were to supply the best lines that they could muster; so donations of stock were called for and for every line gifted the donor would receive one Al Queen from the Australian Queen Bee Breeding Program (AQBBP).

The AHBIC board then set up an incorporated group, the Australian Queen Bee Breeding Group Inc. (AQBBG), to manage AQBBP.

Bruce White was appointed Chairman of the group, Laurie Dewar - master Queen Breeder and keeper of the genetic lines. (Dewar's donated 2 of our best lines - L7 and L9).

15 different lines were donated. We had a good cross section of good genetic material to work with, with 2 lines donated from Better Bees (WA). The program was based on the 2 previous programs in Eastern and Western Australia. The lines, L4 and L6, from WA were donated by two different commercial beekeepers. Line 6 was later dropped by Peter Oxley on the grounds of not being able to tolerate EFB, but that was understandable as WA is free of EFB.

The improvement program was under the control of Dr Oldroyd and the now Dr Oxley.
The big test in 2011 was the request for Commercial Queens to go to the US (Baton Rouge) for testing against varroa, as Dr Oldroyd had secured funds to send the queens. The queens were sent in May/June 2012. The AQBBG was asked to choose 2 lines. The quandary was which 2 out of 14 lines? On seeking advice from the program geneticist on which 2 lines to send, the suggestion was to go with your gut feeling. I chose L7 and L9 which had good provenance. The results were not surprising; the Aussie queens did not tolerate varroa at all well. I often think, what would have been the outcome if the Aussie bees had been exposed to varroa for a couple of seasons. It didn't take long for the word to spread around the States that the Aussie bees were not suitable.

In hindsight the rejection of L6 for not handling EFB may have been unfortunate, as when L4 had been exposed to EFB for a couple of seasons and had been Inseminated with mix pooled semen, L4 is now one of the success stories of the program.

In 2013 a bright co-worker of Dr Marla Spivak, Jody Gerdts, was invited to the VAA AGM in Bendigo. Later that year Jody migrated to Australia.

Jody's expertise was in cleaning genes with quick response testing using liquid nitrogen to freeze kill the brood, seeing how much is removed by the bees in 24 hours. In 2014 Jody was invited to address the SAAA and AHBIC and was well received. The then chairman of AHBIC, Ian Zadow, suggested that I mentor Jody, to facilitate a welcome for Jody's expertise, as Ian had recognised her potential. In 2014 Dewars flew Jody to Queensland to test the AQBBG lines and the remaining stock from the Eastern States Queen Bee Breeding Group.

The report of this testing - "HYGIENIC BEHAVIOUR IN THE AQBBP – JUNE 2015 UPDATE" - by Jody Gerdts - can be read or downloaded from the AHBIC website www.honeybee.org.au under "Programs". The data was so impressive that other researchers now reference these findings.

In 2016, whilst in the UAE visiting Dr Denis Anderson where we were trialling some AQBBP queens for varroa tolerance, the AHBIC board decided to wind up the AQBBG Inc. I was gifted the stock I was holding; this gift was for services to the breeding program.

DEWAR QUEENS : PRIVATE RESEARCH : 2014 - 2020

At the demise of the industry owned program, I decided to continue on with the breeding program, seeing that so much effort had gone into the selection/breeding; also the research into chalkbrood had not been completed.

The AQBBP work had highlighted issues that showed some lines, like Line 14 could be 100% cleaning gene, but be susceptible to chalkbrood although being 100% cleaning gene.
In 2014 Jody Gerdts received a research grant to look at controlling chalk brood by developing specific cleaning genes in honey bees. I donated the use of our breeding program stock. You can read more of this research on www.beescientific.com . The findings were presented to various state conferences. Special thanks to Dr Peter Brooks for arranging the use of the Chemistry Laboratory at University of the Sunshine Coast, and for the training in the use of the Gas chromotography – mass spectrometry diagnostic machine. We were surprised at the different volatiles Australian pollens give off, compared to European pollens. Could this be part of the puzzle as Australian pollens are short on two amino acids? A large volume of work has gone into this research, and to say we were disappointed when told that Jody would not be receiving further funding would be an understatement.

Outcome thus far: With selective breeding we came very close to achieving our goal of chalkbrood tolerant cleaning gene bees, with an additional bonus of Small Hive Beetle aggression. Admittedly we had recognised a line BE - Beetle Eater.
The program line testers - Clarks Honey, Condamine Apiaries, Bejo Seed Tasmania and Robert Dewar (Dewar Honey) - report an absence of chalkbrood in their production hives although a tiny amount in their queen nucs. Whilst working in Small Hive Beetle areas in Qld. they report not having to use beetle traps for the last couple of seasons.
Anyone seeking further information on breeding cleaning gene bees may like to e-mail me at dewarlaurie@gmail.com

THE FUTURE

Persistent enthusiasm by the industry for honey bee improvement assisted by scientifically developed programs and scientific advice have contributed to 40 years of progress. The deep involvement of the authors over many years is rewarded by the obvious progress reported by apiarists. As the industry moves to new honey bee improvement ventures, we feel it appropriate that the current industry is aware of past bee improvement actions.

Researchers mentioned in the text :

Dr Denis Anderson	CSIRO Bee Scientist 1989 – 2013
Dr Jody Gerdts	Apicultural Ecologist
Dr Ben Oldroyd	Professor - Genetics - University of Sydney
Dr Peter Oxley	Geneticist
Dr Robert Page	World renowned Bee Geneticist, Arizona State University Professor Emeritus
Dr Marla Spivak	Macarthur Fellow and McKnight Distinguished Professor ofEntomology, University of Minnesota

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Friends of AHBIC Voluntary Contribution

Please, help us help you and our industry!

Please complete this form and return by email to finance@honeybee.org.au or PO Box 42 Jamison Centre, Macquarie ACT 2614

Friend Category	Investment	Friend Category	Investment
Platinum Plus	$60,000 & above	Silver	$1,000 - $1,999
Platinum	$20,000 - $59,999	Bronze	$500 - $999
Gold Plus	$5,000 - $19,999	Copper	$100 - $499
Gold	$2,000 - $4,999	Other	$0 - $99

Contribution Details

Name: .....

Address: .....

.....State.....Postcode.....

Email: (Please PRINT clearly).....

Phone: ..... Date: .....

Payment Method

Amount: $.....

1. EFT Deposit (preferred payment method)
   Account Name: Australian Honey Bee Industry Council Inc
   Bank: Bendigo Bank
   BSB: 633 000
   Account No: 150 976 405
   Reference: Please include your NAME as the reference

2. CHEQUE: Please post cheque with this form to PO Box 42 Jamison Centre Macquarie ACT 2614

3. CREDIT CARD: Online at https://honeybee.org.au/friends-of-ahbic-voluntary-contribution/

Please circle YES/NO to the following:

1. The AHBIC newsletter lists contributors
   i. Publish your name YES / NO
   ii. Publish the contribution amount YES / NO
2. I would like to receive a copy of the monthly newsletter YES / NO

Your contribution is gratefully appreciated, thank you.