

**Beekeepers' Society of South Australia Inc.** 

www.bees.org.au

# NEWSLETTER Edition 118

July 2023



#### **Correspondence to:**

The Secretary Beekeepers' Society of SA Inc PO Box 283 Fullarton SA 5063

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Many thanks to those who provide articles for the newsletter.

**Contributors**: Bob Beer Susan Speck Richard Martin Aphrodite Noikou

#### BUZZWORD

(The Beekeepers' Society Newsletter) Articles are always being sought by the editor for inclusion in the newsletter. Please feel free to email or write in and provide any interesting experiences about the management of your hives.

If you wish to discuss any aspect of the newsletter please contact: Barbara Horwood, editor, on (08) 8296 8478 email: horwoodmb@internode.on.net

> WEBSITE: www.bees.org.au

See us on FACEBOOK. Go to www.facebook.com/beekeeperssa/

You can view a host of interesting material, photos and comments - you can "like" us and leave a comment of your own.

#### **Equipment/Extractor Officers:**

Susan Lonie	(South)	0417 811 067
Trisha Blanks	(Central)	0437 713 790
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#### CONTENTS:

Committee meetings	page 3
General meetings	page 3
Beginners' Etc Meeting	page 3
BSSA Apiary site	page 3
Subscriptions/Insurance	page 3
BSSA Swarm List	page 4
Extractors Available For Use	page 4
AGM	page 4
BSSA Swarm list	page 4
Members' Lunch	page 5
Field Days - practical beekeeping	page 5
Education Program	page 6
Vale – Melva Ruediger	page 6
Mt Barker and Uraidla Shows	page 7
Gawler Show	page 7
Recent Events	page 7
SwapMeet at Ashton	
Hive Equipt/Maintenance W/sho	ор
Royal Adelaide Show	page 9
Articles of Interest	page 9
AI Can Track Honey Bees	
Honey Bee Lifespan	
Angry Bees in WA	
Accidents Happen – Be Prepared	page 14
The Bee-Friendly Garden	page 14
Book Corner	page 15
Really ?	page 16
Recipes	page 16
World Bee Day	page 16
2022-2023 Office Bearers:	
Acting President	Trisha Blanl

Acting President	Trisha Blanks
Acting Treasurer	John Thomas AO

Secretary: Adrian Makarowsky 0432 952 659 office@bees.org.au

Education Committee Members: Trevor Greenfield Aphrodite Noikou John Silverblade Monica Du Plessis

Gavin Pearce

**Co-ordinator:** Website:

Natalie Dixon

Librarian:

Sue Speck

#### **Committee Meetings**

Third Monday of each month, 7 pm, at Kensington.

#### **General Meetings**

General meetings are held at Burnside Civic Centre Hall, 401 Greenhill Road, Tusmore on the <u>SECOND MONDAY</u> of each month at 7.30 pm

Supper is available (gold coin donation).

General meetings are held in person at the Burnside Civic Centre under current COVID-19 restrictions.

Livestream meetings from past months can be viewed via the BSSA website or Facebook.

Beginners And Intermediates Education Starts at 6.30 pm (Before the start of monthly General Meeting)

Teaching sessions commence at 6.30 pm for beginner beekeepers to participate in an hour of question-and-information exchange prior to the start of the main monthly general meeting. Participants need to register in advance. More information inside.

### **BSSA Apiary Site**

The BSSA hives are located at: Selgar Avenue, Clovelly Park - about 200 metres west off South Road and behind the Tonsley Hotel.

Department of Primary Industries (PIRSA) Project Coordinator, Apiaries: Michael Stedman - 8429 0872

Samantha Grund – PIRSA Bee Biosecurity Officer

#### Subscriptions

Subscriptions are due as from 1st July each year. From this year the subs will be renewed on a "rolling basis" and fall due on anniversary of date of joining. The membership fee for the financial year commencing 1 July 2023 is:

\$65 single
\$30 junior
\$100 family (2 adults + 2 children or 1 adult + 3 children). Any additional child/member costs \$20.

Membership application and renewal forms can be downloaded from the link found on the Beekeepers' Society of SA website (www.bees.org.au)

## PUBLIC AND PRODUCTS LIABILITY INSURANCE

The BSSA provides access to affordable public and product liability insurance for members' personal beekeeping practices. If you are selling honey or collecting swarms it is advisable to have adequate insurance.

#### INSURANCE PAYMENT FOR THE 2023-2024 YEAR IS DUE AND PAYABLE BY **31 JULY**

COVERAGE IS DEPENDENT ON THE INSURED PERSON BEING A CURRENT FINANCIAL MEMBER OF BSSA

THIS INSURANCE IS NOT INTENDED TO COVER MEMBERS' COMMERCIAL BUSINESSES

# **W**Insurance cover will not be endorsed if payment has not received by 31 July **W**

1-20 hives \$59.50 21-49 hives \$81.50 50-99 hives \$102.50 100-105 hives \$124.50 106-120 hives \$145.00 The fees are an estimate and include GST and stamp duty. Contact the treasurer for more information.

Insurance renewal will only be accepted via our webpage using Stripe. There will be no EFT or cheques accepted.

Cash will be accepted at the August meeting. The cut-off date is midnight 31 July 2023.

#### **Queen colours**

Last digit of the year 0 or 5: Blue 1 or 6: white 2 or 7: yellow 3 or 8: red 4 or 9: green

### **Field Days**

Practical aspects of beekeeping will be demonstrated on a number of occasions during the year. Please refer to Buzzword Field Days page and the BSSA website for details. *The field days are a must for all new beekeepers*.

#### **BSSA Swarm List**

If any BSSA member is interested in having their name as a swarm collector listed on the BSSA website please contact Trisha Blanks

(BSSA Secretary).

# EXTRACTORS AVAILABLE FOR USE BY MEMBERS

A reminder that three extractors, uncapping trays and wiring gigs are available for use on loan to financial members.

Contacts:

Susan Lonie 0417 811 067 (South)

Trisha Blanks 0437 713 790 (Central)

Gavin Pearce 0411 850 679

(North)

They must be returned in a clean and undamaged state. <u>Please report any concerns/damage.</u>

# RESIGNATION OF PRESIDENT AND TREASURER

The BSSA committee advises that Paul van Eyk resigned as President at the June general meeting and Richard Martin gave one month's notice of resignation on 14 June. Trisha Blanks is Acting President until the AGM.



# ANNUAL GENERAL MEETING MONDAY, 14 AUGUST, 7.30 PM

Our August meeting will be our Annual General Meeting. It is the occasion when, in accordance with our constitution, all positions will be declared vacant and elections held for next year's management committee comprising President, Vice-President, Secretary, Treasurer, several committee members as well as other positions within the Society.

Any financial member of our organisation is entitled to nominate himself/herself for office or, alternatively, nominate a fellow member who he/she considers will enthusiastically and competently carry out the duties of the office.

Further information about nominations/voting may be obtained from the secretary, Trisha Blanks or email: office@bees.org.au Your participation is encouraged.

21 days' notice must be given to the secretary for any submission regarding changes to the BSSA constitution.



# MEMBERS' LUNCH

All members are welcome to join the regular lunch group which will meet at the Rising Sun Hotel, Bridge Street, Kensington on the 2<sup>nd</sup> Thursday of each new season, ie Summer, Autumn, Winter and Spring. The next lunch is scheduled for **Thursday**, **14 September**.

# <u>It is imperative that intending</u> <u>participants contact Bob Beer in</u> <u>advance (0413 208 835)</u>



# FIELD DAYS (Practical Beekeeping)

# **HIVE INSPECTIONS**

# PROGRAM OF MANAGEMENT FOR THE BSSA HIVES

# Honey extraction as required

The BSSA hives are located at **Selgar Avenue, Clovelly Park** – about 200 metres west off South Road and behind the Tonsley Hotel.

Saturday	29 July	
	Time: 1 pm	
Wednesday	30 August	
	Time: 1 pm	
Saturday	23 September	
	Time: 1 pm	
Wednesday	18 October	
	Time: 1 pm	
Saturday	25 November	
	Time: 1 pm	
Wednesday	13 December	
	Time: 1 pm	
Saturday	20 January 2024	
	Time: 1 pm	

# Information is available on the BSSA website

All participants must have at least long sleeves, long-leg trousers and a head veil. Attendance is limited to 15 persons. Sessions run for approximately 2 to 2-1/2 hours.

Bookings can be made only through the BSSA secretary or Bob Beer at <u>beersbees@bigpond.com</u> or mobile 0413 208 835. Cost - \$10 (members); \$20 (non-members).

# <u>VOLUNTEERS REQUIRED</u> to assist new beekeepers on field days. Contact BSSA secretary if you are interested.

# **MENTORING GROUPS**

Bob Beer is currently setting up mentoring groups around the Adelaide area. Please contact Adrian Makarowsky or Trisha Blanks (BSSA secretary) to find out about your local mentor or group.



#### BEGINNERS AND INTERMEDIATE EDUCATION PROGRAM

#### 6.30 PM TO 7.30 PM (BEFORE THE START OF MONTHLY GENERAL MEETING)

Planned structured Week 1-5 classes commenced on 13 February 2023 and will be repeated from July. Participants need to register for each session. Please contact the BSSA Secretary.

Members may attend five sessions. Non-members will be permitted to attend two sessions before being required to join BSSA. Further information is available on the BSSA website.



# **BSSA FACEBOOK PAGES**

BSSA has three Facebook pages. Under the heading "About" they are:

- (1) The meetings page for members
- (2) Information-sharing page
- (3) BSSA members swap, buy and sell page

For further questions and clarification please refer to Aphrodite Noikou via BSSA secretary.

VALE

### MELVA MARY RUEDIGER

8 October 1943 to 27 May 2023 (79 years)



Melva was a keen beekeeper who lived in Nuriootpa for many years, eventually keeping up to 10 hives. She gave much of her personal time to foster the interests of beekeeping and was a long-time member of BSSA. In October 2019 she was awarded a life membership of the society.

Melva was a keen competitor and submitted many entries over the years at the Royal Adelaide Show, winning two champion blue gum honey awards in addition to many other first prizes.

Over seven years she was the supper organiser at each of the general BSSA meetings when they were held at St Matthews Hall, Kensington.

Through her volunteer work she helped install and manage the indoor observation hive at the Anglicare Aged Home in Elizabeth and gave many hours of her time to encourage new beekeepers in the art of beekeeping.

Melva will be sadly missed by all.

# MOUNT BARKER and URAIDLA SHOW CONVENOR

Crispin Boxall has been convenor of the honey section for the Mount Barker Show for the last two years and for the Uraidla Show for the last four years. Whilst he has enjoyed being involved he is now stepping down. He can give a full handover to another enthusiastic beekeeper in the Adelaide Hills area.

Crispin has written a guide to exhibitors for each show as well as notes for judges. The convenor does not do the judging but simply organises one to attend for the day as well as calling for submissions etc.

Crispin can be contacted on: <u>crispinboxhall@me.com</u>

or through the BSSA secretary at: office@bees.org.au



The Gawler Show is more than just an event – It's a celebration of history, community, and agricultural excellence that has stood the test of time. For over 150 years, this grand showcase has brought together farmers, horticulturists, and floriculturists from all around the district to display their prized produce, raising the bar for excellence in agriculture.

This is a great opportunity for BSSA members to submit honey for judging.

Where: Gawler Showgrounds Nixon Terrace Gawler, SA

For information about this event, please contact Sondra or Tanya at the Show office on (08) 8523 1477 or email <u>info@gawlershow.org.au</u>

Tickets are for sale online and at the gate.

Pre-purchase your tickets online and skip the queue. Go to Gawler Show on the web for instructions.

# **RECENT EVENTS**

# SwapMeet May 2023 Ashton

Article and photos by Richard Martin/Aphrodite Noikou











The Buy/Sell/Swap Meet was arranged by BSSA former president Paul van Eyk and held at our Ashton bee training site. The weather gods looked favourably on us, with lovely sun and perfect temperature.

There were 6 sellers and 21 buyers registered with people coming from as far as Deep Creek and Mount Gambier. The bacon and egg "sangos" were a big hit with everyone. Free hot tea and coffee was provided.

Besides the sales at ridiculously low prices and many swaps, everyone chatted about (naturally) bees and how the season was upside down etc.

The event finished at 1 pm, a little earlier than anticipated, as most exchanges were concluded before 12 noon. As a point of interest, BSSA bought a brand new observation hive for use by our members for a bargain price of \$200!!

#### HIVE EQUIPMENT AND MAINTENANCE WORKSHOP

# 6 MAY TO 4 JUNE

Written by Richard Martin

#### Held at Ashton Oval Community and Sports Association hall during month of May

There was a pile of disassembled boxes, lids and bases with the usual frames to assemble which everyone worked on. We would rotate the jobs so that everyone could take their new-found skills home to work over winter on their own equipment. It was pleasing to see novices, especially the ladies, constructing a box, stapling wire, and embedding wax in frames like old time" tradies" would. They also made new chums and enjoyed the BBQ lunch.

The aim was to complete most of the outstanding hive building, make modifications to swarm capture hives, and repair existing and donated equipment, thereby allowing for swap-outs in the Clovelly Park apiary to run smoothly.

On completion of the Society's hives we hope to have workshops during winter for members to use the facility to build and repair their own gear.



### 2 to 10 September

BSSA members are encouraged to enter an exhibit or exhibits for this year's Royal Adelaide Show in the honey judging competition. **Closing date for lodging entries is 14 July.** Entries can be delivered to the showgrounds on 30 August for judging.

Entries may be in the categories of raw/processed honey, wax, mead or honey cake, as well as whole frames of capped honey (which must be perfectly capped to the edges). Honey categories can be of the following varieties: imported or native flora (raw or processed). It must be in new 375 ml jars. Comb can be submitted – cut or suspended in jar of liquid honey. Creamed/candied honey is also a suitable entry.

Wax in the form of candles, wax (500 g block or in shapes) is another popular entry.

Mead can be submitted in the dry or sweet variety, presented in 2 bottles each of 750 ml.

Honey cake must be made using the entrant's own honey.

Entrance fees are \$5.50 for online entries. Further details are on the Royal Adelaide Show website.

# ARTICLES OF INTEREST



AI CAN TRACK HONEY BEES ON CAMERA



Video capture units placed over strawberry plants

Article by Malika Nisal Ratnayake, Adrian Dyer and Alan Dorin The Australasian Beekeeper, April 2023

AI can track bees on camera. Here's how that will help farmers.

Artificial intelligence (AI) offers a new way to track the insect pollinators essential to farming.

In a new study, we installed miniature digital cameras and computers inside a greenhouse at a strawberry farm in Victoria to track bees and other insects as they flew from plant to plant pollinating flower. Using custom AI software, we analysed several days; video footage from our system to build a picture of pollination behaviour over a wide area.

In the same way that monitoring roads can help traffic run smoothly, our system promises to make pollination more efficient. This will enable better use of resources and increased food production.

# A fresh set of eyes

With a growing human population and limited natural resources, food production needs to become mor efficient and sustainable. Precision agriculture powered by new technologies, like AI, can help secure future food production.

Efficient pollination is crucial to produce healthy fruits, vegetables, legumes, and nuts. Optimal pollination required just the right number of insect pollinators visit to flowers. Too few or too many visits, or visits by ineffective insect pollinators, ca diminish the quality of food a flowering plant produces.

Typical techniques for monitoring insect pollination use direct visual observation or pan trapping which are labour-intensive and take many days.

Additionally, without a very large number of trained observers, it is impossible to collect simultaneous data across large farms. Yet such data are needed to provide time-critical evidence of the extent of crop pollination, before a season's pollination window is closed. With our digital system, however, a farm manager could obtain same-day data on crop pollination levels.

#### How fine-grained analysis of insect pollinator movement enables better food production

Our pollination monitoring system was set up at Sunny Ridge Farm (In Boneo, Victoria) in a strawberry greenhouse open to insects. The array of cameras monitored insect activity among the strawberries, recording honey bees, hover flies, moths, butterflies, and some wasps.

# Managing big (insect) data with advanced software

The volume of data our system collects required custom software to reliably rack individual insects flying among complex foliage.

A key issue our software overcomes is identifying insect movements within a video sequence, so an individual insect on a single path isn't accidentally counted multiple times. This enables accurate assessment of the number of insects in a region during a day, an analysis of their type (eg species), and monitoring of their flower visits.

Our custom software uses a hybrid detection model to detect and track insects and flowers in videos. This model combines the AI-based object-detection capabilities of deep learning using a convolutional neural network, together with separate foreground detection algorithms to identify the precise positions of insects and the flowers they visit in the recorded videos.

The software includes features to make data processing more efficient and save on computer power.

The insect paths our software produces are computed using a method called the Hungarian algorithm. This examines the positions of insects in each video frame in a sequence, and enables the identification of a match between the locations of the insects across a sequence of video frames.

By recording and visualising these paths, we gain an understanding of insect behaviour and the efficiency of pollination in a greenhouse.

Strawberries produce quality fruit after a minimum of four insect visits to an individual flower. Too many visits can actually damage flowers and reduce fruit quality.

#### Which insects drive pollination?

Honey bee flower visits were recorded more frequently in the monitored area than visits by other insects. Our analysis showed 68% of recorded flowers received the minimum number of four insect visits required for full fertilisation during the monitoring period.

While honey bees contributed the most to pollination, visit by other insects often required in individual flowers achieving the desired threshold of four visits, potentially improving the crop yield.

By detecting the numbers, types, and timing of insects needed for optimal pollination, our monitoring system provides farmers the evidence they need to inform decisionmaking.

For example, knowing the extent to which a crop has been pollinated allows growers to alter hive locations and numbers to boost pollination shortfalls.

Farmers might also open or close greenhouse sidewalls to encourage or discourage insect visits from particular directions. They may decide to add attractant flowers to entice insects to explore crop regions that have been inadequately visited.

These simple interventions can ensure a higher rate of pollination success, and a higher yield of market-quality fruit. Smart

insect management like this promises to help meet the need to feed a growing population with healthy produce.

### HONEY BEE LIFESPAN COULD BE HALF WHAT IT WAS 50 YEARS AGO -NEW STUDY

(Article by Dave Goulson – From The Australasian Beekeeper, February 2023)

A new paper shows how the lifespan of the adult honey bee appears to have shrunk by nearly 50% in the past 50 years. The European Red List for Bees suggests nearly one in ten species of wild bees are facing extinction. Imagine how we would react if human lifespans halved. The equivalent would be if the average woman in the UK was living to 41 instead of 82 years of age.

Our future is intertwined with bees. Without bees and other pollinators we cannot grow the majority of crops we depend on for food.

This research could help explain the high levels of bee colony deaths around the world over the past few decades. Bee deaths were particularly severe in the USA in the winter of 2006-7 when some commercial beekeepers lost 90% of their colonies.

Unexplained high rates of bee colony deaths have also been reported in Canada, Australia, Belgium, France, the Netherlands, Greece, Italy, Portugal, Spain, Switzerland, Germany, Finland and Poland. Int eh cold winter of 2012-13, 29% of honey bee colonies in the UK died.

#### 50 Years of Data

The authors, Anthony Nearman and Denis van Engelsdorp form University of Maryland, used mathematical modelling to show lower bee life expectancy could lead to mass colony death. According to their study since 1969, honey bee life span in the US has dropped from a median of 34 days to just 18 days. The authors studied worker bees removed from hives and kept in cages, not wild bees, which may have affected their results. But if not, something really worrying is going on.

The authors believe modern honey bees may be suffering from higher prevalence of disease such as deformed wing virus, which has become more common since its discovery 40 years ago, due to the global spread of its vector, the Varroa mite. Modern bees may be weakened by new generations of pesticides that did not exist 50 years ago.

Often the pollen that bees feed to their larvae is contaminated with pesticides. This could be making matters worse because bees exposed to low doses of a highly toxic group of pesticides called neonicotinoids have reduced resistance to disease.

Another explanation the authors offer is that bee genes may have changed. Honey bee lifespan is linked to their genes. Artificial (by beekeepers) or natural selection may favour bees with shorter lifespans. Scientists are seeing this happen in other species. For example, cod now mature earlier and when they are smaller in size because of overfishing means fish rarely survive long enough to grow large.

Perhaps stressors in the modern world, such as pesticides and disease, mean honey bees rarely survive for a long time. So their evolution might favour a life-fastdie-young lifestyle.

#### **Everyone's Problem**

Bees are already facing many pressures on their survival. A separate study by the University of Bristol, released in November 2022, found that fertilisers are altering plants' electric field which is changing the way bees sense flowers. It is putting them off from visiting flowers. And bee habitat is disappearing. Since the 1930s, 97% of wildflower meadows have been lose in the UK as farming has intensified.

Fascinating though it is, this new study raises more questions than it answers (as

good science usually does). The data is based on groups of worker bees kept in cages. This method is often used to study the effects of stressors (such as pesticides) on bees.

In these sorts of experiments, researchers would normally set up control groups at the same time and under identical conditions. Nearman and van Engelsdorp used the historical data from control groups in any such studies carried out around the USA since 1969. As the authors acknowledge, this is a weakness in their report.

They can't guarantee that lab conditions have stayed the same since 1969. Perhaps older studies tended to use wooden cages and modern ones use plastic. Cage sizes may become smaller or larger. The airflow in modern incubators may now be faster – or slower. Such details are rarely noted. Anything that changed over the last 50 years could explain the reduction in longevity.

It won't be easy for scientists to unravel the study's findings. But if we could find historical data on wild honey bee longevity from previous decades, we could compare them with measurements from today's world. This would help scientists rule out the possibility that the study's results were affected by lab conditions.

Reduced bee life expectancy means reduced pollination. Bees and other pollinating insects are essential to a good harvest for 75% of the crops we grow worldwide. They also pollinate about 80% of all wild plants. All species of bees face similar challenges to honey bees, but we do not know if their life expectancy has changed. If bees are really living for less time in the world, we need to know why.

# Angry bees in the Western Australia's south-west make stronger, more valuable venom

From ABC RURAL (updated Aug 2021)



The venom of angry bees fed on a native West Australian forest diet has been found to be stronger – and with more desirable medicinal properties – than more docile bees. By weight, venom is the most valuable product bees produce – worth more than honey, royal jelly, wax, pollen or propolis – at up to \$US300 (\$A419) per gram.

Venom contains proteins used to treat degenerative and infectious diseases such as Parkinson's disease and cancers as well as in cosmetic products.

Daniela Scaccabarozzi led the Curtin University research team who collected venom from hives in south-west Western Australia's marri forests. "We classify [the bees' anger] according to their response to the stimulating devices that collect the venom," she said.

To harvest venom, bees sting glass plates electrified with a few millivolts of power. The venom dries on the plate and can be scraped off without harming the bees. "We got one gram of venom in 20 hives during one hour of harvest," Dr Scaccabarozzi said. "The reference value — which corresponded to the same amount for the same hives — took 100 minutes, so almost double [the time]."

# Hurts so good

Angry bees' venom was not just more medicinally valuable, it was also more allergenic. "We were interested if allergenic proteins were more present in more active bees, and the answer was yes," Dr Scaccabarozzi said. This suggests some bees really do sting harder and more painfully than others. The amount of venom varied significantly between some study sites — on average, hives in Harvey produced more than five times as much as those in Byford, only 100 kilometres to the north. Many of the proteins in the venom were unknown to the researchers, leaving the door open for other medicinal or allergenic properties to be identified.

"Two-thirds of them didn't match former findings," Dr Scaccabarozzi said. "There is the potential here to characterise new proteins with potential beneficial properties. We think there is great potential to keep going — it could be a profitable product."

# Honeypot or honey trap?

Despite its high value, beekeeper and Curtin researcher Dr Tristan Campbell is hesitant to recommend the industry adopt venom harvesting en masse.

He contributed to the study as a co-author and commercial beekeeper whose hives were harvested for venom. "The return is not necessarily there yet when you look at the additional capital cost," he said. "The value varies a lot - I've seen rates as low as \$30, as high as \$300 per gram."

That inconsistency is closely related to the level of processing the venom has undergone. "There's no real standardisation of what you mean by 'bee venom' — it could be the wet product, the dry product, it might be based on the chemical properties," Dr Campbell said.

However, with standardisation and scale of production, he said, venom could be reliably harvested alongside honey.

"When I went back [the day after venom harvesting], there was no visible harm, no indication of mortality — nothing to indicate an adverse effect on the hive health," he said.

# Key points:

- Research has shown angrier bees in Western Australia's native marri forests produce more medicinally valuable and allergenic venom
- Bee venom is used in medicine and cosmetics and can be worth up to \$US300 per gram
- Despite its value, harvesting venom is difficult and few beekeepers sell it commercially

# ACCIDENTS HAPPEN – BE PREPARED

By Des Cannon, Editor of The Australasian Beekeeper, February 2018

This article is written from personal experience. Accidents happen in the blink of an eye, and for a commercial beekeeper they can affect your ability to run your business.

In my case, something as simple as helping to remove a fallen tree from the cycle path in Canberra resulted in, at the time of writing, six weeks in splints, with ruptured quadriceps tendons on both legs. Another month of splints awaits, and then two to three months of rebuilding my leg muscles.

Many commercial beekeepers often work alone in the bush – I know I did. An accident of this type would put you at grave risk. Consider, at least, carrying an Emergency Locator Beacon on your person at all times. An EPIRB will cost, depending on quality, \$259 or \$369 (the more expensive model gives a higher resolution grid reference accurate to 10-20 m). Once registered, you can trigger it manually.

Fortunately, I am no longer operating commercially. Even so, I will not be able to look at my hives for some three months or more. Equally fortunately, a good friend has helped by under-supering my hives, so not all the potential honey has been missed. But if I had been still operating at a commercial level, the effect on my business would have been disastrous.

Loss of income might be covered by Income Protection Accident Insurance, but the real effect is upon the productivity of your hives – how many will go queenless while you are laid up? Are any queens due to be replaced? Is the brood nest choked out with pollen? Have they contracted any disease? Do you have enough spare supers that someone else can throw on your hives? The list of possible questions goes on.

Just something for you to consider.

# THE BEE-FRIENDLY GARDEN

#### FLOWERING PLANTS TO ADD TO YOUR GARDEN THIS WINTER

Winter is that season where we all layer up and flowering plants are uncommon. However, you can change that! There are flowering plants that can endure the cool temperatures of winter. This can help your bees survive through winter. Winter means less foraging for bees. That's why providing them pollen and nectar flow by adding these plants can help them increase their honey stores. Here are some of the best wintering flowers:

#### Lobelia



These flowers love being exposed to the sun. They can tolerate cool weather but do not tolerate extreme cold temperatures. This flowering plant offers a variety of colours such as blue, purple, pink and white. They can also be considered an annual plant however. They don't tolerate extreme hot weather.

# Myosotis (forget-me-not)



Typically a spring or summer flower, they do best on warm temperatures which is why they can tolerate the climates in Mediterranean regions of Australia. Make sure that they get plenty of sun and their soil is kept moist. Pollinators love them, much like the hover fly in the photo does!

### Zinnias



Zinnias loves the warm weather. However, they can be more demanding to grow to their best state. They require regular fertilising, watering of the soil instead of the whole plant to prevent fungal diseases and weed-free. Although they require a bit of work, they do have the best flowers that stand out in your garden.

GARDENING TIP: Wormwood cuttings work well on wax moth when placed under the lid.



# **BOOK CORNER**

The BSSA website includes a list of recommended books and new additions to the library. Some "golden oldies" currently available for reading include:

The Archaeology of Beekeeping (1983) by Eva Crane by Eva Crane



... and ...

Anatomy and Disection of the Honeybee (1962) by H.A. Dade



These books show great diagrams and contain seminal material.

# REALLY ... ?



A bee-inspired feature in The Advertiser "Home" Magazine – gardening section - of Saturday, 20 May. The article featured interesting advice for first-time beekeepers and interesting facts for youngsters about bees. What a buzz!!



1-1/2 cups honey
½ cup water
½ teaspoon ground cinnamon
1-3/4 cups blueberries (fresh or frozen)
1 tablespoon lemon juice
½ teaspoon vanilla essence

Combine honey, water, and cinnamon in large saucepan. Bring to a boil; reduce heat to low and simmer 10 minutes, stirring occasionally until sauce thickens. Allow syrup to cool. Stir in blueberries, lemon juice and vanilla.

Use syrup to top waffles, pancakes or French toast or spoon over granola or yoghurt.

<u>WORD BEE DAY</u> <u>WAS CELEBRATED AROUND</u> <u>AUSTRALIA</u> <u>ON 20 MAY</u>



**World Bee Day** is <u>celebrated</u> on May 20. On this day <u>Anton Janša</u>, the pioneer of <u>beekeeping</u>, was born in 1734 in Slovenia.

The purpose of the international day is to acknowledge the role of <u>bees</u> and other <u>pollinators</u> for the <u>ecosystem</u>.<sup>1</sup>

The <u>UN</u> member states approved <u>Slovenia</u>'s proposal to proclaim 20 May as World Bee Day in December 2017.

