The Sting

The official newsletter of the Southside Beekeepers Club.

Southside beekeepers Club
ASN: A0047348Y

The Sting Issue No. 58 - January 2024

NEXT CLUB MEETING

7:00pm Wed 24th January 2024

Meeting held at the Seaford Community Centre Hall,
6R Broughton St, Seaford VIC 3198.
Google ref: https://maps.app.goo.gl/ohYmWxc1RSMXV8pq5

SOUTHSIDE BEEKEEPERS MISSION STATEMENT

To help our members make recognisable improvements in their beekeeping knowledge and performance, to work towards the preservation and conservation of bees and other pollinators and to provide a vibrant organisation that attracts new members and retains its existing members.

President's Report: January 2024

Hello beekeeping colleagues,

Happy New Year to all and hoping it has been a positive start to 2024. Can you believe that we are almost through January! It has been a positive beginning for the Club (thanks to Mark and Elliott in particular). The club colonies appear to all be doing well, with lots of brood, pollen stores and nectar. Mark is soon to check the honey stores as we may well need to organise a honey harvesting day – we'll keep you informed. The move to the Wells Road apiary has been very beneficial as we have been able to build the club colonies as well as supply 4 new colonies to members.

It was great to see so many members at the end of year combined-tenants function with the Well's Road Garden Club. The level of support for this event helps strengthen the Club's relationship with the Garden Club, which has to be a good thing. The end of the year raffle was drawn during the afternoon

Thanks again to Mark for organising this raffle and the tickets.

Just a reminder that we are now meeting at our new venue (The Seaford Community Centre Hall, 6R Broughton St, Seaford). The focus of this month's meeting will follow up on Elliot's November presentation on potential miticides for the varroa mite. Elliott has further information to share regarding the use of oxalic acid. (*see a copy of his presentation on page 4*). We hope to see you there on the 24th. The Committee would also like to start including a brief Q & A session at each of our club meetings. This type of session was very well received during COVID when we couldn't physically meet. Committee members are often approached before and after meetings by members with beekeeping questions, many of which would be of interest to other members. We'd like to trial a 10 – 15 minute session each month where questions can be asked and general issues can be raised. We may not always have the answers but there is a wealth of knowledge within the Club, and we might all learn from the discussion and from each other. So, bring that question you've always wanted to ask with you to our next meeting.

Alcohol wash bottles are again available to members for purchase at $15- each. We have obtained a further order and have 17 kits, which will be available at the next meeting.

Hoping to see you at our next meeting (Jan 24) in the Seaford Community Centre.

The best of beekeeping to all,

Paul Lomas,
President

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Southside Beekeepers Meetings

We meet via scheduled on-line meeting noted in the newsletter.

Contact Info

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Post box emptied monthly

The Sting

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Copy for The Sting must be received by the 15th of each month.

https://www.facebook.com/southsidebeekeepersclub/

Web: www.southsidebeekeepers.com.au

Committee Meetings

Our committee meetings are on the second Wednesday of each month. They are conducted via Microsoft Teams. Members are always welcome but please call Mark Collier on 0407 553 022 for Microsoft Teams set up details.

Extractor Hire

Extractors are now available at 2 locations.

Ian Benskin at Mentone 0408 306 740 and at the club apiary, 190 Old Wells Rd, Seaford. Call Mark on 0407 553 022 or Ian Benskin to arrange a pickup. We are also including a nested honey sieve and a decapping tool. Hire is $70.00 for 2 days. This includes a $50.00 deposit, refundable upon the return of the extractor in a clean condition.

If you want a colony of Bees

If anyone requires a colony of bees please contact Mark Collier to have their names added to the list.

HiveiQ donated a beehive to the club

Club member Paul Fong Lip has been in discussion with Zavier Croker, the General Manager of HiveiQ regarding the purchase of one of their high-density polystyrene beehives.

Paul passed on my email address and I received the following email from Zavier.

"Paul let me know that Southside Bee Club has a club apiary – as Paul has been a pleasure to deal with, I would love to supply the club with one of our hives completely free of charge.

In summary, HiveiQ manufactures Australian-made highly insulated beehives. With 4 generations of commercial and

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hobby beekeeping experience, we've designed a high-density polystyrene beehive that is optimised for both commercial and backyard beekeeping.

After the founders had a terrible winter about 12 years ago while using timber boxes, they had massive colony losses. Since moving to high-density polystyrene, they haven't turned back and now run 1500 hives across rural NSW. With improved insulation comes better winter survival rates, more honey production, stronger colonies, long-lasting queens, and significantly less bearding through summer, the list goes on and on. The material also lasts 30+ years and is great to handle due to its larger handles and lighter weight.

If you're interested in trying it out, please provide your best delivery address and I'll send a hive kit out immediately. Our hive kits have 3 full-depth boxes, a hive base and top, and a queen excluder. We recently started producing mediums and ideals, let me know if you're interested in any of those too (all free of charge of course).

Look forward to chatting with you more Mark, I hope we can get one in the Southside Club apiary to try out!

Cheers,

Zavier Croker
General Manager"

I replied to Zavier that the club would be delighted to accept his very generous offer, and a week later a flat packed 3 box HiveIQ beehive landed on my doorstep.

On behalf of the membership and committee of Southside Beekeepers Club, I would like to thank Zavier, his colleagues and the HiveiQ company for their extremely generous gift.

This will provide club members with a new type of hive body to explore, compare and constrast with standard timber langstroth hives and the top bar hive designs. The result being more informed beekeepers.

I am looking forward to assembling the hive this long weekend and getting it to the club apiary ASAP.

The Three Story HiveIQ Beehive Kit includes all of the components required to create a three story beehive, except for frames and foundation. This kit is supplied flat packed (unassembled) and includes:

3 x 9 Frame Full Depth Beehive Bodies
1 x 9 Frame Beehive Bottom
- 2 x NFC Tags
- 1 x Stamped Floor Vent
- 1 x Hive Entrance
- 1 x Blanking Plate

1 x 9 Frame Beehive Top
1 x 9 Frame Beehive Top Cover
1 x 9 Frame Metal Queen Excluder

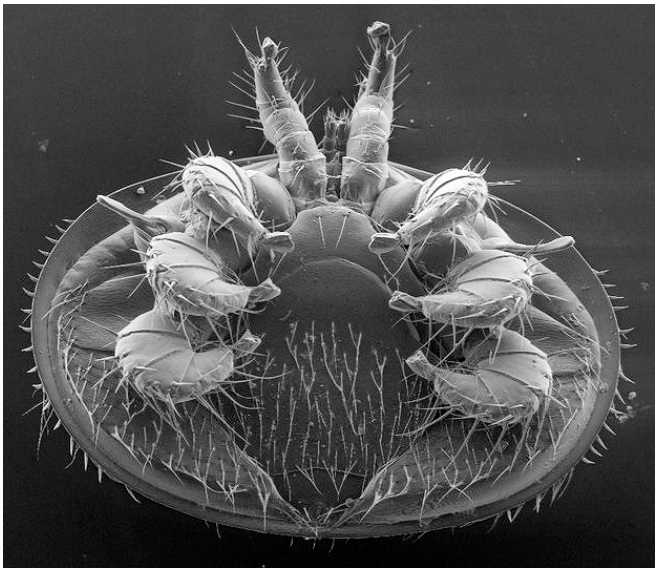
Mark Collier
Editor & Secretary

Oxalic Acid, it's usage as a Varroa treatment - *by Elliott Yeomans*

What is the Varroa mite (*Varroa destructor)*

Varroa destructor, the Varroa mite, is a parasitic mite that feeds on honey bees.

Varroa mites can feed and live on adult honeybees but primarily feed and reproduce on larvae and pupae in the developing brood, causing malformation and weakening of honeybees as well as transmitting viruses. The mites feeds on honey bee haemolymph and also eat the fat body, a type of insect tissue of adult bees and larvae.



It's life cycle has two phases the phoretic phase where the female mite uses the adult bee as a 'transportation vector' to spread *Varroa* within and between honey bee colonies, while in the reproductive phase the mite invades a brood cell, lays an unfertilised egg in a new comb, and mates with its male offspring.

This finding confirms that female *Varroa* do not need to mate to lay eggs.

It attaches to the body of the bee and weakens the bee. A mite infestation, left unmanaged, can lead to the death of a honey bee colony, with colonies collapsing within 2 to 3 years in temperate climates. The mites initially infested Apis cerana, Asian honey bee but now also infest Apis mellifera, the western honey bee.

The species transmits pathogens for debilitating bee viruses, including the deformed wing virus (DWV), Acute bee paralysis virus (ABPV), Sacbrood virus (SBV), Israeli acute paralysis virus (IAPV) and the Kashmir Bee Virus (KBV).

The mite has impacted the beekeeping industry, is one of multiple stress factors contributing to high levels of bee losses and has been implicated as one of the multiple causes of colony collapse disorder.

Management of this pest focuses on reducing mite numbers through monitoring and control to avoid hive losses or collapse.

A 3% infestation in a hive is considered high enough to cause significant damage requiring management. The Varroa mite can reproduce only in a honey bee colony.

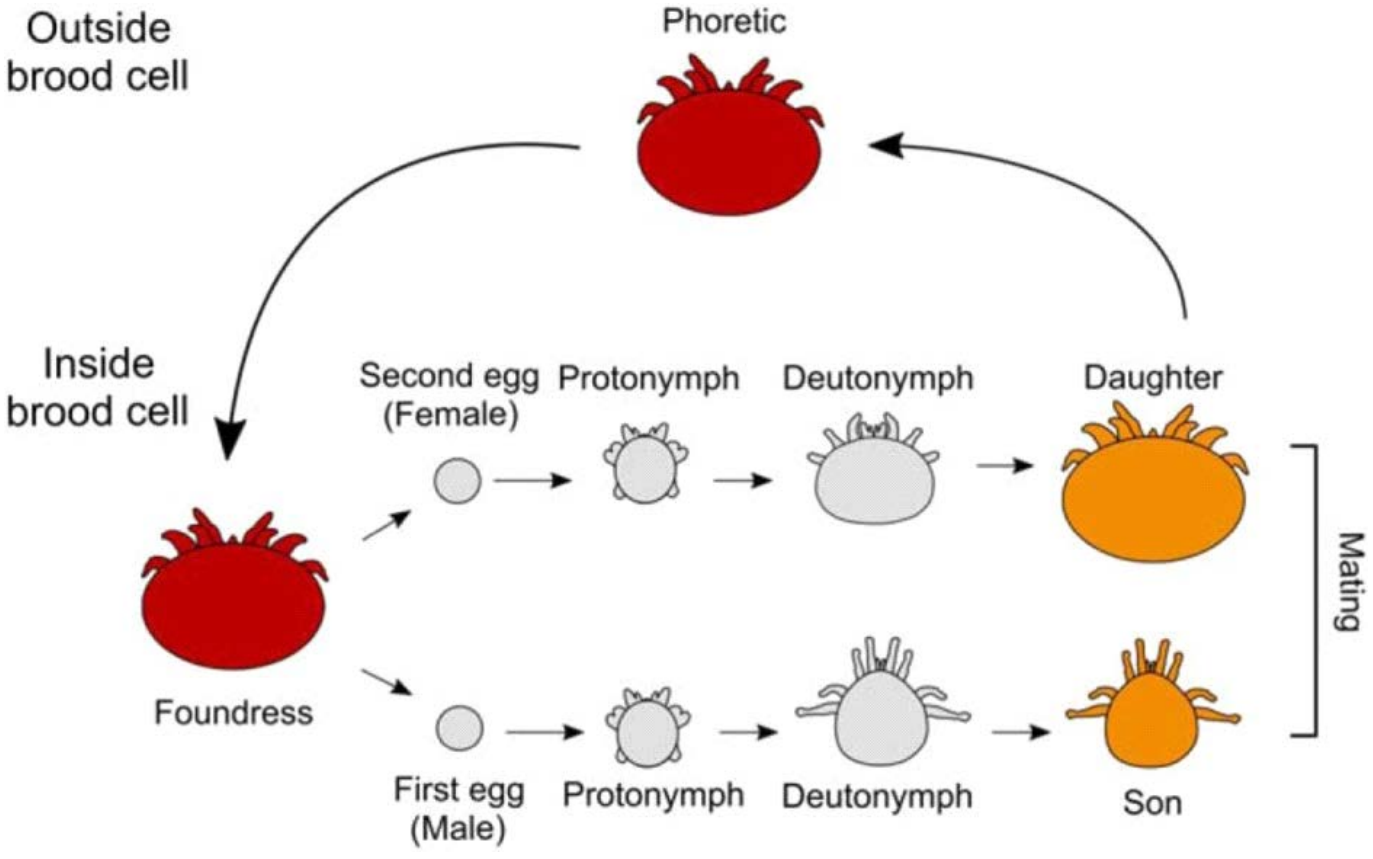
Life cycle of the Varroa mite

Female mites attach to, and then leave, the adult bee and enter capped brood cells, particularly drone cells, they bury themselves in brood food provided by worker bees before the cell is capped.

Capping begins egg cell activation for a foundress mite while she emerges to feed on the larva. She will lay one unfertilized egg to produce a male mite and then fertilized eggs to produce females. Protonymphs molt into deuteronymphs and then into adults from egg to adult in 6–7 days. Both the mother and nymphs will feed on the developing pupa. Mating occurs between siblings when they reach the adult stage

Immature mites can only feed on capped brood, so the life cycle cannot be completed during broodless periods.

Males will not leave brood cells and only mate with females present in the brood cell.



Phoretic (non-permanent) attachment and life cycle of Varroa destructor.

Oxalic Acid, it's usage as a Varroa treatment - *continued*

Adult females feed on both brood and adult bees, will leave the brood cell and attach to bees in order to disperse, can be transmitted from bee to bee, particularly nurse bees, and can also be transmitted to other hives through bee contact or hive equipment transfer. Female mites have a life expectancy of 27 days when brood is present.

Control of Varroa destructor

Determining Varroa mite infestation levels in honey bee colonies is important for efficient mite control. Performing a powdered sugar shake, alcohol wash, carbon dioxide test, drone uncapping or counting mites that drop from combs and bees onto a hive sticky bottom board are methods for sampling Varroa mite numbers to evaluate the need for treatment.

Resultant treatment threshold levels will vary according to the method selected, colony size, location, management and other stress factors , all dependant on your observation.

Keeping data records of mite levels within a colony is useful for determining:

- The level of mite infestation prior to control and after control application measures
- Seasonal trends in the size of natural mite populations. Bottom board counts are especially useful for estimating total Varroa mites per colony and daily mite mortality, even for very small mite populations.
- Standard data recording will need to incorporate information regarding mite levels, controls applied and resultant observation.

To control Varroa destructor beekeepers have come to rely mostly on chemical treatments due to their ease of use but the mite's development of resistance to synthetic miticides is an issue.

Varroa chemical control products in Australia are not legally available until they are registered for use, or approved by, the Australian Pesticides and Veterinary Medicines Authority (APVMA) for import, supply and use in Australia.

Use of Oxalic Acid (OA) to treat Varroa Mite.

Oxalic acid (OA) is a chemical that has been found to be relatively safe for bees and can reduce the incidence of Varroa destructor within bee colonies.

Oxalic acid works by killing parasitic mites, with limited adverse effects on bees, when used correctly. This treatment is effective because oxalic acid penetrates the mite tissues and disrupts cell metabolism.

Oxalic acid is an organic acid compound, found in different plants and vegetables we eat every day, it is abundant in our environment, and we consume oxalic acid in our diets at low levels all the time.

How does Oxalic Acid work?

One explanation of how Oxalic Acid works:

Oxalic acid is toxic to the Varroa mite; it forms crystals on the adhesive lobes of the Varroa (its feet) and on the feeding mouthparts which then go into the body of the mite. The adhesive lobes have an aqueous secretion which binds to the oxalic acid crystals and makes them grow. This damages the mite's vital organs and kills it. The honey bee secretes a waxy coating on its feet and over its whole body which protects the bee from the oxalic acid meaning it does not succumb to oxalic acid in the same way but can still transport the oxalic acid through the colony to affect the Varroa mite.

Effectiveness

The efficacy of oxalic acid treatments is still the subject of much research. A study carried out in England in 2016 showed that sublimation is superior to other application methods, achieving higher Varroa mortality at very low dosages of oxalic acid (0.56 or 1.125 g, per colony):

Drip method: 20.57% mortality;
Spraying 25.86%;
Sublimation (vaporisation & fogging) 81.97%.

Methods of applying Oxalic Acid to hives

Contact.

- Saturated strips:
  Absorbent materials are impregnated with a glycerine oxalic acid preparation, introduced into the hive, and transmitted physically by the bees.
- Dripping or spraying solutions:
  Solutions containing oxalic acid are sprayed or dripped onto the bees.

The **sublimation** method of application occurs when solid oxalic acid is heated, melts and evaporates. In contact with the air, it forms a mist of tiny crystals deposited on the bees and the internal parts of the hive.

- Vaporisation:
  Oxalic acid is heated into a gaseous state inside the hive.
- Fogging:
  Oxalic acid is heated externally and introduced into the hive as a vapour.

Dribbling or spraying solutions

OXALIC ACID DRIBBLE is a mite control method that uses oxalic acid mixed with sugar syrup. It kills mites that are riding on adult bees. It is usually applied using a large syringe to dribble the mixture onto the bees that are clustered between the frames.

OXALIC ACID SPRAYING uses an oxalic acid dihydrate mixed in a 3% solution with a hand sprayer at an angle of 45°, to moisten the bees on the comb. A fine mist on the bee is sufficient, drenching the bees may cause stress and risk adverse effects on the bees.

Applying an oxalic acid dribble using s large syringe

Spraying oxalic acid

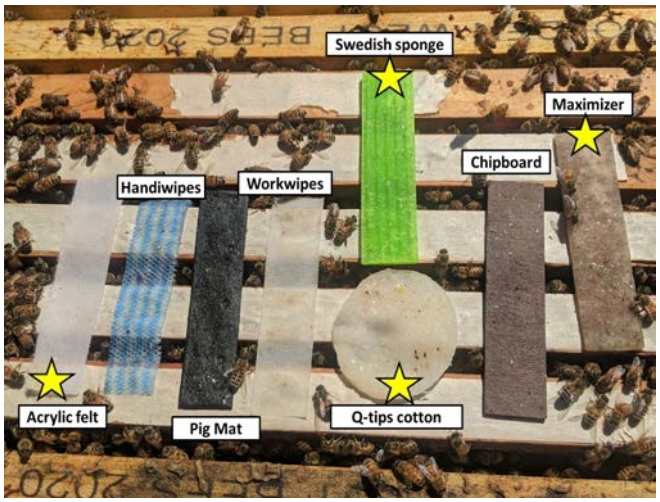
Saturated strips

Dissolving oxalic acid in glycerine provides a way to slowly release oxalic acid over time.

Unlike dribbling or vaporisation, where the dose is applied all at once, the oxalic/glycerine mix provides a slow release treatment that can be extended for up to 30 days.

Mites die as they emerge from the brood cells without repeat applications.

The bees remove the strips from the hive so the beekeeper doesn't have to re-enter it.



Randy Olivers' experimentation and testing of various matrices. The system is now used in many DIY and commercially available products.

Vaporisation

Oxalic acid is heated into a gaseous state within, and distributed through, the hive.

Oxalic acid vaporization requires specialised tools (wands), a power source (Gas canister, mains power or battery), breathing protection (respirator with acid gas cartridges) and goggles.

Oxalic acid wand

Oxalic acid wand

Fogging

Oxalic acid fogging is achieved by heating and vaporising OA outside of the hive and directing the resultant gases into the hive.

Using insect foggers to administer OA to honey bee colonies is a quicker and cheaper delivery system than vaporization. Using the Oxalic Acid wand for treating Varroa mites takes a lot of time, the Oxalic Acid fogging method means that more hives can be treated in the same amount of time.

Warnings

Like any other mite treatment, oxalic acid must be rotated with other treatments to prevent or delay resistance, belief that inability to develop resistance may be unfounded.

Oxalic acid is **not currently registered or permitted** for use in honey bee hives by the Australian Pesticides and Veterinary Medicines Authority (APVMA). Use of the chemical oxalic acid for treatment of pest and disease of bees is not registered or permitted by the APVMA and is a breach of the Stock Medicines Act 1989.

The use of Oxalic acid poses the following serious human health risks:

- Harmful if swallowed or inhaled (fogging)
- Harmful in contact with skin causes skin yellowing and blistering
- Causes severe skin burns and eye damage which can be permanent
- Corrosive to the respiratory tract when inhaled
- May cause damage to kidneys through prolonged or repeated exposure

Beekeepers using oxalic acid must utilise appropriate personal protective equipment to safeguard their health.

- remove the supers before applying oxalic acid and wait 1-2 days before reassembling them. This precaution allows any residual oxalic acid to be eliminated from the hive, thus avoiding contamination of the honey.
- the cure may be less effective in some conditions, such as in the presence of a brood. Furthermore, oxalic acid treatment is not recommended for bees during the larvae growth and development phase, as it may interfere with the normal development of the larvae.
- Oxalic acid is considered a biological control method for Varroa. Several scientific studies have proven its effectiveness as a Varroa treatment, and it is generally considered safe for bees when used as directed. Be warned that any treatment applied incorrectly can cause harm to your bees.
- When working with oxalic acid, always have a source of water available to rinse any accidental contact with skin or eyes.

Bee Keeping Courses at Frankston South Community Centre

- 55 Towerhill Rd, Frankston South VIC 3199

Introduction to Beekeeping

- Sun 18 February 2024, 8:30am – 4pm
- Sat 16 March 2024, 8:30am – 4pm

Note that a maximum of 14 students may participate in each course

Where:
Frankston South Community and Recreation Centre - 55 Towerhill Rd, Frankston South VIC 3199.

From: 8:30 - 4.00pm (this is an approximate closing time). A short 30 minute break will be held around 1:00pm for lunch.

Price: The course costs $160.00 for members or $200.00 for non-members (which includes a membership fee).

We aim to run through the theory at the recreation centre and then, depending on weather drive to the clubs apiary at the Downs Estate Community Project (DECP), 190 Old Wells Road Seaford. https://goo.gl/maps/8RE3e9mesPVV3oTi7

Participants will receive a copy of the Australian Beekeeping Guide & the Biosecurity Manual for Beekeepers.

If you have a suit, gloves and a veil, please bring them. Also bring sturdy footwear - boots that cover the ankle is preferred. The club has approx 8 suits so we can provide one if you don't have your own.

Morning tea is provided, however you should bring your own lunch.

Bookings can be made via trybooking https://www.trybooking.com/CKECJ

Alcohol Wash Bottles

Available soon

The club has placed a second order for alcohol wash bottles from Glenn at Mt. Coramba Apiculture, Nana Glen, NSW 2450.

These bottles should arrive within the next week or so.

Glenn's double jar mite wash bottles have been used by NSW Department of Primary Industries Varroa surveillance teams in the Hunter Valley & Coffs Harbour area and they have been effective & robust having done many thousands of alcohol washes.

These can be purchased from the club for $15.00 inc GST at our monthly meetings from Mark Collier or email mark@southsidebeekeepers.com.au

Biosecurity Manual for Beekeepers now available

Dr Jenny Shanks from Plant Health Australia has given the club permission to print copies of the Biosecurity Manual for Beekeepers v1.1 (©Plant Health Australia 2016) for members. Jenny kindly informed us that there are no royalty payments required.

Copies of this 64 page full colour publication can be ordered through the club and will cost members $15.00 or a free pdf copy can be downloaded from the club's website.

Order or purchase copies at monthly meetings.

As you may be aware the honey bee industry, represented by the Australian Honey Bee Industry Council, (AHBIC), in consultation with all beekeepers and governments, has worked to develop the Australian Honey Bee Industry Biosecurity Code of Practice (Code). In July 2016, AHBIC endorsed the Code and its gradual adoption across Australia.

The Code provides a clear framework for all beekeepers to engage in best-practice biosecurity. Its purpose is to help improve the management of established pests and diseases, as well as increase preparedness and surveillance for exotic pests and diseases that threaten our honey bee industry, such as the Varroa mite.

A copy of the Code can be downloaded from http://honeybee.org.au/programs/code-of-practice-and-national-bee-biosecurity-program/

The new Livestock Disease Control Regulations 2017 incorporating the Code came into effect on 12 June 2019. **The new regulations cover activities that all beekeepers should already be undertaking to minimise the impact of pests and diseases on their own hives and those of their fellow beekeepers.**

Some new regulations apply to all beekeepers ; others apply only to beekeepers with 50 or more hives.

There are consequences for failing to comply with all apiary legislation in Victoria which may include being issued with an infringement notice or court action for more serious or repeat offences. It is your responsibility to familiarise yourself with the requirements that relate to you or seek assistance if you are not sure.

A copy of the Regulations can be downloaded from the Victorian Legislation and Parliamentary Documents website http://www.legislation.vic.gov.au/. At the site, click on Victorian Law Today to search for the Regulations.

Biosecurity Signs

A4 Biosecurity signs are now available.

These signs are durable and printed onto 3mm thick alucobond composite board.

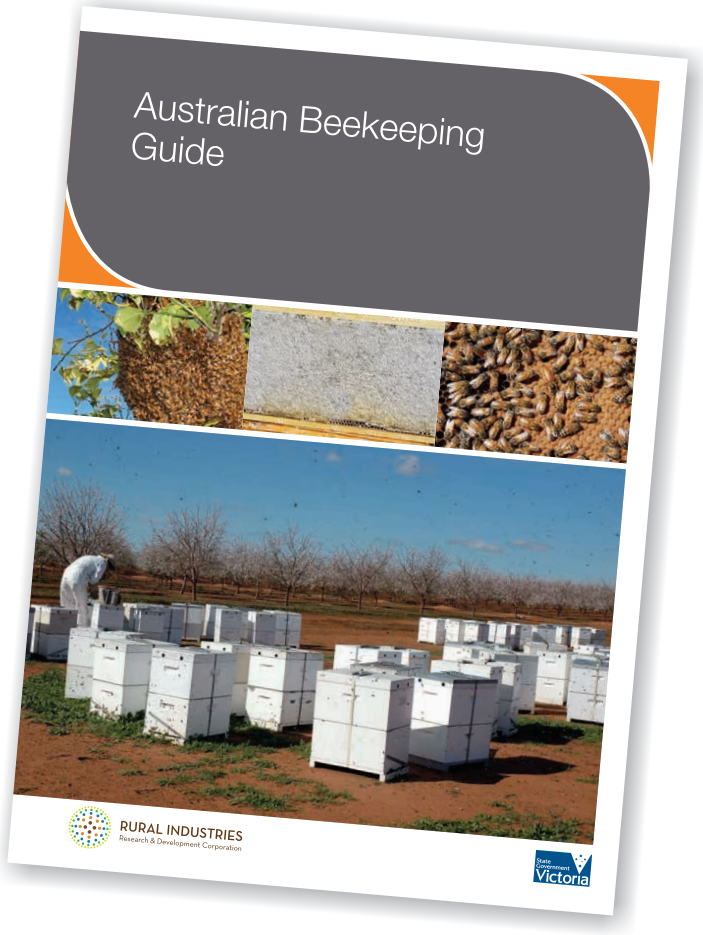
They can be purchased from the club for **$25.00** inc.GST each plus postage. Contact Mark Collier on 0407 553 022, email mark@southsidebeekeepers.com.au.

These are small enough to fit into a padded satchel so can be posted.

Australian Beekeeping Guide now available

The club has started printing copies of the 144 page plus cover Australian Beekeeping Guide and will cost members **$25.00** plus postage. The cover is printed on 300gsm board, with a gloss laminate on the outside. Text pages are printed on a 128gsm satin.

Copies can also be downloaded free of charge from https://www.agrifutures.com.au/product/australian-beekeeping-guide/



This book is an excellent guide to virtually all facets of beekeeping in Australia.
Chapters and topics covered are:

- Introduction to the honey bee
- The hive and its components
- Handling bees and beekeeping safety
- How to get bees and increase numbers of colonies
- Apiary Sites and Flora
- Spring management
- Summer operations
- Extracting honey
- Winter management
- Honey
- Beeswax
- Requeening colonies and rearing queen bees
- Brood diseases of bees
- Diseases of adult bees
- Pests and enemies of bees
- Parasites of honey bees
- Quick problem solving table
- Honey bee pollination
- Legal
- Additional information

The club is now using this book as part of its *"Introduction to Beekeeping Course"*. If you want a single comprehensive source of information on beekeeping, this is the book for you. It also makes a fantastic present for any new beekeepers. Copies can be purchased from the club.
Send your enquiry to mark@southsidebeekeepers.com.au or call 0407 553 022

Club Colony List - Hives and Nucs for sale

The club is pleased to be able to offer members who want a colony of bees the options of purchasing a complete 8 frame wax dipped Langstroth hive or a 5 frame Nuc. We are also selling NUC's with bees.

Costs are as follows:

Club member provide box, frames, lid and bottom board = **$200.00 inc. gst**

Club provided, wax dipped 8 frame Langstroth box, with 8 frames, lid & hive doctor base = **$300.00 inc. gst**

Club provided, painted 5 frame Nuc = **$225.00 inc. gst**

Colonies are propagated by members, usually by taking a split in combination with a newly purchased queen and then housed in a 5 frame nuc. The young colonies are managed for a number of months until the colony is strong and healthy, where it is then handed over to the member in either a members provided box, a club provided box or 5 frame nuc.

Hopefully new queens will be coming on the market around the end of October.

Call or email Mark Collier to register your interest in purchasing a colony.

Our Club Sponsors & Supporters

We would like to give a big thank you to our wonderful sponsors: