



The HBKA

BUZZZZ
Word



AUGUST 2016

The Newsletter of Herefordshire Beekeepers' Association
www.herefordshirebeekeepers.org.uk



HBKA NEEDS YOU!

**Yes - the time has come
for you to do your bit to
help publicise our forth-
coming Festival of Bees &
Honey.**

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DATES FOR YOUR DIARY

Tuesday 2 August - East LAN Apiary Meeting -
Acton Green

Saturday 13 August - Bob's Honey Harvesting
Workshop #01 - Stone House

Thursday 18 August - East LAN Apiary Meeting -
The Old Rectory

Saturday 20 August - Bob's Honey Harvesting
Workshop #02 - Stone House

Saturday 3 September - HBKA Craft Workshop -
Bartestree Village Hall, HR1 4BY

Saturday 17 September
Herefordshire Festival of Bees and Honey
(incorporating HBKA Honey Show)
Sutton St Nicholas Village Hall, HR1 3SZ

Tue-Thurs 20-22 September - BIBBA Confer-
ence - Isle of Man

Fri-Sun 14-16 October - MSWCC - Rey-
noldstown, Gower

Thursday 20 October - Talk by Professor Robert
Pickard - "Wonderful Things about Bees"

Thursday 27 October - Talk by Dave Goulson -
"Saving Our Bumble Bees".

Thurs-Sat 27-29 October - National Honey Show
- Sandown Park Racecourse



LAN REPORTS

EAST LAN APIARY MEETING – THURSDAY 23 JUNE

The weather on Thursday 23rd June was dry and a bit blowy - not a bad day for beekeepers. About XXX of us gathered at Lower Poswick in Whitbourne and we opened three hives. The first hive was a lesson in how not to keep bees! There was no queen and the bees were achieving nothing so, subsequently, a *requiem mass* was held for the workers and the drones alike.

The second hive had a queen who was obviously working hard. She was marked with a red dot. There was plenty of brood and enough food stored away in the brood chamber. However, the brood chamber was not yet full so the bees were fed to encourage them to fill in the gaps before the addition of a honey super .

The third hive was a different matter altogether. The queen was found and marked with a white dot. The brood chamber was not quite full and the honey super was only half full. We left this hive alone to press on with the good work.

After the inspection of the hives we were able to sit in the garden and have tea and all those scrumptious cakes etc. which our doctors tell to avoid!

Many thanks to Dan for this report – and to his wife, Beverley, for the scrumptious cakes! This was a particularly pleasant evening for sitting out and all those present had a great time. (Ed.)

EAST LAN APIARY MEETING – TUESDAY 5 JULY

It was a pleasant evening for an apiary meeting and the 18 members of East LAN, most of whom had turned up for their second visit this season to Clayfoot Farm, knew their way across the fields to the bees.

The main purpose of the evening was - a) to have a look at the colony that had a Bailey Comb Change on the last visit and check all was well, and - b) to check that all the colonies were viable and queenright for going into the winter. Back in April, there were only two hives in the apiary – but now, thanks to some judicious swarm collecting and a successful bait hive, there were four full size hives and two nucs to see.

As far as objective (a) was concerned, the old comb had been removed from this hive a while ago, the bees having successfully expanded onto the new comb – Bailey change successful – tick! We checked for the presence of eggs and brood (both OK) and we saw the queen too so it was a big tick for that as well - and then on to the rest.

We went through each of the other two full size hives in the apiary and amazingly (this is probably a record) managed to find the queen in both of them. Even more amazingly (and this is definitely a record!), I myself personally (yes, ME!) was the first person to spot the queen in the second hive which prompted a murmur of wonder and disbelief from the assembled company as they're all aware of my normal pathetically minimal aptitude in this area. Anyway, all was declared well with these colonies so we then had a quick look in each of the nuc boxes (amazingly all was well here too) before taking a vote on whether to stage a Beeexit (topicalish joke there, folks) and head for the tea and cakes or make the trek even further across the fields to the bait hive. Naturally all we keen East LAN folk decided to go for the bait hive option so a long straggle of beekeepers set off up the field to the far boundary.



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The bait hive was actually one of Bob's old hives that I'd had from him five years ago when I was starting up. It had been put out about a month before in the hope that a passing swarm might detect the lure it contained and decide to take up residence. And lo, it happened thus (amazingly – again!). This seemed to be a very active colony with a crowd of bees always on the doorstep and a continuous industrious humming noise coming from the brood box most of the time. On opening up, it was found to be packed full of bees with a super fairly brimming with honey (hooray!). I'd forgotten to put in a dummy board when I was putting the hive together so they'd built a great wedge of bridge comb across the back of the brood box which Bob removed – but these bees were clearly a colony with a purpose and once again we found the queen and saw eggs and brood a-plenty.



Straggling out to the bait hive...



At the bait hive

And that was it – we'd packed a lot into one evening and now it was time to wind down and wander back to the house for a drink and a bite to eat. I think the cakes were appreciated especially the Bakewell tart of which there was only one small piece left by the time I got to it (boo-hoo!). But we had inspected four hives and two nucs and seen a total of four queens in one evening (and by the way, I was the first to see one of them - sorry to keep banging on about it!) which must be some kind of a record – for our LAN at least. (C.S.)

EAST LAN APIARY MEETING – THURSDAY 21 JULY

Back to Bob and Kath's again for this meeting - and plenty to look at too. Bob suggested that we split into two groups and that Dave Sutton should take his group off to look at a colony that had a bad infestation of varroa while Bob took the second group off on a sort of mystery tour of several different colonies. It turned out that the main theme of this tour was plastic frames. We looked in several different colonies at how the bees built up the cells on these frames and it was clear that, on most, the surface of the comb was undulating, often mimicking the way the plastic foundation sat in three sections within the frame. In particular, the bees didn't seem to like the ribs joining the three sections of foundation within each frame and it was here that they built the least amount of wax resulting in comb with two vertical valleys dividing it into three parts. Bob's always willing to experiment with new ideas that appear from time to time but he didn't think he'd be using many more plastic frames in future! As a grand finale, he took us round the back of a polytunnel for a preview of his special entry for the forthcoming HBKA Honey Show - I can't reveal what it is but it's certainly pretty spectacular and should attract a lot of attention.

By this time the light was beginning to go, so Kath put the kettle on and we sat outside under the marquee to have some cake, a drink and a chat and enjoy the end of another successful evening. (C.S.)

EVENTS

THREE COUNTIES SHOW 17TH-19TH JUNE

We had a busy three days at the show, which was well attended and attracted interested crowds every day. Our display was admired, and several members won awards in the honey show. The sales table was especially busy; we sold almost £2,000 worth of honey! The proximity of goats, chickens and alpacas drew more people than usual to the Bees and Honey marquee, so our manpower was quite stretched at times. A big thank you to all those who gave up their time to help over the weekend. *(Mary Walter)*



HOG ROAST – 11TH JUNE



Mary Walter writes:

We all enjoyed the hog roast on June 11th. The outlook had been rather changeable in the morning so we relocated to Ballingham where Mike and Pauline Healey served a delicious meal, supplemented by a variety of puddings and salads brought along by members. The weather was fine, the riverside setting delightful, and the escapologist livestock enhanced the experience!

Mary sent two reports and two photos - one was obviously Three Counties Show but I wasn't sure about the other - it didn't look as though the two piglets in the picture were hog roast material! (Ed.)

HBKA SUMMER GARDEN PARTY - SATURDAY 16TH JULY

We had a relaxing afternoon with James and Juliet at Thornbury on July 16th. The sun shone and the garden looked lovely.

James requested help with bees that had taken up residence with the neighbours, unfortunately in their compost bin. A select group of beekeepers promptly tramped over their lawn to find a small colony with comb attached to the side of the bin.





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The comb was cut away and tied into an empty frame, then placed into his brood box. There was no brood in the comb, and the queen disappeared down the side of a pile of grass cuttings. The experts suggested that James find a frame of open brood from one of his other colonies and place it into a box on top of the compost bin. It was also suggested that a board was placed between the box and the bin with a small access hole in the centre, the box being left slightly open to allow the flying bees free entry.

James was successful with this and a few days later reported that all the bees had gone into the box, and he had been able to re-home them back in his apiary.

James was more successful with his compost bees than I was later in the week. I carefully tied the comb (with brood this time) into frames and placed them in a Nuc box on top of the compost bin. When I came back a couple of days later there was not a bee in sight- they had all absconded!



Thank you to James and Juliet for a very successful afternoon.

...and many thanks to Mary for yet another report - if every reader sent in as many contributions as you, I'd have enough material to keep the Buzzword going for years ahead! (Ed.)

.... MEANWHILE, COMING SOON

BOB'S HONEY HARVESTING WORKSHOP

SATURDAY 13TH AUGUST

See page 11 for details ...





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.... AND THEN

CRAFT WORKSHOP – SATURDAY 3RD SEPTEMBER

We have arranged a craft afternoon on Saturday September 3rd starting at 2.30 pm. This will be held in Bartestree Village Hall, HR1 4BY. Pre-booking will be essential and full details will be sent out at a later date.

Cheryl Cracknell will be on hand to demonstrate her encaustic art (painting with wax) and you will be able to attempt your own artwork. We also hope to make moulded, rolled and dipped candles. If time permits we will also have a short discussion on preparing honey for the show bench.

.... AND AFTER THAT



.... PLUS

STOP PRESS NEWS - two excellent and very well-known speakers will be visiting Hereford in October. First, on 20th October, Robert Pickard, Emeritus Professor of Neurobiology at Cardiff University will be in town at the invitation of HBKA to deliver a wide-ranging talk on “Wonderful Things About Bees. Then, the following week on 27th October, Herefordshire Wildlife Trust has invited Professor Dave Goulson (best known for his two books, *A Sting in the Tale* and *A Buzz in the Meadow*) to deliver a talk entitled “Saving Our Bumblebees”.

More about these two events in the next Buzzword - but book the dates in your diaries now!



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NEWS & FEATURES

THE WINTER CLUSTER

Honey bees play it both ways during the winter- they act both as 'cold-blooded' insects, and as a 'warm-blooded' super organism. There are a number of reasons why this is advantageous. An individual bee reaches 'chill coma' at about 44°F (6.7°C), and will die if held at the edge of freezing for a few days. So the cluster must generate and conserve enough heat to keep all members of the colony at least above that temperature for the duration of the winter.

This process requires only a small amount of honey consumption - less than a pound a week even under severely cold winter conditions. The cluster must also maintain the ability to warm up enough to move, to reach new areas of the hive in order to access their food stores.

This is how the winter cluster forms:

- There is a fairly loose core of bees in the centre that maintains a temperature of about 80-95°F (26-35°C). In small clusters, the core temperature may drop to 60-70°F (15-20°C).
- Around the core, there is a tightly packed layer of bees that maintain a temperature of about 56°F (13°C), which is a critical temperature, below which the cluster will die.
- At the very outside, or 'mantle' of the cluster, individual bees do not allow their body temperatures to drop below about 44°F (6.7°C) which is just above their 'chill coma' temperature.
- These bees may burrow deeper into the cluster from time to time and very rapidly raise their body temperature, then return to the mantle after several hours. And if a bee's temperature falls below 45°F (7.2°C) it is no longer able to flex its muscles to generate heat.
- The actual cluster size is dependent upon the ambient temperature - it can expand or contract to an amazing extent.



The core of the cluster is an otherworldly environment. The bees actually modify the atmosphere in order to allow themselves to enter into a 'hypoxia-induced ultra-low metabolic rate' (Van Neuman 1997). They restrict ventilation to let the oxygen content drop from the normal 21% down to only about 15%, and allow CO² to rise to 5-6% (up from 0.038% in normal air). This atmosphere would be toxic to humans, but allows the bees to go into a form of suspended animation.

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Water loss in the winter cluster is very important. Insects lose water vapour with each breath, just as mammals do, but they have no source of drinkable water within the winter hive. In cold winter areas, the extremely low moisture content of the air means that when the cluster creates heat, the relative humidity of the cluster atmosphere drops extremely low. Insects can hold their breath, (for up to a day at a time), in order to prevent water loss, and it is likely that bees in the cluster do the same.

When animals and bees metabolise carbohydrates, such as sugar, they create 'metabolic water' as a by-product. If the bees can conserve this metabolic water enough to be in excess of that lost to respiration and any body waste, then they can actually realize a net gain of water.

So, how much water do bees get out of honey? A pound of honey at 83% sugars, contains 0.17 lb of water, and creates 0.48 lb of metabolic water, for a total of 0.65 lb of water freed from each pound of honey consumed. That means that a colony typically consuming 0.8 lb of honey a week, (Holte 1970), would produce about a half a pound (1 cup) of water per week.

It may be a challenge for a large colony to live on this amount of water so there is good reason to provide an available source of water, together with hive insulation, and good hive ventilation to help overwinter your bees.

The above piece was adapted from and courtesy of Susquehanna BKAand now here's some additional information from an article by Keith Delaplane in The American Bee Journal, about recent research on the winter cluster...

It is known that bees shiver to produce heat, but this article suggests that young adult bees cannot shiver and have a low cold tolerance. They naturally gravitate to the centre of the cluster, where it is warmer. Older bees, however, are able to generate heat by shivering their flight muscles, so they move away from the centre, to form the middle and outer layers of the cluster, called the mantle.

As the ambient temperature drops, all the bees cluster ever more tightly, and it is the mature bees in the mantle that are responsible for maintaining the correct temperature, not the young bees at the centre. The bees (and queen) in the heart of the cluster are so well insulated by the outer mantle that overheating then becomes a problem! The young bees then move outwards, opening channels in the mantle which allows warm air out to warm up the older bees and cool air in to lower the interior temperature.

As they age over the winter, the young bees become more tolerant to cold, so the chill-tolerance of the whole cluster increases as the winter progresses. There are two vital temperatures that control a cluster – 95°F (35°C) in the inner core, which attracts the young bees, and 59°F (15°C) on the outside layers, which is the minimum at which flight muscles can be vibrated. The very outside bees can withstand near freezing for a few hours before they succumb to hypothermia and fall off, their insulation value disappearing with them. Eventually the cluster may become too small to produce enough heat to survive, which is why a strong colony will usually winter better than a small one.

In Britain, damp is more often a problem than continuous extreme cold, but ensuring that your hive is water and wind proof is essential, and protection from chilling winds will help enormously. WBC hives are great at this! Wrapping hives in bubble wrap is probably not necessary and could lead to damp walls, but some insulation under the roof is often recommended and will keep the temperature up when brood rearing commences in spring.

This article comes courtesy of Bournemouth BKA and Harrogate & Ripon BKA via eBees – many thanks to all those involved. (Ed.)



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THE HEREFORDSHIRE FESTIVAL OF BEES & HONEY

(incorporating the HBKA ANNUAL HONEY SHOW)

- If the Festival is to be successful in attracting public attention in order to "...promote and further the craft of beekeeping..." (HBKA Constitution), now's the time for us all to do our bit in publicising it.
- With that in mind, this edition of The Buzzword has been sent to you together with 3 PDF files, each containing a different sized poster advertising the Festival. Please choose a size (the A3 and A4 ones are single-sided posters - the A5 one is a double-sided flyer) and print a few to distribute in your locality.
- Good places to get them displayed would be shops, pubs, clubs, libraries, village halls, church halls, doctors' surgeries - anywhere where they will be seen by a regular flow of people.
- They print out best on 100gsm paper - anything less and they end up a bit crinkly! But crinkly's definitely better than nothing at all so maybe just go for it any way you can!
- You can also help by talking about the Festival to friends and acquaintances and get as many as you can to come along - after all, it's free!
- Taking part in the Festival by entering some classes in the Honey Show would also help to demonstrate to the public what an amazing variety of things our bees can produce. Please make a real effort to enter something in the Show this year and help make it the biggest and best there's been.

BOB'S BEELINES FOR AUGUST

At last a bit of good weather - almost too hot some days. Our bees have been very busy filling up the supers - some hives have 2 or 3 supers on and now's the time to extract that honey.

- When you take your supers off, remember to check your brood-box frames for good brood and stores. If the brood is poor and patchy, think about uniting the colony with one that has a good queen.
- Remember to reduce entrances to combat wasps (they were very bad last year).
- DO NOT forget your treatment for varroa about mid-August and start your winter feeding about the 2nd week of September.

That's all for now,

Bob & Kath Cross





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ADVERTISEMENTS & NOTICES

BEE HIVE FOR SALE - £150

Flatpack National Hive (Caddon) with gabled roof consisting of...

- 1 x OM Floor with inspection tray
- 1 x Gabled Roof with metal lid and 2 x wasp traps
- 1 x Brood box
- 2 x Supers
- 1 x Crown board with 2 bee escapes
- 1 x Assembly instructions and nails
- Also includes 20 x foundation, 20 x frames, 10 x brood foundation, 10 x frames, 1 x steel Queen bee excluder.



BIBBA CONFERENCE 2016 - 20th-22nd September Isle of Man, UK

The Isle of Man sounds like a great venue for any conference, especially that of the Bee Improvement and Bee Breeders Association. Go to their website at www.bibba.com for further information about speakers and accommodation.

MSWCC CONFERENCE 2016 - 14th-16th October Reynoldston, Gower

Swansea & District Beekeepers' Society will be hosting this year's Midland and South Western Counties Convention at another beautiful venue on the Gower peninsula. Lots of good speakers and excellent accommodation - information available at www.mswcc.org.uk/



EAST LAN SATURDAY WORKSHOP

SATURDAY 13TH AUGUST 2016



Bo b & Ka t h Cr o s s p r e s e n t ...

HONEY HARVESTING MADE EASY

**Tips and tricks for simple and cost-effective uncapping,
extracting, processing and bottling.**

This workshop will help everyone, especially beginners, to understand the best way to process
their own honey.

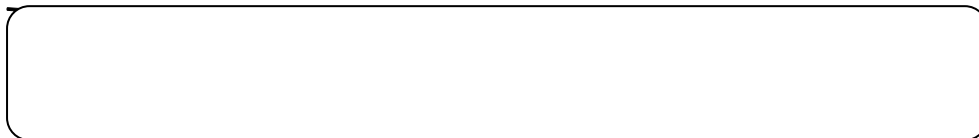
In order to accommodate as many people as possible, the workshop will be repeated 3 times
during the course of the day as follows:

9.30am to 11.30pm

1.00pm to 3.00pm

5.00pm to 7.00pm

Please note that a maximum of only 7 people can be accommodated per ses-
sion.





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All sizes from 1lb/454g to mini jars, always in stock, including jam and pickle jars

Bob & Pam Mendy
Hill House Farm

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Bob & Kath Cross
Stone House Apiaries

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South LAN:	Geoff Blake
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East LAN:	Chris Stowell (Bringsty)
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Newsletter Editor Chris Stowell

CONTRIBUTIONS FOR THE NEWSLETTER

Items for the Newsletter should be sent to the Editor - Chris Stowell

The deadline for inclusion of material in any edition of the Buzzword is the 24th day of the preceding month unless otherwise notified. While care is taken to verify the material published, the Editor does not accept responsibility for the accuracy of statements made by contributors or necessarily share the views expressed.

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