



LUNE VALLEY COMMUNITY BEEKEEPERS

NEWSLETTER APRIL 2022

New Member

Welcome to new member Sue Buckland.

Chairman's message

In our part of the country, April is usually the month when the beekeeping season really starts and this year promises to be no exception! The exceptionally warm and sunny weather in March has certainly woken up the bees and many members have reported seeing their bees bringing in pollen in quantity. With so much activity, early swarming is a distinct possibility so make sure that you are prepared.

April is also the month when you should plan to make your Spring inspection. All being well you should expect to see eggs and brood in various stages. You might also see some drones, which is a clear indicator that your bees have thoughts about swarming! April is also a month when sudden cold spells can occur so check to ensure that your newer colonies have sufficient stores.

As you will see as you read through this newsletter, a lot of work took place at the apiary during March and the whole site is looking much better as a result. Many thanks to all who took part. Your efforts are greatly appreciated. However, as always, there is still more to be done! The areas needing further attention are set out later in this newsletter.

We are still in the process of organising our members' meetings for the summer months. This is due to the fact that a number of other beekeeping clubs have asked if they could visit our apiary during this period and we are planning to arrange social meetings around these visits. Details will be circulated as soon as they are available. In the meantime, if you have any ideas for meetings or speakers, please let me know.

SUBSCRIPTIONS FOR 2022-2023

Subscriptions for 2022-2023 fell due on 1st March 2022.

**Unless renewed, your public liability insurance
expired on 31st March 2022.**



Fred Ayres, Editor & Chairman
Tel: 01524 811978 Email: fred@lunevalleybeekeepers.co.uk



April meeting

Sunday, 10th April 2022

Spring Apiary Inspection, The Apiary, 11-00am to 2-00pm

This will be the first inspection of both the Training and Breeding apiaries this year and will provide new beekeepers with an insight into the hive in spring.

We can provide bee suits and gloves for new members but you will need to bring your own wellingtons.

It would be helpful if you could send me an email if you plan to attend.

March meetings

Saturday, 5th March



The woods were alive to the sound of..... chainsaws! For the first time in years, I managed to pick a dry day for a working party! Many thanks to all those who turned out with their chainsaws to help clear the trees brought down by the various recent storms and make the woods safe again.



Wednesday, 9th March

Our second "actual" meeting of the year saw a good turnout of members gathering to explore issues surrounding the successful collection and hiving of swarms, hiving packages, creating splits and using queen cells in mating hives and growing them on into nucs.



Sunday, 20th March

We had another fine and sunny day for our apiary working party. 12 members turned out and we completed the task in a morning. Many thanks to everyone who helped.



Apiary maintenance



All the bee-friendly shrubs for the hedge line separating the car park from the open grass area have now arrived and been planted and the very attractive slate name plates made by Dawn and Gillian are now in place.

As well as the number of trees blown down, the screening across the rarely used gate at the top of the woodland path was also blown away during one of the storms. This has now been replaced with what we hope will prove to be a more substantive screening.

BeeTradex 2022



On Saturday, 12th March I attended BeeTradex 2022. Held for the first time in three years due to the Covid pandemic, the event took place in the cavernous Hall 2 of the National Agriculture Education Centre, Stoneleigh Park, Warwickshire.

In previous years this event has been the largest fair of beekeeping equipment in the UK, but this year it was rather disappointing. Whilst there were a number of companies exhibiting for the first time, some of the largest firms such as Thornes and Maisemore, were not there. Visitor numbers also felt lower than previous years. In such a large space, it all felt a little lost!



There's much to do!

Our Club is now starting its 7th year of activities and has made a significant amount of progress both locally and further afield. However, in order to continue progressing we need your help. Ideally, we would like to have a member to take overall responsibility for each of the following areas:

Training

Organising theoretical and practical courses in alternative beekeeping practices and maintaining the training apiary.

Bee Breeding

Maintaining the breeding apiary, producing nucs and splits and organising related training courses.

Meadow development

Increasing the diversity of plants in the meadow and organising the twice yearly cutting.

Container

Ensuring that storage within the container is kept tidy and safe and maintaining stock records.

Fund raising

Fund raising for the proposed new club house, researching and applying for grants, sales of products such as hives, splits etc.

Meetings and events

Organising club meetings throughout the year and also our annual Open Day.

Some of these areas could be divided between two or more members so do not be put off volunteering because the task seems too onerous.

If you are interested and would like to know more, please get in touch for a chat without any obligation.

We are very grateful to:

Neil for ensuring that the meadow paths, composting and marquee areas are safely maintained.

Dawn and Gillian for ensuring that the cleared borders are well maintained.

Nigel for volunteering to organise volunteers to ensure that the woodland area is maintained in a safe and tidy manner.

Mark for agreeing to ensure that our web site remains easily visible, kept up to date and effectively promotes the club, its activities and services.

Lisa and Michelle for their ongoing efforts to promote the Club on social media.

If you would like to help with any of these areas please get in touch with the relevant person, or let me know.

Club diary for 2022

Sunday, 15th May 2022

An Introduction to Practical Beekeeping –The Apiary, 10-00am to 4-00pm

For those new to beekeeping who have completed *An Introduction to Beekeeping*.

Friday, 20th May 2022

World Bee Day

Saturday, 11th June 2022

An Introduction to Practical Beekeeping –The Apiary, 10-00am to 4-00pm

For conventional beekeepers wishing to explore alternative approaches.

Friday, 17th June 2022, 8th RotaKids Conference 2022, University of Cumbria, Lancaster

Friday, 8th July, 2022

Working Party to prepare for Open Day, The Apiary, 10-00am to 4-00pm

Saturday, 9th July, 2022

OPEN DAY, The Apiary, 10-00am to 4-00pm

Sunday, 10th July, 2022

Working Party to clear up after Open Day, The Apiary, 09-30am to 1-00pm

Sunday, 21st August, 2022

Club BBQ, The Apiary, 2-00pm to 5-00pm

Come along, relax and reflect with other members about your beekeeping season and anything else that you want to chat about.

Sunday, 4th September, 2022

Autumn Meadow Mowing, The Apiary, 10-00am to 4-00pm

With a dry day and sufficient helpers, we should be able to mow and rake off the meadow, get the strimmings into the compost bays and then mow the meadow in preparation for winter.

Sunday, 18th September, 2022

Autumn Apiary Inspection, The Apiary, 11-00am to 2-00pm

This will be the last planned inspection of both the Training and Breeding apiaries this year and will provide new beekeepers with an insight into the hive before winter.

Wednesday, 12th October, 2022, Speaker Meeting @ 7-30pm

Speaker, topic and venue to be confirmed.

Wednesday, 9th November, 2022, Speaker Meeting @ 7-30pm

Speaker, topic and venue to be confirmed.

Wednesday, 14th December, 2022, Speaker Meeting @ 7-30pm

Speaker, topic and venue to be confirmed.

Further activities will be announced as they are arranged.

2021 Hive Count

Almost 9,000 beekeepers updated their details on BeeBase during the 2021 hive count. There are currently more than 46,000 beekeepers registered on BeeBase, meaning that around 20% participated.

This 2021 hive count produced a figure of 272,631 colonies in the UK. This is slightly higher than the 2020 figure of 260,268. It is necessary to make a number of assumptions in the calculation, and so the figure is classed as an experimental statistic.

The Hive Count provides a very useful indication of the number of managed colonies in the UK, and helps to ensure that BeeBase records are kept up to date. Information about numbers and location of hives is very important for the National Bee Unit and Scottish Government inspectors in terms of preparing and planning for outbreaks of disease and exotic pests.

Making sense of Bee Pheromones

You open up a hive and start going through the colony to carry out a routine inspection. By accident your finger starts to crush a worker against a frame (clumsy and not to be advised). Very quickly the bee curls her abdomen and delivers her sting. Immediately other workers become agitated and another one stings your finger in the same area. Apart from the pain and swelling caused by the stinger and the venom it's pumping into the finger you notice a sweet banana like smell. Quickly you close up the colony and get away from the hive.

"Honeybees use pheromones to communicate information throughout the colony"

Within moments the colony returns to its normal business. You remove the sting and wash your gloves before returning to continue the inspection. By now the bees have forgotten your earlier indiscretion and you finish the inspection without further incident.

What has happened is an example of the effect of a short lived **pheromone** in action. A pair of glands in the stinger release a cocktail of volatile chemicals. The main component of the sting pheromone is *isopentyl acetate* which smells like banana. It has a small relatively simple molecule which is very volatile. This means it can spread rapidly through the air to alert other bees of danger and attract them to the site of threat. Rapid dispersal also means that the alarm effect is relatively short lived. Unless the danger continues and more stings are delivered, the concentration of the pheromone drops rapidly as it spreads out and the bees stand down their alert. This makes sense as a long lived pheromone would unnecessarily leave the colony in a constant state of alarm.

"Pheromones are used to help bees orientate to their own nest"

Opening the hive and disturbing the bees means there are now quite a number of workers flying around. These may include young nurse bees who normally live inside the colony as well as the older and more experienced foragers, but they all quickly find the hive entrance and go back home. You might have noticed a few workers near the hive entrance with their abdomens in the air fanning their wings with their Nasonov glands exposed. These glands secrete another different mixture of pheromones which help the workers find the nest entrance. Chemical analysis shows that the main ingredients of the Nasonov scent is *geranial* which is converted by enzyme action in the gland into *geranic acid* and *E-citral*. These pheromones help bees to orientate themselves to their home colony after orientation flights or when returning from foraging trips. It is interesting that the Nasonov pheromones themselves act to recruit other workers to join in the scenting behaviour - this can be seen by the rapid increase in the number of fanning and scenting bees as a swarm enters a new hive, or as workers return after a disturbance to the colony.

Both the sting pheromones and the Nasonov pheromones are examples of *releaser pheromones* which generate a rapid, but normally short lived, response from other members of the colony.

You get back to your hive inspection and work your way through the brood box, noticing newly laid eggs and young larvae. Eventually you spot your marked queen and you can safely close up the box, record your observations knowing that your colony is queen right.

"Queen substance contains at least 24 different compounds"

Of course the workers in the hive don't need you to tell them they are queen right. The laying queen continually secretes a powerful and complex mix of pheromones from her mandibular glands. This queen substance has been found to consist of at least 24 different compounds and perhaps may contain still others yet to be identified. The most abundant pheromones in the queen substance are two acids - *9-oxodecanoic acid* (9ODA) and *9-hydroxy-E-2-decanoic acid* (9HDA). Both of these compounds are much less volatile than the alarm pheromones and Nasonov pheromones. They are dispersed throughout the colony mainly through contact between bees. If you observe a queen bee on the comb you will notice that she is often surrounded by a retinue of attendants who face her and touch her with their tongues, antennae and forelegs. The queen regularly spreads the queen mandibular scent over her body by grooming with her forelegs. The attendants pick up the pheromone and transfer it to their own bodies. They then move through the rest of the colony and distribute the queen substance throughout the nest. Other attendants replace the first group and the result is a constant flow of queen substance throughout the nest. If something happens to the queen, or she is removed from the colony, it doesn't take very long before the levels of queen substance start to decay and the bees start the process of queen replacement by building queen cells and feeding young larvae with royal jelly.

"Queen pheromones have a number of different functions within the colony"

The queen pheromones 9ODA and 9HDA have a number of functions within the colony including inhibiting queen rearing and swarming, preventing the development of worker ovaries, attracting drones for mating, attracting workers to a swarm and recognising nest mates. The queen pheromones are *primer pheromones* which cause long term changes in bee physiology. For example, the suppression of worker ovaries takes a while to fade after a colony becomes hopelessly queen-less. Thus the emergence of laying workers become a last resort measure.

"Much remains to be discovered about the subtle ways bees use pheromones"

It has only been possible to discover a little of the extremely complex chemical signalling that happens in honeybee colonies since the development of modern analytical tools which can identify the tiny quantities of molecules involved. Experiments to study the effect of adding or removing a compound suspected of being important in regulating bee behaviour are very challenging and there remains much to be discovered about the many subtle ways in which bees use chemical scents.

Many thanks to John Edam (Manchester and District Beekeeping Association) for the use of this article from their newsletter through eBees.

BIBBA and Commercial Beekeepers

In its March 2022 newsletter, BIBBA tells us that from its foundation in 1964, it has always had a membership of both commercial and non-commercial beekeepers and has been committed to reducing the introgression of non-native genetics into our local bee populations. They have consistently argued that commercial beekeepers can run a viable business without introducing genetic instability into UK bee stocks, either through the use of imports, or by breeding using strains of bee that avoid introgression.

Note: *Introgression is the transfer of genetic material from one species into the gene pool of another by the repeated backcrossing of an interspecific hybrid with one of its parent species.*

BIBBA is now in the process of launching an initiative for commercial and professional beekeepers using their flagship National Bee Improvement Programme (NatBIP) which gives them a route to working with locally adapted stock in their apiaries.

Politics

It is not often that international politics have an impact on beekeeping but two recent events have.

Apimondia 2022

Apimondia is a huge international gathering of beekeepers, which is held every two years. The next one was due to be held in Russia in 2021 but was put off until August 2022 due to the Covid-19 pandemic. The conference was to have been held in an area of Russia where tree beekeeping, known locally as "wild hive beekeeping" has been practised for over a thousand years, and rediscovered by the rest of us recently, overturning many assumptions about how to keep bees. It is also an area with naturally varroa resistant bees.

However, due to the war in Ukraine, a request was made by the Polish Beekeeping Association to expel Russia from the International Organisation of Beekeeping Associations Apimondia. On 7th March 2022 Apimondia issued the following statement.

"The Executive Board of Apimondia voted unanimously this week to cancel the Apimondia Congress planned for September 2022 in Ufa Russia. We condemn the invasion of Ukraine by Russia.

Please know that we heard all your voices during these trying days.

We are looking forward to organising a great Apimondia Congress in Santiago Chile in 2023, when beekeepers and researchers from every nation will once again be able to meet. We may organise some Symposia prior to the Congress: please follow our website for updates.

We appreciate your continued support of Apimondia. Sincerely, Jeff Pettis, Apimondia President"

Since then, the Executive Board of Apimondia have decided to stage the 47th Apimondia Congress in Istanbul between 24th and 28th August 2022.

**New Venue of 47th Apimondia Congress is
ISTANBUL!**



Brexit 2021

Another political event with an impact on beekeeping is Brexit. This has effectively prevented imports of foreign bees, so commercial beekeepers are having to depend on local bees. This should establish whether or not the much-publicised claim that imported bees are superior to local bees for commercial purposes is actually true!

No doubt some breeders in Britain will still be trying to maintain their Buckfast lines etc, but it will be very difficult to do this whilst avoiding excessive inbreeding. The highly changeable weather here should strongly favour locally adapted bees and result in lower losses nationally over the next few years.

One advantage of the importation ban is that should the Small Hive Beetle spread from Italy to the rest of Europe, Britain will be firewalled.

World wide honey fraud

Honey is considered to be the third most fraudulently traded commodity world wide behind Milk and Olive Oil! One third of honey in international trade is considered to be fraudulent! Consider the evidence:

- Chinese honey exports have grown by 86% whilst hive numbers have only grow by 21% in the same period.
- Ukraine exports more honey than it produces.
- Current standard testing regimes are not up to the detection of honey fraud.
- There is an established and advertised industry in China of factory manufacturing honey, to any colour, taste and country of origin. The sophisticated technology developed to do this can evade all but the most sophisticated detection methods.
- A test performed in India, using "All Pass" syrup, where genuine honey was spiked with 25%, 50% and 75% syrup, found that the fraud was only detectable when 75% syrup was used.



in 2002, exports of Chinese honey were banned due to contamination with Chloramphenicol which is used to treat AFB. As a result, imports from Vietnam and Singapore increased significantly but were also found to be contaminated with Chloramphenicol.

In 2004 the USA imposed severe tariffs on Chinese honey as it was considered to be "Dumping" and unbalancing the US market. As a consequence, imports from Vietnam, Cyprus and a variety of other countries such as Tanzania increased very significantly to make up the deficit.

So, what is wrong with the honey testing regime? The current regime used in the West, looks at the Carbon Isotope ratio. Most honey from genuine flowers have a C3 ratio, whilst cane sugar has a C4 ratio. The test detects sugars from cane syrup, but not beet, rice or potatoes. NMR (Nuclear magnetic resonance) has been developed to do the job well, and one German company has developed a limited database of genuine honeys, although it is not widely available. No government has invested in this facility.

Another big problem is that the EU's honey labelling regime does not attempt to differentiate anything beyond EU or non EU honey.

So what do you get if you go to a supermarket and buy honey? Especially if you buy own brand labels at prices around £1.50 lb. These are virtually all labelled as "A blend of non EU honey". The Honey Authenticity Network took a set of supermarket honeys and tested them against a full range of tests, including NMR. Not a single sample passed the analysis, they all failed on multiple criteria! Only one met the Diastase minimum limit. All however passed the Carbon isotope ratio test, one of the current key international tests for honey fraud to detect cane sugar!

So the answer to the question, if you buy cheap supermarket honey, it will have a high content of sugar syrup, carefully tailored to pass the key international honey fraud tests, but have relatively little content that has actually seen a bee!

By Lynne Ingram via E-bees

Praise Bee

After reading about the spiritual importance of bees in the Orthodox Church and Celtic tradition in our February newsletter, member Philippa Bayliss draws our attention to "Praise Bee" a fascinating episode of Heart and Soul on the BBC World Service.

Here is the programme description from BBC Sounds:

"And your Lord inspired the Bee, build your dwellings in hills, on trees, and in (human's) habitations." (Qur'an 16:68). The bee has its own Surah or Chapter in the Qu'ran, it is revered in the faith for its diligent hard work and production of life-giving honey. The prophet Muhammed spoke about bees and honey. 'The believer is like a bee; her food and deeds are pure and wherever she goes she neither causes destruction nor corruption'. For many Muslims bees are not just intelligent, they are also in communication with God. 'God inspires them and guides them as he inspires and guides believers.'

Starting the programme on the roof of the East London Mosque, Farrah Jarral explores the spiritual importance of the bee in Islam and across other faiths. Yossi Aud tells us how the bee is being used for peacebuilding. He runs the Bees for Peace project just outside of Jerusalem which brings together people from different sides of a divided society. The bee is a symbol that connects people all over the world. From Jerusalem to Manchester, where the bee has become a powerful symbol after the Arena bombing in 2017. Farrah meets Adrian Rhodes, Chaplain at Manchester Cathedral, who looks after the bees on the roof of the Cathedral and describes what they mean to him personally."

which may be of interest to you: You can listen to this on

<https://www.bbc.co.uk/sounds/play/w3ct03q1>

Kenzo

Over the years I have been interested in many different things but never women's fashion! However, this year's Spring collection from the French fashion house, Kenzo, had a weird look of familiarity about it!



According to Kenzo, for half a century, they "have been infusing positive energy and contagious freedom by claiming a polychrome, daring and borderless fashion that celebrates nature and cultural diversity. Founded in Paris in 1970 by Kenzo Takada, who opened his first boutique in Galerie Vivienne, the House continues to cultivate and reinterpret with modernity the codes that make its uniqueness: the mix of prints, the harmony of refined colours and an exuberant and sophisticated creativity imbued with optimism and impertinence."



\$5.7 million for honey production without bees!

MeliBio is turning the 9,000-year-old method of honey production on its head, taking out the bee and injecting precision fermentation and plant science. Darko Mandich, a former bee-honey industry executive, and Aaron Schaller, a scientist and amateur chef, started the San Francisco-based company in 2020 with the goal of bringing sustainability to the \$10 billion global honey market, which Mandich described as “one of the most unsustainable agricultural sectors with broken supply chain and quality issues.”

Mandich explained that his epiphany came while reading a Wired article that reported on how keeping honey bees in bee hives was actually killing the 20,000 wild and native bee species due to the loss of a diversity in the bee population. “We want to change the food industry in a way that we make food sustainable, nutritious and deliver it at no cost to our dearest animals, in our case, the bees,” he told TechCrunch.

There are some companies already working in the bee space, like Beewise, which is doing automated beehives using precision robotics, and BeeHero, which is tracking the health of bees. Israeli company Bee-io is also working on a bee-free honey using patent-pending bio processes. However, Mandich touts MeliBio as being the first company to make real honey without bees. The product has been tested in four restaurants in New York with a successful outcome.

MeliBio came up with two ways to make the honey without bees: the first is using plant science to understand how bees access the plants, and what they get from them in order to make the honey. Second, how to improve upon the molecular composition to scale and make the product. That is where precision fermentation comes in — by identifying the organisms that are good in this application so that it can be used widely, meaning in different ways from drizzling on food to baking with it.

The company has now raised \$5.7 million in seed funding to help it expand into foodservice and business-to-business applications. In fact, MeliBio is already collaborating with 30 companies that have signed letters of intent to do validation studies, Mandich said. Astanor Ventures led the round and was joined by investors, including Skyview Capital, XRC Labs, Collaborative Fund, Midnight Venture Partners, Alumni Ventures, Big Idea Ventures and Hack Ventures.

New Year Plant Hunt 2022



The BSBI's 2022 New Year Plant Hunt took place between 1st and 4th January, 2022. Volunteers submitted lists of native and non-native plants they found in bloom in the wild during a three-hour walk at locations throughout Britain and Ireland. 669 plant species in bloom were recorded.

The four species most frequently recorded in flower in 2022, in rank order, were Daisy *Bellis perennis*, Dandelion *Taraxacum* agg. Groundsel *Senecio vulgaris* and Annual Meadow-grass *Poa annua*.

As in previous years, more species were flowering late (53%) rather than early (25%). These proportions of species flowering early, late or as expected were similar to previous years, suggesting that the majority of plant species flowering out of season are 'autumn stragglers' that continue to flower in the winter due to mild weather.

EU Report on Beekeeping

The European Commission published on 15 March 2022 the results of the pilot study entitled **“Restructuring of the honey bee chain and varroa resistance breeding and selection programme”** financed by the EU. This project, the largest study on honey bee selection ever conducted in Europe, explored the possibilities for increasing the resistance of commercially available honey bees to the varroa mite by selective breeding. It also analysed ways to improve beekeepers’ access to resistant material. It finally demonstrated that selection on varroa tolerance can be efficient and detailed how breeding structures should be established. Its results will contribute to reducing the treatment of bees with chemical and pharmaceutical products.

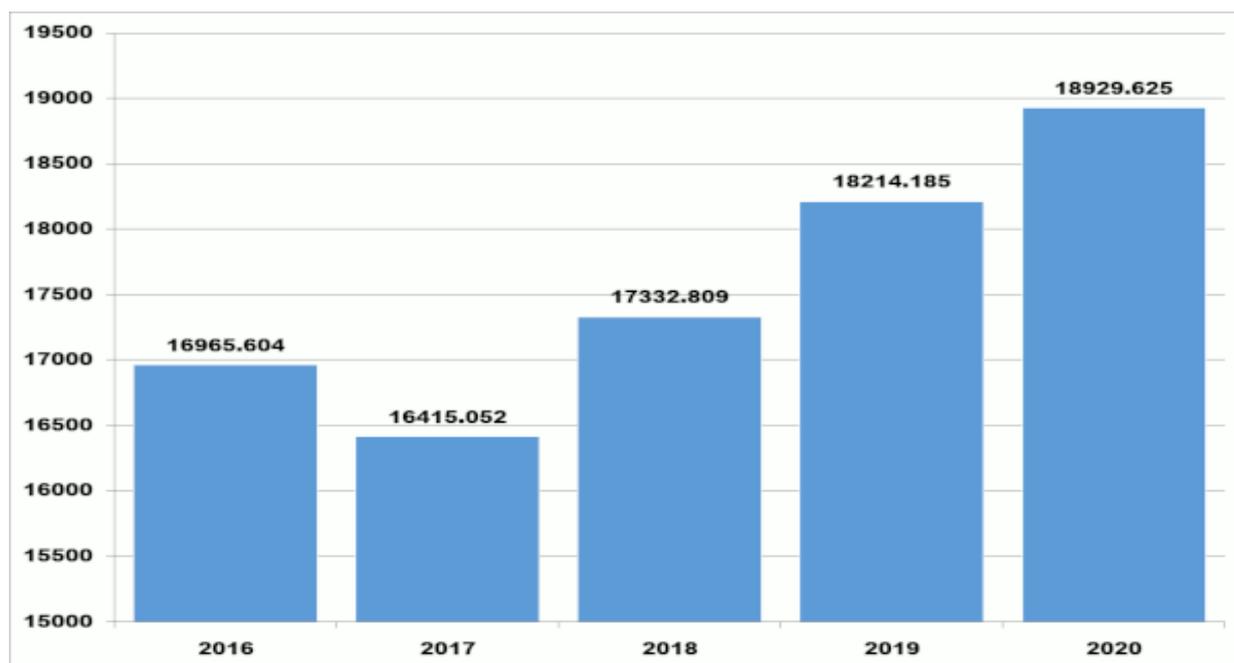
The research took place between 2018 and 2021 and was conducted by a consortium (EurBeST) of scientists, beekeepers, breeder associations and apiculture experts from 11 EU countries.

Honey bees have been under huge stress for several years, due to intensification of agricultural practices as well as climatic changes and globalisation, which bring new diseases to bees. Amongst them is the parasitic mite *Varroa destructor*, which leads to the death of most infested colonies within a few months if no treatment is performed by beekeepers. Since its arrival in Europe in the late 1970’s, varroa infests most colonies and represents the most impacting pathogen threat for honey bees and the beekeeping industry worldwide.

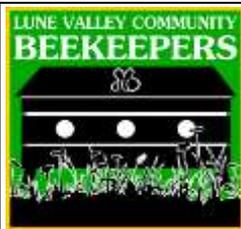
The study showed that untreated bees are able to develop defences and survive mite infestation. As this ability can be transmitted to the next generation, it opened up the possibility for beekeepers to select and breed for varroa-resistant bees.

The EU’s apiculture sector

The number of beehives is continuously growing in the EU. In 2020, there were approximately 19 million beehives in the EU. These hives are handled by 615,000 beekeepers. The EU produces approximately 275,000 tonnes of honey, making the EU the second largest honey producer after China (500,000 tonnes). EU production has increased by 15% during the last 5 years, but the EU still does not produce enough honey to cover its own consumption. The rate of self-sufficiency is around 60%.



Number of beehives in the EU (in thousands)



**LUNE VALLEY COMMUNITY BEEKEEPERS
MEMBERSHIP RENEWAL FORM – 2022-2023**

Title:	Name:
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Address:

Post Code:	Telephone:
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Email:

2022-2023 Subscriptions	Amount
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Annual Membership	12.00
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Public Liability Insurance (delete if not wanted)	15.00
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Donation		
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Total due		
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Please indicate method of payment	Cheque/BACS/Cash
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Bank details for BACS payment <i>Please quote your name as the payment reference to help us identify the payments.</i>	Lune Valley Community Beekeepers Account number – 29993268 Sort code 77-26-17
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I consent to the holding of my membership records on computer and consent/do not consent to disclosure to other members of the Charity and BeeBase.

Signed:	Date:
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Gift Aid declaration (for tax payers only)– past, present & future donations

Please treat my subscription as a Gift Aid donation. I confirm I have paid or will pay an amount of Income Tax and/or Capital Gains Tax for the current tax year (6 April to 5 April) that is at least equal to the amount of tax that all the charities and Community Amateur Sports Clubs (CASCs) that I donate to will reclaim on my gifts for the current tax year. I understand that other taxes such as VAT and Council Tax do not qualify. I understand the charity will reclaim 25p of tax on every £1 that I have given.

Lune Valley Community Beekeepers – HMRC Charities Reference XT22947

Signed:	Date:
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Please complete this form and either:

- **email it to** info@lunevalleybeekeepers.co.uk
or
- **post it to** LVCB, High Tarn, Aughton, Lancaster, LA2 8LU

An Introduction to Beekeeping

This on-line course

will introduce you to the craft of beekeeping and raise your awareness of all the matters you should consider *before* acquiring any bees!

The course comprises of a brief introduction and the following 16 sections, which can be viewed separately and in any order. Total running time 135 minutes.



- 1) Why keep bees?
- 2) Brief history of beekeeping
- 3) Types of beekeepers
- 4) The beekeeping year
- 5) Life history of the honey bee
- 6) Hive inspections
- 7) Collecting swarms
- 8) Hive products
- 9) Bees, wasps and hornets
- 10) Hives and equipment
- 11) Creating an apiary
- 12) Acquiring bees
- 13) Bee stings
- 14) Bees, the Law & Insurance
- 15) Bureaucracy
- 16) The next step



To book this course, please visit

www.lunevalleybeekeepers.co.uk

and complete the booking form.

60% of all the food crops we grow are dependent on bees for pollination



The Lune Valley Long Hive

An innovative but simple long hive



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- Designed by a bee-centric beekeeper for bee-centric beekeepers
- Comfortably houses one colony of bees without the need for additional supers or brood boxes
- Has a hinged roof to avoid the need for heavy lifting
- Can be managed by a person in a wheelchair
- Comes with 14 x 12 frames (flat), but can be used with top bars
- Has a removable floor tray which can act as an eco-floor or a debris board for varroa counts
- Has 2" thick wooden walls which provide five times more insulation than a standard hive
- Roof space is ventilated
- Comes with a jumbo feeder
- Has a metal roof
- Is manufactured locally, especially for LVCB
- Is constructed from pine wood to reduce the cost but will need an external preservative or coat of paint
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Dr Fred J Ayres



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