



BUZZWORD

First prize, National Honey Show

The Newsletter of the
Norfolk Beekeepers' Association

May 2020

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Next issue in June

Special Issue

All articles, events and things of interest to the beekeeping world should be sent to the Editor by **25th May 2020** at:

buzzwordnbka@gmail.com

Chairman's Buzzwords

Trevor Nash

I hope you are all keeping well and safe.

As the lockdown continues for another three weeks, I have been tackling some decorating and other jobs that have been on my 'to do' list for some time. I have now turned my attention to renovating some of my bee equipment. I am going through my supers at the moment and cleaning them up plus giving them a coat of wood preserver. Also, I am refurbishing my solar wax extractors. The present warm weather is ideal for processing wax.



The colonies have been building up well over the past few weeks and I had my first swarm call from the public on April 20th. With this in mind, I would like to bring to your attention that the NBU (National Bee Unit) has advised us to do our best to prevent our bees swarming this year due to the current crisis. I appreciate that this is sometimes easier said than done, but if you are able to do so, it would be helpful. There is some very useful information on swarm control in April's edition of *BBKA News* (p125).

The current guidelines from the NBU says that social distancing must be observed when collecting a swarm. If this is not possible, then the swarm should be left. Of course, there will be swarms about and I appreciate the help of all those who have agreed to be swarm collectors again for this year but **be careful and stay safe**. I would love to know how you are coping in the lockdown period. If you have any interesting ways of getting through this or stories of beekeeping good cheer, please contact me.

The continued good weather is a blessing under the present conditions and at least most of us are able to enjoy time in the garden and caring for our bees. Please contact a member of the committee if you have any problems with looking after your bees and we will try to help out where we can.

Best wishes to you all, Trevor (chairnbka@gmail.com)

Beekeeping – NBKA, helping you to keep bees in this time of COVID-19

If you have tested positive for COVID-19 or are displaying symptoms of COVID-19, however mild, you should be self-isolating at home and should not be visiting other premises. Ideally, another beekeeper should take on this duty wherever possible.

NBKA are offering to support you if you have COVID-19 and are too unwell to look after your colonies. It is therefore vital that you keep good records/notes of your hives so that someone from the Association can come in and pick up where you left off. Please see p10 for an example of a record card.

If you need help or if you are willing to offer assistance to a fellow beekeeper, please contact a member of the committee or Trevor Nash (Chairman, contact details above). Just to note, this is not to help well beekeepers through the swarming season!

Summer beekeeping

Paul Metcalf, NDB and President of the NBKA



Moving from April to May, beekeeping goes up a gear, and you will now be into either 7- or 10/14-day inspections. Which of these regimes you follow will depend on whether you clip your queens. Clipping queens is an aid to swarm management; it does not control swarming but it does allow you to lengthen the time between inspections.

Generally, but not always, a prime swarm is likely to leave the colony after the first queen cell is sealed (8 days), which is the reason for the 7-day inspection regime. Colonies with clipped queens will attempt to swarm after the first queen cell is sealed, lose the queen and return to the hive, minus the queen. If nothing is done the colony will then swarm when the first virgin emerges, which will be about seven days later.

If, after the colony attempts to swarm, the beekeeper inspects the colony and removes the queen cells, and then returns again 7 days later and destroys all but one of the queen cells, the colony will have lost its queen, then been requeened while also retaining its foraging force.

How many queen cells?

There is sometimes discussion about how many queen cells you should leave: one or two. If you leave two the colony will swarm with the first virgin to emerge. Once a virgin queen has emerged in a colony, it should be left for 3 weeks to give the queen time to mate and come into lay.

Cutting out queen cells

If you try to rely on cutting out queen cells for swarm control it inevitably fails, probably for three reasons. When the bees start to build again, after you have de-

Box 1 Diagnosing issues of no eggs and no brood during the summer months (not in text but useful to know)

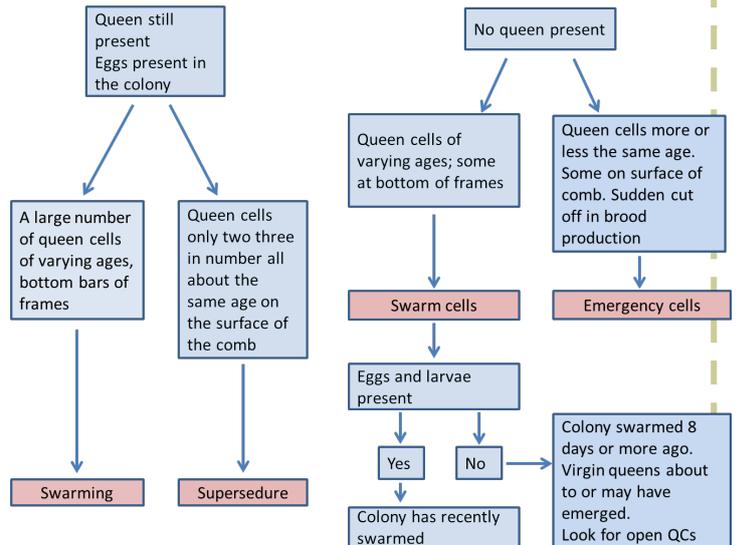
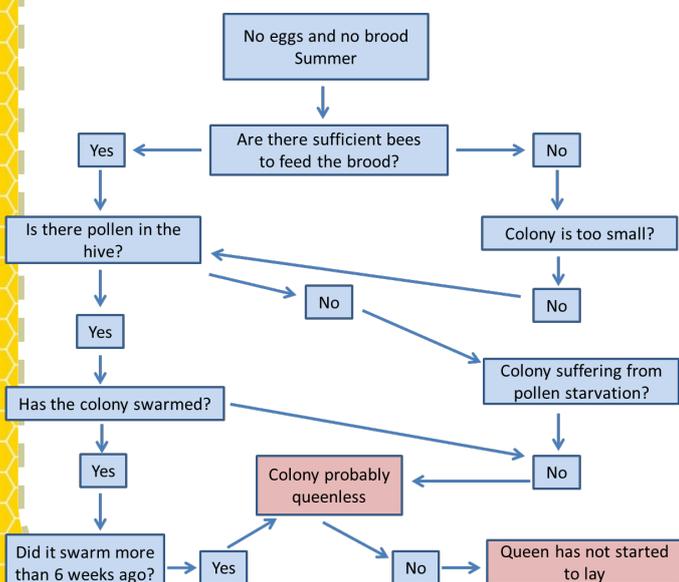


Fig.1 Queen cell production in honey bee colonies. Some factors to consider when inspecting colonies in the swarming season

stroyed the queen cells, they may start from a young worker larva, which means that there are only 5 days before the swarm could leave the hive. If a colony has already located a new nesting site there is evidence that they will leave before the queen cells are sealed. And finally the longer you go on just destroying queen cells, the greater the chance of missing one, and you only need to miss one.

Swarming and adding supers for honey are the main reason that beekeepers inspect their colonies during the summer months. There are a large number of different techniques written up on swarm control, some work better than others, but as with swarming they cause some disruption to the colony, and the honey harvest.

How do you know it's about to swarm?

The first indication that the beekeeper has that a colony is going to swarm is the colony starts to construct queen cells. On finding these the beekeeper must decide if they are cells built for swarming, supersedure or emergency (see Fig. 1). Swarm cells vary in number from perhaps just 6 to maybe 36. They will be of varying ages, and some are most likely to be constructed at the bottom of the frames, or in areas where the comb has been damaged.

When looking for queen cells it is important to get the bees off the comb. A quick shake down into the brood chamber to dislodge the bees allows the comb surface to be seen without bees covering queen cells that would be missed. Having said that, you should never shake a comb that has a queen cell on it that you want to retain. Never destroy queen cells in a colony unless you have seen eggs or young larvae.

Adding supers

An aid to swarming control is also the adding of supers. Remember the supers are being added to give space to the colony and, if things go right, you may get some

Continued on p3...

COVID-19: Summary of guidance from the NBU/DEFRA

Livestock and other animals

Advice if you do not have symptoms of coronavirus

You may leave your house to exercise once a day and you should combine this with leaving your house to provide care for your livestock.

It is essential that you minimise the time spent outside of the home and remain 2 metres away from others. You should remember to wash your hands before and after contact with any animals.

COVID-19 and Beekeeping

As beekeepers, please be aware of the following guidance when looking after your honey bees. You should keep up to date with the latest guidance issued by the Government as it is subject to regular change.

Defra asks you as beekeepers to be responsible and to ensure that you continue good beekeeping practices, effective stock management and health checks whilst observing the Government's guidance on COVID-19.

You should follow Public Health guidance on social distancing. Everyone, including beekeepers, should avoid gatherings of more than two people and this includes at your apiary. You should maintain a distance of 2 metres between yourself and others to limit the spread of COVID-19.

General advice for beekeepers is as follows

- You should continue to work and care for your animals in the normal manner, as far as possible. You should not take measures that compromise the welfare of the animals in your care.
- You should maintain good biosecurity at your apiary.
- You should not share beekeeping equipment with other beekeepers, particularly hive tools and other handheld devices and protective clothing.
- In line with the general advice on COVID-19, you should wash your hands for at least 20 seconds using soap and hot water before and after you come into contact with any animal. Use hand sanitiser if that's all you have access to.
- There are currently no restrictions on movements of bee colonies that you are managing, such as moving bees to fulfil pollination contracts. However, you should observe the public health guidance to prevent the spread of COVID-19 when carrying out these

activities, including the guidance on social distancing and essential travel.

- If you are required to visit premises other than your own, you should familiarise yourself with the public health guidance on infection prevention and control and take measures to minimise the risks from contaminated surfaces.
- If your bees are due an inspection by a government inspector, you should be aware that this may be subject to a delay depending on available resources within the inspectorate.
- If your bees are due an inspection by a government inspector, and you are in a high-risk group, or are showing symptoms of COVID-19, you must let your inspector know ahead of the inspection. Arrangements will be made that will limit the chance of COVID-19 being spread. This may include the inspection proceeding without the beekeeper being present or delaying the inspection.
- For all inspections, 2 metre social distancing will be considered the minimum and so the beekeeper will not be able to stand at the hive side with the inspector while the inspection takes place.
- Imports of bees are still permitted. There is no evidence to support restrictions to international movement or trade in bees, and the UK has no additional rules for bee imports with respect to COVID-19.
- You should report any suspicion of notifiable diseases or pests to the authorities in the usual way – please see the bee health page on gov.uk for further information.
- You should use husbandry techniques to minimise swarming. If you have to respond to collect a swarm you need to ensure that you use the guidelines on social distancing when collecting the swarm. If that is not possible, then the swarm should not be collected. Therefore trying to prevent swarms is the best approach.

The Association has been informed that travelling to pick up nucs may not be considered an essential journey and may not be allowed. You should instead consider picking up swarms (full social distancing is still required) or making your own increases – contact Trevor Nash to be added to the list of swarm collectors (chairnbka@gmail.com).

Summer beekeeping (cont. from p2)

honey. Colonies by this time will probably have the first super on, which will have been added when the bees were working on all but two of the combs in the brood chamber. Additional supers should be added when the bees are working on all but two of the preceding supers. Supering underneath (i.e., where the super goes beneath the other supers but on top of the brood box) makes space available more readily to the bees.

Overcrowding is a contributing factor to swarming, but it is the total amount of space available to the bees which is

important, rather than that of the brood chamber. There are other things besides overcrowding that contribute, such as strain of bee, age of queen, weather conditions and available food.

As well as checking the colony for swarm control, and adding supers for space, the normal checks for brood, health of the bees and varroa monitoring should be carried out.

If you have any questions I will try to answer them paul.metcalfe@btinternet.com.

The Deformed Wing Virus pandemic: man-made and varroa-vectored

**CONTROL VARROA
PROTECT POLLINATORS
SAVE HONEY BEES**

Regina Nickel, Seasonal Bee Inspector, Norfolk



Living as we are in the middle of the COVID-19 pandemic, we are experiencing first-hand the devastating impacts that an emerging infectious disease can have on a society.

While SARS-Cov-2 (the virus that causes the COVID-19 disease) is a novel zoonotic¹ virus, the emergence of an infectious disease can also be driven by new transmission routes for an existing pathogen. The varroa-vectored deformed wing virus (DWV) is a prime example for such a re-emerging pathogen.

DWV, a member of the insect-virus family *Iflaviridae*, was first isolated in 1982 from Japanese honey bees by Bill Bailey and Brenda Ball at Rothamsted Research Centre. At that time, DWV was a rare pathogen, which was very occasionally associated with the death of a honey bee colony. Another 10 years passed until DWV was detected again, this time in a varroa-infested colony in the UK.

DWV epidemiology and transmission

Following epidemic growth, DWV is now the most common viral pathogen afflicting honey bees, with a worldwide prevalence of at least 55% of colonies/apiaries infected². Virus transmission is predominantly mediated by European and North American honey bee populations and driven by the trade and movement of honey bee colonies. DWV is a major contributor to and predictor of over-winter colony losses³ and responsible for the loss of millions of honey bee colonies worldwide.

It is now well-established that the re-emergence of DWV is intricately linked to the global spread of *Varroa destructor*, which provides a new route of DWV transmission in *Apis mellifera* by directly injecting the virus particles into the haemocoel⁴. This vector-mediated transmission drastically increases the transmission rate and disease prevalence of DWV by transmitting higher numbers of infectious particles⁵ and by evading potential infection barriers. In addition, because of the varroa-vectored transmission, the survival and propagation of DWV is less dependent on the survival of infected bees, thereby allowing for the propagation of viral variants with increased replication and virulence.

“It is estimated that 100% of colonies in the UK are DWV positive but may not show any symptoms.”

DWV variants and virulence

DWV is a viral complex consisting of two common master variants, DWV-A and DWV-B (also known as VDV-1) and their recombinants⁶. Both DWV-A and DWV-B variants cause the deformed wing symptoms when injected into honey bee larvae by varroa (or a scientist). However, DWV-B is more virulent than DWV-A and impairs to a greater extent the cognitive behaviour of adult bees.

DWV-B also replicates in varroa brain tissues, which further enhances its transmission. But this also im-

pairs the mite’s neurological functions, which are essential for host finding and reproduction, thus neutralizing some of DWV-B’s selective advantage over DWV-A.

Nevertheless, DWV-B is, in evolutionary terms, the more successful variant, as its prevalence recently increased dramatically in Europe and the US, making it now the most common DWV variant in the UK.

A. mellifera: ‘Typhoid Mary’ among pollinators

Although varroa mites afflict only honey bees, DWV is a multi-host virus that is able to infect a wide range of insects, including bumblebees, solitary bees, hoverflies, wasps and ants.

The high prevalence and viral load of DWV in feral and managed honey bee colonies, together with high apiary densities and overlapping forage areas markedly increase the likelihood of a ‘spillover’ of the virus from *A. mellifera* to wild pollinators.

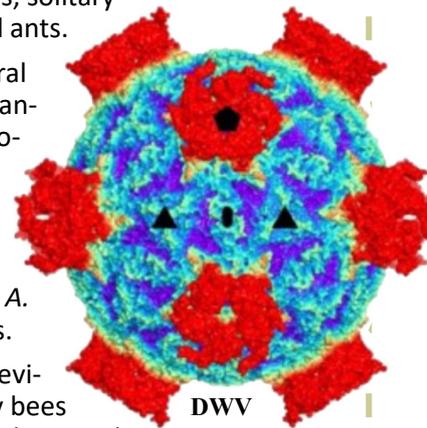
Indeed, there is increasing evidence that managed honey bees do transmit DWV to bumblebees and other pollinator species and that this spillover is linked to varroa infestations in honey bee colonies.

More research is needed to determine the pathological effects of DWV infections in wild pollinators and if, in the absence of the varroa vector, oral transmission via the shared use of flowers and/or ingestion of infectious faeces is sufficient to cause an active infection on its own.

To prevent the contamination of the environment with varroa-vectored viruses and the spillover to other pollinators, we beekeepers should take the same epidemiological responsibilities as we do as citizens to prevent the spread of SARS-CoV-2. But there is no need for self-isolation or social-distancing, all that is required is to effectively control varroa infestations in our colonies, at least until there is a vaccine⁷ or a varroa-resistant (rather than tolerant) honey bee strain available.

Footnotes:

- ¹ A Zoonosis is a disease that is transmitted from non-human animals to humans.
- ² It is estimated that 100% of colonies in the UK are DWV positive (but may not show any symptoms).
- ³ For example see <https://bit.ly/2KM7Gne>.
- ⁴ Haemocoel is the main body cavity in insects containing circulatory fluid.
- ⁵ In varroa-infested honey bee colonies, DWV levels can exceed 10¹¹ (hundred thousand million) genome copies per bee.
- ⁶ The third master variant DWV-C has been only detected in the UK so far.
- ⁷ For more information see February’s blog post on vaccinating bees by Prof. David Evans aka The Apiarist (<https://bit.ly/3bQgjcj>).



DWV

To bee or not to bee: thoughts on bee genetics

Michael Lancefield

At this year's National Honey Show I found beekeepers strutting many differing opinions. As ever I found out that there is more than one view on how to look after our bees.

One camp of beekeepers is almost frothing at the mouth with kindness and snake oil to help our bees through the year. Feed, feed and feed. Oxalic acid and midwinter inspections, candy, more food and if that fails simply buy in a new foreign queen. Or did one forget the mouse guards and the woodpeckers (or maybe greedily take away more honey than was sensible or kind)?

On the other hand, one could well muse on the genetic advice, perhaps modelled on the survival of the fittest. Looking at the history of *Apis mellifera mellifera* (*A. m. mellifera*), it is believed this bee migrated to our shores a long while ago. It had a hardy reputation and was the basis of our exporting bees to the New World.

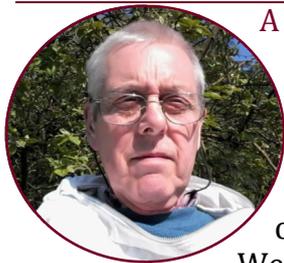
There is sufficient evidence that *A. m. mellifera* genes still survive in our native bees. Just read about BIBBA (Bee Improvement and Bee Breeders Association)! The genetic problems occur when thoughtless beekeepers,

amateur and professional alike, import bees that, though wonderful for example in Slovenia (*A. m. carnica*) or Italy (*A. m. linguistica*), result in our bee gene-pools getting more than somewhat diluted. How does one expect that bright idea to improve what is our native stock? Would random mating of livestock help at Newmarket with race horses or the local sheep farmers?

So what, you may ask? Well we all hope for well-behaved and productive bees. It helps a lot if these bees are allowed to build their resistance to pests like varroa. Not all our bees need an overdose of medicament any more than humans need overdosing with antibiotics. It is an unmistakable fact that feral bees do quite well when out of the reach of human help high up in trees, chimneys or the roofs of buildings like churches.

As for those frothing with indignation, one could ask what management of bees helps a poor stock survive when they were malnourished or riddled with disease, perhaps on ancient comb. These stocks stagger through winter, probably. Come the spring and what sort of mating miracle is expected?

Storing wax foundation: does it go stale?



Alvan Parker

Does wax foundation go stale? When I started beekeeping in the nineteen eighties there was a supplier of bees and equipment in Welling, Hertfordshire, named

Taylor's. They have long since been taken over and closed by Thornes of Lincolnshire.

Taylor's used to have a free, one-day beginners beekeeping course. These took place in early summer. The day I attended included a visit to the foundation-making department. The air was full of the aroma of hot wax, in my opinion one of the real joys of beekeeping.

At the end of our tour of that department the group I was with was asked if we had any questions. One of our group asked why does your foundation go stale and brittle? Our guide, the manager of that department, enquired "when did you buy it?", the answer was last summer. The guide then disappeared into the foundation store room and returned with a sheet of unwired foundation. He folded the sheet in half and then flat again without any damage whatsoever. He then announced that sheet was over twenty years old, he said "there is nothing wrong with our foundation, it's you, you are not storing it correctly".

It transpired the store room was kept at around 70 °F (about 20 °C), with a bucket of water in the corner to increase the humidity. So a good place to store yours is the bathroom or kitchen. If however the non-beekeepers in the household can't see the bigger picture, you could try to hide it behind the furniture in the lounge and buy a fish tank. If that's not possible, a room as near to that

environment as you can find. If, however, your foundation should become cold and inflexible it can be restored by putting it into the correct environment for about 48 hours.

I wonder why the manufacturers fail to include storage instructions in their catalogues?

Apiary sites offered

Enquiries to the Secretary (secretarynbka@gmail.com)

With the current restrictions it may well not be advisable for any interested beekeeper to visit a site but at least you will be able to make contact ready for when we are 'released'.

David would like a beekeeper to bring some hives onto the farm he manages at Bradenham. They grow an assortment of crops that should have many beekeepers slaving including: 200 acres oil seed rape, 200 acres spring beans and 300 acres blackcurrants. David can be contacted on david@bradenhamhall.co.uk.

Robert would like a beekeeper "to install and maintain a beehive here as we love bees and appreciate their importance within the ecosystem". They have recently moved to Watton and have a reasonable size garden. Robert can be contacted on rb@bbmail.com.

Carolyn would be happy if a member in the Salhouse area would like to keep a hive or two in her garden. She has a colony in her compost bin already (yes, they are honey bees, before anyone asks)! Please contact the Secretary for further information.

The Secretary Matters

Garry Bowler



I didn't submit a Secretary Matters for the last couple of *Buzzwords*. For the early March edition I was on holiday in Vietnam so couldn't meet Chris's deadline. Coronavirus was beginning to feature in the news on a regular basis as China was struggling to contain the outbreak. My wife and I were

relieved that we seemed to be keeping ahead of the virus and its journey and would be back home before things got too complicated. As we now know the world should have been extremely concerned sooner. But for that to happen, everyone around the world needs to be more open and honest about these things, something I certainly don't expect to see in my lifetime or my next one (that's as political as I will get).

Back to beekeeping issues, which at least is something "normal" we can continue to do in these strange and weird times. On Friday 17th April we had an Executive Committee meeting scheduled and decided that it was time to embrace technology and hold this by video conference. I have to say, it worked pretty well. Meeting with 13 attending was successfully completed. One or two Committee members had technical challenges but hopefully we can sort those for next time and we are considering holding all meetings this way. We will miss the chance to meet up but it cuts out all the travel and we can enjoy our own tea, coffee and biccies rather than put up with what we get at Easton College!

A usual item on the agenda is recent and forthcoming events. As you know, we have had to cancel a number including Paul Metcalf's talk, "Starting the Beekeeping Year". A transcript of this was circulated by e-mail. If you

missed this or have joined since I sent it around, then just drop me a note and I will send a copy. We have now cancelled the apiary demo planned for 16th May but are still hopeful that we will be able to run the demo planned for 13th June. However, this could well change, be it a change of date or cancellation so watch this space.

New apiary site

We are continuing to plan the Association apiary site. We have agreed a site and it was hoped that we could make a start this year but this is now looking unlikely. Plans are at an early stage and we hope to provide a more detailed report on progress in a month or two.

A number of members around our area have now offered to help out should anyone be unable to look after their bees due to illness or isolation measures. If you do need help then please get in touch. Keeping good records with your hives is always sound beekeeping practice but if someone else is coming along to check your bees for you then good records will be essential to ensure everyone gets the best result. So, please make sure yours are up to date. For a suggested beekeeping record card, please see p10 in this issue of *Buzzword*.

That's it for now, Garry

Free BeeCraft magazine

BeeCraft have allowed people to view the April issue for free. Their website also has some free articles particularly aimed at beginners: <https://bit.ly/2zXrdPB>

George Male has kindly offered some limited supplies of sugar (maybe to go with his feeder, p7) for any beekeeper who needs some. He will leave it at the side of his house and please be considerate of the needs of other beekeepers. He can be contacted on: 07833 431837.

Lockdown recipe — Honey gingerbread

Pat Marshall

If you're able to get the ingredients under lockdown, this cake is a wonderful, moist and spicy delight, very popular in the Marshall household.

Ingredients

- 125g margarine or butter
- 125g soft dark brown sugar
- 2 tbs golden syrup
- 2 tbs honey
- 1 tbs syrup from stem ginger
- 1 tbs black treacle
- 150ml milk
- 225g plain flour
- 1 tsp bicarbonate of soda
- 1 large egg
- 3 tsp ground ginger
- 50g chopped stem ginger
- Pinch of salt

Method

- Warm the milk, golden syrup, honey, treacle and ginger syrup in a pan.
- Cream together the margarine and sugar, once creamed add the egg. Sieve together the flour, ground ginger and bicarbonate of soda and salt. Add the stem ginger to the creamed mix followed by the flour, lastly add the milk and syrup mix.
- Pour into a greased and lined 2lb loaf tin and place in a preheated oven at 170 °C (340 °F, gas mark 3) for 1¼ to 1½ hours. Test it is cooked by placing a knitting needle in the middle; if it comes out clean the cake is cooked. Please be aware this cake should be springy to the touch and should be very moist.
- Enjoy!



Photo: Pat Marshall

COVID-19 diversions: a “DOB” feeder

George Male

So, with the current bizarrely unprecedented situation, I've had to find myself something to do. As most will know, I'm limited to home anyway and, to that end, I've come up with something to occupy my, as well as your, time.

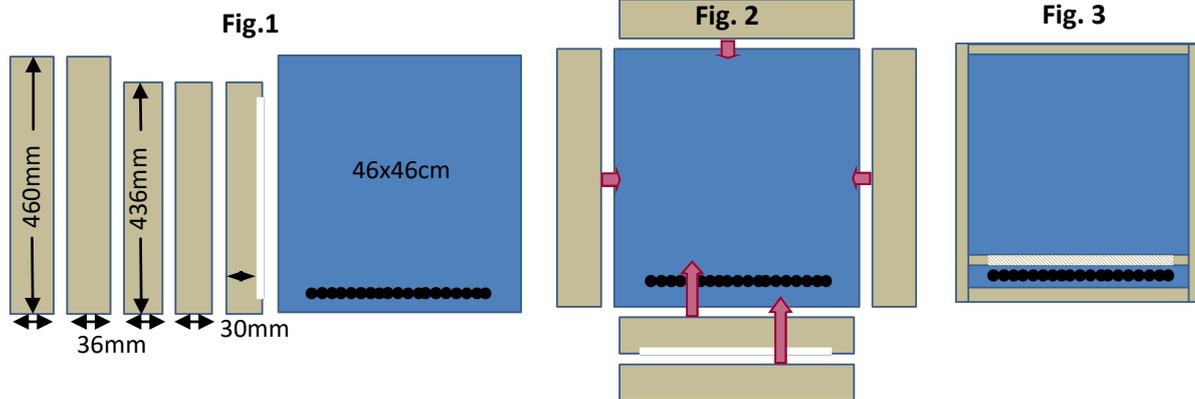
Last year, I gave a presentation on a variation of a feeder, what I call a DOB's feeder: a Devon Old Boys feeder! Simplicity is the key, remember: KISS; Keep It Simple Stupid!

So to that end, what did I do? Back to basics time, with enormous apologies to the experts. A hive is 46cm square. Therefore, a baseplate of 460mm square is the starting point, either 15mm or 18mm thick. Now for the sides: I used some planed wood that was 12mm thick by 36mm deep; 2 pieces 460mm long, as well as 3 pieces 436mm long. The third short piece is used as a dam inside the feeder (see Figures). This piece will need cutting down to 30mm, so that the bees can climb over it to get to the sugar. Alternatively, file a few slots in the top.

I used waterproof wood glue and screws to construct the feeder. The sugar tray needs to be painted to prevent leakage, although some advocate that the sugar will seal it. For me, I use masonry paint, as it is waterproof, as well as being non-harmful to the bees.

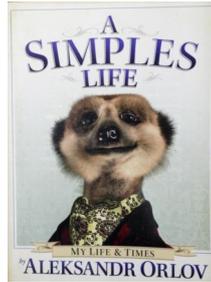
So, construction time (see Figures):

1. Fix the 2 long rails to the ends of the square of wood.
2. Fix 2 of the shorter pieces to the sides, inside the 2 ends.



3. Fix the third short piece inside the tray, after fabricating the top, inside the box, approximately 12mm from one of the rails.
4. Now, the clever ones are thinking how do the bees get into the tray? Use an off-cut of 12mm wood to mark the edges, slot and dam, then drill a series of 10mm holes across the gap.

5. Paint the feeder reservoir, then the outside. As Aleksandr would say, “Simples”!



For those members who may not know Aleksandr, he's a meerkat who was used in an advertising campaign by Compare the Market

This feeder holds quite an amount of feed, if my maths is correct, just over 5 litres. To prevent the bees from drowning, use straw or polythene packing curls, or whatever you have to hand that floats. Straw and packing curls will insulate the top of the hive as well, very useful for leaving on over the winter. With my mind going off on yet another tangent, crochet a piece to fit the inside of the feeder, which will give the bees something to stand on to have a fill up.

Should you have another piece of wood 460mm square, it doesn't need to be as thick as the base, place this on top of the feeder when using to prevent robbing.

Next time, I will have the idea I came up with for a nuc, which can obviously be extended to construct a brood box or a super. I also have a novel idea for the use of nucs, which will be very apt soon.

Construction time: Fig. 1 the materials you will need and dimensions; Fig. 2 the position of the sides and the dam; Fig. 3 the finished article, showing the drilled holes and the dam in place.

Useful websites

One useful site for lots of information is The Apiarist, run by Professor David Evans, a scientist and beekeeper. His day job is as a virologist at the University of St Andrews studying, among other things, deformed wing virus (see also p4, this issue) and chronic bee paralysis virus. He covers a range of topics in a very informative and interesting way. Well worth spending some time on his site:

This month's feature:

Swarm prevention: <https://bit.ly/3aYEGTV> and the principles of swarm control: <https://bit.ly/2YvgiuH>

Bees in the News

A beginner beekeeper in lockdown.

The title says it all: <https://bit.ly/3ffQ00Z>

What honey bees showed her

From a founding member of the Bee Friendly Trust, a London-based charity to promote understanding of honey bees and help nurture sustainable habitats:

<https://nyti.ms/2VYvISt>

Hemsworth reveals new quarantine hobby

Yep, you've guessed it, the Thor actor has become a beekeeper: <https://fxn.ws/35thPPn>

Question time: your questions answered

Panel this month: Paul Metcalf, Regina Nickel, Trevor Nash, Garry Bowler and Elaine Gibbs

In the April issue of *Buzzword* we asked for members' questions. We had quite a selection and here are the answers.

If you would like a question answered, please submit it to the Editor (or any committee member) and it will be answered quickly by email and then published in *Buzzword* in the next issue: buzzwordnbka@gmail.com.

Q: *Every year my colonies come out of winter with a large number of frames full of capped ivy honey. As the honey is crystallised and rock solid and has a rather unpleasant aftertaste (and usually the frames are 2 or 3 years old) I get rid of the complete frames. I was wondering whether they can be kept for nucs, despite being crystallised. Do other beekeepers have the same problem? Are there viable alternatives to throwing the frames away?*

A: Strong colonies should have no difficulty in handling these stores, they do need to have access to a water source, preferably close to the hive. The bees can be encouraged to access the stores by scraping a hive tool through the surface so exposing the honey underneath. The bees will quickly move it or use it if they need the space.

Weak colonies will struggle to handle these solid stores, in which case some combs can be removed and stored for late use or given to other colonies. If they are going to be used in other colonies at some time always be sure you know why the colony is weak. It is always a good idea to be feeding sugar syrup at the time when ivy honey is coming in.

Q: *I have some super frames from last year and they have gone mouldy in the shed (I stored them damp). Can I use them or should I just use them for wax (there are no wax moths).*

A: It does depend on what you mean by mould and how bad it is, and the age of the combs. If the combs are very old it may be as well to replace them, and melt down the wax. However, if the combs are in reasonable condition the bees will soon clean them up and there is no real problem. Some beekeepers store their super combs wet as a precaution against wax moth, and very often the following season when they are taken out of store they may smell a bit like a brewery from fermented honey but the bees soon clean them up.

Q: *With the current restrictions on movement and social distancing, how as a new beekeeper am I going to learn?*

A: With difficulty, I suspect. It will be difficult to gain practical hands-on experience if you do not have bees at present, and attending courses and demonstrations is prohibited at this stage.

If you do have bees and want advice, contacting the association to be put in contact with someone who

can help is a first step. If you do or do not have bees, reading and videos are other sources of information.

Do not confine your reading to just practical beekeeping but also the natural history. I was interested to see that a favourite of mine, Colin Butler's *World of the Honey Bee*, got a mention by someone else as a book that you should read whilst under lockdown. In viewing videos on YouTube or the like be careful as some do not give sound advice or are only applicable in the region where the film was made.

Q: *I can't find the queens in two of my five colonies, and I couldn't find them in those colonies last year either. I've tried all the tricks (like moving the hive for 30 minutes, arranging the frames like leaves in a book etc.) but I still cannot find them. Any tips?*

A: If you are looking for queens it is easier to find them in spring before the colony has built up. In danger of stating the obvious, it is also easier to find the queens in yellow strains than black. Also older queens seem easier to look for than young ones, because young ones move that much faster. Sometimes though it seems easier to find them than others.

If the intention of opening the hive is to find the queen, it is best to open the hive when the maximum number of foragers are out of the hive. On going through the brood chamber, go through fairly quickly and as you take the comb from the brood chamber look at the surface of the next comb to it, you could see her there. If on reaching the end of the brood chamber you have not seen her, go back through the brood chamber much more slowly. Look for a bee that is moving differently over the comb surface to the normal. Where bees tend to cluster at the bottom of frames tease them apart with your fingers. Sometimes if you do not overdo the smoke you may notice the bees moving in a more excited manner on a comb where she has recently been.

The placing of the comb together in pairs and being left for a time, relies on the bees in the pair of combs where she is remaining fairly calm, whereas the pairs without her will gradually become more agitated.

Q: *If you have a hive that's come through winter but it seems the varroa treatment has not been effective (quite a high mite drop), what do you do? Particularly if you want to keep the postman at a distance and not order some varroacides (except if you need to).*

A: During spring and summer, biotechnical varroa control methods can be an effective alternative/addition to varroacides. The various biotechnical methods are based on the removal of infested brood (drone brood removal or complete brood removal, e.g. in a shook swarm), the use of open brood as bait traps (comb trapping) and/or the artificial creation of broodless periods.

During swarming season, an effective biotechnical method combines the swarm control of an artificial swarm with varroa control. Below is a brief description for Pagden's artificial swarm, but this method can be easily adapted for a vertical split using a Horsley board, for example (see for example, Dave Cushman's website for more details: <https://bit.ly/3fhq8SR>).

1. Move the parent colony (including super(s)) several metres to one side of the original site. Remove all swarm cells in the parent colony and find the queen.
2. Place a second hive containing newly drawn combs (please not the dark and mouldy combs from some dead-out!) or a mixture of drawn combs and foundation, and the queen on the original site to house the artificial swarm. Foragers will return to this hive, creating the artificial swarm.

If the artificial swarm contains only/predominately foundation, it is advisable to place a queen excluder between the floor and the broodbox for the first 3–5 days to prevent the 'swarm' from absconding and to feed with a 2:1 sugar syrup to ensure that the foundation is drawn into comb.

3. After 9 days, remove all but one queen cell from the parent colony. The cell can be protected in a queen cell nursery cage or the emerging queen can be placed in a closed queen cage positioned between two combs. This prevents the virgin queen from mating and laying eggs, but allows worker bees access to care for her.
4. After 3 weeks all brood in the parent colony will have hatched. Transfer two bait combs of unsealed brood from the artificial swarm to the parent colony. With no other brood available, the 'phoretic' mites will preferentially enter the cells in the bait combs. When the cells are capped, remove and destroy the bait combs.
5. Cull the virgin queen and (a) unite the two colonies or (b) introduce a new queen to the parent colony or (c) introduce a new queen to the parent colony, remove the old queen in the parent colony and unite the two colonies.

For more information on varroa control, including a diagram for the above method (found on p20), see the NBU booklet *Managing Varroa* available at: <https://bit.ly/2SQnrhJ>.

Q: *One of our colonies seems to be rather weak in terms of numbers, with bees only on 2 or 3 frames. It is headed by a queen from 2016. We saw that there were plenty of stores but no brood, eggs (as far as we can see) or larvae. We have seen the queen and she is actively walking around and looks ok but we suspect she just isn't up to laying. So, what to do to save the colony?*

A: I would be surprised if your queen starts laying again if she hasn't by now. You could remove her and then give them a frame of eggs from the other hive but, as you say, are they too weak to do a good job of raising a queen and it may be a little early to have a virgin queen, although

there are drones about (advice given in early April).

You could combine the colony with your stronger one or, my preferred option, just shake the bees out and take the hive away. If you choose to do this, remove the non-laying queen and shake the bees out (might be best to wait a day or so). You would probably be surprised how quickly the bees from your weak colony would find their way into the other hive. This would then boost the numbers in your other hive, which you could look to split when they start building queen cells. This would also mean you would be using the split as an artificial swarm.

Q: *What do you recommend as a good example of a record card (especially in case someone is going to take over my hive if I fall sick)? Do you use them?*

A: I have used this record card for several years (please see p10). It was originally set up by someone from the association and it gives a good indication of the state of the colony. Please feel free to make copies of this card. This is only a suggestion and many more can be found and downloaded, for example: <https://bit.ly/2xyJKkt>.

Q: *(Question asked 26 March, so conditions will have changed but included here as the principle is great.) Is it time we added a super to our two brood and a half hives and another super to our brood box? We realise it is still chilly at night but we don't want the bees to run out of room.*

A: I am hoping that like me your bees are on open mesh floors with some kind of removable board beneath it which you can slide out to examine. It will tell you a lot!

You will see parallel lines of debris; shorter ones at the edge and longer in the centre. These are made of mixed rubbish falling from the frames that are at present actively occupied by the bees. The more debris bars the larger the colony cluster above.

As you can see it's easy to visualise the frames above covered at least in part with bees spring cleaning. The queen will be starting to lay in the centres of the central frames. The debris results from the bees uncapping and removing the central honey cells and cleaning them up for the queen to lay in and to provide clean temporary storage for the incoming fresh pollen. A band of untouched honey is left along the very top to prevent heat loss from the expanding brood. All the chewed off rubbish falls through the mesh as a mess.

If you count or sketch the debris band pattern each week you will get a very clear idea of how the colony is expanding and building up without any disturbance to their work or loss of the essential heat. Bad luck to all those eager (but ignorant) beekeepers who insist on smoking and pulling apart the colony this early in the year. The days may be warm but the nights are chilly. Do not open!

Examine some of the debris closely with a lens if possible to see brown/yellow curls of chewed off wax and bits of old pollen and possibly these days one or two shiny discs of varroa mites. They could be old and dead but rapidly increasing numbers will give you an early reminder that you will eventually have to think about treatments.

