The Essex Beekeeper

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Essex Beekeepers' Association
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Furthering the Craft of Beekeeping in Essex
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- Articles appearing in The Essex Beekeeper are not necessarily the views of either Essex Beekeepers' Association or its Editor.
- To ensure inclusion within the diary of county-wide events I
 would be grateful if divisions would provide me with details
 of local meetings by the 20th of the month.

Many thanks, Dee Inkersole: editor@ebka.org

With thanks for the front page Photo by <u>Shelby Cohron</u> on <u>Unsplash</u>

What's happening in our Divisions in December?

Braintree Fri, 10 Dec, 19:00; Christmas Social and craft activity; White

Notley Village Hall

Chelmsford 30 Nov 19:00; Christmas Dinner; County Hotel, Chelmsford

14 Dec 19;30; Christmas Cheer!; Margaret ting Village Hall

Colchester Th 23 Dec 19:30; Langham Community Centre

Epping Forest

Harlow 14 Dec 19:30; *Christmas Social*; The Barns, Lodge Farm,

Epping Green

M&D Mon 13 Dec 19:30; AGM & guest speaker. Members'

Christmas Meeting; OAKhouse, High St, Maldon

Romford Mon 2 Dec 20:00; Christmas Social; Chadwick Hall, Gidea

Park.

Saffron Walden Fri 3 Dec 19:00; Christmas Get-together; Village Hall

Southend

Update from the CEC Chair - Jane Ridler

Hopefully, things are now looking up for everyone, although I'm not sure we're completely recovered from the pandemic yet. Richard and I had an excellent visit to the **National Honey Show**, which was, as usual, well organised, but with rather fewer people attending - probably a good thing! We didn't get to any of the excellent lectures, tied as we were to the Bees Abroad stand, but I did see some of our beekeepers and we were well represented in the Essex classes. Well-done to our winners! [see p10 for a list] And **thanks to Jim McNeil**, our National Honey Show



Secretary, for organising our exhibits. The rather more unusual classes are worth going to the Show for on their own – exquisite bee-related embroidery, collections of perfect bee products creatively presented, and some beautiful photography.

... so, zooming, in the winter months especially, is at least one good outcome from Covid. We have our fingers crossed that we can have the AGM in person in Chelmsford in March too, if all is well. **The AGM date is Saturday 12**th **March 2022 at 2.00pm.** We are also making plans for the 2022 Ted Hooper Lecture to be held at the Wax Chandlers' Hall in June/July – it'll be a 'Grand Day out'! And Epping are working on the 2022 Conference, so another real event to look forward to.

The CEC met on Zoom again at the beginning of November. We are a good-sized team, and because of the constitution rules that we represent all nine divisions, only a couple of members are from Chelmsford so zooming, in the winter months especially, is at least one good outcome from Covid. At the meeting we had a report from the team who are assisting Harlow committee in maintaining the Division there. There are lots of ideas and we have a new and enthusiastic Acting Chair, Ed Smith. I'd like to reiterate that two years of the pandemic has played havoc with all sorts of Associations, not just beekeepers. So please do your best to re-join the activities that your committees are organising, whatever your division, just as soon as you feel comfortable.

We have a new Webmaster taking over from Nick Holmes, after many years of dedicated service and expertise. Many thanks to Nick for all your hard work - and welcome to **Graeme Crook, Chelmsford Div**. who will be taking over in the New Year. Thanks also to Brian Spencer, Chair at Chelmsford, for giving assistance in the transition, alongside Nick.

The Governance Committee presented three policy documents to be accepted by the CEC after review. These are the Finance Policy, including a statement on Trading, a new Insurance Policy, and the Guidelines for Examining Divisional Accounts. The revised policies will be up on the EBKA website in due course. **Keith Lomax, Southend Div** was nominated and accepted by the CEC to serve on the Governance Committee. His expertise on governance will be very valuable. Paul Wiltshire, Romford, has retired from this committee after having worked on developing a wealth of policies for about four years. So many thanks, Paul, for all your time and experience.

In line with correspondence from BBKA referring to insurance, as well as our own policy, please be aware of the following two requirements at apiary meetings:

- All Beginners on Divisional Courses must be members of EBKA before they start handling bees both for their own and any trainers' insurance benefit.
- All organisers of Taster Days must ensure that every delegate has signed the disclaimer document as in the policy Document (on the BBKA website https://bbkanews.com/issues)

Finally, now is the time to start winding down on the beekeeping activities – Richard is boiling and scrubbing hive parts with washing soda as I write. I wish you and your bees a very Happy Christmas and a peaceful and healthy New Year in 2022.

Regards Jane Chair, CEC

Nottingham region meeting: Honey bee behaviour within the hive

Alec Thomson summarises fascinating insights produced by scientists in Frankfurt. Following the regional AGM, Alec took the opportunity to show some videos made by scientists investigating bee behaviour; in this article he summarises their research.

With the advent of new video techniques and the use of infra-red cameras, combined with the construction of non-reflective glass-panelled observation hives, three German scientists (namely Siefert, Buling and Grunewald) based at Frankfurt University have produced some extremely fascinating and illuminating videos of honeybee activity within the comb showing: queen egg laying; brood care and feeding; thermoregulation – warming and cooling; cell capping; larval cocooning; depositing pollen; grooming and cleaning; and, cannibalism.

Whilst recording and noting worker behaviour within the observation hives (each of which contained approximately 3,000 bees and a queen) they took the opportunity to utilise their digital recording capability to quantify, for instance, the number of visits to eggs/grubs which included feeding, cleaning, and warming, as well as the average duration of events.

The following are some of the revelations from the study:

- 1. The egg remains motionless until it hatches on the third day but may be moved by workers visiting to warm the cell. On average the emerged grub is first fed after 95 minutes. Instances were noted of eggs being moved from cell to cell.
- 2. Larvae at days 1-3 were fed mouth-to-mouth to avoid the risk of being submerged in brood food; thereafter, brood food was deposited in the cell allowing larvae to feed themselves. An average of almost 14,000 feeding visits were made during the 6-day larval period, with the greatest number of visits during day 5. During mouth-to-mouth feeding, antennal movement to locate larval mouth and to measure grub size was particularly pronounced, whereas during visits to warm a cell there was little antennal movement but pronounced truncation of the abdomen pushing heat from the thoracic muscles into the cell. [via the air released from the spiracles? Ed]



- 3. Following their last feed, larvae commenced cocooning, and this took an average of 32 hours. During this period the larvae performed between 27-37 somersaults (lasting up to 52 minutes) within the cell until reaching their final, elongated pupal position. Pollen packing was invariably performed by two bees initially the forager off-loaded into the cell, followed by a younger bee entering head first adding nectar/honey and then compressing the pollen to fully utilise the cell's capacity.
- 4. A rocking movement involving the workers' mandible and fore legs on the surface of the comb was seen to be a cleaning activity to remove mould or fungal growth.
- 5. Cannibalism of larvae was observed and thought to be due to the workers noting discolouration, malformity, chemical/pheromone signals and diploid drones. The practice of cannibalisation ensures that valuable protein is recycled. It was also recorded that eggs were rarely cannibalised. If the pupae had reached the stage whereby the cuticle had hardened, then the grub would be removed from the colony not eaten.
- 6. There were several examples of worker bees entering cells after bees had emerged and consuming young varroa where their cuticle had not fully hardened.
- 7. When a bee wished to be groomed by another ('allogrooming') it would brush itself with each pair of legs as a signal to others.

In all there are 18 short videos that the researchers have made available to be used 'for further research or to educate beekeepers and public audiences. If

you wish to take advantage of the researchers' generous offer, the videos and explanatory paper can be downloaded by going to the link below. [The whole article is long – but fascinating. Ed.]

https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0247323

With thanks to Nottingham BKA's Beemaster via eBees

National Bee Improvement Programme, (NatBIP) Taking things forward

We are now taking forward our flagship National Bee Improvement Programme (NatBIP) into its next phase and, as part of this, we need promote our message about native honey bees and bee improvement to a much wider audience. We are therefore very pleased that Sir Tim Smit (from the Eden Project) offered to help us promote that message through this short video.





Sir Tim Smit

Although he is not a beekeeper himself, he is an environmentalist of global standing and has been a long-standing supporter of our aims and objectives. He has helped to establish reserves for the native honey bee at both the Eden Project and at the Lost Gardens of Helligan in Cornwall.

The Oa edition of <u>BIBBA Monthly</u> featured our new approach to taking forward BIBBA's long-standing Aims and Objectives by adopting 'Four Sustainabilities', which of course, includes our commitment to sustainable native and near-native honey bees. This commitment is at the

core of why BIBBA exists and what it does. NatBIP will enable us to promote locally adapted bees as an alternative to imports and take us towards beekeeping based on native and near-native bees. We hope you enjoy our video.

We are therefore very pleased that **Sir Tim Smit** (from the Eden Project) has helped us promote that message through this short video.

click for Full Details & Link to Video

Bees Abroad Christmas Appeal

This Christmas you can **double** your impact in helping to create **Beekeepers** for Life! From midday 30 November to midday 7 December. Click here

Bees Abroad are excited to participate in the Big Give Christmas Challenge, the UK's largest match funding campaign. For seven days – **from midday, 30 November (#GivingTuesday) until 7 December** – every donation made to the Bees Abroad Big Give campaign, **Beekeepers for Life: Empowering Women**, will be matched.



Vaileth Abel with her top bar hive

Save the date! One donation, twice the impact!



Beekeepers for Life is an exciting initiative to empower women across Africa through beekeeping. **Vaileth Abel** from Tanzania is one of our Beekeepers for Life participants. She is a mother to three children and lives in the small, rural village of Nyamkolechiwa on

Kome Island, Lake Victoria. She lives off the land, growing maize, cassava and sweet potatoes with a dream to one day own a piece of land and be able to give her children an education and the chance to reach their goals Vaileth recently attended her first beekeeping training with a group of 20 women from her community and together they have hung their first hives. Equipped with training and support, locally made hives and a locally made bee suit, Vaileth is one step closer to realising her dream.

There are many more women just like Vaileth, and Bees Abroad are working to establish community beekeeping Women are equipped with the skills and resources to generate a sustainable income through honey and wax sales. Together with our Bees Abroad local partner trainers we are groups across Tanzania, Uganda, Kenya, Ghana and Nigeria.

This Christmas you have the amazing opportunity to support them... with every pound you donate during the campaign doubled! One donation, twice the impact. Creating Beekeepers for Life.

With thanks to Nottingham BKA via eBees

National Honey Show Results - Essex Exhibitors

The full results for the National Honey Show are available on their website but we thought it would be of interest to know which members of EBKA won in which classes; many thanks to Jan French of Braintree Division for producing the list below [please let me know if there are any errors or omissions-Ed]. Congratulations to all the exhibitors whether their exhibits were placed or not but especially to those who were and are listed below. Maybe next year more of us will enter?



This photo, taken by Clive de Bruyn, is of Jan French, showing her softset honey

Section	Class	Title	Name	Award	Division
Open Class	89	Practical invention	Filippo Negri	VHC	Romford
Open Class	41	Container of cut comb	Jan French	2nd	Braintree
NHS Members only	160	Two containers cut comb	Jan French	VHC	Braintree
Essex Members	262	Two jars of light honey	Jan French	3rd	Braintree
Essex Members	266	Two jars of soft set honey	Jan French	1st	Braintree
Essex Members	268	Container of cut comb	Jan French	1st	Braintree
Essex Members	269	One jar of liquid honey (Gift)	Jan French	3rd	Braintree
Essex Members	270	One piece of beeswax	Jan French	1st	Braintree
Essex Members	271	Three beeswax candles made by moulding	Jan French	2nd	Braintree
Essex cup		Dodds Cup most points in classes 261 - 272	Jan French	Cup	Braintree
Essex cup		Tremearne Cup for Soft set honey	Jan French	Cup	Braintree
Essex Members	263	Two jars of medium honey	Jean Smye	VHC	Southend
Essex Members	269	One jar of liquid honey (Gift)	Jean Smye	2nd	Southend
Essex Members	271	Three beeswax candles made by moulding	Jean Smye	1st	Southend

Section	Class	Title	Name	Award	Division
		Twenty four jars of			
Open Class	1	honey	Jim McNeill	4th	Romford
		Three non-moulded			
Open Class	49	cancles	Jim McNeill	VHC	Romford
Open Class	85	Honey label	Jim McNeill	4th	Romford
		One shallow comb			
Essex Members	261	suitable for extraction	Jim McNeill	2nd	Romford
		Two jars of medium			
Essex Members	263	honey	Jim McNeill	2nd	Romford
Essex Members	270	One piece of beeswax	Jim McNeill	3rd	Romford
		Three beeswax candles			
Essex Members	272	not moulded	Jim McNeill	1st	Romford
	272	Dd		4.1	D C I
Essex Members	273	Dry mead	Jim McNeill	1st	Romford
Essex Members	274	Sweet mead	Jim McNeill	1st	Romford
		Six jars of honey			
		produced by a Branch	Romford		
Open Class	32	Apiary	Division	VHC	Romford
			Romford		
Essex Members	262	Two jars of light honey	Division	1st	Romford
	262	Two jars of medium	Romford	2 1	
Essex Members	263	honey	Division	3rd	Romford
C	264	Tour innered deals because	Romford	2nd	Romford
Essex Members	204	Two jars of dark honey	Division Romford	Znu	Komiora
Essex Members	266	Two jars of soft set honey	Division	3rd	Romford
L33EX IVIEITIDE 3	200	Попеу	DIVISION	Jiu	Komiora
		One jar of liquid honey	Romford		
Essex Members	269	(Gift)	Division	VHC	Romford
			Ted		
Open Class	6	Two jars of set honey	Gradosielski	HC	Epping
		Three jars of different	Ted		
Open Class	33	honey	Gradosielski	3rd	Epping
NHS Members			Ted		
only	153	Two jars of dark honey	Gradosielski	НС	Epping
		.,	Ted		FF 0
Essex Members	262	Two jars of light honey	Gradosielski	2nd	Epping
		Two jars of medium	Ted		5
Essex Members	263	honey	Gradosielski	1st	Epping
			Ted		
Essex Members	264	Two jars of dark honey	Gradosielski	1st	Epping
		Three jars of different	Ted		
Essex Members	265	honey	Gradosielski	3rd	Epping
ESSEX IVICITIDEIS	203	попсу	Gradostelski	510	-4412
		One jar of liquid honey	Ted		
Essex Members	269	(Gift)	Gradosielski	1st	Epping

Section	Class	Title	Name	Award	Division
Open Class	88	Decorative or artistic exhibit of needlecraft	Rosamund McCarthy	1st	Romford
Open Class	88	Decorative or artistic exhibit of needlecraft	Rosanna Seels	2nd	Romford

Wash-boarding in Honey Bees

A strange form of honey bee behaviour known as "wash-boarding" or "rocking" continues to elude an explanation. Worker bees gather in large groups—either inside the hive or out—and rock back and forth while seeming to lick the surface beneath them. The motion has been likened to that of scrubbing clothes on a washboard.

Wash-boarders are all worker bees, who start doing it at about 13 days old. When given three different surfaces, the wash-boarding increased as the surface became more textured. Slate produced the most wash-boarding, followed by unpainted wood, and then glass. The surface-type data, however, did not produce statistically significant results.



Nobody has yet discovered exactly why bees do this, but watch this video to see it in action $\underline{\text{here}}$

[This is a short but very interesting bit of video if you have never witnessed this phenomenon with your own bees – Ed]

With thanks to Somerton Beekeepers' Newsletter via eBees

The Braintree Skep makers



A century or two ago most beekeepers kept their bees in straw skeps, but on one recent September Saturday a good dozen or so EBKA members from around Braintree set out to make themselves a skep in which not so much to keep bees as to collect swarms. Modern beekeeping prefers hives with removable frames. but the skep is liahtweiaht, breathable, easy for the bees to cling to, and flexible so that it can be squeezed between branches in order to fit under a swarm before you shake the bees into it. A really useful piece of kit for swarm collecting.

Led by Chris Park, well known in British beekeeping circles for his skep making as well as for his wonderful shock of hair, a circle of eager students sat themselves down in a local Silver End barn, surrounded by bundles of damp straw. Holding in one hand a collar made from a pipe cut-off into which they kept stuffing lengths of straw and in the other a heavy bent needle with their lapping made from stripped willow, they started to form a tight spiral of straw to create the roof of their skep.

Apart from demonstrating and instructing the skep making, Chris was happy to expound on how to live off-grid, in his woodland home, surrounded by nature. Inevitably the conversation also included participants' beekeeping anecdotes and experiences and the day was punctuated by welcome refreshments provided by Elspeth, Steve and their grandchildren, who had specially baked biscuits in the shape of skeps.



This was a whole day commitment, however, Chris had warned us that we might not finish the skep and this was mainly because it takes sustained muscular squeezing and pulling to keep the coils of straw tight, so muscles unused to this work soon complained and progress slowed. Eventually participants gathered up their skep-in-progress, extra lapping and straw and headed home.

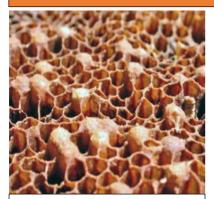
Undaunted, one afternoon two weeks later a small but resolute group reconvened in White Notley village hall. Let nobody say the job is too hard – to the left is a photo of Alessandro demonstrating the strength of his finished creation by standing on it.

Thanks to Antony Stark, EBKA Braintree

Honey Buckets – Food Grade Quality Capacity: 11.3 litres / 32 pounds With lid and reinforced handle

Price: £2 each
Telephone: David Tyler
01279 730 228 or 07955 768 124

Queens! A Year of Confusion



Signs of a failing queen (Crown Copyright)

I frequently wonder about the allure of the queen. She is obviously the heartbeat of the colony but also the fascination for the beekeeper. Even after many years of beekeeping, the next generation of queen breeding remains addictive, and 2021 has proved to be no different. The challenge is to improve the local bee in my area, but this is consistently being undermined by the introduction of out of area bees over which I have no control. Would they change if the importers of queens knew how they compromised efforts subscribed to by BBKA and local breeders?

The problem is that drones born of the imported queens fly to the drone assembly areas where our virgin queens go for mating. The genetic material from these drones may not be compatible with the local bees, so their behaviour may change in the next generation. It is important to remember that newly mated queens will potentially be around for three or four years, thus influencing breeding for many years to come. In the f2 generation, defensive behaviour may become more common. The breeder cannot guarantee how the progeny will behave because of the unknown paternity of the new workers. A drone from a swarmy strain or from an aggressive one will influence the queen's progeny for years to come. It is essential to protect the qualities of our local bees and buy locally bred queens or, better still, rear your own.

Early this year, on my first inspection, one of my colonies showed a lot of drone brood, much of which was being neglected and worker brood which was being reared. This suggested a failing queen. Closer inspection revealed two queens! It's not uncommon; one marked and clipped queen and the other unmarked and not clipped. A clear example of supercedure in the previous autumn. The bees then kept both queens until spring. What to do? I didn't know which queen was faulty, so I left well alone. The bees know better than the beekeeper. Next inspection revealed the unmarked queen stinging her mother queen, so successful requeening via supercedure was achieved without human intervention.

Supercedure is nature's way of replacing the queen with a backup plan if the new queen fails to mate. It usually happens in late summer or early autumn.

The bees may create one to three queen cells on the face of the brood comb. One of these queens will hatch and then remove her siblings with the help of the worker bees. She will mate and return to the hive. The mother queen may be retained, and both queens can often be seen on the same comb amicably laying. It is only when the bees are happy with the young queen that the mother queen is removed. Swarming is very rare with supercedure, but a late August swarm may be due to more than one supercedure cell hatching! This swarm is doomed unless found by a beekeeper. On the theme of supercedure, we are now in that window, and some of my early 2021 queens are surprisingly being superseded. Poor mating this summer is now being remedied by the bees. A current colony has two queens, and I await the outcome. The bees will decide who stays. As winter approaches and drones are being removed, feeding is needed to stimulate egg laying and for the bees to prepare for winter. Try to have winter feeding complete by mid-

October but be aware that ivy honey and balsam are still yielding, so avoid congestion in the brood nest. The bees also need some empty cells for clustering. My bees are generally wintered in a single brood standard national hive with a few six comb poly nuclei.

I capitalise on the summer bees when taking off the honey. A full brood box of foundation is placed over the brood nest for clearing. When the honey is removed, constant feeding gives strong colonies the ability to draw beautiful combs ready for spring use or replace faulty old brood combs. These comb builders need continuous feeding, or they will destroy the foundation. I hope you had a successful season and look forward to meetings in 2022, hopefully, COVID free.

With thanks to David Buckley, Cheshire BKA via eBees

..... and another article on a similar theme

In the first of this series on my experiences of the 2021 a couple of months back, I mentioned a weird (to me at least) "swarming attempt" I saw from 3 of my colonies. To recap, I ran all my stocks on a single 14 x 8 National Brood Chamber. There was a second chamber above this, but that was mainly for the purpose of get- ting new brood combs drawn. Of 8 colonies, 3 raised queen cells. Now we've probably all read there are three types of queen cell and you can usually tell which you're faced with ac- cording to a few rules of thumb.

1) Swarming Impulse - characterised by being large in number, can be right across the brood nest and be of differing ages. Often all round the edges of the frames but some in the middle too.

- 2) Supercedure the old queen (by the bees at least) is seen to be failing so they raise cells. Generally low in number, say 3 or 4 cells close together (of similar age) and often in the middle of a single frame. Incidentally it is not uncommon for one of these daughters to hatch, go on her mating flight and start laying eggs while the mother is still alive and continue to function normally, for a while at least.
- 3) Emergency the old queen has died so the colony raises several queens with the idea of one as a direct replacement. The cells are "bent" rather than hanging vertically as the bees have selected young larvae in a standard worker cell. Provided it's young enough, there is nothing wrong with these queens. This im- pulse is used by many beekeepers (generally by temporarily or permanently removing the queen) to get the colony to raise queens as part of a breeding programme.

None of these "Rules of Thumb" is absolute. They are only a guide and please don't fall into the trap of thinking that your bees won't swarm off Supercedure or Emergency Cells. If conditions are right, they very well might!

So far so good. However, my 3 colonies that raised cells did so in a way that doesn't fit any of these models. In each case they raised 3 cells, all of the same age - sealed as it happened (there was no sign at my previous visit), they were hanging vertically so you might think Supercedure. Here comes the "BUT". Their location was all wrong. The 3 colonies each raised 3 queen cells, near the top of the frame

But on widely dispersed frames e.g., number 2, 6 & 9. The queen (marked and clipped) was laying happily away and there was plenty of brood of all stages. To me that is very odd and I can't explain it. I wasn't overly not concerned about it, other than it required me to check every frame, which I might not always do once I see the queen and sufficient eggs and larvae kicking about. Still with a single set of brood combs, it didn't take that long and I shall be on the look out for anything similar in 2022!

With thanks to John Wrigley of Bristol BKA via eBees

www.thebeeshop.co.uk Quality Beekeeper Clothing At Affordable Prices Full Suits, Smocks, Bee Vests & Veils Full adult suit - £55 (with free postage) From Somerset Email: michaeljohnduckett@gmail.com

What to do with wet honey

I like to have honey from the different seasons, the taste of spring honey or early summer is so different to the rounder, stronger flavours found later in the year but sometimes extraction might not normally be considered as the bees have not capped the frames.

A good rule of thumb for a beekeeper is to not extract honey from a frame which is not 80% capped as it might be too wet (too much water in the honey might cause fermentation). It is possible to do a check by shaking the frame sideways and if no liquid flies off it might be OK but this isn't a guaranteed check and once it is in the bucket after extraction and you find, with a refractometer, that the water content is 21% what can you do?

In the past I had the choice of consuming the honey quickly, making mead out of it, feeding the honey back to the bees or trying to dry the honey...my preferred choice.

My usual method of drying has been to place open buckets in a small room with a fan blowing air across the top of the buckets. I find that I can remove about 1/2 % of water from the honey over 2 days; and if I have a dehumidifier running in the room I can generally drop the water content about 2% in 7 days. I have noted that there is a limit to the amount of water that can be removed as the surface of the honey dries out, but the honey liquid underneath remains wet. Regular stirring can improve the drying so I sought a better method of drying the honey.

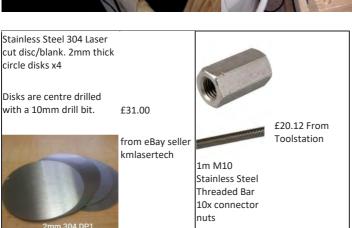
Commercial driers operate with stainless steel discs rotating in a warm, dried atmosphere. Even the smallest one cost about £500 to buy and the cost of losing a fermented bucket of honey is about £150 in sales. I set about replicating the design with available parts. My solution cost £55 and about 5 hours work. All items in contact with the honey are stainless steel and the structure was designed so that the rotating shaft sits just above the top of a standard 30lb bucket.

The motor is mounted and connected to the screw shaft by poly tubing. The 4 disks of the drier rotate at 5 rpm and I have a fan (removed from an old PC) positioned next to the bucket blowing through the disks. Drying now takes 6 hours to remove 3% water and on completion I drip-dry the disks then move the unit outside to recruit the bees to help clean them.

Parts listed below for anyone who is interested in making a similar unit.

Additional items (switch, wiring, poly tubing, 12v transformer (ex laptop) and wood I found in my garage but could be sourced online.







10mm Bore Diameter

Pillow Block Mounted

Ball Housing Bearing x2

£5.24

from eBay seller ebuff-2020



£6.26

Type DC Speed Reduction Motor Large Torsion Worm Gear Motor V 5RPM from eBay seller binggoshop

With many thanks to Paul White of Ipswich & E Suffolk BKA via eBees

Plants for Pollinators

I imagine that almost all beekeepers are aware of the importance of there being a range of flowers available for our bees to collect both pollen and nectar from. The RHS has produced excellent lists of plants:



Wild bees and other pollinators are in decline. One way gardeners can help is by planting garden flowers that provide forage for a wide variety of pollinating insects Using scientific evidence, our extensive experience and the records of gardeners and beekeepers, we've selected a range of year-round flowering Plants for Pollinators to tackle the decline in pollinator numbers.

Find Plants for Pollinators

Look for the Plants for Pollinators symbol when searching our <u>find a plant</u> <u>database</u>, or use the <u>Plants for Pollinators filter</u>, to see the selection of plants.

The Plants for Pollinators lists can be downloaded below:

- Garden Plants (261kB pdf)
- Wildflowers (253kB pdf)
- Plants of the World (178kB pdf)

The lists are reviewed once a year by RHS staff. Relevant research is evaluated and observations or requests for changes to the lists are considered. This can result in plants being added or removed from the lists. The last update was August 2019 **download a list of the changes made**.

Chronic Bee Paralysis Virus – trialling a new remedy



Two of my colonies have **chronic bee paralysis virus** (CBPV), **type 2** – the one that has bees with shiny black bodies and stunted abdomens, and creates a pile of corpses on the ground in front of the hive. I *think* that these colonies will survive. I've seen photos of huge piles of dead bees from CBPV, and I don't quite have that. Both colonies are very populous ('strong' doesn't seem the right word for a diseased colony) which could be a problem (close contact) and a cause for hope.

Let's deal first with the elephant in the room: Did I spread the infection from the first to the second colony? Who can say? The two hives are a few hundred metres apart. I always clean my nitrile gloves and tools between hives, and launder my suit every time I go home.

The traditional treatment of caging the queen and shaking the infected colony into the air some distance from the hive has now been discredited. Apparently, there is some evidence that CBVP-infected bees lose their homing ability. After this, they may well find themselves begging their way into any old hive that will have them.

The new treatment being suggested by some Bee Inspectors is an extension of the idea of giving the bees more room, so that they have less physical contact with each other. The treatment is to remove the floor and place the hive on a proper stand. This is what to do:

- 1. Set the boxes of the hive to the side, and remove the floor from below the brood box
- 2. Place an eke (or an empty super) on the stand, which must support the hive well clear (300mm min.) of the ground.
- 3. Reassemble the hive but without the floor.



The infected bees will now drop through the opening at the base having been handled minimally by the undertaker

- 4. There is no entrance as such. The bees will eventually reorientate themselves to enter the hive from below. Robbing is a possibility.
- 5. Remove dead bees from the ground below the hive. After about ten days, or longer, till no more dead bees are being removed, reinstate the floor.



The reassembled hive.
The upper of the two brood boxes had been filled with foundation for the bees to draw in late summer. It was left in situ to give plenty room. There is still a little

With thanks to Medway BKA via eBees



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Woodpecker Protection?

Did you see in BeeCraft that an alternative woodpecker protection is hessian – the stuff builders use to protect mortar from frost in winter. You simply cut a square from the roll or pack, lay it over the hive, and place the rood/lid on top.

If it works, it will be by far the most convenient method. Chicken wire can catch on hive corners when removing or replacing – unless you construct wooden cages to hold it in shape. That's time-consuming, expensive, and creates storage problems. Heavy polythene such as damp-proof course (DPC) material has to be pinned or stapled on and has to be cut carefully to size.

I've <u>bought a roll</u> which should be more than enough for all my hives. It's 1.37m (4.5 feet) wide which will give a minimum overhang of 450mm all around the hive.

You can buy packs in smaller quantities, or you might team up with friends to share a roll.

With thanks to Medway BKA via eBees

.....and finally, because it's Christmas... A Quiz

- 1. What is perga? (not Perga, Pamphylia, as in Acts 13!)
- 2. Why are the cappings on brood cells darker than on honey stores?
- 3. What is a *teneral* or *callow* bee?
- 4. Hydroxymethylfurfural (HMF) is an organic compound that forms in sugar-containing foods. Which two functions aid its formation?
- 5. You have squares of foundation to insert in sections. If you don't orientate the cells properly, they bees may not be able to draw comb. Should the points of the hexagons be at the top and bottom, or at the
 - 5. points at the top and bottom.
 - 4. heat and time
 - 3. a newly emerged adult bee whose exoskeleton is not yet hardened.
 - cells are purely wax.
 - carbohydrate. 2. The bees mix some propolis into the wax cappings of brood cells, whereas honey
 - λ . pollen, fermented for c.14 days with honey and enzymes; it is also known as bee bread, though the term may be inappropriate as it consists mostly of protein, not

ANSWERS:

Useful EBKA Contacts

President: Jean Smye, Hon CLM

Chair of CEC Jane Ridler
Treasurer Pat Allen

Secretary Vanessa Wilkinson Braintree Bridget Mudd

Chelmsford Jan Tutton

Colchester Andrew Linley

M & D Glenn Mayes

Epping Forest Harlow Nick Holmes

Romford Jim McNeill

Saffron Walden Linda Yeats
Southend Chris Allen

EBKA Exam Sec Steph Green

president@ebka.org

chair@ebka.org, 01799 218023

treasurer@ebka.org secretary@ebka.org

braintree-trustee@ebka.org chelmsford-trustee@ebka.org colchester-trustee@ebka.org maldon-trustee@ebka.org epping-trustee@ebka.org harlow-trustee@ebka.org romford.trustee@ebka.org

saffron-walden-trustee@ebka.org

southend-trustee@ebka.org

examsec@ebka.org

Divisional Contacts

Braintree John le Seve Chelmsford Fiona Cutting Colchester Morag Chase Katy Langley **Epping Forest** Harlow Carol Sissons Maldon & D.H. Sylvina Tate Romford Sue Richardson Saffron Walden Linda Yeats Southend Pat Holden

braintree-secretary@ebka.org chelmsford-secretary@ebka.org colchester-secretary@ebka.org epping-secretary@ebka.org harlow-trustee@ebka.org maldon-secretary@ebka.org romford-secretary@ebka.org saffron-walden-secretary@ebka.org southend-secretary@ebka.org

Regional Bee Inspectors

West Essex

Peter Folge peter.folge@apha.gov.uk

Essex

Ian Nichols

lan.nichols@apha.gov.uk 07557 178 416 The Essex Beekeeper Magazine & Website

Editor and Advertising:

Dee Inkersole, editor@ebka.org

Website: Graeme Crook, webmaster@ebka.org