



BUZZWORD

Beekeepers' Society of South Australia Inc.

www.bees.org.au

NEWSLETTER

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Many thanks to those who provide articles for the newsletter.

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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:

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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.

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2019-2020 Office Bearers:

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Committee Members:

Joel Hayes
Adrian Makarowsky
Richard Mayne (Media)

Minute Secretary:	Sandra Ullrich
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Co-ordinators

Website:	James Field
Facebook:	Phil de Courcey
Beeginers' Group	John Silverblade and Roy Frisby-Smith
Junior Beekeepers:	Alexis and Joel Hayes

Librarian:

Sue Speck

Supper Team: Melissa Hooper and John Elliot

Committee Meetings

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

General Meetings

General meetings will be held at Burnside Civic Centre Hall, 401 Greenhill Road, Tasmore on the **first MONDAY of each month at 7.30 pm**

Supper is available (gold coin donation).

Due to the current COVID-19 pandemic general meetings and field days are cancelled until further notice

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.

A BSSA hive is situated at the SA Museum on North Terrace for viewing by the public.

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

Bee Biosecurity Officer:
Teagan Alexander – 8429 2170
https://pir.sa.gov.au/biosecurity/animal_health/bees

Subscriptions

The financial year for the society is from 1 July to 30 June.

Subscriptions are due as from 1st July each year. The membership fee for the financial year commencing 1 July 2019 is:

\$65 single

\$35 junior

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

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

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.



**BEE-GINNERS' MEETINGS
START AT 7 PM
(BEFORE THE START OF MONTHLY
GENERAL MEETING)**

Meetings commence at 7 pm for beginner beekeepers to participate in half an hour of question-and-information exchange prior to the start of the main monthly general meeting.

The meetings are suspended until further notice due to the COVID-19 pandemic

MENTOR LIST

A mentoring service is available to our new beekeepers who would like assistance at home. Please contact the BSSA secretary for more information.

BSSA SWARM LIST

If any BSSA member is interested in having their name as a swarm collector listed on the BSSA website please contact either Trisha Blanks, the BSSA Secretary or Sandra Ullrich at sullrich@aapt.net.au



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

**All participants must have at least long sleeves and trousers and a head veil.
Attendance is limited to 15 persons.**

Bookings can be made only through the BSSA secretary or Bob Beer at beersbees@bigpond.com or mobile 0413 208 835. Cost - \$10.

For full list of field day dates see the BSSA website.

**Due to the COVID-19 pandemic field days are cancelled until further notice.
Hopefully they will resume later this year**

VOLUNTEERS REQUIRED to assist new beekeepers on field days. Contact BSSA secretary if you are interested.

President's Report



Hello to all BSSA members and welcome to any new members receiving Buzzword for the first time.

How are you all fairing with, for many, changed daily practices due to the COVID-19 virus? We are now very much into autumn, with rain and reddening leaves.

Bees, who would not notice the changes brought about in a pandemic, have been mostly bringing in pollen for some time, readying themselves for winter. I'm sure many of you have been doing or are planning final harvests of honey, mindful of what stores should be left on hives for winter.

I'm aware that some will remain impacted by the fires earlier this year, whilst others have been donating their time or hives/equipment to assist those who have lost. The BSSA donated \$1,000 towards purchasing sugar to assist the KI beekeepers (so much foliage thus nectar being lost).

Plans continue through the SAAA with PIRSA to assist with the replacement of hives lost in South Australia. Please contact the BSSA if you have any questions and remember the quarantine restrictions that apply to Kangaroo Island.

Members may be also aware of recent media coverage of the SAAA's achievement in conjunction with PIRSA, SA Water and Forestry SA, for a pilot project to trial beekeeping on public land, the first site selected being Kuitpo Forest Reserve. This is to help support the apiary industry, particularly following the bushfires with loss of plants. Those wishing to apply must have, amongst other things, the ability to provide a minimum of 50 hives. Information is available on PIRSA's website.

Since the last Buzzword the BSSA was fortunate to hear from several guest speakers, including

John Nairn (member and State Manager, Bureau of Meteorology) in relation to heatwave projects, Bob Beer in relation to honey extraction, and others. We also trialled suburban 'catch ups' during the meeting amongst members and were surprised by an impromptu lesson on beekeeping in Arizona from a visitor.

Strictly Beekeeping, during the meeting, has provided seasonal education by Ulrich Schade and others. Please remember to suggest to us any topics or speakers you would like to hear from in the future, especially if you have any thoughts as to presentations that may lend themselves to 'remote' learning.

Finally, most of you would be aware that the BSSA is currently, like others, unable to meet collectively in person as a Society. Events such as 'Sophie's Patch' and the ABC Gardeners' Market have been cancelled, and since the April meeting we've had the sad news that, like other states' shows, the Royal Adelaide Show for 2020 has been cancelled.

Most information that would have been presented at the April meeting was emailed out to members - being Strictly Beekeeping seasonal thoughts, and disease information courtesy of our guest speaker Teagan Alexander from PIRSA. Please let us know if you did not receive it.

Further, field days have ceased, although they would naturally close down over winter. Future registration details will be on the BSSA website.

Planning for a remote May, with any necessary further meetings, is under way. Please contact us if you have any thoughts or requests. Don't forget, however, that the Society also still has equipment and books you can borrow, and there are information links on our website.

I would like to again say thank you to all those who contribute in so many ways to the Society. Please, all of you, stay safe and enjoy time with your bees.

Susan Lonie
President BSSA



APRIL - SUGAR SHAKE MONTH!

When was the last time you conducted a sugar shake on your hives?

Sugar shakes are a great way of testing your bees for exotic bee pests like Varroa mite and Tropilaelaps mite. The Australian Honey Bee Industry Code of Practice stipulates a sugar shake should be conducted on your hives twice per year. If you missed doing it in April, you can still do it in May! For a fact sheet on how to conduct a sugar shake visit:

<http://beeaware.org.au/wp-content/uploads/2014/03/Sugar-shaking.pdf>

For further information in relation to bee pests and diseases see the PIRSA website:
https://pir.sa.gov.au/biosecurity/animal_health/bees

(For example: honey sampling requirements exist if owning more than 20 hives).

Contact:
Teagan Alexander Bee
Biosecurity Officer Biosecurity SA
Phone: 0439 864 382
Email: teagan.alexander@sa.gov.au

RECENT EVENTS

FIELD DAY - 18 January 2020

Photos and words by Ulrich Schade



Ulrich Schade ► Beekeepers'
Society of South Australia
(BSSA)



Bob Beer demonstrates to group

Today was a very interesting field day. We saw a hive – from abandoned bees – and the consequences of wax moth infestation. Also Bob Beer opened the honey tap of a flow hive.

Furthermore, we saw the difference between plastic frames and wood frames in a honey flow situation. The images speak for themselves. Finally, a queen was spotted.



Honey flow for filtering from flow hive



Bob Beer preparing to release honey from flow hive



Queen bee in centre left of frame



ARTICLES OF INTEREST

THE FAILURES OF GENETICALLY MODIFIED ORGANISMS (GMOs): RESISTANCE, REGULATION, AND REJECTION

Paper submitted by John Paull on 23 January 2020 to HAL (Hyper Articles en Ligne).

Reference: HAL Id: hal-02450467
<https://hal.archives-ouvertes.fr/hal-02450467>

Hyper Articles en Ligne, generally shortened to **HAL**, is an open archive where authors can deposit scholarly documents from all academic fields. It has a good position in the international web repository ranking. The documents may come from teaching and research institutions in France or abroad, or from public or private research centres.

ABSTRACT

Genetically modified organisms (GMOs) have been contentious for more than three decades. Only 24 countries grow GMOs commercially. Four countries (USA, Canada, Brazil and Argentina) account for 85% of the global GMO hectares. Four crops (soy, corn, cotton and canola) account for 99% of GM hectares. Despite the veneer of social validity that regulators cast, the GMO sector has failed to gain a social licence. Where GM labelling is required, food manufacturers avoid GM ingredients.

GMOs have failed to gain price parity with their non-GM counterparts, and they attract price penalties. Segregation of GMOs and non-GMOs has failed (with a tolerance of 0.9% GM contamination in so-called non-GM canola).

GM has failed the coexistence test with a GMO grower contaminating neighbouring farms. GMOs are a biosecurity fail, with test plots of GM canola planted in the late 1990s still monitored two decades later for rogue canola plants.

Most GMO crops are glyphosate dependent. Glyphosate is globally subject to massive litigation claims and awards, and is implicated in the causation of multiple cancers. Mechanisms for compensating farms contaminated by GMOs are lacking. The GMO industry has taken no responsibility for contaminations. GMOs are a threat to the organic sector and the maintenance of certification and price premiums. Most countries (88%) do not grow GMO crops

This paper considers the global experience of GMOs and the Australian experience as a microcosm of the global experience and as a case study.

MATERIAL AND DISCUSSION

The present paper draws on multiple sources, including surveys of consumer attitudes over the past decade, longitudinal price data of GMOs, longitudinal plantings data of GMOs, legal trial and appeal documents, including evidence and judgments in the Marsh v Baxter case (where an organic grower, Marsh, sued a neighbouring GMO grower, Baxter, for economic losses, including loss of organics premium, due to loss of organics certification caused by GM contamination), and documentation (including submissions, hearings transcripts, and the official report) of the parliamentary inquiry into mechanisms for compensation for economic loss to farmers in Western Australia due to contamination by genetically modified material.

CONCLUSION

The GMO industry has failed major tests, including the lack of social licence, attracting price penalties, lapses of biosecurity, segregation, stability, co-existence, contamination, narrow uptake base and market penetration, and glyphosate dependence. Australia offers a microcosm for considering these failures. Australia is a major player in global agriculture and in global agriculture

exports (Rural Bank, 2018), but it is a minor player in the world of GMOs.

In line with global consumers, the Australian public have failed to concede a social licence to this industry and remain skeptical about GMOs. The GM hectares in Australia are in decline for the two GM crops, GM canola and GM cotton. There is a price penalty for GM canola of 7.2% compared to non-GM cotton). GM canola is a glyphosate dependent crop and its percentage of the canola crop in Australia may be anticipated to plummet now that cancer lawsuits are in prospect, if glyphosate is banned, and if glyphosate residues are implemented at zero-tolerance by the market.

In contrast to the declining GM sector, the organic sector in Australia, and the world, is in the ascent and Australian organics now account for 51% of the world's certified organic hectares (Paull, 2019). Australia is far from the world's loci of pollution, and has many other natural advantages for "clean and green" food and fibre production. GMO farming puts at risk "Brand Australia" as a clean and green source of premium food and fibre. Extrapolating from present trends, we may foresee GMO production further retreating in Australia, as resistance is maintained within Australia and rejection is entrenched and increasing internationally as discerning markets and consumers say "no" to GMO imports.

[FOOTNOTE by editor:

Parliamentary Select Committee

A Parliamentary Select Committee to investigate GM Crops was established in August 2018. This inquiry was separate to the Independent Review conducted by Professor Kym Anderson.

The Select Committee released its report in October 2019 but could not agree on the status of the GM moratorium. Two of the four committee members (the Hon John Darley MLC and the Hon John Dawkins MLC) recommended that the moratorium be restricted to Kangaroo Island in line with GPSA's proposal and the Government's stated policy.

The Select Committee's findings were inconclusive as to whether any changes should be made to the moratorium. The moratorium will

automatically expire on 1 September 2025 unless Parliament decides otherwise.]

evokeAG. Food Farm Future 2020

submitted by Teagan Alexander

Recently I was extremely lucky enough to be able to attend a massive agtech event called evokeAG through Agrifutures' Levied Industries Capacity Building Program.

This is the second year of this event in Melbourne and next year it heads to Perth (16th and 17th of February). Over 1300 people attended evokeAG from over 22 different countries.

evokeAG spanned two days with plenty of opportunity to listen to talks, visit different stall holders from start-ups to big business, network and eat for there was PLENTY of food on offer.

We had the opportunity to try chocolate brownies made with cricket flour, tarts made with Kakadu plum, v2 plant-based "meat" dumplings and a wide variety of other foods available from the food trucks.

Start-ups in agtech had the chance to pitch their products to the audience in the hopes that somewhere in the audience there might be an investor that's right for them.

In amongst the local and international start-ups that took to the stage were a few technologies that would be of interest to beekeepers and pollination-reliant growers.

Canadian start-up, Nectar, appeared in the International Showcase. Their agtech idea was an in-hive sensor that can collect data on movement, temperature, sound and humidity

which can then determine whether your hive has died, has gone queenless, has a declining or growing population and hive movements whether they're by you or someone sneaky that is ill-intentioned.

The in-hive sensor is supported by an external sensor that collects weather data and a transmitter for sending the data.

BeeInnovative is a start-up that uses drones (the unmanned-aerial-vehicle kind) and radar technology (BeeDar) to determine bee flight during pollination in order to show which trees or bushes have been adequately pollinated and which have not.

Also present was a start-up called Hive Haven that produced hives suitable for the native *Tetragonula sp.*

Tetragonula are being increasingly used in pollination for macadamias. *Tetragonula* can be found in northern Australia and along the north-east coast (they like warmer climates).

The man-made hives need extra insulation as the bees aren't as good as *Apis mellifera* to regulate hive temperature. Hive Haven tries to mimic a tree trunk with the brood chamber at the core of the hive.

It takes 12 months for *Tetragonula* to rebuild from a split, though with the Hive Haven design, it's a very straightforward practice. The honey super sits above the brood chamber and can easily be removed.

The flight radius of *Tetragonula* is only 500m compared to *Apis mellifera* which can fly up to 5km. Due to flight radius being so limited, hive placement is significantly denser for pollination.

The honey has an almost sour taste if you can imagine sour honey. It's watery but unlike *Apis mellifera* honey, it's not supposed to be harmful if it ferments due to its yeast content.

There was a bit of bee fashion on show. Though I wasn't quick enough to get a photo of the woman wearing the jacket embroidered with gold bees on it, I certainly was of the woman wearing the honeycomb patterned, vintage Chanel dress.

It was being worn by none other than Claire Moore who is the 2019 Victorian winner of the Agrifuture's Rural Women's Award. She was also found to be in the company of a fellow alumni, Belinda Lay, who is the 2019 Western Australia winner of the Agrifuture's Rural Women's Award.

In addition to Claire's eye-catching dress, she wore little resin earrings featuring bees on comb. This ensemble was more than appropriate for Claire whose project for the Rural Women's Award is to breed healthy and adaptable queens. Belinda's project was fit-bits for sheep.

I came away from evokeAg exhausted but with a lot more to think about. The presenters were all well-chosen with Mike Lee from Alpha Food Labs being quite a popular speaker.

Mike showed us how the modern consumer can now shop for food online. Not by price or nutrition etc., but by values such as organic, vegan, local, has provenance etc.

Damon Gameau, creator of the film "2040", also spoke at the end of day one and gave everyone in the room a bit of hope for the future.



Figure 1: Claire Moore (Victoria) with fellow 2019 Rural Women's Award Alumni, Belinda Lay (Western Australia)

ANIMALS - CORONAVIRUS COVERAGE

from National Geographic

*By Sydney Combs,
Published 24 March 2020*

These wild animals also practice social distancing to avoid getting sick

Some species, such as chimpanzees and honeybees, enforce strict measures to prevent the spread of disease.

Many people in countries hardest hit by the coronavirus pandemic are struggling to avoid contact with others and stay at home, including millions of Americans ordered by authorities to shelter in place to slow the spread of COVID-19.

But social distancing is not a novel concept in the natural world, where infectious diseases are commonplace. In fact, several social species will expel members within their own community if they are infected with a pathogen.

It's challenging because infectious individuals are not always "easy to see," explains [Joseph Kiesecker](#), a lead scientist at The Nature Conservancy.

However, through specialized senses animals can detect certain diseases—sometimes before visible symptoms appear—and change their behavior to avoid getting ill.

[Honeybees](#) and [chimpanzees](#), for instance, can be ruthless when it comes to ousting the sick.

THE BIRDS AND THE BEES

As bees visit flowers to collect food, pollen from one flower sticks to the hairs on the bee's body and gets left behind at the next flower. This helps the plants reproduce.

Bacterial diseases that strike honeybee colonies, like American foulbrood, are particularly devastating, liquifying honeybee larvae from the inside. "That's where the name comes from, that brown gooey mess. It smells very, very foul," explains Alison McAfee, a postdoctoral fellow with North Carolina State University's Entomology and Plant Pathology department.

Infected larvae emit certain telltale chemicals that older bees can smell, like oleic acid and β -ocimene, a bee pheromone, according to McAfee's research. Once identified, the bees will physically toss these diseased members from the hive, she says.

Since this evolutionary adaptation safeguards the health of a colony, beekeepers and researchers have selectively bred for this behavior for decades. These more "hygienic" bees now buzz across the U.S.

'Really not that different'

In 1966, while studying chimpanzees in Gombe Stream National Park, Tanzania, Jane Goodall observed a chimpanzee named McGregor who had contracted polio, caused by a highly contagious virus.

His fellow chimps attacked him and cast him out of the troop. In one instance, the partially paralyzed chimp approached chimps grooming in a tree; starved of social contact, he reached out a hand in greeting, but the others moved away without a backward glance. "For a full two minutes old [McGregor] sat motionless, staring after them," Goodall notes in her 1971 book *In the Shadow of Man*. "It's really not that different to how some societies react today to such a tragedy," she told the *Sun Sentinel* newspaper in 1985.

Goodall recorded other instances of ostracized, polio-ridden chimps during her research, though noted that in some cases, infected individuals were eventually welcomed back into the group. (Read how 50 years later, Goodall's chimps still reveal discoveries.)

Like humans, chimps are visual creatures, and some research suggests that the initial stigma toward polio-infected chimps may be driven by fear and disgust of their disfigurement—which is itself part of the strategy for avoiding catching the disease that causes such deformations.

'Smarter than random'

Not all animals are so aggressive toward their ailing neighbors; sometimes it's as simple as avoiding those who may infect you.

Before Kiesecker started studying American bullfrog tadpoles in the late 1990s, models predicting the spread of disease within wildlife groups assumed that contact with infected individuals was random.

Every member of the population, they assumed, was just as likely to catch the bug as the next.

"But it's clear animals are smarter," says Kiesecker. In his experiments, Kiesecker found that tadpoles could not only detect a deadly yeast infection in other tadpoles, but healthy members actively avoided those that were sick. Much like honeybees, tadpoles rely on chemicals signals to determine who is sick or not.

Caribbean spiny lobsters also shun diseased members of their community, well before they become contagious. It normally takes about eight weeks for lobsters infected with the deadly virus *Panulirus argus mininuceovirus* to become contagious. Normally social animals, lobsters began avoiding the diseased as early as four weeks post-infection—once the lobsters could smell certain chemicals released by sick individuals.

Choosing the right partner

When it comes to mating, many species are picky about selecting a healthy mate. Female house mice, for example, can determine if potential partners are infected with a disease via a good whiff. If the female mouse smells a parasitic infection in the male's urine, she will likely move along to other, healthier mates, according to researchers at the University of Western Ontario.

Male guppies face similar scrutiny from potential mates. Female fish overwhelmingly prefer parasite-free partners: A combination of visual clues of infection, like clamped fins and paleness, and certain chemicals released from infected skin give the sick males away.

Overall, it's important to note that, unlike us, animals don't realize "if they stay home, they might actually reduce the transmission rate," Kiesecker explains. "As humans, we have that ability. It's a big difference."

PLASTIC FANTASTIC: it's a gut feeling

*Article in The Australian, 5/3/2020
by Rhys Blakely, London (from The Times)*

A very hungry caterpillar could help to tackle the problem of plastic pollution, a study suggests.

Scientists found that the larvae of the greater wax moth can eat polyethylene, one of the most widely produced plastics.

The research suggests that the caterpillars - or possibly the bacteria in their gut that allows them to live on a diet of plastic bags - could be harnessed to break down the wild the caterpillars, known as waxworms, infiltrate beehives and consume the beeswax that forms the honeycomb. Low-density polyethylene, used to make bags, has a similar molecular structure.

Scientists have found that 60 waxworms could consume more than 30 sq cm of plastic sheeting in a week. "They are really avid 'plastivores,'" said Christophe LeMoine of Brandon University in Canada, who led the study. "We think it is quite phenomenal that these insects are able to survive for weeks on a diet made entirely of plastic."

More work is needed to understand how the caterpillars and the microbes in their digestive tract work together. One challenge could be handling the substances the larvae excrete when fed plastic, which appear to include ethylene glycol. It can be used as a raw material to produce polyester fibres, to make fibreglass and for antifreeze, but it also toxic

The amount of plastic debris in the ocean is forecast to rise from 50 million tonnes in 2015 to 150 million tonnes by 2025, according to a British government report published last year.

One approach to tackling the problem has focused on using living organisms,

including bacteria and fungi, to alter and break down the chemical structure of polyethylene and other plastic polymers.

For a study published in the journal *Proceedings of the Royal Society B*, Dr LeMoine's team explored the role of the waxworm's gut bacteria. It found that when the caterpillars were treated with antibiotics to reduce the number of microbes in their gut, they were not able to degrade polyethylene as easily. In addition, when caterpillars were fed exclusively on polyethylene they had more gut microbes than ones fed on a normal diet.

The researchers also discovered that certain gut bacteria could survive being fed only plastic for more than a year. Under these conditions, however, it took longer for the plastic to be broken down than when the larva ate it.

"There appears to be a synergy between the waxworm and its gut bacteria that accelerates plastic biodegradation," Dr LeMoine said. "A better understanding of how this works may guide future efforts to design the 'perfect' plastic biodegradation system."

Boost for bee sting vaccine

From 'The Lead', July 2019

HEALTH & MEDICAL

A powerful bee sting vaccine designed to eliminate the risk of a severe allergic reaction to European honeybee venom has successfully completed a human trial in South Australia.



European honeybee

The vaccine used a unique sugar adjuvant, called Advax, which was developed in Adelaide by Vaxine Pty Ltd, to help the body neutralise bee venom.

Researchers hope the boosted vaccine could lead to shorter and more effective bee sting immunotherapy for people with a severe allergy. Flinders University professor and research director of Vaxine Pty Ltd Nikolai Petrovsky said the adjunct enhanced the bee sting vaccine and prevented allergic symptoms.

Professor Petrovsky was among researchers from Flinders University and the Royal Adelaide Hospital who conducted the European honeybee sting vaccine trial using Advax adjuvant on 27 adults. “Our technology is like adding a turbocharger to a car and in this case makes the bee allergy vaccine much more powerful, allowing the immune system to better neutralise the bee venom and prevent allergic symptoms,” Prof Petrovsky, pictured below, said.

“If someone has a very severe bee sting allergy then they need to keep getting injections for their whole life. It could be one injection a month, so you can imagine that’s an enormous number of potential injections, it could be in the hundreds. “We had to test the hypothesis that the adjuvant would improve the vaccine – we didn’t want to leave people exposed, so we actually ended up giving people the same number of injections as they would have with the old treatment and we were looking to see if they were better protected.

“The antibodies that we measured stayed much higher for much longer in people who had the adjuvant. So that’s why we’re excited that this might mean we can

significantly increase the duration between the allergy shots if we use that as a marker.” The honeybee is the most common cause of allergic insect reaction in Australia with about 2.8 per cent of the population having an allergic reaction beyond localised swelling after a bee sting.



Vaxine research director Nikolai Petrovsky has developed a unique adjuvant that acts as a turbocharger for vaccines.

Bee sting anaphylaxis kills about two Australians each year. Those living with severe bee sting allergies have to carry an epinephrine autoinjector (EpiPen) with them at all times. “And sometimes it’s not enough. One EpiPen when you have a severe reaction may temporarily reverse the allergy for a few minutes but then you go back into the reaction again. So it’s not like the adrenaline is like a permanent fix,” Prof Petrovsky said.

For this reason, Prof Petrovsky said allergy sufferers could undergo commercial bee venom therapy. For people with a moderate allergy, bee sting desensitisation can take up to five years. But Prof Petrovsky said it was recommended people with severe reactions have the allergy injections every month for their entire lives.

He said the new Advax adjuvant vaccine had the potential to extend the time between injections. Through the trial, researchers injected patients with bee venom before measuring venom antibodies in patients’ blood to test the effectiveness of the adjuvant-infused bee sting vaccine.

Each patient was trialled for three years and received the vaccine every week for the first 12 weeks and then once a month. "A number of people also got stung through the study, they were in the wrong place at the wrong time. I think one was a bee keeper and he got stung about 55 times through the course," Prof Petrovsky said. "But fortunately, no one in the study had to use adrenaline, so obviously the vaccine they were using was working." While not all of the patients were stung by bees, Prof Petrovsky said that was the next step in the bee vaccine trial. "The next trial we'll look at how long can we stretch those intervals out and to what extent can we reduce the injections."

The Advax adjuvant, which enhances the bee sting vaccines, has also been used to develop vaccines for seasonal and pandemic influenza, hepatitis, malaria, Alzheimers disease, cancer and other diseases.

BEE-FRIENDLY PLANT TO GROW

SOUTHERN MAGNOLIA



You don't have to think small. If you have the space then there are some great trees you can plant that will be an excellent addition to your garden, providing shade for humans, shelter for birds and forage for bees and other insects.

Magnolia grandiflora is a magnificent, evergreen tree with a dome of dense, glossy, green, leathery leaves that are rusty tomentose underneath. It bears fragrant,

creamy/white, slightly scented cup-shaped flowers up to 30 cm in diameter in late summer and early autumn followed by red/brown cones.

There is also a dwarf variety called "Little Gem" which can be grown in containers and reaches five metres tall when fully grown. Plant Grandiflora as a large statement tree or the dwarf varieties as a hedge which can be pruned to shape.

Sun: full to part shade. No frost or dry winds.

Soil: Well drained, drought tolerant.

Planting: depending on the variety, in large containers or garden beds.

Size: Grandiflora up to 20 metres.

Flowers: spring-summer

MOVIE TO WATCH



HONEYLAND

*Movie review by Leigh Paatsch,
The Advertiser, SA Weekend 7/8 March 2020*

True lovers of the documentary form must track down this incredible experience (*ed. perhaps once the cinemas are open again, if still available. Otherwise available on streaming platforms*).

This is the story of Hatidze Muratova, a beekeeper whose mystical command of the hives makes her one of the last practitioners of a vanishing art of honey extraction. As the film begins, Hatidze and her elderly mother are the sole residents of an otherwise abandoned village in a hilly corner of rural Macedonia. Then they acquire some

neighbours: a rough-and-tumble family of itinerant cattle farmers who think it might be a good idea to hustle some honey money on the side.

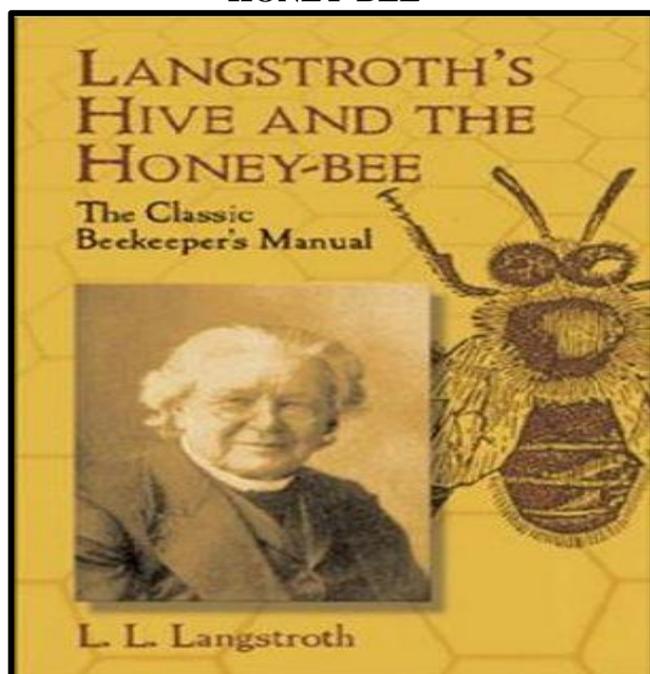
Hatidze tries to share her secrets with these newcomers to the game, but her valuable counsel goes ignored, triggering a series of telling consequences for all. The filmmakers found Hatidze and their astonishing story by accident, and spent three years gathering the extraordinary footage shown here. The end result (which earned two nominations at the recent Academy Awards) is a miracle in so many ways.



BOOK CORNER

Books from the BSSA library collection are available for lending to members at monthly meetings, generally on a one-month basis (by negotiation). Our librarian, Sue Speck, will be delighted to help members select a suitable book (if they require assistance).

LANGSTROTH'S HIVE AND THE HONEY-BEE



ISBN: 9780486433844
Number Of Pages: 464
Published: 20th February 2004

The first descriptive treatise of modern bee management. In a reader-friendly, enthusiastic style, Langstroth addresses every aspect of beekeeping: bee physiology; diseases and enemies of bees; the life-cycles of the queen, drone, and worker; bee-hives; the handling of bees; and many other topics. 25 plates.

This book is available for purchase through Booktopia.

Edited by Barbara Horwood



RECIPES

EASY BAKED CHEESECAKE



500 g cottage cheese
½ cup sugar
3-4 teaspoons semolina
50 g clear honey
2 eggs

Serves six.

Grease and line a 20 cm round cake tin. Preheat oven to 180 deg C.

Sieve the cottage cheese and add the honey, sugar, eggs and semolina. Mix thoroughly. Place in a well-greased cake tin and bake for 35 to 40 minutes

Serve with mixed berries or stewed fruit.

HAVE YOU SEEN THE “buzz” AROUND TOWN????



Cappuccino coffee with bee motifs!

HIVE FOR SALE



Hive for sale:

- 10 frame polystyrene brood box, ventilated base, hive mat and lid.
- strong colony with good population of gentle bees on all frames at the end of March (most recent inspection)
- healthy queen - eggs, sealed and unsealed brood on several frames (end of March)
- pollen present and being gathered by bees
- honey present on several frames (both sealed and unsealed)

Looking to sell at \$180.

Please contact John on 0424 047 849 or at john.swincer@gmail.com